

## HCS-8300 Series Digital Congress System

<b>HCS-8300 Series Digital Congress System</b>	<b>2.4</b>
<b>HCS-8318 Series Multi-media Congress Terminals</b>	<b>2.23</b>
HCS-8318TACE	Multi-media Congress Terminal (chairman unit, 10" 1024×600 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, three voting buttons at front panel, golden)..... 2.23
HCS-8318TADE	Multi-media Congress Terminal (delegate unit, 10" 1024×600 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, three voting buttons at front panel, golden)..... 2.23
HCS-8318TBE	Multi-media Congress Terminal (delegate unit, 10" 1024×600 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, three voting buttons at front panel, golden)..... 2.26
HCS-8318TCE	Multi-media Congress Terminal (delegate unit, 10" 1024×600 LCD touch panel, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, three voting buttons at front panel, golden)..... 2.29
HCS-8318AC	Multi-media Congress Terminal (chairman unit, 10" 1024×600 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, golden)..... 2.32
HCS-8318AD	Multi-media Congress Terminal (delegate unit, 10" 1024×600 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, golden)..... 2.32
HCS-8318B	Multi-media Congress Terminal (delegate unit, 10" 1024×600 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, golden)..... 2.35
HCS-8318C	Multi-media Congress Terminal (delegate unit, 10" 1024×600 LCD touch panel, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, golden)..... 2.38
HCS-1020	Clip Microphone..... 2.41
HCS-8318BKT	Tabletop Bracket (for HCS-8318 series Multi-media Congress Terminal, black)..... 2.41
HCS-8318P	Special Paper For Nameplate (for HCS-8318 series Multi-media Congress Terminal, 100 pages A3/pack, two nameplates for HCS-8318/one A3 page)..... 2.42
<b>HCS-8307 Series Multi-media Congress Terminals</b>	<b>2.43</b>
HCS-8307AC_S	Multi-media Congress Terminal (chairman unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, built-in contactless IC-card reader, silver panel + black base)..... 2.43
HCS-8307AC_G	Multi-media Congress Terminal (chairman unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, built-in contactless IC-card reader, gray panel + white base)..... 2.43
HCS-8307AD_S	Multi-media Congress Terminal (delegate unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, built-in contactless IC-card reader, silver panel + black base)..... 2.43

HCS-8307AD_G	Multi-media Congress Terminal (delegate unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, web browsing, Office documents reader and editor, built-in contactless IC-card reader, gray panel + white base).....	2.43
HCS-8307BC_S	Multi-media Congress Terminal (chairman unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, silver panel + black base).....	2.46
HCS-8307BC_G	Multi-media Congress Terminal (chairman unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, gray panel + white base).....	2.46
HCS-8307BD_S	Multi-media Congress Terminal (delegate unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, silver panel + black base).....	2.46
HCS-8307BD_G	Multi-media Congress Terminal (delegate unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, video intercom, take photo, gray panel + white base).....	2.46
HCS-8307C_S	Multi-media Congress Terminal (delegate unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, silver panel + black base).....	2.49
HCS-8307C_G	Multi-media Congress Terminal (delegate unit, 7" 800×480 LCD touch panel, camera with 3 million pixels, speech, voting, 64 CHs, sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD, video broadcasting, gray panel + white base).....	2.49
HCS-8307N	Environment-friendly Nameplate (for HCS-8307 series Multi-media Congress Terminal, black).....	2.52
HCS-8307P	Special Paper For Nameplate (for HCS-8307 series Multi-media Congress Terminal, 100 pages A4/pack, two nameplates for HCS-8307/one A4 page).....	2.52
M-style Foam Windshield	M-style Foam Windshield (optional).....	2.53
<b>HCS-8310 Series Congress Units.....</b>		<b>2.54</b>
HCS-8310CE_G	Tabletop Digital Congress System Chairman Unit (Invisible microphone, 5 voting keys, 64 CHs, dark gray)).....	2.54
HCS-8310CE_L	Tabletop Digital Congress System Chairman Unit (Invisible microphone, 5 voting keys, 64 CHs, light gray).....	2.54
HCS-8310DE_G	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, 64 CHs, dark gray).....	2.56
HCS-8310DE_L	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, 64 CHs, light gray).....	2.56
HCS-8311D_G	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 64 CHs, dark gray).....	2.58
HCS-8311D_L	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 64 CHs, light gray).....	2.58
HCS-8312DE_G	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, dark gray).....	2.60
HCS-8312DE_L	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, light gray).....	2.60
HCS-8310N	Environment-friendly Nameplate (for HCS-8310 series Congress Unit, black).....	2.62
HCS-8310P	Special Paper For Nameplate (for HCS-8310 series Congress Unit, 100 pages A4/pack, three nameplates for HCS-8310/one A4 page).....	2.62
<b>HCS-8315 Series Congress Units.....</b>		<b>2.63</b>



HCS-8313C_G	Tabletop Digital Congress System Chairman Unit (Invisible microphone, 5 voting keys, 64 CHs, dark gray)).....	2.63
HCS-8313C_L	Tabletop Digital Congress System Chairman Unit (Invisible microphone, 5 voting keys, 64 CHs, light gray).....	2.63
HCS-8313D_G	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, 64 CHs, dark gray).....	2.65
HCS-8313D_L	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, 64 CHs, light gray).....	2.65
HCS-8314D_G	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, dark gray).....	2.67
HCS-8314D_L	Tabletop Digital Congress System Delegate Unit (Invisible microphone, 5 voting keys, light gray).....	2.67
HCS-8315D_G	Tabletop Digital Congress System Delegate Unit (Invisible microphone, dark gray).....	2.69
HCS-8315D_L	Tabletop Digital Congress System Delegate Unit (Invisible microphone, light gray).....	2.69
<b>HCS-8386K Contactless IC card &amp; password keypad module (tabletop/flush-mounting, silver).....</b>		<b>2.71</b>
<b>HCS-8386F Fingerprint identification &amp; password keypad module (tabletop/flush-mounting, silver).....</b>		<b>2.71</b>
<b>HCS-8300M Series Digital Congress Main units.....</b>		<b>2.72</b>
HCS-8300MA	Digital Congress System Main Unit (discussion, voting, 64 CHs, 256×32" LCD, congress matrix, optical fiber interface, CobraNet interface).....	2.72
HCS-8300MB	Digital Congress System Main Unit (discussion, voting, 64 CHs, 256×32" LCD, congress matrix).....	2.75
<b>HCS-8300ME Series Digital Congress System Extension Main Units.....</b>		<b>2.79</b>
HCS-8300ME/F	Digital Congress System Extension Main Unit (with 2 optical fiber interfaces).....	2.79
HCS-8300ME	Digital Congress System Extension Main Unit.....	2.80
<b>HCS-8300MX Congress Room Combiner.....</b>		<b>2.84</b>
<b>HCS-8300KMX Congress Gigabit Network Switcher.....</b>		<b>2.84</b>
<b>HCS-8300PM Power Supply Unit.....</b>		<b>2.85</b>
<b>HCS-8300PM2 Dual Backup Power Supply Unit.....</b>		<b>2.85</b>
<b>HCS-8316HD HD Encoder.....</b>		<b>2.86</b>
<b>HCS-8316AV A/V Encoder.....</b>		<b>2.86</b>
<b>HCS-8319 Service Request Control Unit.....</b>		<b>2.87</b>
<b>HCS-8300MO Series 8 Channels Audio Output Devices.....</b>		<b>2.88</b>
HCS-8300MOD/F	8 Channels Audio Output Device (AES/EBU digital outputs, analog outputs, optical fiber interface, CobraNet interface).....	2.88
HCS-8300MOD	8 Channels Audio Output Device (AES/EBU digital outputs, analog outputs).....	2.89
HCS-8300MOA/F	8 Channels Audio Output Device (analog outputs, optical fiber interface, CobraNet interface).....	2.90
HCS-8300MOA	8 Channels Audio Output Device (analog outputs).....	2.91
<b>HCS-8300MI Series 8 Channels Audio Input Interfaces.....</b>		<b>2.93</b>
HCS-8300MID/F	8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs, optical fiber interface, CobraNet interface).....	2.93
HCS-8300MID	8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs).....	2.94
HCS-8300MIA/F	8 Channels Audio Input Interface (analog inputs, optical fiber interface, CobraNet interface).....	2.95
HCS-8300MIA	8 Channels Audio Input Interface (analog inputs).....	2.96
<b>HCS-8100M/09 9 Channels Audio Amplifier.....</b>		<b>2.98</b>

## HCS-8300 Series Digital Congress System

### System features

- Especially designed for high-end meetings, such as Summits, congresses, conventions, parliaments and city councils
- Based on ingenious *CongressMatrix™* technology, integrated n×8 audio matrix processor to realize 8 channels group output function
- Based on TAIDEN independent intellectual property *mMediaCongress™* platform, never subject to viral infection, hacker-proof, safe and reliable
- Multi-media Congress Terminal - equipped with a 7"/10" high-resolution LCD touch panel and an integrated 3 million pixel camera, realizes interactive conference control functions (speech, voting, SIS), video intercom, various video service, paperless office, conference support and conference service, etc. (HCS-8307 and HCS-8318 series Multi-media Congress Terminal)
- Invisible microphone features with microphone-array technology for HCS- 8310 and HCS-8315 series congress unit
- Optional environment-friendly nameplate for HCS-8307, HCS-8310 and HCS-8318 series congress unit. Fast, environment-friendly and non-glaring nameplate print-out with dedicated nameplate printing software
- Increased reliability with "Closed Loop - Daisy Chain" connection topology, supports "PnP"
- 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Low power consumption design
- Supports CobraNet protocol to connect to peripheral digital devices without losing any sound quality
- Equipped with optical fiber interface to combine two mutually distant conference rooms to form one unique coherent system
- Dual connection backup via optical fiber and CAT5 cable between congress main unit and extension main unit
- System power controllable by central control system
- Supports combining and separating conference rooms
- Connectable to multi channel audio input or output devices for versatile expansion of the system
- Connection facility for additional condenser or dynamic microphones, expanding user's application spectrum
- Integrated USB interfaces in the congress main unit for system upgrading and saving system parameters. Convenient for system maintenance
- Fully compatible with TAIDEN HCS-4100 Fully Digital Congress System

## Overview

TAIDEN HCS-8300 Series Digital Congress System is TAIDEN'S successful conclusion of many years of intense research on conference systems. The system is especially designed for high-end meetings, such as Summits, congresses, parliaments and city councils.

Based on TAIDEN originated *CongressMatrix™* technology, embedding an  $n \times 8$  audio matrix processor ( $n$  is the quantity of microphones connected in the system) in the congress main unit, it enables connection to a multi channel independent PA system (up to 8 channels). Each channel can get a user-defined audio signal, the audio signal of a microphone can be routed to any speaker at any ratio. Thus "N-1" function is realized easily: when the microphone in one area is turned on, its audio signal is routed to all areas except to its own. There will be no acoustic feedback (howl) if audio transmission gain is increased.

Multi-media Congress Terminal (mMediaCongress™) - equipped with a 7"/10" high-resolution LCD touch panel and an integrated 3 million pixel camera, realizes interactive conference control functions (speech, voting, SIS), video intercom, various video service, paperless office, conference support and conference service, etc.

Invisible microphone by microphone-array technology.

"Closed Loop - Daisy Chain" connection topology, to connect all congress units and simplifying installation, as well as dual connection backup have been opted for.

Supporting 48 kHz audio sampling rate, all 64 channels feature perfect sound quality with a frequency response of 30 Hz~20 kHz. In addition, HCS-8300 Series Digital Congress System is completely downward compatible to the TAIDEN HCS-4100 Fully Digital Congress System and includes all its functions.

## 01. CongressMatrix technology

In an ordinary conference system, the audio signals of the microphones converge into one audio (floor) channel which is transmitted to a PA system with only one channel. For this reason, all system loudspeakers get the same floor channel sound level. Differing voice levels of orators cannot be leveled out by simply adjusting the microphone volume. Due to feedback from a loudspeaker influencing delegates nearby microphone, a positive feedback loop is formed and produces howl.

But due to the amassment and their close spacing arrangement, long stems greatly affect the visual overall picture within the venue. Therefore, in many high-end meeting rooms (e.g. Parliament Hall), media matrices and boundary condenser microphones are implemented to solve this problem. In a media matrix, the audio signal from any microphone can be transmitted at any ratio to any

loudspeaker, thus system transmission gain can be increased by an appropriate configuration.

All microphones are star connected. But installation, debugging and operation are highly complex. Such a solution should usefully only be applicable if the microphones are within a fixed installation, controlled by professional technical staff. Furthermore, only discussion function is available. A media matrix solution does not feature conference sign-in, voting, simultaneous interpretation, video tracking and intercom function.

To solve above-mentioned contradiction, TAIDEN successfully developed the proprietary CongressMatrix™ technology (utility patent: 200620054419.6). HCS-8300 Series Digital Congress System is the first congress system in the world to integrate an  $n \times 8$  audio matrix processor ( $n$  is the quantity of microphones connected in the system) in the congress main unit.

- 8 discrete audio outputs, including:
  - ◆ Line 1 output: 15 band graphical EQ + 8 band parameterized EQ + DRC (dynamic range compressor)
  - ◆ Line 2 output: 5 band graphical EQ + DRC (dynamic range compressor)
  - ◆ Group output 1~5: 5 band graphical EQ + DRC (dynamic range compressor)
  - ◆ Group output 6: 5 band graphical EQ + DRC (dynamic range compressor) + time delay
- Connectable to a multi channel independent PA system (up to 8 channels). Each channel is supplied with its proper audio signal. The audio signal of each microphone can be routed to any speaker at any ratio, thus "N-1" function can be realized easily: (when the microphone in one area is turned on, its audio signal is only routed to all areas except to its own) avoiding acoustic feedback (howl) when audio transmission gain is increased
- 8 channels group output function
- Supports combining and separating conference rooms
- Recording by group function
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
- 2 audio line in or 1 audio line in + 1 microphone input, gain and EQ for each input adjustable separately. +24 V phantom power supply at microphone input, condenser microphone can be connected directly
- Connectable to multi channel audio input or output devices for versatile expansion of the system

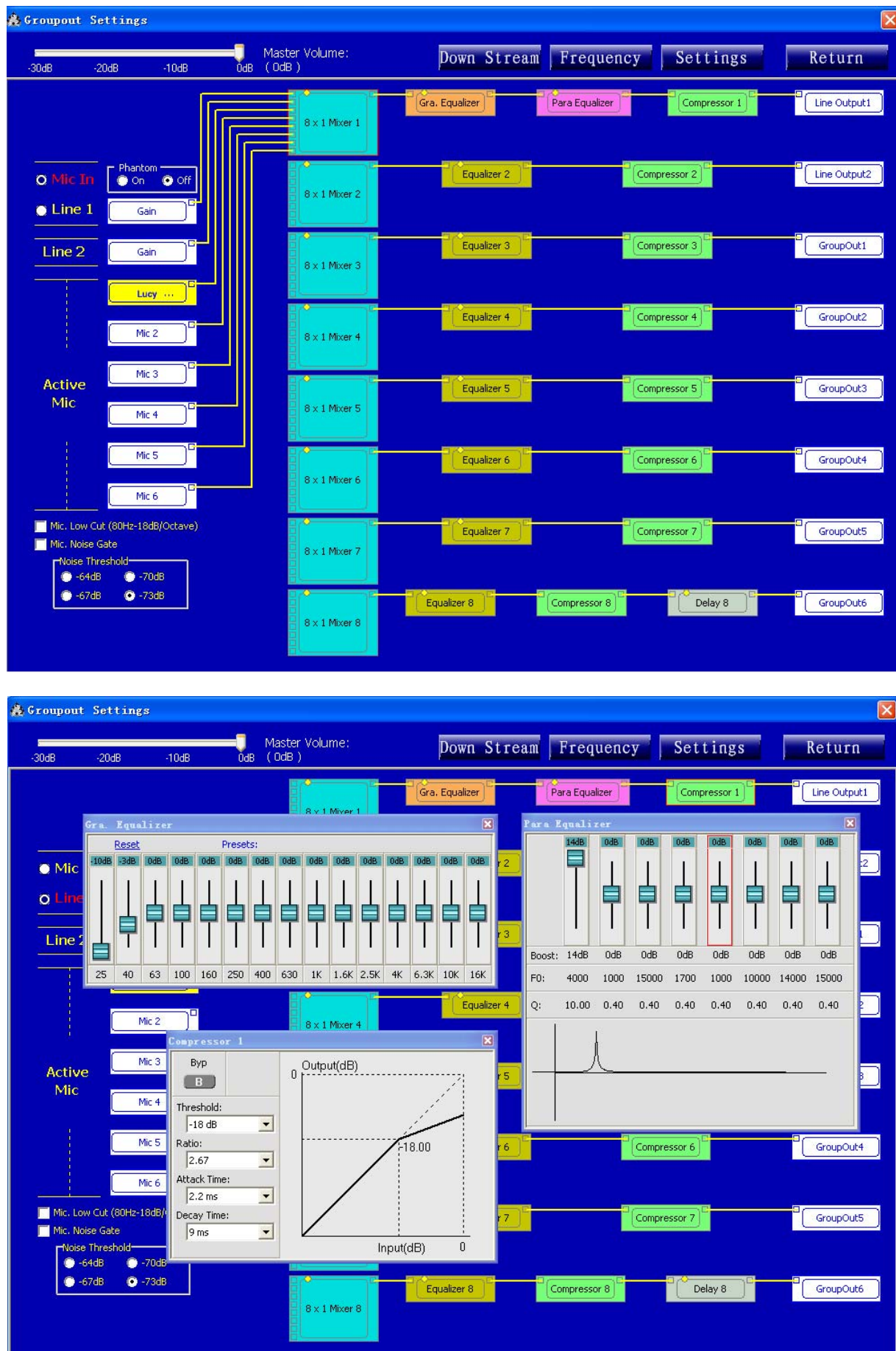


Figure 1 CongressMatrix Software Interface

HCS-8300 Series Digital Congress System can be connected to a multi channel audio amplifier and several groups of loudspeakers. There will be no acoustic feedback (howl) when audio transmission gain is increased. As shown in figure 2: the venue is divided into several areas according to the actual seating arrangement (maximum 8 areas), each area corresponds to a group of loudspeakers. The microphones in area n are arranged in group n and correspond to group n audio output.

The loudspeakers in area n correspond to group n audio output (as shown in figure 3). As an example: the microphones in area 1 are close to the loudspeakers belonging to group 1. This condition generates feedback easily. To avoid howling, audio gain of group 1 microphones for group 1 loudspeakers should be decreased. Audio gain of group 1 microphones for group 2 to 8 loudspeakers can be kept higher than for group 1 loudspeakers.

A better performance is achieved in above example when group 1 of loudspeakers is switched off.

Generally spoken: when the microphone in one area is turned on, its audio signal is routed only to the group of loudspeakers of the other areas but not to the group of loudspeakers of its own area. This "N-1" function avoids howling caused by audio feedback.

For HCS-8300 Series Digital Congress System, integrating CongressMatrix technology, the audio signal of each microphone can be routed to any loudspeaker at any ratio to increase audio transmission gain. The orator speaks at a greater distance from the microphone using a shorter microphone or even a microphone without a stem (HCS-8310 and HCS-8315 series congress unit) - bringing the era of long gooseneck microphones to an end.

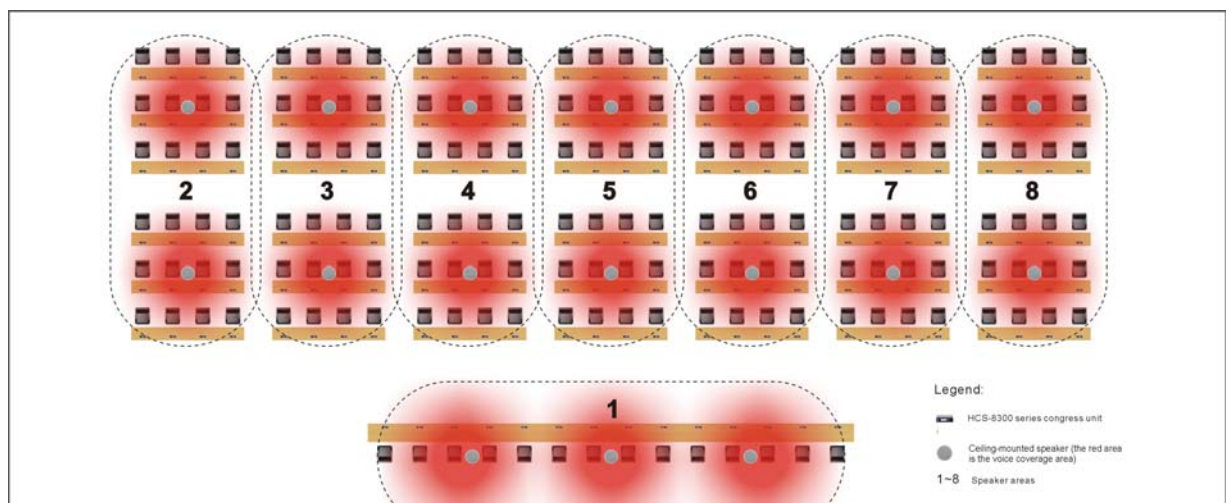


Figure 2 Area groups of the venue

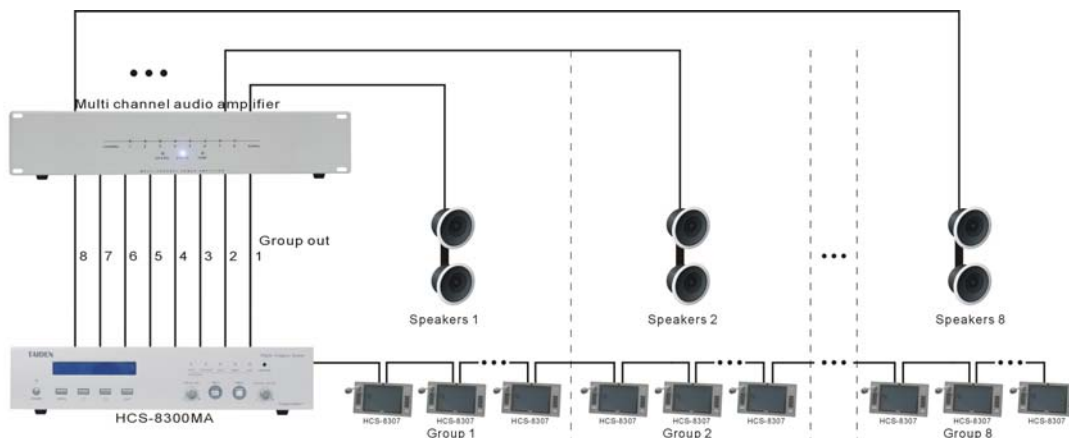


Figure 3 HCS-8300 Series Digital Congress System connected to multi channel audio amplifier with "N-1" function to cancel howl



## 02. Multi-media Congress Terminal

### Problems in modern high-level meetings:

- Various functional requirements such as conference discussion system, simultaneous interpretation system, voting system, sign-in system, video display system, files and data services system, etc., are all autonomous systems and effective integration is difficult to be carried out.
- Manifold multimedia information interaction is needed (conference materials, computer files, video, web browsing, voice communication, ...)
- Participants look at a large screen, frequently several screens are arranged within a venue and participants are unable to concentrate. If the screen is too far from the viewer, he may not be able to comprehend the information displayed.
- Preparation and distribution of conference-specific printouts of documents needs a great deal of detailed work which is time-consuming and harmful to the environment
- Sensitive information distributed as printed matter on confidential meetings is likely to be leaked – intentionally or unintentionally.
- Deficient communication between participants among each other and between participants and their attendants and assistants
- Operating the variety of devices placed on the desktop is very complicated

Currently multimedia conference solutions are carried with conference discussion systems and simultaneous interpretation systems, still using existing digital conference systems, but introducing PC (x86 based systems, including personal computers, panel PC) for interactive multimedia information and conference services.

There are mainly two problems in this solution: 1.) the conference audio system and the multimedia system are two relatively independent systems. Functional interaction of both systems is frequently ineffective and operation is inconvenient. 2.) More important is the issue of security and reliability: x86 based systems, using common platforms and operating systems, are vulnerable to be infected by computer viruses and Trojans and are susceptible to hacker attacks and data piracy; x86 based systems are easily subject to system freezes or crashes due to overheated parts. Because of the complexity of the computer itself and the vulnerability of hard drives and other parts, the reliability of a system including a PC cannot be guaranteed, in addition the system configuration itself as well as the cable connections complicate the situation, resulting in a lower reliability.

TAIDEN's inventiveness backed by high-end conference system applications and design experiences led to the world's first embedded system-based multimedia congress terminal - including HCS-8318 and HCS-8307 series. It features an interactive conference control management (speech, voting, simultaneous interpretation), video intercom, various video services, paperless office, conference support and conference service and much more functions.

### HCS-8318 series Multi-media Congress Terminal

HCS-8318 series Multi-media Congress Terminal is a conference system terminal device based on a Gigabit network. All audio and video signals are transmitted via a CAT6 Gigabit network cable. The terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel and an integrated 3 million pixel camera. HCS-8318 series congress unit realizes the functions of a two-way Multi-media Congress Terminal, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display during recess, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, internet access, *Office™* documents reader and editor, etc.

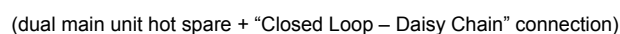


Figure 4a HCS-8318 Series Multi-media Congress Terminal



Figure 4b Design sketch of HCS-8318 Series Multi-media Congress System





### **HCS-8307 series Multi-media Congress Terminal**

Equipped with a 7" high-resolution (800×480) LCD touch panel and an integrated 3 million pixel camera, HCS-8307 series congress unit realizes the functions of a two-way Multi-media Congress Terminal, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display during recess, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, internet access, *Office™* documents reader and editor, etc.

HCS-8307 series Multi-media Congress Terminal and Congress Main Unit are connected through a dedicated 6P/DIN cable with "daisy chain" connection to transmit audio, control signals and power supply; at the same time, they are connect to the Ethernet switch in star connection, to transmit video signals, data and control signals.



Figure 4e HCS-8307 Series Multi-media Congress Terminal





Figure 4f Design sketch of HCS-8307 Series Multi-media Congress System

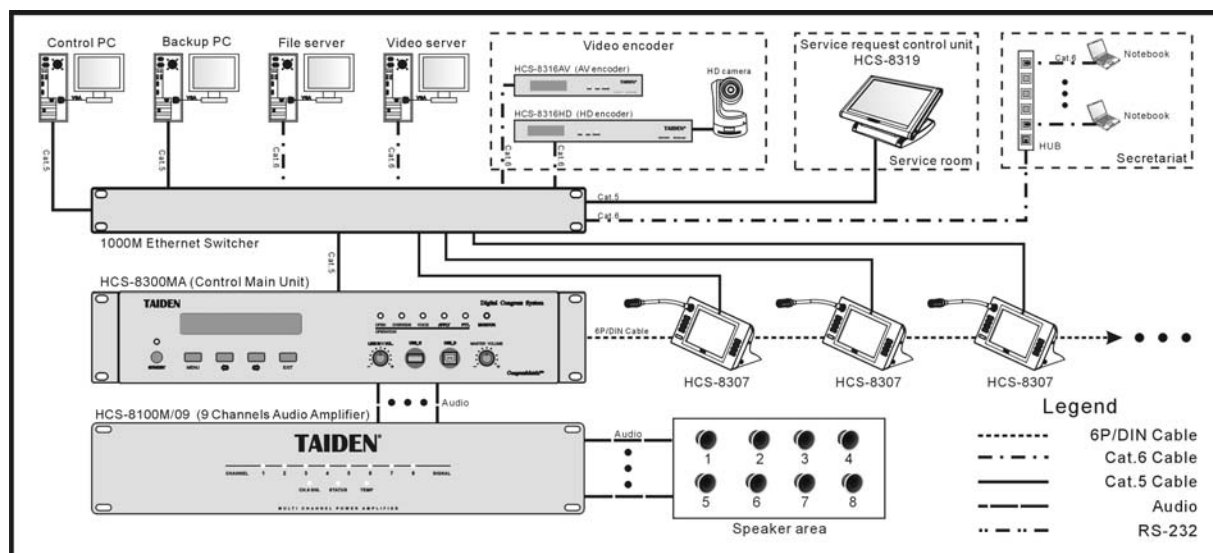


Figure 4g HCS-8307 Series Multi-media Congress System connection diagram



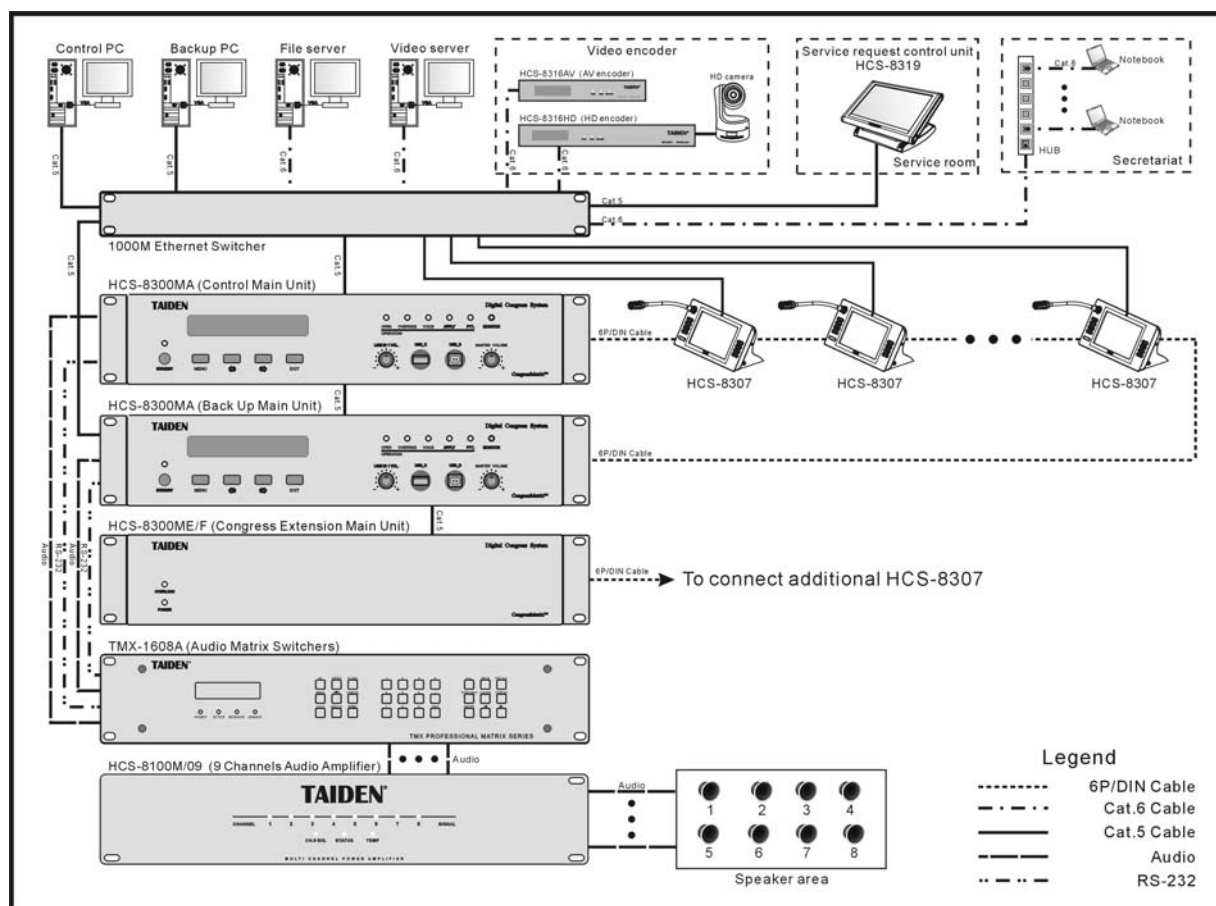


Figure 4h HCS-8307 Series Multi-media Congress System connection diagram  
(dual main unit hot spare + “Closed Loop – Daisy Chain” connection)



Figure 4i Primary interface



Figure 4j Call service interface



Figure 4k Take photo interface

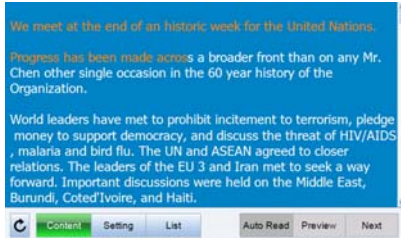


Figure 4l Speech text guidance interface



Figure 4m Speech text guidance setting interface



Figure 4n Internet access



Figure 4o Video display interface

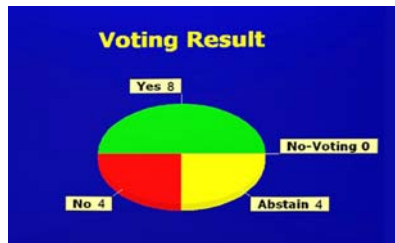


Figure 4p Vote result display interface



Figure 4q Video call interface

## Features of HCS-8300 series Multi-media Congress Terminal:

### ■ Fully functional and high integration

Various types of systems that may be involved in various types of meetings (discussion system, simultaneous interpretation system, voting system, sign-in system, video display systems, files and data services system, etc.) are integrated into a desktop device. Any kind of information display, interactive operations, audio/video and network access requirements are centralized on and controlled via a high-resolution LCD touch panel. Interactive conference control management (speech, voting, simultaneous interpretation), a wide range of video services, paperless office, meeting support, and conference services can be realized.

### ■ Safe and reliable

- ◆ Based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, hacker-proof
- ◆ Based on embedded system, power consumption per unit is less than 10 W; its power is 5% ~ 10% of an x86 system – in the spirit of environmental protection. Significantly protected against the impact of heat.
- ◆ Using daisy-chain connection, transmitting signals through single-cable technology. Reliable system components, easy cabling and installation. "Closed Loop-Daisy Chain" topology for enhanced system connection stability
- ◆ No need to install software, simply reset after a system halt
- ◆ System easy to manage, file and data will not be lost

### ■ Operation experience

- ◆ Combining the versatile facilities of high-end conference system applications and design experiences, TAIDEN now provides even more convenient, efficient and professional conference equipment to the participants.
- ◆ Power supply via system main unit or power supply unit - convenient to switch on/off

### 03. Invisible microphone by microphone-array technology

By adopting microphone-array technology, the sound pick-up performance of the HCS-8310 and HCS-8315 series congress units is improved considerably. In interaction with the CongressMatrix technology, the acoustic transmission gain is increased: the orator is now in a position to speak at a greater distance from the microphone. By using invisible microphones, the conference room

looks tidy. There is no discomfort for the orator as his view is no longer blocked by a microphone stem. The orator has a large operating range with a clear and stable pick-up performance (a suitable architectural room acoustics is needed when using an invisible microphone).

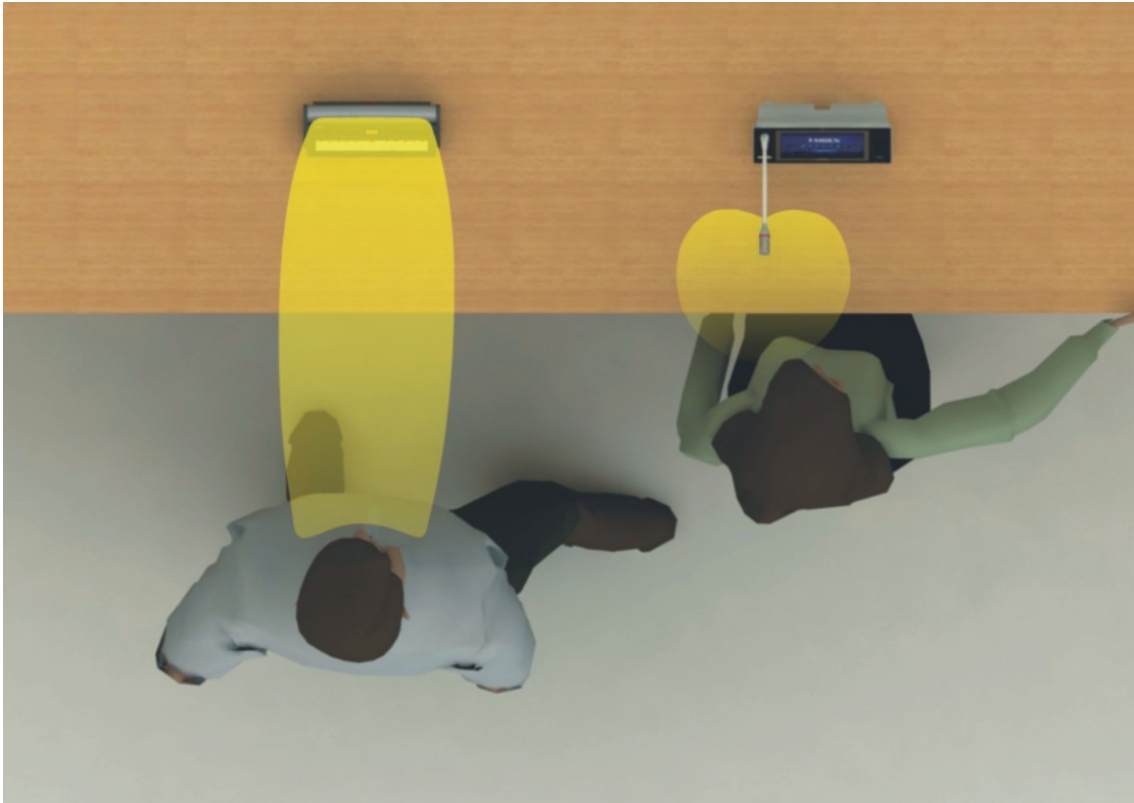


Figure 5a Microphone-array technology considerably improves sound pick-up performance



Figure 5b HCS-8315 Series Congress Unit



Figure 5c HCS-8310 Series Congress Unit



Figure 5d By using invisible microphones, the conference room looks tidy.



#### 04. Optional environment-friendly nameplate

HCS-8307, HCS-8310 and HCS-8318 series congress units may be equipped with an environment-friendly non-glaring nameplate which can be realized quickly and easily by using the dedicated nameplate printing software. It is both an economical and practical solution, easy to handle to improve conference preparation and organization. The disadvantages of electronic nameplates - such as

higher power consumption and higher costs, harmful to the environment, scene stealer - can be avoided. Unlike electronic nameplates, paper nameplates are not scene stealers when pictures are taken during the meeting. In addition, labeling possibilities are more versatile compared to electronic nameplates.



Figure 6a HCS-8310 Series Congress Unit



Figure 6b HCS-8307 Series Multi-media Congress Terminal



Figure 6c HCS-8318 Series Multi-media Congress Terminal



## 05. Duplicate and backup connection via "Closed Loop - Daisy Chain" connection topology

For important meetings, especially those which consider connection reliability as their leading point, HCS-8300 Series Digital Congress System adopts advanced "Closed Loop - Daisy Chain" connection topology, connecting the last unit in the loop back to the congress main unit. Therefore, any congress unit in the loop has two connection paths to the congress main unit. As a result, breakdown

or replacement of a congress unit and connection failure of a cable will not influence other congress units. As such the system features the advantages of a daisy chain connection system with its simpleness of cabling as well as the improvement of the system reliability by means of duplicate and backup connection functions.

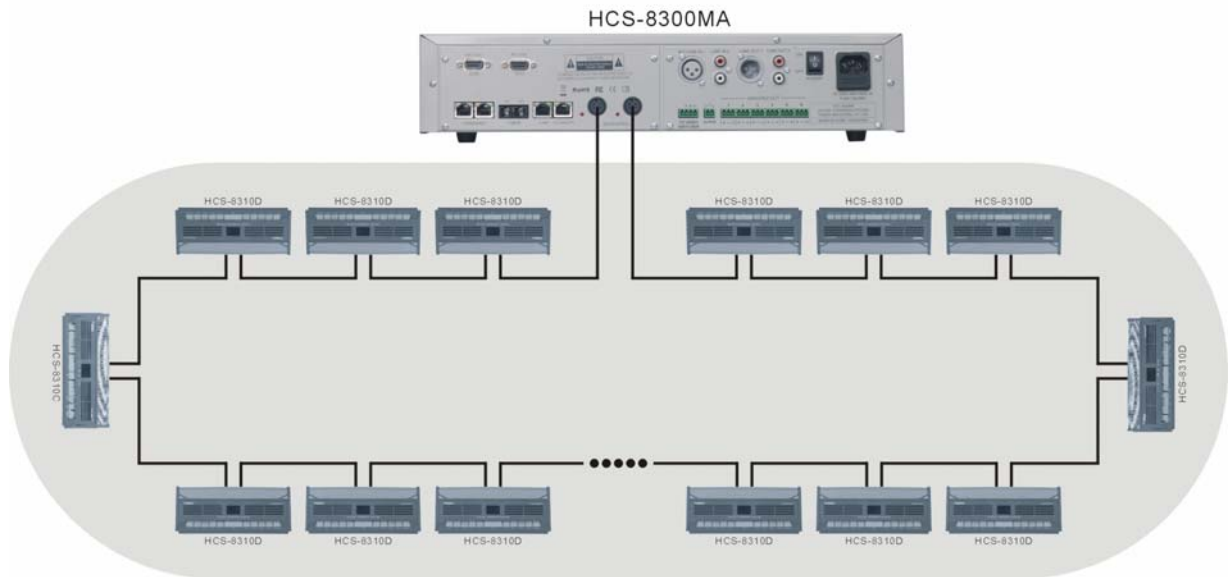


Figure 7 "Closed Loop - Daisy Chain" connection topology

## 06. Perfect sound quality on all 64 simultaneous interpretation channels

All channels support 48 kHz and 32 kHz audio sampling rate (1 floor channel and 63 interpretation channels) featuring perfect CD sound quality with a frequency of 30 Hz~20 kHz at 48 kHz sampling rate.

## 07. Supports CobraNet protocol

HCS-8300 series congress main unit is already prepared for connection to other CobraNet compatible devices (such as PA, recorder, etc). The audio signals of two venues are available for networking purposes via CobraNet without losing any sound quality.

## 08. Low power consumption design

Low power consumption design is adopted in HCS-8300 and HCS-4100/50 series congress units, convenient for wiring and installation. All congress units of HCS-8300 and HCS-4100/50 series (except HCS-8318 series) are supplied by the main unit's 6P-DIN interface. Since the power capacity of the 6P-DIN interface is limited, it must be ensured during installation that the added up values of a) the total power consumption of all congress units connected in each path and b) the power loss in extension cables do in no case exceed the maximum possible value delivered by each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will be triggered (see page 2.82 and 2.83).

## 09. Combine/separate conference rooms easily

HCS-8300 series Digital Congress System supports combining/separating function for multiple meeting rooms

A. Using CAT5 cable, several meeting rooms can be combined/separated at will through HCS-8300MX Congress Room Combiner (Figure 8a).

Advantage: one HCS-8300MX can combine up to 8 meeting rooms controlled by a Central Control System. (Several HCS-8300MX are cascadable to combine additional meeting rooms)

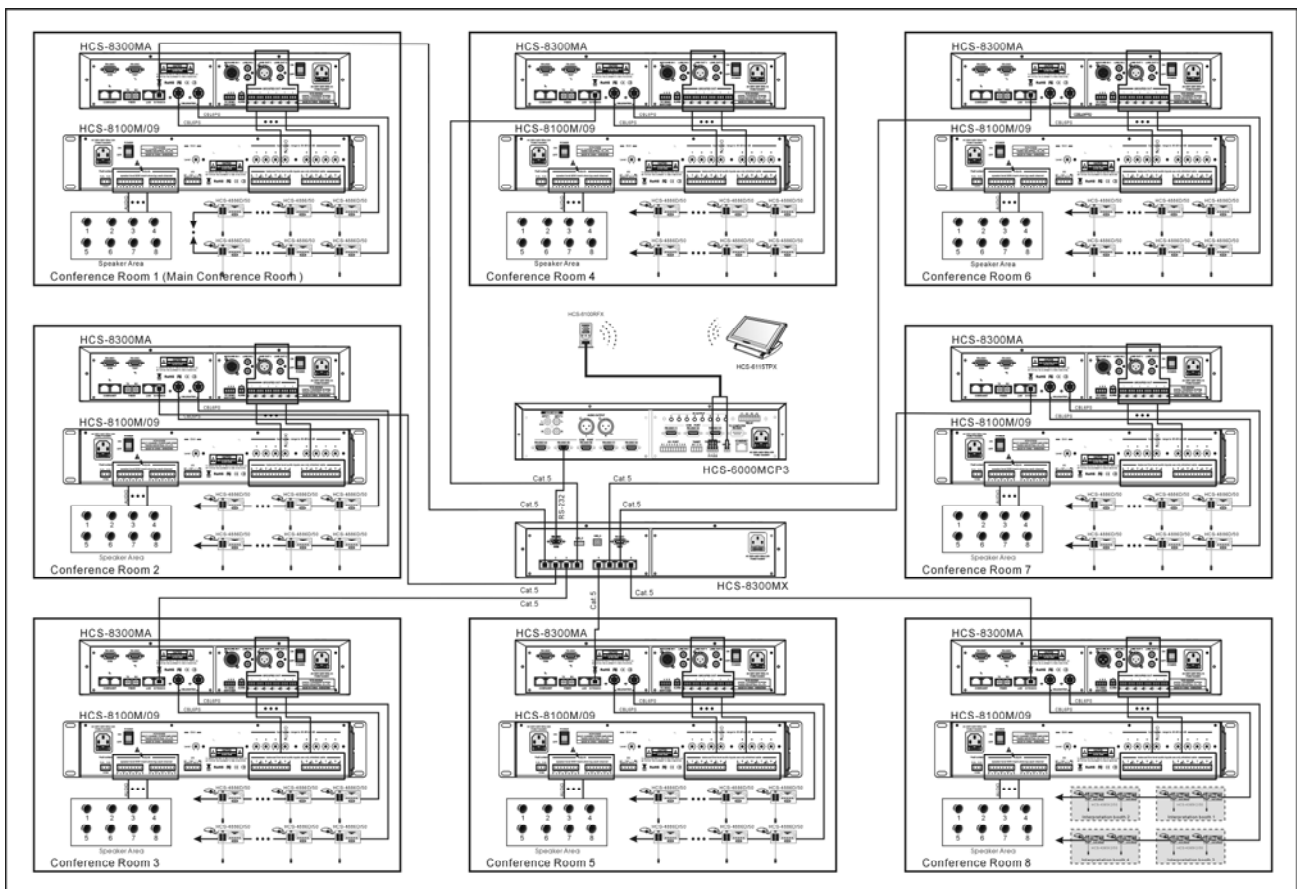


Figure 8a

- B. The main units of two far apart meeting rooms can be connected via optical fiber interface and combined as one (Figure 8b).  
 Advantage: long distance, can reach several tens of kilometers.

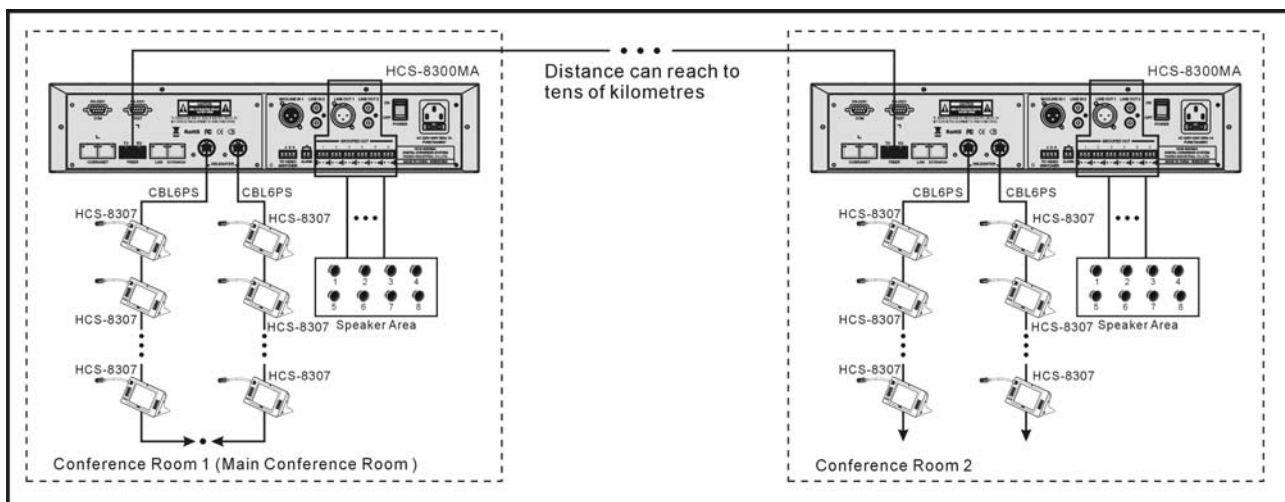


Figure 8b

- C. Several meeting rooms using capacitor microphones can be combined or separated through HCS-8300M Congress Main Unit, HCS-8300MI Audio Input Interface and HCS-8300MO Audio Output Device (Figure 8c).  
 Advantage: several meeting rooms can share one main unit to reduce costs.  
 Disadvantage: the microphones are star connected, the system is complex and difficult to manage, and only discussion feature can be realized - no conference sign-in, voting, simultaneous interpretation, video tracking, intercom, etc.

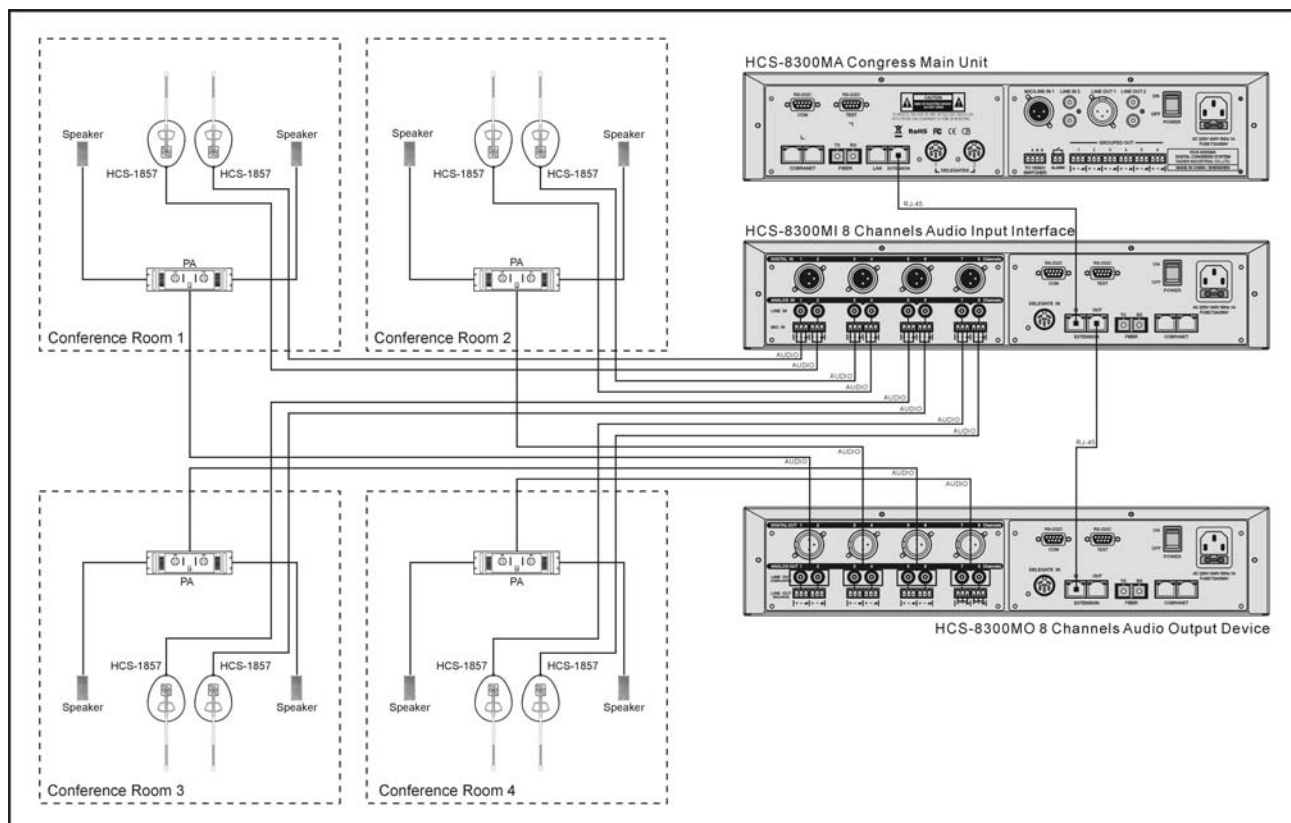


Figure 8c

## 10. Full system backup

In HCS-8300 series, dual connection backup is implemented between congress main unit and extension main unit via optical fiber and CAT5 cable. Combining a) dual system main unit hot spare function, b) dual PC server hot spare function and c) "Closed Loop - Daisy Chain" connection topology between congress units, full system backup is realized to improve system reliability.

## 11. System power management by central control system

The power management protocol of HCS-8300 series congress main unit is open, enabling remote switch on/off of power supply via RS-232 by a Central Control System.

## 12. Contactless IC card & password keypad module

Congress unit can be extended with a contactless IC card & password keypad module (HCS-8386K). The IC card may also be used to grant access to a sign-in system



Figure 9 HCS-8386K

## 13. Fingerprint identification & password keypad module

Congress unit can be extended with a fingerprint identification & password keypad module (HCS-8386F) to realize biometric authentication with high reliability. Consequently the problem of a delegate's forgotten or lost IC card is also solved



Figure 10 HCS-8386F

## 14. Connection facility for additional condenser or dynamic microphones

In combination with HCS-8300MI series audio input interface, additional condenser microphones or dynamic microphones can be connected to the system (phantom power supply provided), expanding user's application spectrum.

## 15. USB interfaces integrated in the congress main unit

USB interfaces are integrated in the congress main unit for upgrading the system and saving system parameters. Convenient for system maintenance.

## 16. Remote interpretation

In conjunction with a HCS-8300MI/MO and a telephone coupler, cost-saving remote interpretation function can be realized. (Figure 11).

## 17. Fully compatible with TAIDEN HCS-4100 Fully Digital Congress System

HCS-8300 Series Digital Congress System is completely downward compatible to the TAIDEN HCS-4100 Fully Digital Congress System and features all its functions, e.g. conference sign-in, voting, simultaneous interpretation, video tracking, intercom, etc. Congress units of the HCS-4100/ series congress system can be looped into a HCS-8300 system. But some exclusive functions are only available on HCS-8300 contribution units. Likewise, congress units of the HCS-8300 Series Congress System can also be inserted into a HCS-4100 Fully Digital Congress System.



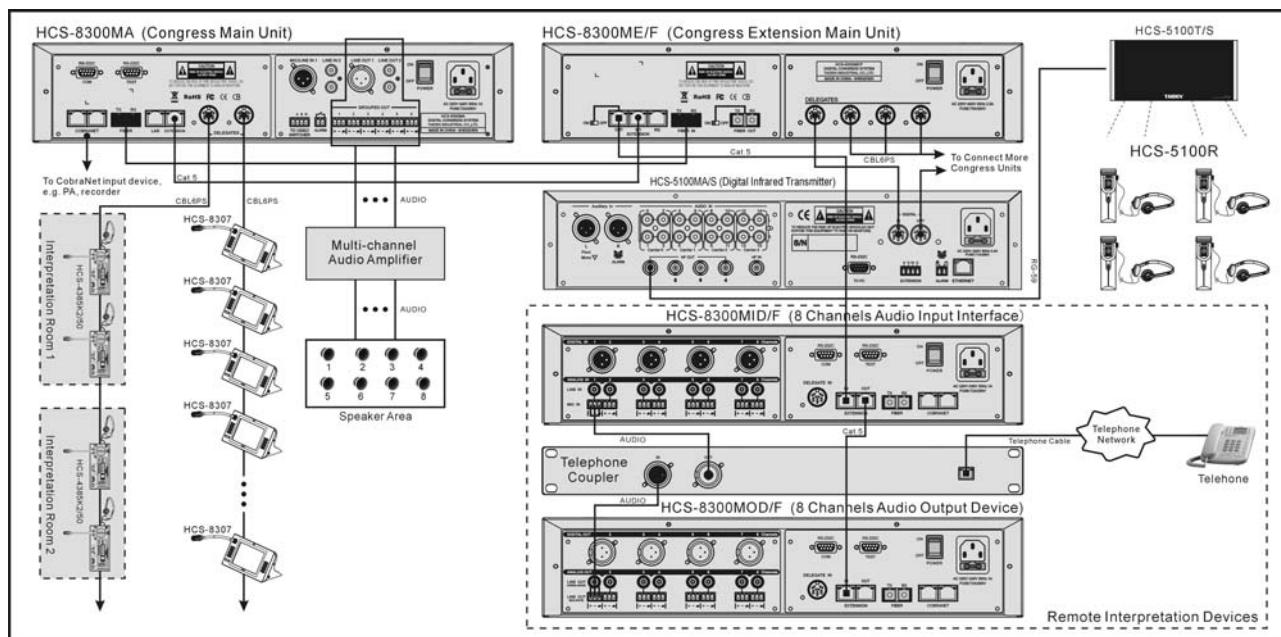


Figure 11

## System Application





## HCS-8318TAE Multi-media Congress Terminal



### Features

- Stylish and ergonomic design, tabletop or flush-mounting
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, web browsing, *Office™* documents reader and editor, etc.
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)
- External contactless IC-card reader

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel and an integrated 3 million pixel camera. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, web browsing, *Office™* documents reader and editor, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera, to realize interactive functions
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Video intercom function: video conversation between any two Multi-media Congress Terminals within the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting, voting result display and taking photo for voting, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 1024×600 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, take photos, delegate photo for attendance check and record facility on important conferences, delegate information management, agenda management, information queries, web browsing, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Text file (.txt) and Office documents (Word, Excel, PowerPoint) reader and editor with authorized software license
  - ◆ Image file (.jpg, .bmp) and pdf reader
  - ◆ Supports a variety of input methods - easy to carry out; request information, edit short message, comment documents, etc.
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system

- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in loudspeaker mutes automatically when earphone is plugged in)
- Microphone On/Off button, 3 voting buttons
- External contactless IC-card reader
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)

- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 10" LCD touch panel for interactive functions
- Microphone On/Off button with indicator
- Three voting buttons

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for clip microphone
- 6P mini DIN socket, for microphone with illuminated ring, or ordinary capacitor microphone; phantom power supply provided
- SD card slot for file upload or file backup
- Type A USB port for external mouse and keyboard
- Two Gigabit Ethernet ports

## Technical Specifications

### Electrical

Max. consumption.....10 W

### LCD

Type.....True color TFT LCD

Dimension.....10 inches, 16:9

Resolution.....1024×600

Display color.....2<sup>18</sup> (18 bit)

Contrast.....500:1

### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting.....Tabletop (HCS-8318BKT needed)/Flush-mounting  
 Dimensions (h × w × d)  
 Tabletop (HCS-8318BKT needed).....178 × 382 × 136 mm  
 Flush-mounting.....63 × 382 × 201 mm  
 Weight  
 Tabletop (HCS-8318BKT needed).....3.7 kg  
 Flush-mounting.....2.5 kg  
 Color.....Golden panel

---

**Ordering Information**

HCS-8318TACE...Multi-media Congress Terminal (chairman unit,  
 10" 1024×600 LCD touch panel, camera with 3  
 million pixels, speech, voting, 64 CHs, sign-in,  
 document distribution, speech text guidance,  
 short message, call service, video display,  
 multiple channel VOD, video broadcasting, video  
 intercom, take photo, web browsing, Office  
 documents reader and editor, three voting buttons  
 at front panel, golden)

HCS-8318TADE...Multi-media Congress Terminal (delegate unit,  
 10" 1024×600 LCD touch panel, camera with 3  
 million pixels, speech, voting, 64 CHs, sign-in,  
 document distribution, speech text guidance,  
 short message, call service, video display,  
 multiple channel VOD, video broadcasting, video  
 intercom, take photo, web browsing, Office  
 documents reader and editor, three voting buttons  
 at front panel, golden)

## HCS-8318TBE Multi-media Congress Terminal



### Features

- Stylish and ergonomic design, tabletop or flush-mounting
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, etc.
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel and an integrated 3 million pixel camera. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera, to realize interactive functions
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Video intercom function: video conversation between any two Multi-media Congress Terminals within the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting, voting result display and taking photo for voting, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 1024×600 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, take photos, delegate photo for attendance check and record facility on important conferences, delegate information management, agenda management, information queries, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Image file (.jpg, .bmp) and pdf reader
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology



- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in loudspeaker mutes automatically when earphone is plugged in)
- Microphone On/Off button, 3 voting buttons
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 10" LCD touch panel for interactive functions
- Microphone On/Off button with indicator
- Three voting buttons

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for clip microphone
- 6P mini DIN socket, for microphone with illuminated ring, or ordinary capacitor microphone; phantom power supply provided
- SD card slot for file upload or file backup
- Type A USB port for external mouse and keyboard
- Two Gigabit Ethernet ports

## Technical Specifications

### Electrical

Max. consumption ..... 10 W

### LCD

Type ..... True color TFT LCD  
 Dimension ..... 10 inches, 16:9  
 Resolution ..... 1024×600  
 Display color ..... 2<sup>18</sup> (18 bit)  
 Contrast ..... 500:1

### Headphone connection

Frequency response ..... 30 Hz to 20 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 30 Hz to 20 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 20 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting.....Tabletop (HCS-8318BKT needed)/Flush-mounting

Dimensions (h × w × d)

Tabletop (HCS-8318BKT needed).....178 × 382 × 136 mm

Flush-mounting.....63 × 382 × 201 mm

Weight

Tabletop (HCS-8318BKT needed).....3.7 kg

Flush-mounting.....2.5 kg

Color.....Golden panel

---

**Ordering Information**

HCS-8318TBE...Multi-media Congress Terminal (delegate unit, 10"  
 1024×600 LCD touch panel, camera with 3 million  
 pixels, speech, voting, 64 CHs, sign-in, document  
 distribution, speech text guidance, short message,  
 call service, video display, multiple channel VOD,  
 video broadcasting, video intercom, take photo,  
 three voting buttons at front panel, golden)

## HCS-8318TCE Multi-media Congress Terminal



### Features

- Stylish and ergonomic design, tabletop or flush-mounting
- Equipped with a 10" LCD touch panel (1024×600)
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, etc.
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 10" LCD touch panel (1024×600) to realize interactive functions
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting and voting result display, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 1024×600 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, delegate information management, agenda management, information queries, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Image file (.jpg, .bmp) and pdf reader
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)

- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in loudspeaker mutes automatically when earphone is plugged in)
- Microphone On/Off button, 3 voting buttons
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 10" LCD touch panel for interactive functions
- Microphone On/Off button with indicator
- Three voting buttons

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for clip microphone
- 6P mini DIN socket, for microphone with illuminated ring, or ordinary capacitor microphone; phantom power supply provided
- SD card slot for file upload or file backup
- Type A USB port for external mouse and keyboard
- Two Gigabit Ethernet ports

## Technical Specifications

### Electrical

Max. consumption .....10 W

### LCD

Type ..... True color TFT LCD  
 Dimension .....10 inches, 16:9  
 Resolution .....1024×600  
 Display color .....2<sup>18</sup> (18 bit)  
 Contrast .....500:1

### Headphone connection

Frequency response .....30 Hz to 20 kHz  
 Earphone load impedance .....>16 Ohm  
 Earphone output .....10 mW

### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage .....5 VDC  
 Sensitivity .....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response .....30 Hz to 20 kHz  
 Input impedance .....2 kOhm  
 Directivity 0°/180° .....> 20 dB (1 kHz)  
 Equivalent noise .....20 dBA (SPL)  
 Maximum sound pressure level .....125 dB (THD<3%)



### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop (HCS-8318BKT needed)/Flush-mounting  
 Dimensions (h × w × d)  
 Tabletop (HCS-8318BKT needed).....178 × 382 × 136 mm  
 Flush-mounting.....63 × 382 × 201 mm  
 Weight  
 Tabletop (HCS-8318BKT needed).....3.7 kg  
 Flush-mounting.....2.5 kg  
 Color.....Golden panel

---

### Ordering Information

HCS-8318TCE...Multi-media Congress Terminal (delegate unit, 10"  
 1024×600 LCD touch panel, speech, voting, 64  
 CHs, sign-in, document distribution, speech text  
 guidance, short message, call service, video  
 display, multiple channel VOD, video  
 broadcasting, three voting buttons at front panel,  
 golden)

## HCS-8318A Multi-media Congress Terminal



### Features

- Stylish and ergonomic design, tabletop or flush-mounting
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, web browsing, *Office™* documents reader and editor, etc.
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)
- External contactless IC-card reader

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel and an integrated 3 million pixel camera. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, web browsing, *Office™* documents reader and editor, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera, to realize interactive functions
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Video intercom function: video conversation between any two Multi-media Congress Terminals within the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting, voting result display and taking photo for voting, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 1024×600 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, take photos, delegate photo for attendance check and record facility on important conferences, delegate information management, agenda management, information queries, web browsing, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Text file (.txt) and Office documents (Word, Excel, PowerPoint) reader and editor with authorized software license
  - ◆ Image file (.jpg, .bmp) and pdf reader
  - ◆ Supports a variety of input methods - easy to carry out; request information, edit short message, comment documents, etc.
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system

- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in loudspeaker mutes automatically when earphone is plugged in)
- Microphone On/Off button
- External contactless IC-card reader
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)

- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 10" LCD touch panel for interactive functions
- Microphone On/Off button with indicator

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for clip microphone
- 6P mini DIN socket, for microphone with illuminated ring, or ordinary capacitor microphone; phantom power supply provided
- SD card slot for file upload or file backup
- Type A USB port for external mouse and keyboard
- Two Gigabit Ethernet ports

## Technical Specifications

### Electrical

Max. consumption.....10 W

### LCD

Type.....True color TFT LCD

Dimension.....10 inches, 16:9

Resolution.....1024×600

Display color.....2<sup>18</sup> (18 bit)

Contrast.....500:1

### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting.....Tabletop (HCS-8318BKT needed)/Flush-mounting  
 Dimensions (h × w × d)  
 Tabletop (HCS-8318BKT needed).....178 × 382 × 136 mm  
 Flush-mounting.....63 × 382 × 201 mm  
 Weight  
 Tabletop (HCS-8318BKT needed).....3.7 kg  
 Flush-mounting.....2.5 kg  
 Color.....Golden panel

---

**Ordering Information**

HCS-8318AC.....Multi-media Congress Terminal (chairman unit,  
 10" 1024×600 LCD touch panel, camera with 3  
 million pixels, speech, voting, 64 CHs, sign-in,  
 document distribution, speech text guidance,  
 short message, call service, video display,  
 multiple channel VOD, video broadcasting, video  
 intercom, take photo, web browsing, Office  
 documents reader and editor, golden)

HCS-8318AD.....Multi-media Congress Terminal (delegate unit,  
 10" 1024×600 LCD touch panel, camera with 3  
 million pixels, speech, voting, 64 CHs, sign-in,  
 document distribution, speech text guidance,  
 short message, call service, video display,  
 multiple channel VOD, video broadcasting, video  
 intercom, take photo, web browsing, Office  
 documents reader and editor, golden)



## HCS-8318B Multi-media Congress Terminal



### Features

- Stylish and ergonomic design, tabletop or flush-mounting
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, etc.
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel and an integrated 3 million pixel camera. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 10" LCD touch panel (1024×600) and an integrated 3 million pixel camera, to realize interactive functions
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Video intercom function: video conversation between any two Multi-media Congress Terminals within the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting, voting result display and taking photo for voting, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 1024×600 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, take photos, delegate photo for attendance check and record facility on important conferences, delegate information management, agenda management, information queries, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Image file (.jpg, .bmp) and pdf reader
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology

- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in loudspeaker mutes automatically when earphone is plugged in)
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 10" LCD touch panel for interactive functions
- Microphone On/Off button with indicator

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for clip microphone
- 6P mini DIN socket, for microphone with illuminated ring, or ordinary capacitor microphone; phantom power supply provided
- SD card slot for file upload or file backup
- Type A USB port for external mouse and keyboard
- Two Gigabit Ethernet ports

### Technical Specifications

#### Electrical

Max. consumption.....10 W

#### LCD

Type.....True color TFT LCD  
 Dimension.....10 inches, 16:9  
 Resolution.....1024×600  
 Display color.....2<sup>18</sup> (18 bit)  
 Contrast.....500:1

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting.....Tabletop (HCS-8318BKT needed)/Flush-mounting

Dimensions (h × w × d)

Tabletop (HCS-8318BKT needed).....178 × 382 × 136 mm

Flush-mounting.....63 × 382 × 201 mm

Weight

Tabletop (HCS-8318BKT needed).....3.7 kg

Flush-mounting.....2.5 kg

Color.....Golden panel

---

**Ordering Information**

HCS-8318B.....Multi-media Congress Terminal (delegate unit, 10"  
 1024×600 LCD touch panel, camera with 3 million  
 pixels, speech, voting, 64 CHs, sign-in, document  
 distribution, speech text guidance, short message,  
 call service, video display, multiple channel VOD,  
 video broadcasting, video intercom, take photo,  
 golden)

## **HCS-8318C Multi-media Congress Terminal**



### **Features**

- **Stylish and ergonomic design, tabletop or flush-mounting**
- **Equipped with a 10" LCD touch panel (1024×600)**
- **All audio and video signals are transmitted via a CAT6 Gigabit network cable**
- **Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, etc.**
- **"Closed Loop - Daisy Chain" connection topology**
- **Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable**
- **Excellent immunity to RF interferences from mobile phones**
- **Supporting "PnP" (plug and play)**

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 10" high-resolution (1024×600) LCD touch panel. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 1024×600 resolution), video broadcasting, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 10" LCD touch panel (1024×600) to realize interactive functions
- All audio and video signals are transmitted via a CAT6 Gigabit network cable
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting and voting result display, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 1024×600 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, delegate information management, agenda management, information queries, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Image file (.jpg, .bmp) and pdf reader
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)



- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in loudspeaker mutes automatically when earphone is plugged in)
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 10" LCD touch panel for interactive functions
- Microphone On/Off button with indicator

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for clip microphone
- 6P mini DIN socket, for microphone with illuminated ring, or ordinary capacitor microphone; phantom power supply provided
- SD card slot for file upload or file backup
- Type A USB port for external mouse and keyboard
- Two Gigabit Ethernet ports

## Technical Specifications

### Electrical

Max. consumption .....10 W

### LCD

Type ..... True color TFT LCD  
 Dimension ..... 10 inches, 16:9  
 Resolution ..... 1024×600  
 Display color ..... 2<sup>18</sup> (18 bit)  
 Contrast ..... 500:1

### Headphone connection

Frequency response ..... 30 Hz to 20 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 30 Hz to 20 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 20 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting.....Tabletop (HCS-8318BKT needed)/Flush-mounting  
 Dimensions (h × w × d)

Tabletop (HCS-8318BKT needed).....178 × 382 × 136 mm

Flush-mounting.....63 × 382 × 201 mm

Weight

Tabletop (HCS-8318BKT needed).....3.7 kg

Flush-mounting.....2.5 kg

Color.....Golden panel

**Ordering Information**

HCS-8318C.....Multi-media Congress Terminal (delegate unit, 10"  
 1024×600 LCD touch panel, speech, voting, 64  
 CHs, sign-in, document distribution, speech text  
 guidance, short message, call service, video  
 display, multiple channel VOD, video  
 broadcasting, golden)

**Function list**

Type No.	HCS-8318TACE/TADE	HCS-8318TBE	HCS-8318TCE	HCS-8318AC/AD	HCS-8318B	HCS-8318C
Status	C/D	D	D	C/D	D	D
Voting buttons at front panel	√	√	√			
Speech	√	√	√	√	√	√
Sign-in	√	√	√	√	√	√
Voting	√	√	√	√	√	√
64 CHs	√	√	√	√	√	√
Document distribution	√	√	√	√	√	√
Speech text guidance	√	√	√	√	√	√
Short message	√	√	√	√	√	√
Call service	√	√	√	√	√	√
Video display	√	√	√	√	√	√
Multiple channel VOD	√	√	√	√	√	√
Video broadcasting	√	√	√	√	√	√
Video intercom	√	√		√	√	
Take photo	√	√		√	√	
Web browsing	√			√		
Office™ documents reader and editor	√			√		

## HCS-1020 Clip Microphone



### Features

- Stylish and ergonomic design
- Excellent immunity to RF interferences from mobile phones
- Ø 3.5 mm stereo plug with a 1.5 meter cable

### Technical Specifications

#### Electrical

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 30 Hz to 20 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 20 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Mechanical

Dimensions (h × w × d) ..... 51 × 25 × 13 mm  
 Weight ..... 3 g  
 Color ..... Black

### Ordering Information

HCS-1020 ..... Clip Microphone

## HCS-8318BKT Tabletop Bracket



### Features

- Tabletop Bracket for HCS-8318 series Multi-media Congress Terminal
- Microphone on indicator
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software

### Technical Specifications

#### Mechanical

Mounting ..... Tabletop  
 Dimensions (h × w × d) ..... 178 × 382 × 136 mm  
 Weight ..... 1.2 kg  
 Color ..... Black

### Ordering Information

HCS-8318BKT ..... Tabletop Bracket (for HCS-8318 series  
 Multi-media Congress Terminal, black)

## HCS-8318P Special Paper For Nameplate



---

### Features

- For HCS-8318 series Multi-media Congress Terminal
- Perforated, easily detachable after printing
- Printable by normal printer
- Special nameplate printing software available – easy to use. Automatic generation of the nameplate files once the session database completed. Nameplates ready for use immediately after printing

---

### Technical Specifications

#### Mechanical

Paper size .....A3  
Color .....White

---

### Ordering Information

HCS-8318P.....Special Paper For Nameplate (for HCS-8318 series Multi-media Congress Terminal, 100 pages A3/pack, two nameplates for HCS-8318/one A3 page)



## HCS-8307A Multi-media Congress Terminal



### Features

- Stylish and ergonomic design
- Equipped with a 7" LCD touch panel (800×480) and an integrated 3 million pixel camera
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, web browsing, *Office™* documents reader and editor, etc.
- "Closed Loop - Daisy Chain" connection topology
- Pluggable microphone
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)
- Built-in contactless IC-card reader

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 7" high-resolution (800×480) LCD touch panel and an integrated 3 million pixel camera. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, web browsing, *Office™* documents reader and editor, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 7" LCD touch panel (800×480) and an integrated 3 million pixel camera, to realize interactive functions
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Video intercom function: video conversation between any two Multi-media Congress Terminals within the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting, voting result display and taking photo for voting, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 800×480 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, take photos, delegate photo for attendance check and record facility on important conferences, delegate information management, agenda management, information queries, web browsing, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Text file ( .txt ) and Office documents (Word, Excel, PowerPoint) reader and editor with authorized software license
  - ◆ Image file (.jpg, .bmp) and pdf reader
  - ◆ Supports a variety of input methods - easy to carry out; request information, edit short message, comment documents, etc.
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality

- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Mini-microphone, with foam windshield
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in speaker mutes automatically when earphone is plugged in)
- Microphone On/Off button
- Built-in contactless IC-card reader
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)

- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 7" LCD touch panel for interactive functions
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Microphone On/Off button with indicator

### Interconnections

- 2 × Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....7.5 W

### LCD

Type.....True color TFT LCD  
 Dimension.....7 inches, 16:9  
 Resolution.....800×480  
 Display color.....2<sup>18</sup> (18 bit)  
 Contrast.....500:1

### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

## Interface data

Connector.....Ø 3.5 mm socket for external mic.  
.....Ø 3.5 mm stereo jacks for headphone

## Mechanical

Mounting.....Tabletop  
Dimensions (h × w × d) (w/o Mic.).....117 × 256 × 116 mm  
Weight.....1.28 kg  
Color.....Silver panel + black base (standard configure)  
                    / Gray panel + white base  
Stem length.....240 mm (standard configure),  
                                320 mm, 400 mm, 460 mm  
Stem color.....Silver (standard configure)/Gray

## Ordering Information

HCS-8307AC\_S.....Multi-media Congress Terminal (chairman unit,  
7" 800×480 LCD touch panel, camera with 3  
million pixels, speech, voting, 64 CHs, sign-in,  
document distribution, speech text guidance,  
short message, call service, video display,  
multiple channel VOD, video broadcasting,  
video intercom, take photo, web browsing,  
Office documents reader and editor, built-in  
contactless IC-card reader, silver panel + black  
base)

HCS-8307AC\_G Multi-media Congress Terminal (chairman unit,  
7" 800×480 LCD touch panel, camera with 3  
million pixels, speech, voting, 64 CHs, sign-in,  
document distribution, speech text guidance,  
short message, call service, video display,  
multiple channel VOD, video broadcasting,  
video intercom, take photo, web browsing,  
Office documents reader and editor, built-in  
contactless IC-card reader, gray panel + white  
base)

HCS-8307AD\_S\_.....Multi-media Congress Terminal (delegate unit,  
7" 800×480 LCD touch panel, camera with 3  
million pixels, speech, voting, 64 CHs, sign-in,  
document distribution, speech text guidance,  
short message, call service, video display,  
multiple channel VOD, video broadcasting,  
video intercom, take photo, web browseing,  
Office documents reader and editor, built-in  
contactless IC-card reader, silver panel + black  
base)

HCS-8307AD\_G\_...Multi-media Congress Terminal (delegate unit,  
7" 800×480 LCD touch panel, camera with 3  
million pixels, speech, voting, 64 CHs, sign-in,  
document distribution, speech text guidance,  
short message, call service, video display,  
multiple channel VOD, video broadcasting,  
video intercom, take photo, web browsing,  
Office documents reader and editor, built-in  
contactless IC-card reader, gray panel + white  
base)

## HCS-8307B Multi-media Congress Terminal



### Features

- Stylish and ergonomic design
- Equipped with a 7" LCD touch panel (800×480) and an integrated 3 million pixel camera
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, etc.
- "Closed Loop - Daisy Chain" connection topology
- Pluggable microphone
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 7" high-resolution (800×480) LCD touch panel and an integrated 3 million pixel camera. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, video intercom, take photo, delegate photo for attendance check and record facility on important conferences, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 7" LCD touch panel (800×480) and an integrated 3 million pixel camera, to realize interactive functions
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Video intercom function: video conversation between any two Multi-media Congress Terminals within the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting, voting result display and taking photo for voting, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 800×480 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, take photos, delegate photo for attendance check and record facility on important conferences, delegate information management, agenda management, information queries, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Image file (.jpg, .bmp) and pdf reader
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time



- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Mini-microphone, with foam windshield
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in speaker mutes automatically when earphone is plugged in)
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 7" LCD touch panel for interactive functions
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Microphone On/Off button with indicator

### Interconnections

- 2 × Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....7.5 W

### LCD

Type.....True color TFT LCD  
 Dimension.....7 inches, 16:9  
 Resolution.....800×480  
 Display color.....2<sup>18</sup> (18 bit)  
 Contrast.....500:1

### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jacks for headphone

**Mechanical**

Mounting.....Tabletop  
 Dimensions (h × w × d) (w/o Mic.).....117 × 256 × 116 mm  
 Weight.....1.28 kg  
 Color.....Silver panel + black base (standard configure)  
                     / Gray panel + white base  
 Stem length.....240 mm (standard configure),  
                                     320 mm, 400 mm, 460 mm  
 Stem color.....Silver (standard configure)/Gray

---

**Ordering Information**

HCS-8307BC\_S.....Multi-media Congress Terminal (chairman unit,  
                     7" 800×480 LCD touch panel, camera with 3  
                     million pixels, speech, voting, 64 CHs, sign-in,  
                     document distribution, speech text guidance,  
                     short message, call service, video display,  
                     multiple channel VOD, video broadcasting,  
                     video intercom, take photo, silver panel + black  
                     base)

HCS-8307BC\_G.....Multi-media Congress Terminal (chairman unit,  
                     7" 800×480 LCD touch panel, camera with 3  
                     million pixels, speech, voting, 64 CHs, sign-in,  
                     document distribution, speech text guidance,  
                     short message, call service, video display,  
                     multiple channel VOD, video broadcasting,  
                     video intercom, take photo, gray panel + white  
                     base)

HCS-8307BD\_S.....Multi-media Congress Terminal (delegate unit,  
                     7" 800×480 LCD touch panel, camera with 3  
                     million pixels, speech, voting, 64 CHs, sign-in,  
                     document distribution, speech text guidance,  
                     short message, call service, video display,  
                     multiple channel VOD, video broadcasting,  
                     video intercom, take photo, silver panel + black  
                     base)

HCS-8307BD\_G.....Multi-media Congress Terminal (delegate unit,  
                     7" 800×480 LCD touch panel, camera with 3  
                     million pixels, speech, voting, 64 CHs, sign-in,  
                     document distribution, speech text guidance,  
                     short message, call service, video display,  
                     multiple channel VOD, video broadcasting,  
                     video intercom, take photo, gray panel + white  
                     base)

## HCS-8307C Multi-media Congress Terminal



### Features

- Stylish and ergonomic design
- Equipped with a 7" LCD touch panel (800×480)
- Functions: conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, etc.
- "Closed Loop - Daisy Chain" connection topology
- Pluggable microphone
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Excellent immunity to RF interferences from mobile phones
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed Multi-media Congress Terminal is equipped with a 7" high-resolution (800×480) LCD touch panel. It realizes versatile functions, e.g. conference control & management (speech, vote, simultaneous interpretation), sign-in, document distribution, speech text guidance, short message, call service, video display, multiple channel VOD (up to 10 channels with 800×480 resolution), video broadcasting, etc. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Globally unique innovative embedded system-based multimedia congress terminal, based on TAIDEN independent intellectual property mMediaCongress™ platform, never subject to viral infection, safe and reliable
- Equipped with a 7" LCD touch panel (800×480), to realize interactive functions
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Interactive conference control and management function:
  - ◆ Microphone control: display of venue layout, speaking list, request-to-speak list, etc., corresponding microphone control functions for chairman unit
  - ◆ Voting management: sign-in, select proposal, multiform voting and voting result display, etc.
  - ◆ Simultaneous interpretation: switch language channel by one touch and adjust earphone volume, etc.
- Multiform video service:
  - ◆ Video broadcasting: through video server and video encoder, various video sources (such as high-definition camera, cable TV, video, etc.) can be broadcasted in high-definition synchronously to all Multi-media Congress Terminals
  - ◆ Multiple channel VOD (up to 10 channels with 800×480 resolution)
  - ◆ Video display function: advertising videos can be published on video server and watched on Multi-media Congress Terminals; video file playback either from Multi-media Congress Terminal or from SD card
- Conference support: conference sign-in, delegate information management, agenda management, information queries, etc.
- Paperless office:
  - ◆ Conference document distribution: Download/upload files from/to file server with Multi-media Congress Terminal. Control of uploading, downloading or deleting of an individual or a batch of Multi-media Congress Terminals also by file server
  - ◆ Speech text guidance: speed, font size and font colors configurable by user
  - ◆ Image file (.jpg, .bmp) and pdf reader
- Conference service:
  - ◆ Short messages reader and editor
  - ◆ call service, call secretary
- Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio technology
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain

- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Mini-microphone, with foam windshield
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector, language channel selection by one touch (earphone needed, built-in speaker mutes automatically when earphone is plugged in)
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Key press sign-in
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit (set by software): features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Turns on/off delegate microphone(s), and turns off all delegate microphones simultaneously (except VIP)
  - ◆ Approves/denies delegate speaking request(s), and denies all delegate speaking requests at the same time
  - ◆ Controls sign-in start and stop
  - ◆ Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
  - ◆ Controls voting start, suspend, re-start and stop
  - ◆ Controls on-off switch for displaying sign-in/voting results on delegate unit's LCD

### Controls and Indicators

- Graphic 7" LCD touch panel for interactive functions
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Microphone On/Off button with indicator

### Interconnections

- 2 × Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....7.5 W

### LCD

Type.....True color TFT LCD  
 Dimension.....7 inches, 16:9  
 Resolution.....800x480  
 Display color.....2<sup>18</sup> (18 bit)  
 Contrast.....500:1

### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBa at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)



**Interface data**

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jacks for headphone

**Mechanical**

Mounting.....Tabletop  
 Dimensions (h × w × d) (w/o Mic.).....117 × 256 × 116 mm  
 Weight.....1.28 kg  
 Color.....Silver panel + black base (standard configure)  
 / Gray panel + white base  
 Stem length.....240 mm (standard configure),  
 320 mm, 400 mm, 460 mm  
 Stem color.....Silver (standard configure)/Gray

**Ordering Information**

HCS-8307C\_S.....Multi-media Congress Terminal (delegate unit,  
 7" 800×480 LCD touch panel, camera with 3  
 million pixels, speech, voting, 64 CHs, sign-in,  
 document distribution, speech text guidance,  
 short message, call service, video display,  
 multiple channel VOD, video broadcasting,  
 silver panel + black base)

HCS-8307C\_G.....Multi-media Congress Terminal (delegate unit,  
 7" 800×480 LCD touch panel, camera with 3  
 million pixels, speech, voting, 64 CHs, sign-in,  
 document distribution, speech text guidance,  
 short message, call service, video display,  
 multiple channel VOD, video broadcasting,  
 gray panel + white base)

**Function list**

Type No.	HCS-8307AC	HCS-8307AD	HCS-8307BC	HCS-8307BD	HCS-8307C
Status	C	D	C	D	D
Speech	√	√	√	√	√
Sign-in	√	√	√	√	√
Voting	√	√	√	√	√
64 CHs	√	√	√	√	√
Document distribution	√	√	√	√	√
Speech text guidance	√	√	√	√	√
Short message	√	√	√	√	√
Call service	√	√	√	√	√
Video display	√	√	√	√	√
Multiple channel VOD	√	√	√	√	√
Video broadcasting	√	√	√	√	√
Video intercom	√	√	√	√	
Take photo	√	√	√	√	
Web browsing	√	√			
Office™ documents reader and editor	√	√			
Contactless IC-card reader	√	√			

**HCS-8307N**  
**Environment-friendly Nameplate**



**Features**

- A non-glaring nameplate can be realized quickly and easily by using HCS-8307 series Multi-media Congress Terminal and the dedicated nameplate printing software

**Technical Specifications**

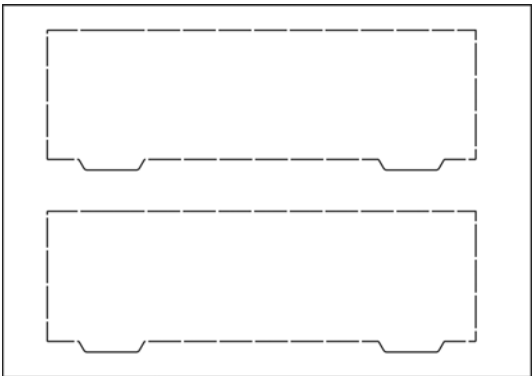
**Mechanical**

Mounting.....Tabletop  
Dimensions (h × w × d).....84 × 245 × 103 mm  
Weight.....0.34 kg  
Color.....Black

**Ordering Information**

HCS-8307N.....Environment-friendly Nameplate (for HCS-8307 series Multi-media Congress Terminal, black)

**HCS-8307P**  
**Special Paper For Nameplate**



**Features**

- For HCS-8307 series Multi-media Congress Terminal
- Perforated, easily detachable after printing
- Printable by normal printer
- Special nameplate printing software available – easy to use. Automatic generation of the nameplate files once the session database completed. Nameplates ready for use immediately after printing

**Technical Specifications**

**Mechanical**

Paper size.....A4  
Color.....White

**Ordering Information**

HCS-8307P.....Special Paper For Nameplate (for HCS-8307 series Multi-media Congress Terminal, 100 pages A4/pack, two nameplates for HCS-8307/one A4 page)

## M-style Foam Windshield



---

### Features

- Foam windshield
- For microphone stem of HCS-8307 series multimedia congress terminal
- Optional

---

### Technical Specifications

#### Mechanical

Color ..... Black

---

### Ordering Information

M-style Foam Windshield.....M-style Foam Windshield (optional)

---

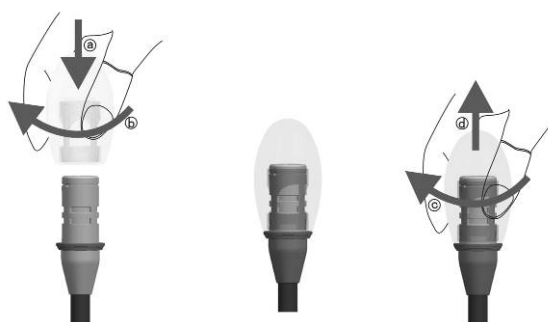
### Install and detach of foam windshield

Install:

- Put the windshield over the microphone
- Rotate the windshield clockwise and tighten until a click sound is audible

Detach:

- Rotate the windshield counterclockwise
- At the right angle it can be pulled out easily with soft power



## HCS-8310CE Chairman Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- 2-way Hi-Fi loudspeaker
- Priority key
- Invisible microphone
- 5 voting keys
- Call service key
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Built-in channel selector consists of up/down channel select keys and channel indicator display
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interferences from mobile phones. Similar in appearance to HCS-8310DE Delegate Unit, the HCS-8310CE Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting and turn off all active microphones. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Perfect sound quality on all 64 simultaneous interpretation channels with a frequency response of 30 Hz~20 kHz
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector consists of up/down channel select keys and channel indicator display with back-lighting
- Microphone On/Off button with indicators
- Call service key
- Five voting buttons with indicators
- Key-press sign-in
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Chairman unit: features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Priority key to switch off or to mute the speaking units according to preset (except VIP)
  - ◆ Approves/denies delegate speaking request(s)
  - ◆ Voting start and stop control
  - ◆ System supports up to 100 chairman units, while only 1 chairman unit has the above listed control facilities (set by software)
- Low power consumption design

## Controls and Indicators

- Built-in channel selector with up/down channel select keys and channel indicator display
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Call service key
- Priority key

## Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....1.8 W

### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop  
 Dimensions (h × w × d).....87 × 252 × 102 mm  
 Weight.....0.92 kg  
 Color.....Light gray/Dark gray

## Ordering Information

HCS-8310CE\_G.....Tabletop Digital Congress System Chairman  
 Unit (Invisible microphone, 5 voting keys, 64  
 CHs, dark gray)

HCS-8310CE\_L.....Tabletop Digital Congress System Chairman  
 Unit (Invisible microphone, 5 voting keys, 64  
 CHs, light gray)



## HCS-8310DE Discussion Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- 2-way Hi-Fi loudspeaker
- Invisible microphone
- 5 voting keys
- Call service key
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Built-in channel selector consists of up/down channel select keys and channel indicator display
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting and selecting language channels and offers excellent immunity to RF interferences from mobile phones. It features a channel selector with automatic limitation to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Perfect sound quality on all 64 simultaneous interpretation channels with a frequency response of 30 Hz~20 kHz
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector consists of up/down channel select keys and channel indicator display with back-lighting
- Microphone On/Off button with indicators
- Call service key
- Five voting buttons with indicators
- Key-press sign-in
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Low power consumption design

### Controls and Indicators

- Built-in channel selector with up/down channel select keys and channel indicator display
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Call service key

### Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....1.8 W

### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop  
 Dimensions (h × w × d).....87 × 252 × 102 mm  
 Weight.....0.92 kg  
 Color.....Light gray/Dark gray

## Ordering Information

HCS-8310DE\_G.....Tabletop Digital Congress System Delegate  
 Unit (Invisible microphone, 5 voting keys,  
 64 CHs, dark gray)  
 HCS-8310DE\_L.....Tabletop Digital Congress System Delegate  
 Unit (Invisible microphone, 5 voting keys,  
 64 CHs, light gray)

## HCS-8311D Discussion Unit with Channel Selection



### Features

- Stylish and ergonomic design
- 2-way Hi-Fi loudspeaker
- Invisible microphone
- Call service key
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Built-in channel selector consists of up/down channel select keys and channel indicator display
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and selecting language channels and offers excellent immunity to RF interferences from mobile phones. It features a channel selector with automatic limitation to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Perfect sound quality on all 64 simultaneous interpretation channels with a frequency response of 30 Hz~20 kHz

- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector consists of up/down channel select keys and channel indicator display with back-lighting
- Microphone On/Off button with indicators
- Call service key
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Low power consumption design

### Controls and Indicators

- Built-in channel selector with up/down channel select keys and channel indicator display
- Headphone volume up and down
- Microphone On/Off button with indicator
- Call service key

## Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

Max. consumption ..... 1.8 W

### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

### Interface data

Connector ..... Ø 3.5 mm socket for external mic.  
 ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop

Dimensions (h × w × d) ..... 87 × 252 × 102 mm

Weight ..... 0.92 kg

Color ..... Light gray/Dark gray

---

## Ordering Information

HCS-8311D\_G\_... Tabletop Digital Congress System Delegate Unit  
 (Invisible microphone, 64 CHs, dark gray)

HCS-8311D\_L\_... Tabletop Digital Congress System Delegate Unit  
 (Invisible microphone, 64 CHs, light gray)

## HCS-8312DE Discussion Unit with Voting



### Features

- Stylish and ergonomic design
- 2-way Hi-Fi loudspeaker
- Invisible microphone
- 5 voting keys
- Call service key
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and voting and offers excellent immunity to RF interferences from mobile phones. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Optional environment-friendly non-glaring nameplate. Fast display print-out with dedicated nameplate printing software
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time

- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Built-in 2-way Hi-Fi loudspeaker, minimal feedback, mutes automatically when microphone is active
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Microphone On/Off button with indicators
- Call service key
- Five voting buttons with indicators
- Key-press sign-in
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
- Multifunction voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Low power consumption design



## Controls and Indicators

- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Call service key

## Interconnections

- Ø 3.5 mm stereo headphone jack with volume control
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....1.8 W

### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.

.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop

Dimensions (h × w × d).....87 × 252 × 102 mm

Weight.....0.92 kg

Color.....Light gray/Dark gray

## Ordering Information

HCS-8312DE\_G.....Tabletop Digital Congress System Delegate  
Unit (Invisible microphone, 5 voting keys,  
dark gray)

HCS-8312DE\_L.....Tabletop Digital Congress System Delegate  
Unit (Invisible microphone, 5 voting keys,  
light gray)

## Function list

Type No.	HCS-8310CE	HCS-8310DE	HCS-8311D	HCS-8312DE
Status	Chairman	Delegate	Delegate	Delegate
Speech	√	√	√	√
Key-press sign-in	√	√		√
Voting	√	√		√
64 CHs simultaneous interpretation	√	√	√	

**HCS-8310N**  
**Environment-friendly Nameplate**



**Features**

- A non-glaring nameplate can be realized quickly and easily by using HCS-8310 series Congress Unit and the dedicated nameplate printing software

**Technical Specifications**

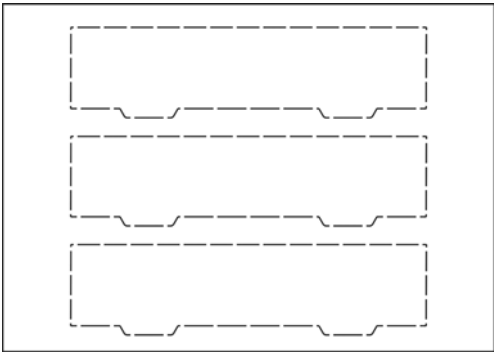
**Mechanical**

Mounting.....Tabletop  
Dimensions (h × w × d).....27 × 218 × 62 mm  
Weight.....0.15 kg  
Color.....Black

**Ordering Information**

HCS-8310N.....Environment-friendly Nameplate (for  
HCS-8310 series Congress Unit, black)

**HCS-8310P**  
**Special Paper For Nameplate**



**Features**

- For HCS-8310 series Congress Unit
- Perforated, easily detachable after printing
- Printable by normal printer
- Special nameplate printing software available – easy to use. Automatic generation of the nameplate files once the session database completed. Nameplates ready for use immediately after printing

**Technical Specifications**

**Mechanical**

Paper size.....A4  
Color.....White

**Ordering Information**

HCS-8310P.....Special Paper For Nameplate (for HCS-8310  
series Congress Unit, 100 pages A4/pack,  
three nameplates for HCS-8310/one A4 page)

## HCS-8313C Chairman Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- Invisible microphone
- Priority key
- 5 voting keys
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Built-in channel selector consists of up/down channel select keys and channel indicator display
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interferences from mobile phones. Similar in appearance to HCS-8313D Delegate Unit, the HCS-8313C Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting and turn off all active microphones. Channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Perfect sound quality on all 64 simultaneous interpretation channels with a frequency response of 30 Hz~20 kHz
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology

- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector consists of up/down channel select keys and channel indicator display with back-lighting
- Microphone On/Off button with indicators
- Five voting buttons with indicators
- Key-press sign-in
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC

- Chairman unit: features all delegate functions, additionally:
  - ◆ Activation at any time (if the amount of active microphones in the system is less than 6)
  - ◆ Priority key to switch off or to mute the speaking units according to preset (except VIP)
  - ◆ Approves/denies delegate speaking request(s)
  - ◆ Voting start and stop control
  - ◆ System supports up to 100 chairman units, while only 1 chairman unit has the above listed control facilities (set by software)
- Low power consumption design

## Controls and Indicators

- Built-in channel selector with up/down channel select keys and channel indicator display
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

Max. consumption.....1.3 W

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.

### Mechanical

Mounting.....Tabletop  
 Dimensions (h × w × d).....54 × 172 × 79 mm  
 Weight.....0.45 kg  
 Color.....Light gray/Dark gray

## Ordering Information

HCS-8313C\_G.....Tabletop Digital Congress System Chairman Unit  
 (Invisible microphone, 5 voting keys, 64 CHs, dark gray)

HCS-8313C\_L.....Tabletop Digital Congress System Chairman Unit  
 (Invisible microphone, 5 voting keys, 64 CHs, light gray)

## HCS-8313D Discussion Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- Invisible microphone
- 5 voting keys
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Built-in channel selector consists of up/down channel select keys and channel indicator display
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting and selecting language channels and offers excellent immunity to RF interferences from mobile phones. It features a channel selector with automatic limitation to the number of language channels available.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Perfect sound quality on all 64 simultaneous interpretation channels with a frequency response of 30 Hz~20 kHz
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time

- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Supports up to 64 (1+63) CHs simultaneous interpretation
- Built-in channel selector consists of up/down channel select keys and channel indicator display with back-lighting
- Microphone On/Off button with indicators
- Five voting buttons with indicators
- Key-press sign-in
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>+++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Low power consumption design



## Controls and Indicators

- Built-in channel selector with up/down channel select keys and channel indicator display
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

Max. consumption.....1.3 W

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.

### Mechanical

Mounting.....Tabletop

Dimensions (h × w × d).....54 × 172 × 79 mm

Weight.....0.45 kg

Color.....Light gray/Dark gray

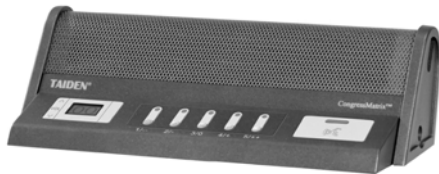
---

## Ordering Information

HCS-8313D\_G....Tabletop Digital Congress System Delegate Unit  
(Invisible microphone, 5 voting keys, 64 CHs, dark gray)

HCS-8313D\_L.....Tabletop Digital Congress System Delegate Unit  
(Invisible microphone, 5 voting keys, 64 CHs, light gray)

## HCS-8314D Discussion Unit with Voting



### Features

- Stylish and ergonomic design
- Invisible microphone
- 5 voting keys
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and voting and offers excellent immunity to RF interferences from mobile phones.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Excellent immunity to RF interferences from mobile phones and comparable devices

- Microphone On/Off button with indicators
- Five voting buttons with indicators
- Key-press sign-in
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Low power consumption design

### Controls and Indicators

- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

Max. consumption..... 1.3 W

### Recommended external microphone type (or headset microphone)

Transducer..... Electret-condenser

Polar pattern..... Uni-directional

Operating voltage..... 5 VDC

Sensitivity..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response..... 30 Hz to 20 kHz

Input impedance..... 2 kOhm

Directivity 0°/180°..... > 20 dB (1 kHz)

Equivalent noise..... 20 dBA (SPL)

Maximum sound pressure level..... 125 dB (THD<3%)

### Interface data

Connector..... Ø 3.5 mm socket for external mic.

### Mechanical

Mounting..... Tabletop

Dimensions (h × w × d)..... 54 × 172 × 79 mm

Weight..... 0.45 kg

Color..... Light gray/Dark gray

---

## Ordering Information

HCS-8314D\_G.... Tabletop Digital Congress System Delegate Unit  
(Invisible microphone, 5 voting keys, dark gray)

HCS-8314D\_L.... Tabletop Digital Congress System Delegate Unit  
(Invisible microphone, 5 voting keys, light gray)

## HCS-8315D Discussion Unit



### Features

- Stylish and ergonomic design
- Invisible microphone
- Excellent immunity to RF interferences from mobile phones
- "Closed Loop - Daisy Chain" connection topology
- Supporting "PnP" (plug and play)
- A suitable architectural room acoustics is needed when using an invisible microphone

The delegate unit meets the basic demands of conferences. It provides facilities for speaking and listening and offers excellent immunity to RF interferences from mobile phones.

### Functions

- Compliant to IEC 60914
- Microphone-array technology improves sound pick-up performance considerably. In cooperation with CongressMatrix technology, acoustic transmission gain is increased. Using invisible microphone, the conference room looks tidy and clean. Large operating range for the orator, maintaining a clear and stable pick-up performance
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with built-in high performance CPU
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Excellent immunity to RF interferences from mobile phones and comparable devices
- Microphone On/Off button with indicators
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever

- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Low power consumption design

### Controls and Indicators

- Microphone On/Off button with indicator

### Interconnections

- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

Max. consumption.....1.3 W

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.

#### Mechanical

Mounting.....Tabletop

Dimensions (h × w × d).....54 × 172 × 79 mm

Weight.....0.45 kg

Color.....Light gray/Dark gray

---

**Ordering Information**

HCS-8315D\_G\_ Tabletop Digital Congress System Delegate Unit  
(Invisible microphone, dark gray)

HCS-8315D\_L\_ Tabletop Digital Congress System Delegate Unit  
(Invisible microphone, light gray)

**Function list**

Type No.	HCS-8313C	HCS-8313D	HCS-8314D	HCS-8315D
Status	Chairman	Delegate	Delegate	Delegate
Speech	√	√	√	√
Key-press sign-in	√	√	√	
Voting	√	√	√	
64 CHs simultaneous interpretation	√	√		



## HCS-8386K Contactless IC card & password keypad module



### Features

- The congress unit can be extended with a contactless IC card & password keypad module. The IC card may also be used to grant access to a sign-in system

### Technical Specifications

#### Mechanical

Mounting.....Tabletop/Flush-mounting  
 Dimensions (h × w × d) .....66 × 84 × 121 mm  
 Weight.....0.16 kg  
 Color.....Silver

### Ordering Information

HCS-8386K.....Contactless IC card & password keypad module (tabletop/flush-mounting, silver)

## HCS-8386F Fingerprint identification & password keypad module



### Features

- The congress unit can be extended with a fingerprint identification & password keypad module to realize biometric authentication with high reliability. Consequently the problem of a delegate's forgotten or lost IC card is also solved

### Technical Specifications

#### Mechanical

Mounting.....Tabletop/Flush-mounting  
 Dimensions (h × w × d) .....66 × 84 × 121 mm  
 Weight.....0.16 kg  
 Color.....Silver

### Ordering Information

HCS-8386F.....Fingerprint identification & password keypad module (tabletop/flush-mounting, silver)

## HCS-8300MA Congress Main Unit



### Features

- Based on ingenious *CongressMatrix™* technology, integrated n×8 audio matrix processor
- Integrated 8 channels group output function, easy to combine/split conference rooms
- Connectable to multi channel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 30 Hz~20 kHz
- Supports CobraNet protocol to connect to peripheral digital devices without losing any sound quality
- Equipped with optical fiber interface to combine two mutually distant conference rooms to form one unique coherent system
- Dual connection backup via optical fiber and CAT5 cable between congress main unit and extension main unit
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Voting facilities without PC intervention
- Built-in multi-channel intercom facility
- Plug and play for all units
- Excellent immunity to RF interferences from mobile phones and comparable devices
- System power controllable by central control system

The Congress Main Unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator.

In combination with a PC, the main unit brings greater sophistication to conference control. Users are able to access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the main unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914
- Based on ingenious *CongressMatrix™* technology, integrated n×8 audio matrix processor (n is the quantity of microphones connected in the system)
  - ◆ 8 discrete audio outputs, including:
    - Line 1 output: 15 band graphical EQ + 8 band parameterized EQ + DRC (dynamic range compressor)
    - Line 2 output: 5 band graphical EQ + DRC (dynamic range compressor)
    - Group output 1~5: 5 band graphical EQ + DRC (dynamic range compressor)
    - Group output 6: 5 band graphical EQ + DRC (dynamic range compressor) + time delay
  - ◆ Connectable to a multi channel independent PA system (up to 8 channels). Each channel is supplied with its proper audio signal. The audio signal of each microphone can be routed to any speaker at any ratio, thus "N-1" function can be realized easily: (when the microphone in one area is turned on, its audio signal is only routed to all areas except to its own) avoiding acoustic feedback (howl) when audio transmission gain is increased
  - ◆ 8 channels group output function
  - ◆ Supports combining/separating meeting rooms by split/merge function
  - ◆ Recording by group function
  - ◆ Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
  - ◆ Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
  - ◆ 2 audio line in or 1 audio line in + 1 microphone input, gain and EQ for each input adjustable separately. +24 V phantom power supply at microphone input, condenser microphone can be connected directly
  - ◆ Connectable to multi channel audio input or output devices for versatile expansion of the system
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- System power controllable by central control system
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate. All 64 channels feature perfect sound quality with a frequency response of 30 Hz~20 kHz
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Dual connection backup between congress main unit and extension main unit via optical fiber and CAT5 cable
- Supports CobraNet protocol to connect to peripheral digital devices without losing any sound quality
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
- Built-in multi-channel intercom facility

- Connection facility for additional condenser or dynamic microphones, expanding user's application spectrum (HCS-8300MI series audio input interface required)
- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/F are required:
  - ◆ 4096 discussion or voting units
  - ◆ 378 interpretation units (with maximum 63 booths, each booth with maximum 6 interpretation units)
  - ◆ Any quantity of channel selectors
- With the 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for infrared language distribution system or recording
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ Set-up of speaking time limitation (1~240 minutes)
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time can be adjusted continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
  - ◆ 64 (1+63) channels simultaneous interpretation function. Cooperates with channel selector or infrared language distribution system enabling a larger audience to follow the conference
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Centralized microphone management
  - ◆ Multi-form voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/-/0/+/++
    - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV
    - Rating:
      - ◇ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
      - ◇ Qualified (four/three/two keys voting)
      - ◇ Competent (four/three/two keys voting)
  - ◆ Several sign-in modes: entrance sign-in/seat sign-in
  - ◆ Depending on the purchased HCS-8300 software modules, user gains access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- Hot spare dual server structure: another congress main unit is set up as backup main unit and connected to the system and takes over automatically if the main congress main unit fails
- Multi-room configuration: congress main unit(s) can be used as extension main unit(s) to carry out multi-room configuration flexibly. Multiple main unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Integrated real-time clock displays time on the LCD of the interpretation unit to inform interpreter to stay on schedule
- Fully compatible with TAIDEN HCS-4100 Fully Digital Congress System: HCS-4100 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units)
- Built-in unit detection facilities: detect the unit's microphone, speaker, LEDs and voting keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, congress main unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference

### Controls and Indicators

- Graphic LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- LINE IN electric level adjust knob
- Congress unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ One balanced XLR-F for microphone input: or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLR-M for audio line out
  - ◆ Two symmetrical RCA output interfaces for audio line out
  - ◆ 6 channels group output on 3 pin 3.81 mm Phoenix Connectors
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis each
- Optical fiber interface to combine two mutually distant conference rooms and to operate as one unique coherent system
- CobraNet interface to connect to peripheral digital devices without losing any sound quality
- 1 × RJ45 standard socket for connection to Ethernet interface (LAN)
- 1 × RJ45 standard socket (output) for connection with a congress extension main unit (EXTENSION)
- 2 × outlet (6P-DIN) trunk-line cable outlet
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to congress units

- 2 × USB interfaces at front panel to upgrade system and to save system parameters.

---

## Technical Specifications

### Electrical

Frequency response.....30 Hz to 20 kHz  
SNR.....>96 dBA  
Dynamic range.....>94 dB  
Isolation.....>85 dB  
THD.....<0.05%  
Power supply.....AC 110 V/220 V  
Power consumption.....200 W  
DCS system supply.....33 VDC, max 60 W per DCS socket  
Total supply power.....120 W  
RS-232 connection.....2 × 9-pole Sub-D female socket

### Max. audio inputs

LINE IN 1.....+10 dBu, BAL.  
LINE IN 2.....+10 dBu, UNBAL.

### Max. audio outputs

LINE OUT 1.....+20 dBu, BAL.  
LINE OUT 2.....+20 dBu, UNBAL.  
GROUP OUT (1...6).....+20 dBu, BAL.

### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h × w × d)  
For table use, with feet.....99 × 430 × 325 mm  
For 19" rack use, with brackets.....89 × 478 × 350 mm  
Weight.....7.8 kg  
Color.....White

---

## Ordering Information

HCS-8300MA.....Digital Congress System Main Unit (discussion, voting, 64 CHs, 256×32" LCD, congress matrix, optical fiber interface, CobraNet interface)

## HCS-8300MB Congress Main Unit



### Features

- Based on ingenious *CongressMatrix™* technology, integrated nx8 audio matrix processor
- Integrated 8 channels group output function, easy to combine/split conference rooms
- Connectable to multi channel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 30 Hz~20 kHz
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Voting facilities without PC intervention
- Built-in multi-channel intercom facility
- Plug and play for all units
- Excellent immunity to RF interferences from mobile phones and comparable devices
- System power controllable by central control system

The Conference Main Unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator.

In combination with a PC, the main unit brings greater sophistication to conference control. Users are able to access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the main unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914
- Based on ingenious *CongressMatrix™* technology, integrated nx8 audio matrix processor (n is the quantity of microphones connected in the system)
  - ◆ 8 discrete audio outputs, including:
    - Line 1 output: 15 band graphical EQ + 8 band parameterized EQ + DRC (dynamic range compressor)
    - Line 2 output: 5 band graphical EQ + DRC (dynamic range compressor)
    - Group output 1~5: 5 band graphical EQ + DRC (dynamic range compressor)
    - Group output 6: 5 band graphical EQ + DRC (dynamic range compressor) + time delay
  - ◆ Connectable to a multi channel independent PA system (up to 8 channels). Each channel is supplied with its proper audio signal. The audio signal of each microphone can be routed to any speaker at any ratio, thus "N-1" function can be realized easily: (when the microphone in one area is turned on, its audio signal is only routed to all areas except to its own) avoiding acoustic feedback (howl) when audio transmission gain is increased
  - ◆ 8 channels group output function
  - ◆ Supports combining/separating meeting rooms by split/merge function
  - ◆ Recording by group function
  - ◆ Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
  - ◆ Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
  - ◆ 2 audio line in or 1 audio line in + 1 microphone input, gain and EQ for each input adjustable separately. +24 V phantom power supply at microphone input, condenser microphone can be connected directly
  - ◆ Connectable to multi channel audio input or output devices for versatile expansion of the system
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- System power controllable by central control system
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate. All 64 channels feature perfect sound quality with a frequency response of 30 Hz~20 kHz
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding users application spectrum (HCS-8300MI series audio input interface required)



- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/F are required:
  - ◆ 4096 discussion or voting units
  - ◆ 378 interpretation units (with maximum 63 booths, each booth with maximum 6 interpretation units)
  - ◆ Any quantity of channel selectors
- With the 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for infrared language distribution system or recording
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ Set-up of speaking time limitation (1~240 minutes)
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time can be adjusted continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
  - ◆ 64 (1+63) channels simultaneous interpretation function. Cooperates with channel selector or infrared language distribution system enabling a larger audience to follow the conference
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Centralized microphone management
  - ◆ Multiform voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/-/0/+/>++
    - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV
    - Rating:
      - ◇ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
      - ◇ Qualified (four/three/two keys voting)
      - ◇ Competent (four/three/two keys voting)
  - ◆ Several sign-in modes: entrance sign-in/seat sign-in
  - ◆ Depending on the purchased HCS-8300 software modules, user gains access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update

- Hot spare dual server structure: another congress main unit is set up as backup main unit and connected to the system and takes over automatically if the main congress main unit fails
- Multi-room configuration: congress main unit(s) can be used as extension main unit(s) to carry out multi-room configuration flexibly. Multiple main unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Integrated real-time clock displays time on the LCD of the interpretation unit to inform interpreter to stay on schedule
- Fully compatible with TAIDEN HCS-4100 Fully Digital Congress System: HCS-4100 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units)
- Built-in unit detection facilities: detect the unit's microphone, speaker, LEDs and voting keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, congress main unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference

### Controls and Indicators

- Graphic LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- LINE IN electric level adjust knob
- Congress unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ One balanced XLR-F for microphone input: or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLR-M for audio line out
  - ◆ Two symmetrical RCA output interfaces for audio line out
  - ◆ 6 channels group output on 3 pin 3.81 mm Phoenix Connectors
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis each
- 1 × RJ45 standard socket for connection to Ethernet interface (LAN)
- 1 × RJ45 standard socket (output) for connection with a congress extension main unit (EXTENSION)
- 2 × outlet (6P-DIN) trunk-line cable outlet
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to congress units
- 2 × USB interfaces at front panel to upgrade system and to save system parameters.

## Technical Specifications

## Electrical

Frequency response	30 Hz to 20 kHz
SNR	>96 dBA
Dynamic range	>94 dB
Isolation	>85 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	200 W
DCS system supply	33 VDC, max 60 W per DCS socket
Total supply power	120 W
RS-232 connection	2 × 9-pole Sub-D female socket

### Max. audio inputs

LINE IN 1 .....+10 dBu, BAL.  
LINE IN 2 .....+10 dBu, UNBAL.

### Max. audio outputs

LINE OUT 1.....+20 dBu, BAL.  
 LINE OUT 2.....+20 dBu, UNBAL.  
 GROUP OUT (1...6).....+20 dBu, BAL.

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 x 430 x 325 mm  
For 19" rack use, with brackets.....89 x 478 x 350 mm  
Weight.....7.8 kg  
Color.....White

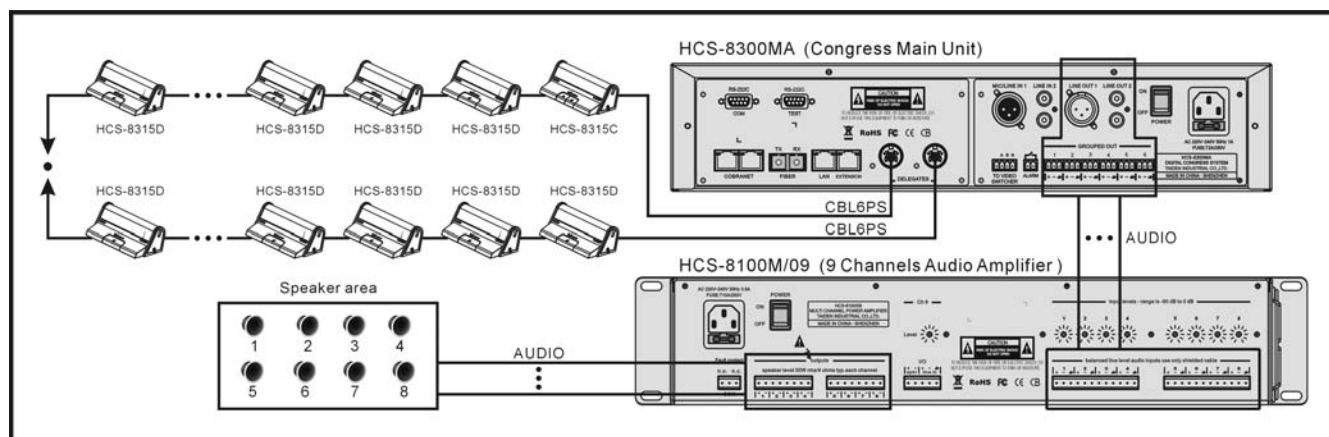
## Ordering Information

HCS-8300MB .....Digital Congress System Main Unit  
(discussion, voting, 64 CHs, 256×32" LCD,  
congress matrix)

## HCS-8300 and HCS-4100/50 Series Congress Main Units Function list

Type No.	Speech	Voting	Graphic LCD	64 CHs SI	Mic. group output	Optical fiber interface	CobraNet interface
HCS-8300MA	√	√	√	√	√	√	√
HCS-8300MB	√	√	√	√	√		
HCS-4100MA/50	√	√	√	√		√	
HCS-4100MB/50	√	√	√	√			
HCS-4100MC/50	√	√	√				

## System Connection (discussion+ group output)



## HCS-8300ME/F Congress Extension Main Unit



The maximum capacity of HCS-8300M series CMU is 60 contribution units. If extra contribution units are needed, HCS-8300ME/F or HCS-8300ME Congress Extension Main Unit(s) must be added. The maximum capacity per HCS-8300ME/F or HCS-8300ME Congress Extension Main Unit is 120 contribution units; the outlet connectors of both are identical. Each HCS-8300ME/F or HCS-8300ME has two EXTENSION IN interface used to connect HCS-8300M series CMU or a preceding Congress Extension Main Unit, and an EXTENSION OUT interface for the next Congress Extension Main Unit.

### Functions

- Based on TAIDEN company originated MCA-STREAM digital audio processing and transmitting technology
- Compliant to IEC 60914 and CE
- Cooperates with HCS-8300M or HCS-4100M/50 series main unit for system capacity extension
- Sync power on/off with the congress main unit
- In cooperation with the congress main unit and a central control system, central control of the whole system power can be realized

### Interconnections

- 4 × (6P-DIN) trunk-line cable outlet
- 2 × RJ45 standard socket (input) for connection with the congress main unit or with a preceding congress extension main unit
- 1 × RJ45 standard socket (output) for connection with the next congress extension main unit
- Equipped with two optical fiber interfaces

### Technical Specifications

#### Electrical

Power supply ..... AC 110 V/220 V  
Power consumption ..... 450 W

#### Mechanical

Mounting ..... Tabletop or mounted in a 19" rack  
Dimensions (h × w × d)  
For table use, with feet ..... 99 × 430 × 325 mm  
For 19" rack use, with brackets ..... 89 × 478 × 350 mm  
Weight ..... 10.0 kg  
Color ..... White

### Ordering Information

HCS-8300ME/F ..... Digital Congress System Extension Main Unit  
(with 2 optical fiber interfaces)

## HCS-8300ME Congress Extension Main Unit



The maximum capacity of HCS-8300M series CMU is 60 contribution units. If extra contribution units are needed, HCS-8300ME/F or HCS-8300ME Congress Extension Main Unit(s) must be added. The maximum capacity per HCS-8300ME/F or HCS-8300ME Congress Extension Main Unit is 120 contribution units; the outlet connectors of both are identical. Each HCS-8300ME/F or HCS-8300ME has two EXTENSION IN interface used to connect HCS-8300M series CMU or a preceding Congress Extension Main Unit, and an EXTENSION OUT interface for the next Congress Extension Main Unit.

### Functions

- Based on TAIDEN company originated MCA-STREAM digital audio processing and transmitting technology
- Compliant to IEC 60914 and CE
- Cooperates with HCS-8300M or HCS-4100M/50 series main unit for system capacity extension
- Sync power on/off with the congress main unit
- In cooperation with the congress main unit and a central control system, central control of the whole system power can be realized

### Interconnections

- 4 × (6P-DIN) trunk-line cable outlet
- 2 × RJ45 standard socket (input) for connection with the congress main unit or with a preceding congress extension main unit
- 1 × RJ45 standard socket (output) for connection with the next congress extension main unit

### Technical Specifications

#### Electrical

Power supply ..... AC 110 V/220 V

Power consumption ..... 450 W

#### Mechanical

Mounting ..... Tabletop or mounted in a 19" rack

Dimensions (h × w × d)

For table use, with feet ..... 99 × 430 × 325 mm

For 19" rack use, with brackets ..... 89 × 478 × 350 mm

Weight ..... 10.0 kg

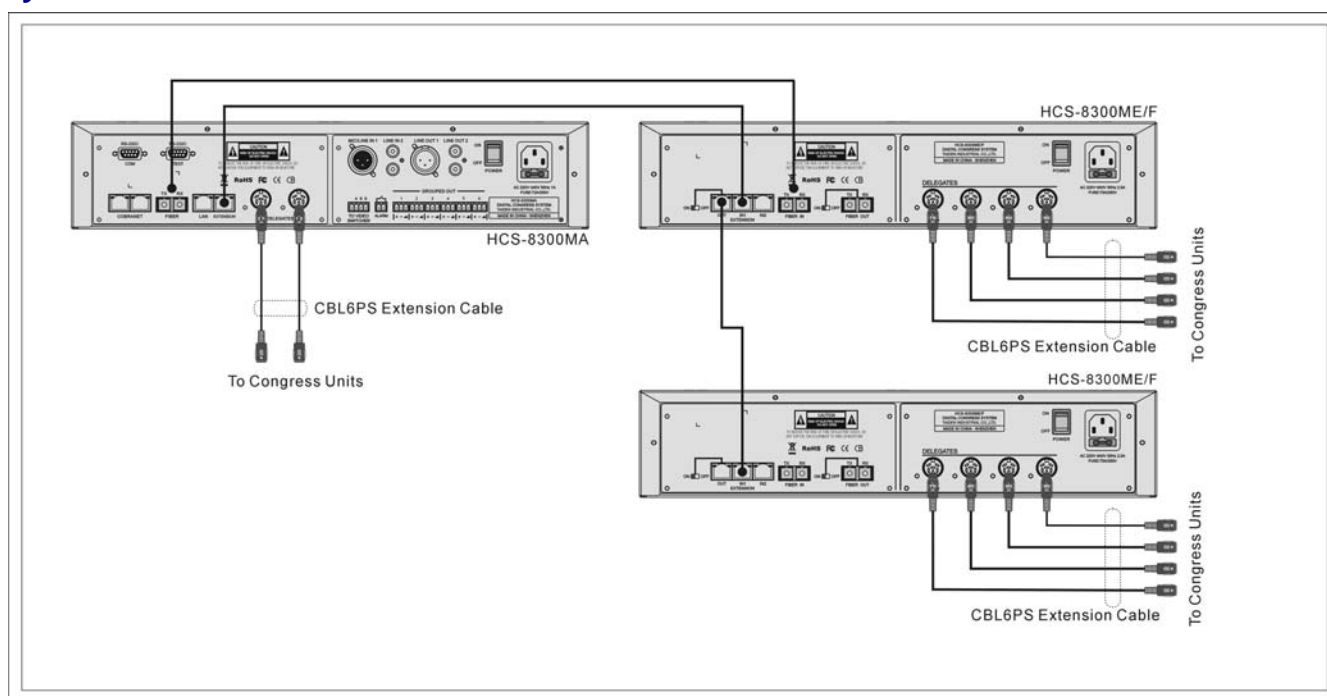
Color ..... White

### Ordering Information

HCS-8300ME ..... Digital Congress System Extension Main Unit



## System Connection



## Low power consumption design

Low power consumption design is adopted in HCS-8300 and HCS-4100/50 series congress units, convenient for wiring and installation. All congress units of HCS-8300 and HCS-4100/50 series (except HCS-8318 series) are supplied by the main unit's 6P-DIN interface. Since the power capacity of the 6P-DIN interface is limited, it must be ensured during installation that the added up values of a) the total power consumption of all congress units connected in each path and b) the power loss in extension cables do in no case exceed the maximum possible value delivered by each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will be triggered.

(1). The output power of each 6P-DIN interface of control main unit or backup main unit is 60 W; the output power of each 6P-DIN interface of extension main unit is 80 W.

(2). Refer to the following table for the power consumption of each type of congress units:

Table 1 Power consumption

Type	Type No.	Max. power consumption
Equipped with 7" LCD and built-in speaker	HCS-8307	7.5 W
Equipped with 256×32" LCD and built-in speaker	HCS-4886/50、HCS-4887/50、HCS-4380/50、HCS-4382/50、HCS-4365/50	2.3 W
Equipped with 256×32" LCD and without built-in speaker	HCS-4368/50	1.8 W
Equipped with built-in speaker and without 256×32" LCD	HCS-8310、HCS-8311、HCS-8312、HCS-4888/50、HCS-4370/50、HCS-4371/50、HCS-4366/50、HCS-4360/50、HCS-4361/50、HCS-4362/50、HCS-4363/50、HCS-4330/50、HCS-4331/50、HCS-4332/50、HCS-4333/50、HCS-4335/50	
Without 256×32" LCD and built-in speaker	HCS-8313、HCS-8314、HCS-8315、HCS-4320/50、HCS-4321/50、HCS-4322/50	1.3 W
Equipped with 256×64" LCD and built-in speaker	HCS-4385K2/50	2.8 W
Multi-function Connector	HCS-4340/50	2.1 W
Cable Splitter (relay facility)	HCS-4352/50	1.0 W

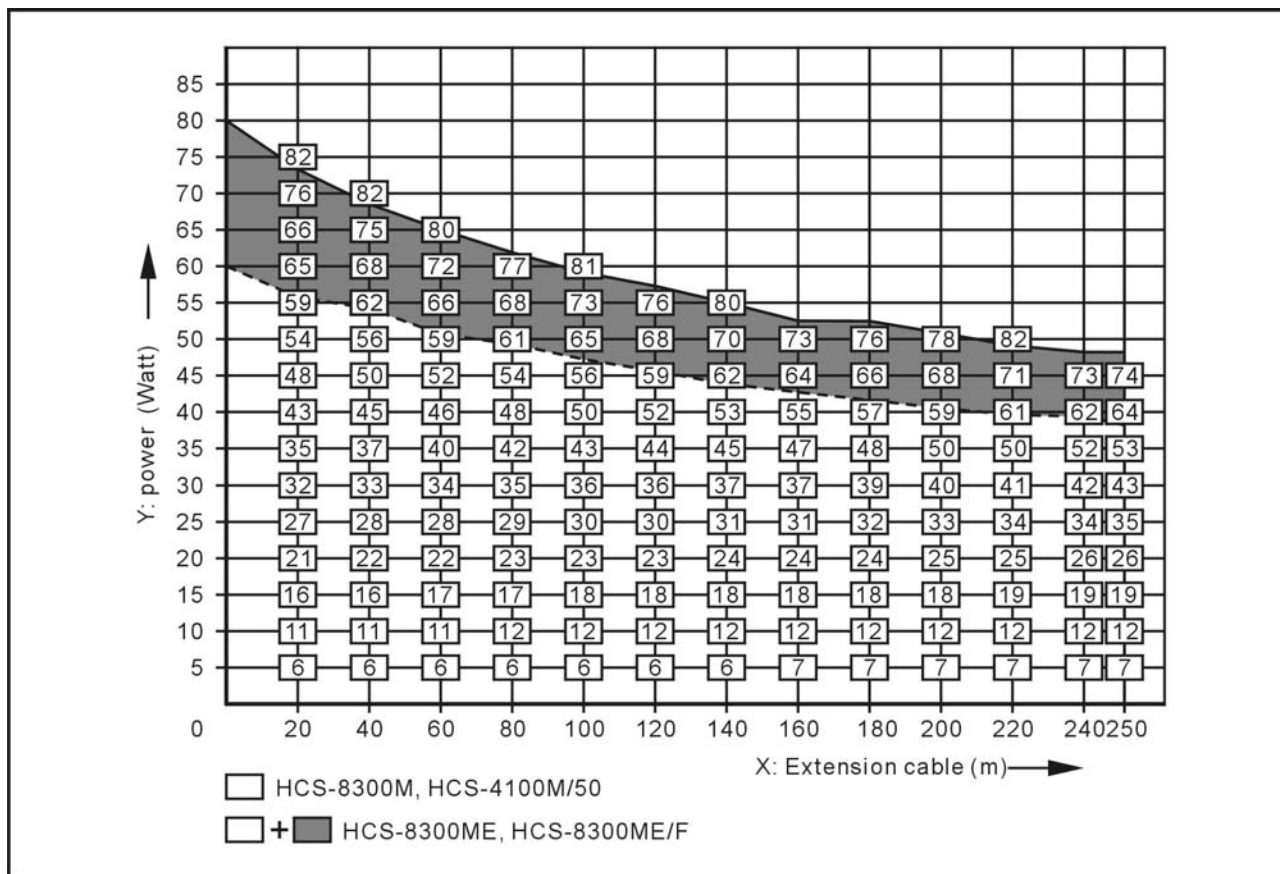
### (3). Lengths of extension cables

- The total added up cable length from the main unit to the furthest congress unit shall not exceed 250 m.
- Any connection cable length should be less than 100 meters (including the cable between the main unit and the next congress unit and the cable between any two sequential congress units), otherwise it will affect the signal quality. In case the length exceeds 100m, repeaters are needed.
- The connection cable between the main unit and the first congress unit is always carrying the maximum current, induced by the totality of the congress units connected to the dedicated socket. Due to Ohm's law the available supply voltage at the opposite end of this cable is lower than on the socket. This voltage drop is dependent on the cable length and the current. The number of overall connectable congress units to the main unit is therefore a function of the cable length and vice versa. However, when the cable is connected between the last two congress units, the influence is insignificant.

**(4). The necessary power (the total power consumption of the units and the connection cables connected to the socket)**

- Find the power consumption of each unit from the consumption table (refer to table 1), add up the power of all units. The result is the total power consumption of the units connected to the socket;
- Add up the lengths of all connection cables related to the socket;
- Find the total power consumption calculated according to a) on the vertical axis (Y) of the power correction graph (for example, 50 W); find the overall length of the connection cables calculated according to b) on the horizontal axis (X) of the power correction graph (for example, 60 m). The intersection of both values gives the necessary power from the socket (in this example 59 W).

Table 2 Power correction graph



## HCS-8300MX Congress Room Combiner



### Functions

- Perfect solution for selectively combining or separating meeting rooms
- Flexibly and discretionary - according to situational conditions
- Up to 8 main units per HCS-8300MX unit
- Cascadable to merge up to 14 meeting rooms

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting displays configuration of RJ45 standard sockets, supporting multi language menu
- Four buttons for configuration
- Power switch with indicator

### Interconnections

- 8 × RJ45 standard socket for connection with congress main unit
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance

### Technical Specifications

#### Electrical

Power supply .....AC 100 V~240 V  
Power consumption.....15 W

#### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h × w × d)  
For table use, with feet.....99 × 430 × 325 mm  
For 19" rack use, with brackets.....89 × 478 × 350 mm  
Weight.....5.2 kg  
Color.....White

### Ordering Information

HCS-8300MX.....Congress Room Combiner

## HCS-8300KMx Congress Gigabit Network Switcher



### Functions

- Supports daisy-chain connection to HCS-8318 series multimedia congress terminals; the quantity of congress terminals connected to each port is unlimited

### Interconnections

- 8 × RJ45 standard ports for connection with congress main unit, HCS-8318 series multi-media congress terminal, video server, external Ethernet switches, etc.
- 1 × 6P-DIN interface for power supply from the congress main unit
- 2 × 2P aviation plugs for power supply from the power supply unit HCS-8300 PM and HCS-8300 PM2

### Technical Specifications

#### Electrical

Power supply.....DC 24 V~33 V  
Power consumption.....10 W

#### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions h × w × d.....43 × 483 × 208 mm  
(1U high, full rack width)  
Weight.....2.3 kg  
Color.....Gray

### Ordering Information

HCS-8300KMx.....Congress Gigabit Network Switcher

**HCS-8300PM**  
**Power Supply Unit**



**Functions**

- Provides power supply to HCS-8318 series multimedia congress terminals, as well as to HCS-8300KMX Congress Gigabit Network Switcher
- Each power supply unit provides power up to 30 pieces of HCS-8318 series multimedia congress terminals
- Sync power on/off with the congress main unit

**Interconnections**

- Power output: 4 × 2P aviation plug
- Power control interface: 4 × 6P-DIN socket

**Technical Specifications**

**Electrical**

Power output.....Four power outputs, each output 33V DC, 3A  
Power consumption.....430 W

**Mechanical**

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h × w × d)  
For table use, with feet.....99 × 430 × 325 mm  
For 19" rack use, with brackets.....89 × 478 × 350 mm  
Weight.....10.3 kg  
Color.....White

**Ordering Information**

HCS-8300PM.....Power Supply Unit

**HCS-8300PM2**  
**Dual Backup Power Supply Unit**



**Functions**

- Provides power supply to HCS-8318 series multimedia congress terminals, as well as to HCS-8300KMX Congress Gigabit Network Switcher
- Each power supply unit provides power up to 30 pieces of HCS-8318 series multimedia congress terminals
- Sync power on/off with the congress main unit
- Two completely independent power supply systems to realize dual backup for system power supply
- If the primary power supply fails, the standby power takes over supply immediately

**Interconnections**

- Power output: 4 × 2P aviation plug
- Power control interface: 4 × 6P-DIN socket

**Technical Specifications**

**Electrical**

Power output.....Four power outputs, each output 33V DC, 3A  
Power consumption.....430 W

**Mechanical**

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions h × w × d.....43 × 483 × 208 mm  
(1U high, full rack width)  
Weight.....14.2 kg  
Color.....Gray

**Ordering Information**

HCS-8300PM2.....Dual Backup Power Supply Unit



## HCS-8316HD HD Encoder



### Functions

- For encoding and transmitting high-definition video signals (720P/1080i/1080P) or high resolution high frame rate VGA signals
- Adopting DSP processing chip and embedded operating system; reliable, high-definition, low bit-rate, low latency
- Widely used in a variety of applications for sampling and transmitting high-definition video signals and high resolution high frame rate VGA signals over IP network
- Meets the demands of high definition video conference recording/broadcasting and high-definition video monitoring applications
- Supports stereo audio input, using the industry's most advanced audio/video algorithm

### Technical Specifications

#### Electrical

Power supply.....DC 12 V/3 A  
 Power consumption.....10 W  
 LAN interface.....to LAN  
 Output video type.....H.264

#### Mechanical

Mounting.....Tabletop  
 Dimensions (h × w × d).....43 × 330 × 219 mm  
 Weight.....2.0 kg  
 Color.....Black

### Ordering Information

HCS-8316HD.....HD Encoder

## HCS-8316AV A/V Encoder



### Functions

- For encoding and transmitting standard definition video signals (DI/CIF)
- Adopting DSP processing chip and embedded operating system, reliable
- WEB based management interface
- Widely used in a variety of applications for sampling and transmitting standard definition video signals over IP network
- Meets the demands of standard definition (video) conferencing applications
- Supports stereo audio input, using the industry's most advanced audio/video algorithm

### Technical Specifications

#### Electrical

Power supply.....DC 12 V/3 A  
 Power consumption.....8.4 W  
 LAN interface.....to LAN  
 Output video type.....H.264

#### Mechanical

Mounting.....Tabletop  
 Dimensions (h × w × d).....45 × 240 × 169 mm  
 Weight.....1.2 kg  
 Color.....Black

### Ordering Information

HCS-8316AV.....A/V Encoder

## HCS-8319 Service Request Control Unit




---

### Functions

- Equipped with a 10" LCD touch panel (800×480)
- Cooperates with the “call service” function of HCS-8307/HCS-8318 series Multi-media Congress Terminals
- Receives and displays seat information, requested service, etc. of the conventioners, then response
- Essential for specific response to the requesting person

---

### Technical Specifications

#### LCD

Type.....True color TFT LCD  
 Dimension.....10.2 inches  
 Display color.....2<sup>18</sup> (18 bit)

#### Mechanical

Mounting.....Tabletop  
 Dimensions (h × w × d).....87 × 270 × 216 mm  
 Weight.....2.3 kg  
 Color.....Gray

---

### Ordering Information

HCS-8319.....Service Request Control Unit

## HCS-8300MOD/F 8 Channels Audio Output Device



### Functions

- Converts the digital audio signals of the congress system to multi channel *digital(AES/EBU)/analog* audio signals, for further processing in infrared simultaneous interpretation systems or recording devices
- Output level of each channel adjustable
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs output channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 4 × XLR-M connector for 8 CHs digital audio outputs
- 8 × RCA connector and 8 × 3-pin Phoenix connector for balanced/unbalanced analog audio outputs
- 1 × headphone output socket (Φ 3.5 mm) for monitoring channel languages, adjustable volume and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for upgrading system and saving system parameters. Convenient for system maintenance
- Equipped with optical fiber interface, to combine several mutually distant conference rooms to operate as one unique coherent system
- Supports CobraNet protocol, to connect to peripheral digital devices without losing any sound quality

### Technical Specifications

#### Electrical

Frequency response	30 Hz to 20 kHz
SNR	>90 dBA
Dynamic range	>85 dB
Isolation	>90 dB
THD	<0.05%
Power supply	AC 100 V~240 V
Power consumption	30 W

#### Max. audio outputs

Analog: 8 × RCA	+12 dBu.
Analog: 8 × 3-pin Phoenix	+18 dBu
Digital: 4 × XLR-M	1 FFS
Output level adjustable range	-30 dB~ 0 dB, mute

#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h × w × d)	
For table use, with feet	99 × 430 × 325 mm
For 19" rack use, with brackets	89 × 478 × 350 mm
Weight	5.5 kg
Color	White

### Ordering Information

HCS-8300MOD/F ..... 8 Channels Audio Output Device (AES/EBU digital outputs, analog outputs, optical fiber interface, CobraNet interface)

## HCS-8300MOD 8 Channels Audio Output Device



### Functions

- Converts the digital audio signals of the congress system to multi channel *digital(AES/EBU)/analog* audio signals, for further processing in infrared simultaneous interpretation systems or recording devices
- Output level of each channel adjustable
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs output channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 4 × XLR-M connector for 8 CHs digital audio outputs
- 8 × RCA connector and 8 × 3-pin Phoenix connector for balanced/unbalanced analog audio outputs
- 1 × headphone output socket (Φ 3.5 mm) for monitoring channel languages, adjustable volume and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for upgrading system and saving system parameters. Convenient for system maintenance

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz  
 SNR.....>90 dBA  
 Dynamic range.....>85 dB  
 Isolation.....>90 dB  
 THD.....<0.05%  
 Power supply.....AC 100 V~240 V  
 Power consumption.....30 W

#### Max. audio outputs

Analog: 8 × RCA.....+12 dBu.  
 Analog: 8 × 3-pin Phoenix.....+18 dBu  
 Digital: 4 × XLR-M.....1 FFS  
 Output level adjustable range.....-30 dB~ 0 dB, mute

#### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
 Dimensions (h × w × d)  
 For table use, with feet.....99 × 430 × 325 mm  
 For 19" rack use, with brackets.....89 × 478 × 350 mm  
 Weight.....5.5 kg  
 Color.....White

### Ordering Information

HCS-8300MOD.....8 Channels Audio Output Device  
 (AES/EBU digital outputs, analog outputs)

## HCS-8300MOA/F 8 Channels Audio Output Device



### Functions

- Converts the digital audio signals of the congress system to multi channel analog audio signals, for further processing in infrared simultaneous interpretation systems or recording devices
- Output level of each channel adjustable
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs output channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 8 × RCA connector and 8 × 3-pin Phoenix connector for balanced/unbalanced analog audio outputs
- 1 × headphone output socket (Φ 3.5 mm) for monitoring channel languages, adjustable volume and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for upgrading system and saving system parameters. Convenient for system maintenance
- Equipped with optical fiber interface, to combine several mutually distant conference rooms to operate as one unique coherent system
- Supports CobraNet protocol, to connect to peripheral digital devices without losing any sound quality

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz  
 SNR.....>90 dBA  
 Dynamic range.....>85 dB  
 Isolation.....>90 dB  
 THD.....<0.05%  
 Power supply.....AC 100 V~240 V  
 Power consumption.....30 W

#### Max. audio outputs

Analog: 8 × RCA.....+12 dBu.  
 Analog: 8 × 3-pin Phoenix.....+18 dBu  
 Output level adjustable range.....-30 dB~ 0 dB, mute

#### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
 Dimensions (h × w × d)  
     For table use, with feet.....99 × 430 × 325 mm  
     For 19" rack use, with brackets.....89 × 478 × 350 mm  
 Weight.....5.5 kg  
 Color.....White

### Ordering Information

HCS-8300MOA/F.....8 Channels Audio Output Device (analog outputs, optical fiber interface, CobraNet interface)



## HCS-8300MOA 8 Channels Audio Output Device



### Functions

- Converts the digital audio signals of the congress system to multi channel analog audio signals, for further processing in infrared simultaneous interpretation systems or recording devices
- Output level of each channel adjustable
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs output channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 8 × RCA connector and 8 × 3-pin Phoenix connector for balanced/unbalanced analog audio outputs
- 1 × headphone output socket (Φ 3.5 mm) for monitoring channel languages, adjustable volume and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for upgrading system and saving system parameters. Convenient for system maintenance

### Technical Specifications

#### Electrical

Frequency response	30 Hz to 20 kHz
SNR	>90 dBA
Dynamic range	>85 dB
Isolation	>90 dB
THD	<0.05%
Power supply	AC 100 V~240 V
Power consumption	30 W

#### Max. audio outputs

Analog: 8 × RCA	+12 dBu.
Analog: 8 × 3-pin Phoenix	+18 dBu
Output level adjustable range	-30 dB~ 0 dB, mute

#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h × w × d)	
For table use, with feet	99 × 430 × 325 mm
For 19" rack use, with brackets	89 × 478 × 350 mm
Weight	5.5 kg
Color	White

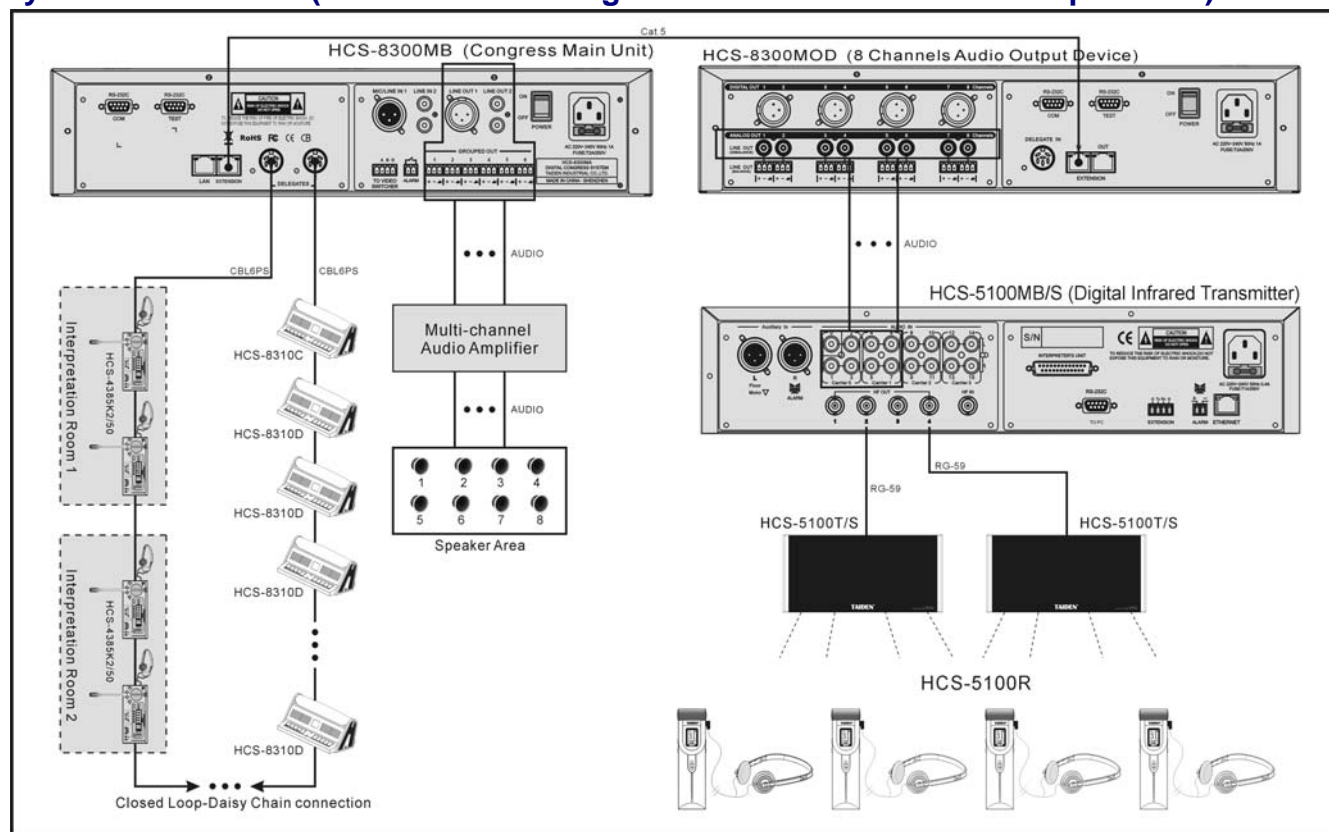
### Ordering Information

HCS-8300MOA	8 Channels Audio Output Device (analog outputs)
-------------	--

## Function list

Type No.	Analog output	Digital output	Optical fiber interface	CobraNet interface
HCS-8300MOD/F	√	√	√	√
HCS-8300MOD	√	√		
HCS-8300MOA/F	√		√	√
HCS-8300MOA	√			

## System Connection (discussion + voting + infrared simultaneous interpretation)



## HCS-8300MID/F 8 Channels Audio Input Interface



### Functions

- Transmits 8 *digital*(AES/EBU)/*analog* audio channels to the interpretation channels of the congress system, for example for remote interpretation purposes or for transmission to floor channel
- All inputs can be mixed with arbitrary ratio, and outputted to any channel
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting:  
displays 8 CHs input channel number, language name  
supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 4 × XLR-F connector for 8 CHs digital (AES/EBU) audio inputs
- 8 × RCA connector for Line in (unbalanced)
- 8 × 3-pin Phoenix connector for Line in /microphone inputs (balanced)
- 1 × headphone output socket (φ 3.5 mm) for monitoring channel languages, adjustable volume control and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- Equipped with optical fiber interface, to combine several mutually distant conference rooms to operate as one unique coherent system
- Supports CobraNet™ protocol to connect to peripheral digital devices without losing any sound quality

### Technical Specifications

#### Electrical

Frequency response	30 Hz to 20 kHz
SNR	>90 dBA
Dynamic range	>85 dB
Isolation	>90 dB
THD	<0.05%
Power supply	AC 100 V~240 V
Power consumption	40 W

#### Max. audio inputs

Analog: 8 × RCA	+18 dBu.
Analog: 8 × 3-pin Phoenix (Line in)	+8 dBu
Analog: 8 × 3-pin Phoenix (Mic. in)	-12 dBu
Digital: 4 × XLR-F	1 FFS
Input sensitivity adjustable range	-30 dB~ 0 dB, mute

#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h × w × d)	
For table use, with feet	99 × 430 × 325 mm
For 19" rack use, with brackets	89 × 478 × 350 mm
Weight	5.5 kg
Color	White

### Ordering Information

HCS-8300MID/F	8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs, optical fiber interface, CobraNet interface)
---------------	---

## HCS-8300MID 8 Channels Audio Input Interface



### Functions

- Transmits 8 *digital(AES/EBU)/analog* audio channels to the interpretation channels of the congress system, for example for remote interpretation purposes or for transmission to floor channel
- All inputs can be mixed with arbitrary ratio, and outputted to any channel
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs input channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 4 × XLR-F connector for 8 CHs digital (AES/EBU) audio inputs
- 8 × RCA connector for Line in (unbalanced)
- 8 × 3-pin Phoenix connector for Line in /microphone inputs (balanced)
- 1 × headphone output socket (  $\phi$  3.5 mm) for monitoring channel languages, adjustable volume control and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance

### Technical Specifications

#### Electrical

Frequency response	30 Hz to 20 kHz
SNR	>90 dBA
Dynamic range	>85 dB
Isolation	>90 dB
THD	<0.05%
Power supply	AC 100 V~240 V
Power consumption	40 W

#### Max. audio inputs

Analog: 8 × RCA	+18 dBu.
Analog: 8 × 3-pin Phoenix (Line in)	+8 dBu
Analog: 8 × 3-pin Phoenix (Mic. in)	-12 dBu
Digital: 4 × XLR-F	1 FFS
Input sensitivity adjustable range	-30 dB~ 0 dB, mute

#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h × w × d)	
For table use, with feet	99 × 430 × 325 mm
For 19" rack use, with brackets	89 × 478 × 350 mm
Weight	5.5 kg
Color	White

### Ordering Information

HCS-8300MID	8 Channels Audio Input Interface (AES/EBU digital inputs, analog inputs)
-------------	---

## HCS-8300MIA/F 8 Channels Audio Input Interface



### Functions

- Transmits 8 analog audio channels to the interpretation channels of the congress system, for example for remote interpretation purposes or for transmission to floor channel
- All inputs can be mixed with arbitrary ratio, and outputted to any channel
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs input channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 8 × RCA connector for Line in (unbalanced)
- 8 × 3-pin Phoenix connector for Line in /microphone inputs (balanced)
- 1 × headphone output socket (φ 3.5 mm) for monitoring channel languages, adjustable volume control and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- Equipped with optical fiber interface, to combine several mutually distant conference rooms to operate as one unique coherent system
- Supports CobraNet™ protocol to connect to peripheral digital devices without losing any sound quality

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz  
 SNR.....>90 dBA  
 Dynamic range.....>85 dB  
 Isolation.....>90 dB  
 THD.....<0.05%  
 Power supply.....AC 100 V~240 V  
 Power consumption.....40 W

#### Max. audio inputs

Analog: 8 × RCA.....+18 dBu.  
 Analog: 8 × 3-pin Phoenix (Line in).....+8 dBu  
 Analog: 8 × 3-pin Phoenix (Mic. in).....-12 dBu  
 Input sensitivity adjustable range.....-30 dB~ 0 dB, mute

#### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
 Dimensions (h × w × d)  
     For table use, with feet.....99 × 430 × 325 mm  
     For 19" rack use, with brackets.....89 × 478 × 350 mm  
 Weight.....5.5 kg  
 Color.....White

### Ordering Information

HCS-8300MIA/F.....8 Channels Audio Input Interface (analog inputs, optical fiber interface, CobraNet interface)

## HCS-8300MIA 8 Channels Audio Input Interface



### Functions

- Transmits 8 analog audio channels to the interpretation channels of the congress system, for example for remote interpretation purposes or for transmission to floor channel
- All inputs can be mixed with arbitrary ratio, and outputted to any channel
- Configurable as Sync/Not sync power on/off with congress main unit

### Controls and Indicators

- Graphic 256 × 32 LCD with back-lighting: displays 8 CHs input channel number, language name supporting multi language menu
- Four buttons for configuration
- Power switch with indicator
- Channel indicators
- Volume adjust knob

### Interconnections

- 8 × RCA connector for Line in (unbalanced)
- 8 × 3-pin Phoenix connector for Line in /microphone inputs (balanced)
- 1 × headphone output socket (φ 3.5 mm) for monitoring channel languages, adjustable volume control and rotary step control for fast selection of language channels
- 1 × 6P-DIN socket for connection with congress main unit
- 1 × RJ45 standard socket (input) for connection with congress main unit
- 1 × RJ45 standard socket (output) for connection with the sequencing congress extension main unit or audio input interface/audio output device
- 2 × RS-232 port for connection to intelligent central control system and system diagnosis
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance

### Technical Specifications

#### Electrical

Frequency response	30 Hz to 20 kHz
SNR	>90 dBA
Dynamic range	>85 dB
Isolation	>90 dB
THD	<0.05%
Power supply	AC 100 V~240 V
Power consumption	40 W

#### Max. audio inputs

Analog: 8 × RCA	+18 dBu.
Analog: 8 × 3-pin Phoenix (Line in)	+8 dBu
Analog: 8 × 3-pin Phoenix (Mic. in)	-12 dBu
Input sensitivity adjustable range	-30 dB~ 0 dB, mute

#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h × w × d)	
For table use, with feet	99 × 430 × 325 mm
For 19" rack use, with brackets	89 × 478 × 350 mm
Weight	5.5 kg
Color	White

### Ordering Information

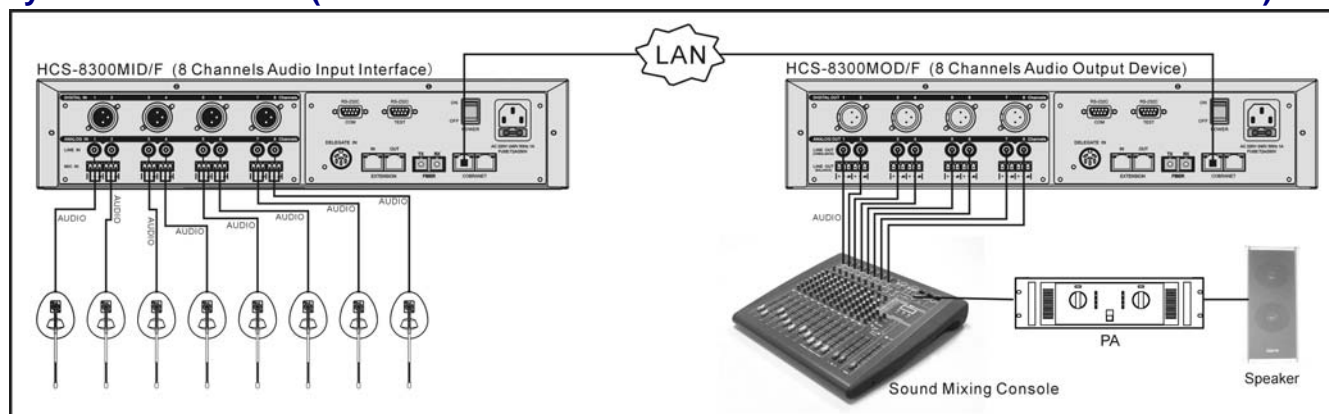
HCS-8300MIA	8 Channels Audio Input Interface (analog inputs)
-------------	---



## Function list

Type No.	Analog input	Digital input	Optical fiber interface	CobraNet interface
HCS-8300MID/F	√	√	√	√
HCS-8300MID	√	√		
HCS-8300MIA/F	√		√	√
HCS-8300MIA	√			

## System Connection (HCS-8300MI + HCS-8300MO multi-channel audio transmission)



## HCS-8100M/09

### 9 Channels Audio Amplifier



HCS-8100M/09 is a multi-channel power amplifier. It includes nine discrete audio power amplifiers, each channel with 68 Watts at a 4 ohm load. Any of two channels can be bridged to obtain twice power output. If HCS-8100M/09 bridged configuration is maximum, it can obtain four 100 Watt at 8 ohm and one 68 Watt at 4 ohm amplifiers. HCS-8100M/09 also includes a high-current SPDT (Form C) Fault Contacts. The Fault Contacts can be used for switching loudspeaker-level, allowing the user to build basic redundancy into the system, or interfacing to external alarm systems. All connections are located on the rear panel. Audio volume control is recessed and located on the rear panel for tamper-resistant installation.

Front panel includes monitoring of fault status and audio output levels for all 9 channels. Also included is visual monitoring of overall amplifier status and over temperature.

#### Functions

- 9 separate audio amplifiers
- Each channel can support 68 W/4  $\Omega$  or 40 W/8  $\Omega$ , operable in bridging mode
- Mandatory wind cooling, the rotating speed of the fan is controlled automatically according to the temperature
- Balanced line input

#### Controls and Indicators

- Overheat LED indicator on front panel
- Audio output level and all channel failure status monitored on LEDs on front panel
- Power switch on rear panel
- Volume control on rear panel

#### Interconnections

- High-current SPDT failure switch
- 9  $\times$  2-pin Phoenix connector for audio outputs
- 9  $\times$  3-pin Phoenix connector for balanced audio inputs

#### Technical Specifications

##### Electrical

Rated power	68 Watt/4 ohm or 40 Watt/8 ohm @ 20 Hz to 20 kHz < 0.03% T.H.D.
Minimum load impedance	4 Ohm
Maximum RMS voltage swing	20 Volt
Frequency response	10 Hz – 30 kHz, $\pm 2$ dB @ rated power
T.H.D. one channel driven	<0.03% @ 60 Watt @ 1 kHz
SMPTE IMD	<0.01% 60 Hz, 7 kHz, 1:1 @ 60 Watt
Slew rate	19 V/us
Damping factor	>45:1 @ 20 Hz – 400 Hz @ 8 ohm
Input CMRR	>70 dB @ 1 kHz
Voltage gain	x 20 (26 dB)
Input sensitivity	0.775 Volt @ 50 Watt
Input impedance	15 kOhm, balanced
SNR	>106 dB, "A" weight @ 60 Watt
Isolation	>90 dB, "A" weight @ 60 Watt
Cooling	80 mm DC fan, variable speed
Current draw @ 1/8 power	696 Watt, nine channels driven

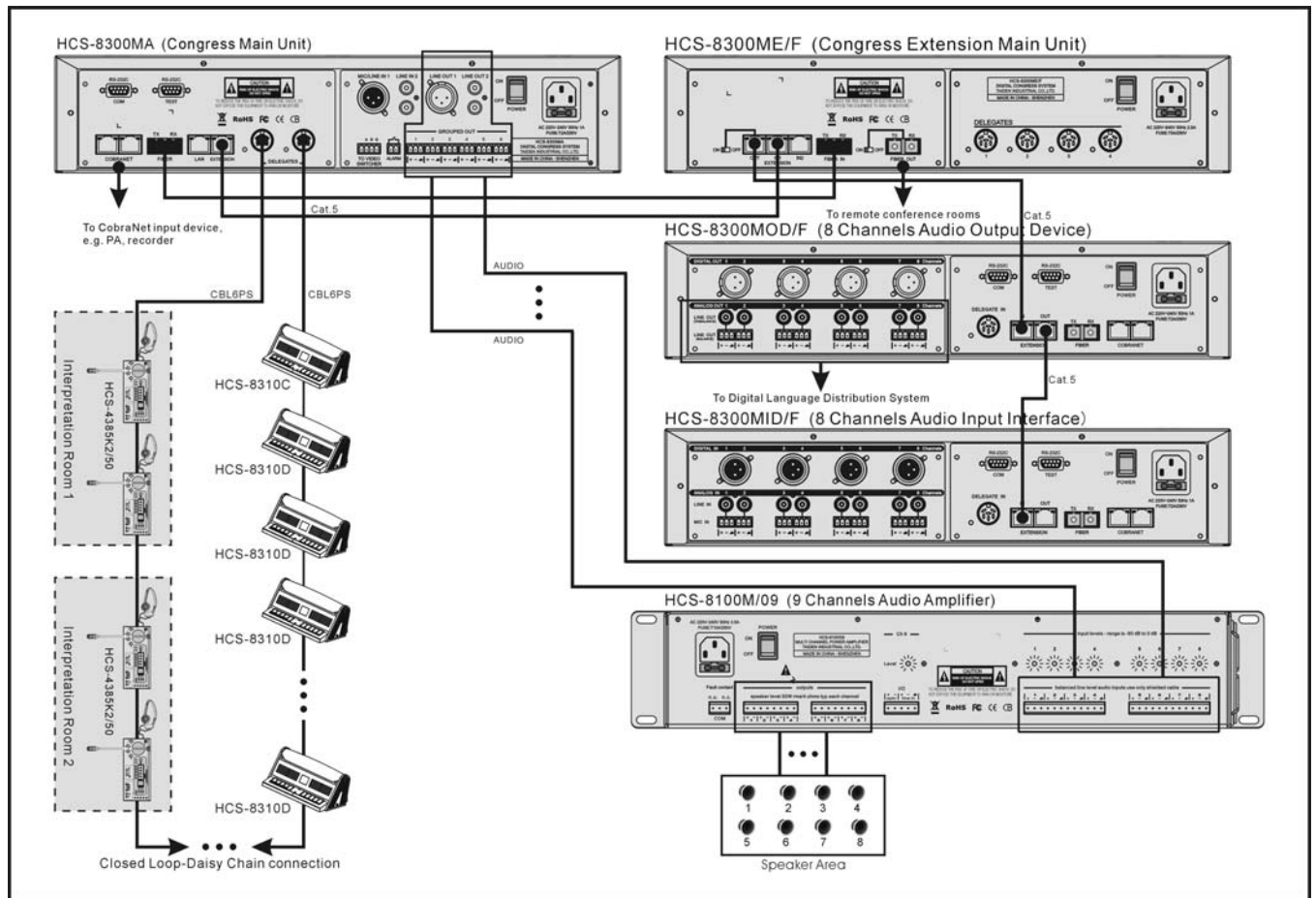
##### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h x w x d)	
For table use, with feet	99 $\times$ 483 $\times$ 304 mm
For 19" rack use, with brackets	89 $\times$ 483 $\times$ 304 mm
Weight	13.1 kg
Color	White

#### Ordering Information

HCS-8100M/09	9 Channels Audio Amplifier
--------------	----------------------------

## HCS-8300 Series Digital Congress System - Connection Diagram



## **HCS-5300 Series Digital Infrared Wireless Conference System**

<b>HCS-5300 Series Digital Infrared Wireless Conference System</b>	<b>3.3</b>
<b>HCS-5300 Series Digital Infrared Wireless Conference Units</b>	<b>3.7</b>
HCS-5300CE_S Digital IR Wireless Chairman Unit (5 voting buttons, 1+3 CHs, silver)	3.7
HCS-5300CE_G Digital IR Wireless Chairman Unit (5 voting buttons, 1+3 CHs, gray)	3.7
HCS-5300DE_S Digital IR Wireless Delegate Unit (5 voting buttons, 1+3 CHs, silver)	3.9
HCS-5300DE_G Digital IR Wireless Delegate Unit (5 voting buttons, 1+3 CHs, gray)	3.9
HCS-5301D_S Digital IR Wireless Delegate Unit (1+3 CHs, 2 channel selectors, dual ID, silver)	3.11
HCS-5301D_G Digital IR Wireless Delegate Unit (1+3 CHs, 2 channel selectors, dual ID, gray)	3.11
HCS-5302C_S Digital IR Wireless Chairman Unit (silver)	3.13
HCS-5302C_G Digital IR Wireless Chairman Unit (gray)	3.13
HCS-5302D_S Digital IR Wireless Delegate Unit (silver)	3.15
HCS-5302D_G Digital IR Wireless Delegate Unit (gray)	3.15
<b>HCS-5300T Series Digital Infrared Transceivers</b>	<b>3.17</b>
HCS-5300TD-W Digital infrared transceiver (wall, tripod or ceiling-mounted, wide-angle)	3.17
HCS-5300TD-N Digital infrared transceiver (wall, tripod or ceiling-mounted)	3.18
HCS-5300TDB Digital Infrared Transceiver (tripod)	3.19
HCS-5300TDS-W Digital infrared transceiver (suspension, wide-angle)	3.20
HCS-5300TDS-N Digital infrared transceiver (suspension)	3.21
<b>HCS-5300M Series Digital Infrared Wireless Conference Main units</b>	<b>3.22</b>
HCS-5300MA Digital IR Wireless Conference System Main Unit (voting, 1+3 CHs)	3.22
HCS-5300MB Digital IR Wireless Conference System Main Unit (1+3 CHs)	3.25
HCS-5300MC Digital IR Wireless Conference System Main Unit	3.28
<b>Accessories</b>	<b>3.31</b>
HCS-5300TDP-05 Mounting Suspension of Digital Infrared Transceiver (0.5 m)	3.20, 3.21
HCS-5300TDP-10 Mounting Suspension of Digital Infrared Transceiver (1.0 m)	3.20, 3.21
HCS-5300TDP-20 Mounting Suspension of Digital Infrared Transceiver (2.0 m)	3.20, 3.21
HCS-5300BAT Lithium Rechargeable Battery Pack	3.31
HCS-ADP15V Power Adapter (DC 15 V, 2.2 A)	3.31
HCS-5300CHG/08 Charging Unit (8 pcs/case)	3.32
HCS-5352 Cable Splitter (1 input & 4 outputs, for HCS-5300 series)	3.32
CBL5300-05 5 m Dedicated Transceiver Cable	3.33
CBL5300-10 10 m Dedicated Transceiver Cable	3.33
CBL5300-20 20 m Dedicated Transceiver Cable	3.33
CBL5300-50 50 m Dedicated Transceiver Cable	3.33
HCS-5300TZJ Tripod	3.33

<b>HCS-5300 Series Application Software .....</b>	<b>3.35</b>
HCS-5310/50 Basic System Setup Management Module .....	3.36
HCS-5312/50 Professional Venue Design Module .....	3.39
HCS-5313/50 Microphone Management Module .....	3.40
HCS-5314/50S Voting Management Module .....	3.41
HCS-5315/50 Video Control Module .....	3.42
HCS-5316/50 Simultaneous Interpretation Module .....	3.43
HCS-5319/50 Synchronous Audio Recording Management Module .....	3.43
HCS-5320/50 Synchronous Video Recording Management Module .....	3.44
HCS-5321/50 Multi-user Conference Control Management Module .....	3.45
HCS-5322/50 Dual PC Server Hot Spare Module .....	3.45
HCS-5323/50 Agenda Control Module .....	3.46

## HCS-5300 Series Digital Infrared Wireless Conference System

Wireless conference systems – portable, easy to install and convenient to use – are currently trend-setting. Wireless systems do not require structural measures inside a venue.

Two kinds of wireless conference systems are prevailing: RF (radio frequency) and IR (infrared) technology with analog audio transmission.

RF systems may be interfered (ISM band) or intercepted and operation either needs license or is confined to the public domain IEC 802.11x band.

Analog IR systems feature frequency responses which are too small for good intelligibility and also lower S/R ratio.

### System theory

The core of TAIDEN infrared wireless conference system – dirATC (Digital Infrared Audio Transmitting and Control Technologies) - is a new technology originated by TAIDEN. It digitally encodes and modulates audio and data signals for transmission via infrared light, achieving both multi-channel audio signals and bidirectional data transmission and control. Digitalization and wireless transmission via infrared technology are combined to be an ideal solution for a wireless conference system. The digital infrared processing chip (TAIDEN TDIR03) originated by TAIDEN, integrates A/D (analog/digital) conversion circuit, digital encoding/decoding circuit, digital modulator/demodulator (DQPSK), as well as filtering and amplification circuit, and implements TAIDEN infrared audio transmission and control technology (dirATC). (figure 1)

TAIDEN digital infrared wireless conference system is composed of main unit, one or more transceivers and conference units.



Figure 1 TAIDEN TDIR03 digital infrared processing chip

The infrared conference unit features built-in A/D and D/A conversion circuits, digital encoding/decoding and modulator / demodulator (DQPSK) circuits. The infrared conference system main unit has built-in demodulator/modulator (DQPSK), digital decoding/encoding circuit and a D/A converter circuit. A mixer circuit is inserted between the decoding circuit and the D/A converter. The main unit can be connected with several infrared transceivers, using a daisy chain or Y connection arrangement (figure 2 and figure 3)

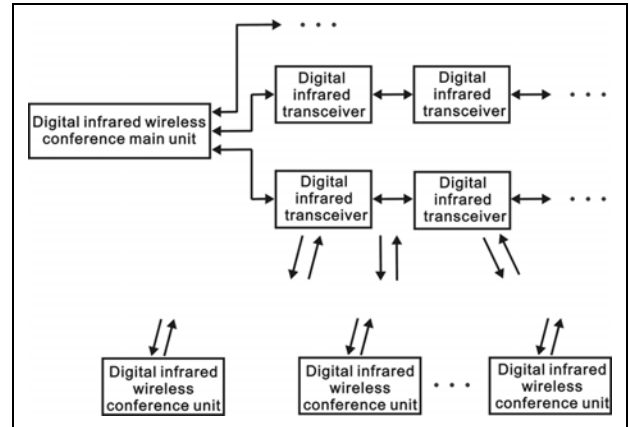


Figure 2 Block diagram of digital infrared conference system

The basic infrared conference unit version with discussion function includes microphone, microphone switch button, loudspeaker and battery. The infrared discussion unit receives audio and control signals via infrared from the transceiver - signals previously generated by main unit. The discussion unit transmits infrared control signals back to the transceiver which conveys all data to the main unit. When the microphone is turned on, the infrared discussion unit also sends infrared digital audio signals to the main unit. A system can consist of up to 1000 infrared discussion units with 4 units activated at the same time.

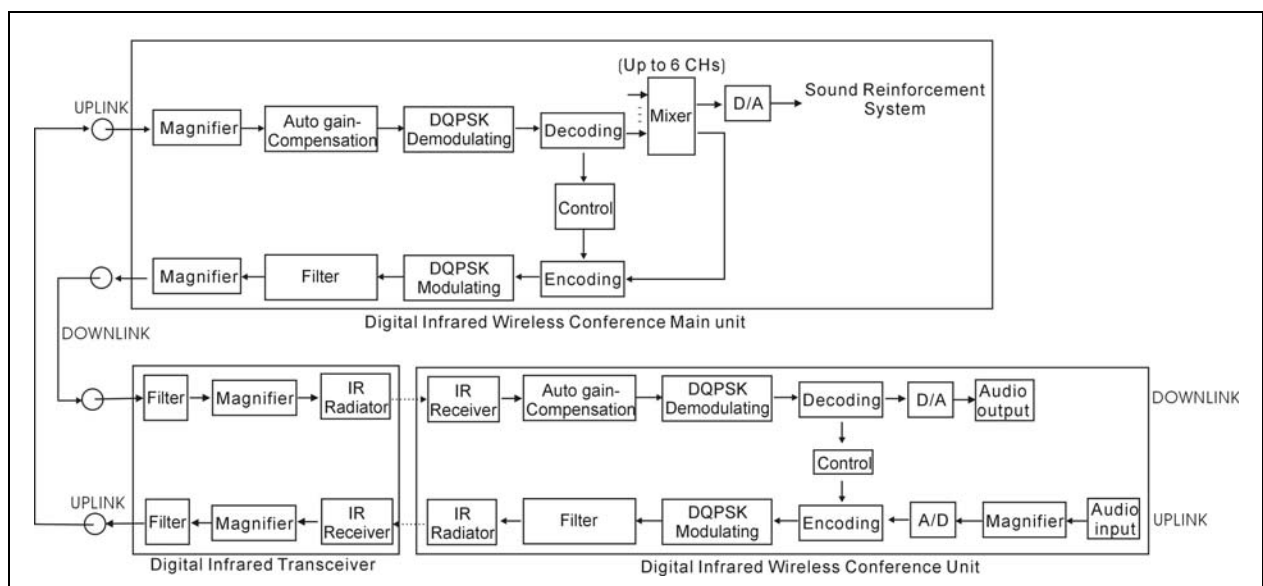


Figure 3 Schematic diagram of digital infrared conference system



## System devices

HCS-5300CE/DE has speaking, voting and simultaneous interpretation functions; HCS-5301D offers speaking and simultaneous interpretation functions with two channel selectors and two microphone IDs for two delegates: an economic and cost saving solution. HCS-5302C/D has speaking function with speaker and earphone socket.

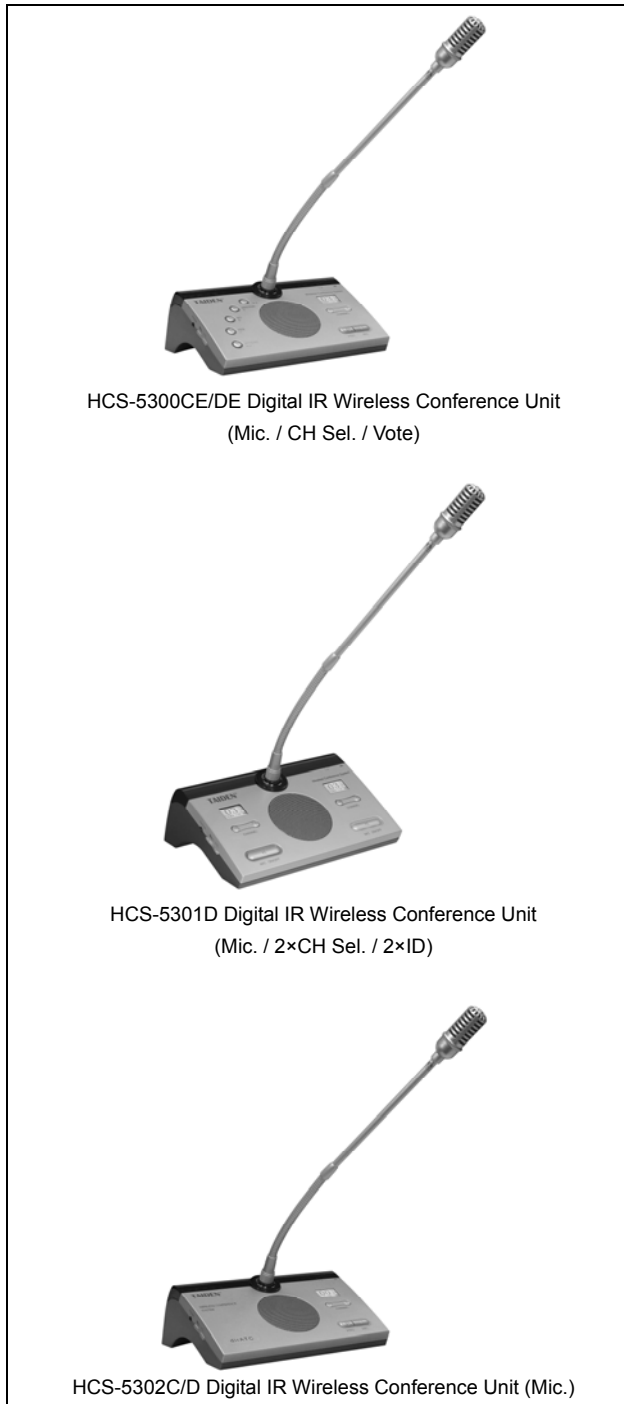


Figure 4 TAIDEN HCS-5300 Series Digital Infrared Wireless Conference Units

Digital infrared transceiver types feature ceiling-, tripod-, wall- and suspension-mounting with a maximum radiation range of 13 meters.

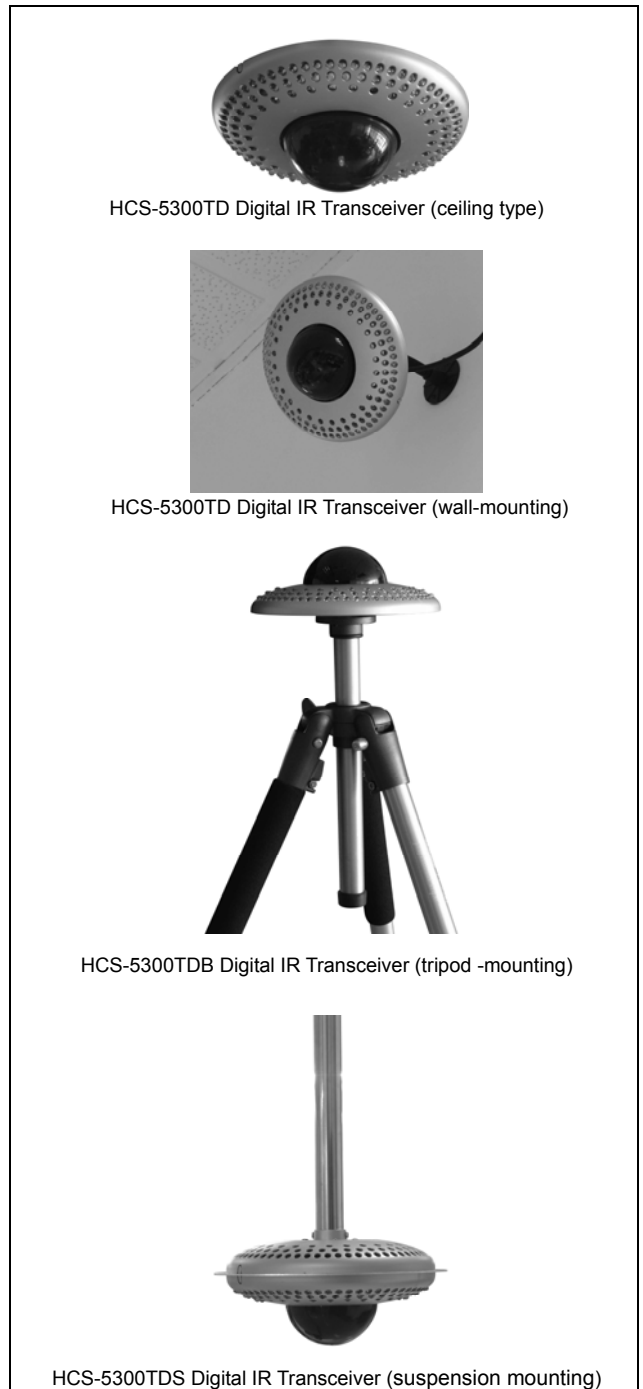


Figure 5 TAIDEN HCS-5300T Series Digital Infrared Transceivers



Figure 6 TAIDEN HCS-5300M Digital Infrared Wireless Conference Main unit

## System features



- The first digital infrared wireless conference system in the world
- Original dirATC -- digital infrared Audio Transmitting and Control technologies
- Wireless system, easy set up and removal
- Perfect sound quality as CD from the microphone
- Microphone sensitivity and EQ can be adjusted individually
- Independent MIC. synchronous recording
- Infrared transmission technology guarantees privacy
- Any quantity of infrared wireless conference systems can be installed within a building
- No worries about eavesdropping and radio interference, no radio radiation
- Full functions (discussion, voting and 1+3 CH interpretation)
- No radio frequency license needed for operating an infrared system all over the world
- Undisturbed by HF driven light sources
- Excellent immunity to RF interference from mobile phones and RF devices
- Vertical emission angle of conference unit selectable via LCD menu

### Wireless Conference System

- Quick set up and removal, free from troubles resulting from cable breaks and cable deteriorations
- Easy to setup a system for usage limited in time
- No impact on furniture, interior equipment or building structure

### Infrared Transmission Technology

- Conference privacy is guaranteed as infrared signals do not pass through opaque walls or ceilings
- Wherever there is a partition between conference rooms, there is no interference
- Any quantity of infrared wireless conference systems can be installed within a building
- The infrared communication frees users from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- No radio radiation
- No radio frequency license needed for operating an infrared system all over the world
- Adopts 2~8 MHz transmission frequency, undisturbed by HF driven light sources and mobile phones
- Works without errors, even in bright sunlight

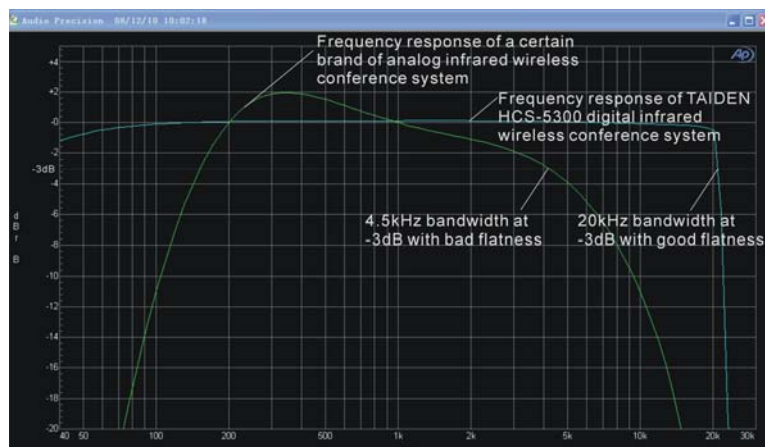
### Digital Infrared Audio Technology

- Digital infrared audio processing and transmitting technologies ensure superb sound quality:
  - ◆ Freq. Response: 20 Hz ~ 20 kHz
  - ◆ S/N: >80 dBA
  - ◆ THD: <0.05%

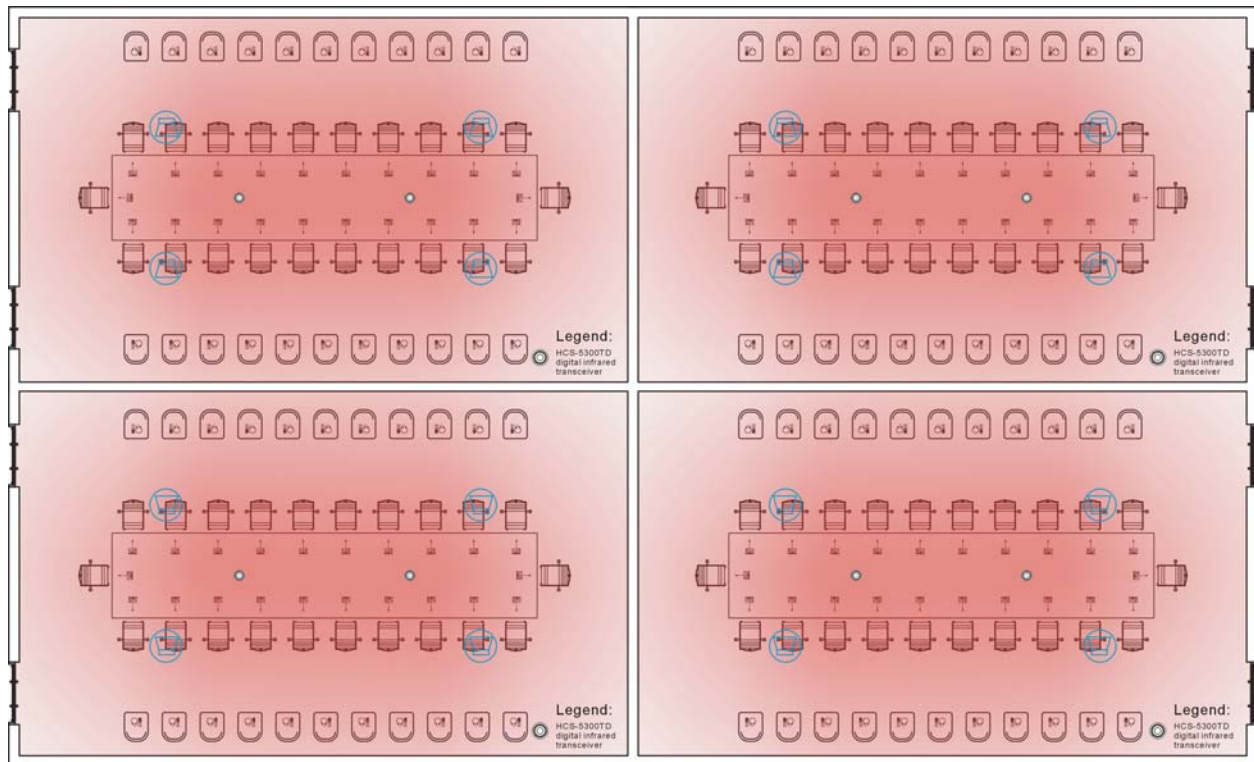
### Full Functions

- Discussion
- Vote (5 keys)
- Simultaneous interpretation (1+3 channels)
- Isolated audio recording function for all speakers
- Auto video tracking
- Compatible with HCS-5100 digital infrared language distribution system (HCS-5100R series digital infrared receivers can work with HCS-5300T series transceivers)
- Powerful application software

The following is the frequency response measurement diagram of TAIDEN HCS-5300 digital infrared wireless conference system compare with a certain brand of analog infrared wireless conference system, you can see from this diagram that the system frequency response bandwidth of digital infrared wireless conference system is more wide and flat, thus ensuring a better sound performance of the whole conference system.

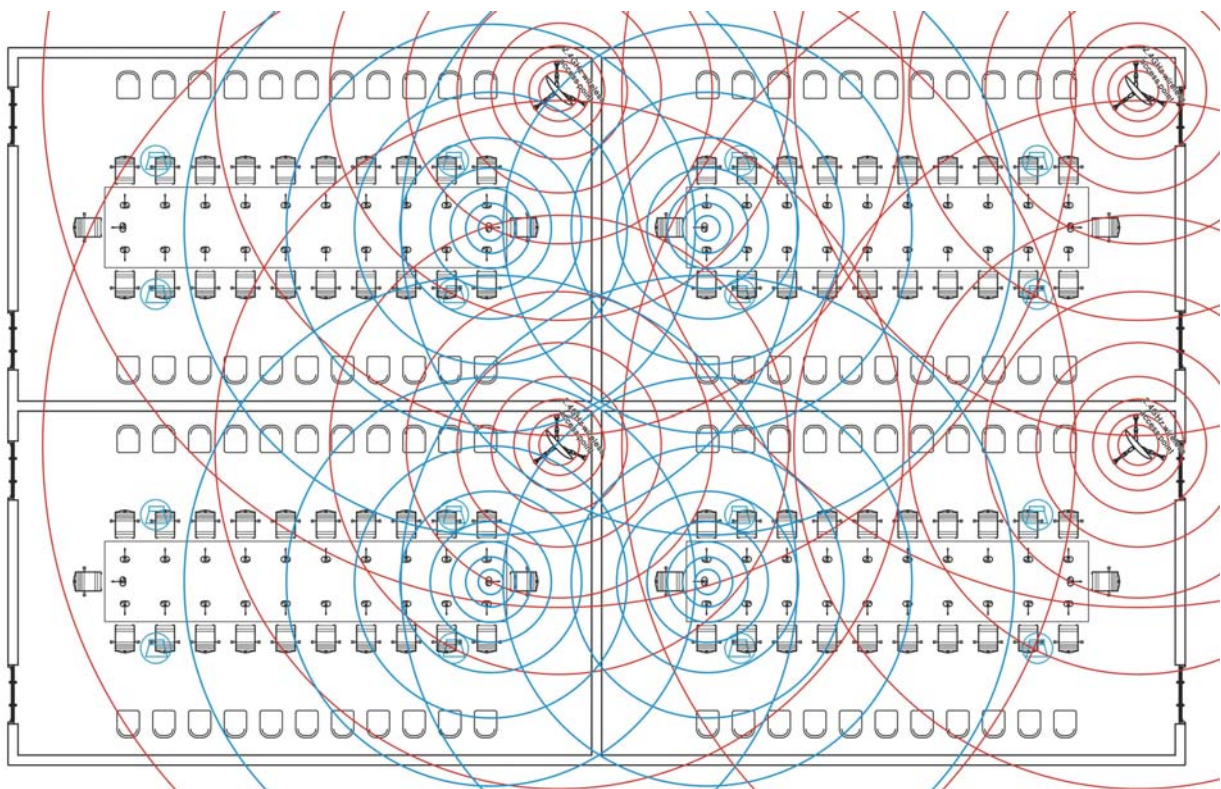


In a number of adjacent conference rooms, using digital infrared wireless conference system, you don't need to worry about mutual interference between adjacent rooms (including the upstairs and downstairs), and the breach question.



In a number of adjacent rooms, using radio frequency (RF) wireless conference system, the systems of adjacent rooms (including the upstairs and downstairs) will interfere between each other (the more active units, the more serious interference), if improper or intentionally set, could cause the next room can receive the signal of this room, causing a serious breach.

One Shenzhen Administration Center installed nine sets of RF wireless conference system, often interfere with each other when working, they can only shift work, which gives customers a great inconvenience! Using RF wireless conference system, will interfere with WiFi devices, Bluetooth devices, wireless radio, cordless phones, wireless projector, wireless mouse, wireless keyboard and wireless touch panel of central control system, and this kind of interference will change with time, cause great destabilizing factors to the RF wireless conference system.





## **HCS-5300CE**

### **Wireless Chairman Unit with Voting and Channel Selection**



#### **Features**

- Table, stylish and ergonomic design
- Wireless unit, easy setup and removal
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- System controls up to 1000 contribution units
- 5 voting keys
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz to 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Adopts 2~8 MHz transmission frequency, excellent immunity to RF interference from HF-driven lighting and mobile phones
- Microphone sensitivity and EQ can be adjusted individually
- Built-in rechargeable Lithium battery pack

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. Similar in appearance and function to HCS-5300DE Delegate Unit, the HCS-5300CE Chairman Unit includes an extra microphone priority key. When pressed, the priority key causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. Separate rechargeable Lithium battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

#### **Functions**

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- System controls up to 1000 contribution units
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Adopts 2~8 MHz transmission frequency, excellent immunity to RF interference from HF-driven lighting and mobile phones
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Two Ø 3.5 mm stereo headphone jacks for headphones with controllable volume independently
- Microphone On/Off button, 5 voting keys
- Built-in channel selector
  - ◆ Channel selector is operable only when earphone is inserted, built-in speaker will mute automatically on earphone insertion
- Microphone sensitivity and EQ can be adjusted individually
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
  - ◆ Simultaneous interpretation
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice/Opinion poll: 1/2/3/4/5
  - ◆ Audience response/Rating: --/0/+/>++
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time provided that the total number of active microphones (including the active microphone of the chairman) is within the maximum of 4 active microphones allowed by the system
- Priority key can switch off or mute the speaking units according to preset

- System supports up to 20 chairman units, while only 1 chairman unit has the control facilities listed above
- Built-in rechargeable Lithium battery operation duration: 14.4 hours when microphone is continuously on; 48 hours when microphone is off

## Controls and Indicators

- Graphic 96×64 LCD with back-lighting for displaying channel number, language name, battery capacity, signal icon and emission angle icon
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Charging indicator
- Fully charged indicator
- Power switch
- Two headphone volume control buttons
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Power adapter interface

## Technical Specifications

## Electrical

## Headphone connection

Frequency response.....20 Hz to 20 kHz (-3dB)  
Headphone load impedance ..... $\geq 16 \text{ Ohm} \times 2$   
Headphone output .....10 mW

### Recommended external microphone type

Transducer .....	Electret-condenser
Polar pattern .....	Uni-directional
Sensitivity .....	-46 dBV/Pa
Frequency response .....	30 Hz to 20 kHz
Directionality 0°/180° .....	>20 dB (1 kHz)
Equivalent noise .....	20 dBA (SPL)
Max.SPL .....	125 dB (THD<3%)

### Interface data

Connector	2 x Ø 3.5 mm stereo jack for headphone
-----------	--

### Operation time of battery pack

When mic. is continuously on

Not omnidirectional	Approx. 14.4 hours
---------------------	--------------------

Omnidirectional \_\_\_\_\_ Approx. 10 hours

When mic. is off \_\_\_\_\_ Approx. 48 hours

15% when mic. is on + 85% when mic. is off      Approx. 36 hours

## Mechanical

Mounting.....Tabletop

Dimensions (h x w x d) (w/o Mic.).....68 x 180 x 132 mm

Weight

Excl. battery ..... 0.46 kg

Incl. battery ..... 0.78 kg

Color \_\_\_\_\_ Silver/Gray

## Ordering Information

HCS-5300CE\_S.....Digital IR Wireless Chairman Unit  
(5 voting buttons, 1+3 CHs, silver)

HCS-5300CE\_G.....Digital IR Wireless Chairman Unit  
(5 voting buttons, 1+3 CHs, gray)

## HCS-5300DE

### Wireless Discussion Unit with Voting and Channel Selection



#### Features

- Table, stylish and ergonomic design
- Wireless unit, easy setup and removal
- Vertical acceptance/emission angle selectable
- Hi-Fi loudspeaker
- Pluggable microphone
- System controls up to 1000 contribution units
- 5 voting keys
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz to 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven lighting and mobile phones
- Microphone sensitivity and EQ can be adjusted individually
- Built-in rechargeable Lithium battery pack

The multi-functional wireless delegate unit meets the demands of even the largest conferences and provides facilities for speaking, listening, voting and selecting language channels. It has excellent immunity to RF interference from mobile phones and features a channel selector and two headphone connections. Channel selection is automatically limited to the number of language channels available. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility. Separate rechargeable Lithium battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

#### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- System controls up to 1000 contribution units
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven light and mobile phones
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Two Ø 3.5 mm stereo headphone jacks for headphones with separate volume control
- Microphone On/Off button, 5 voting keys
- Built-in channel selector
  - ◆ Channel selector is operable only when earphone is inserted, built-in speaker will mute automatically on earphone insertion
- Microphone sensitivity and EQ can be adjusted individually
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
  - ◆ Simultaneous interpretation
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice/Opinion poll: 1/2/3/4/5
  - ◆ Audience response/Rating: --/-/0/+/>++
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Built-in rechargeable Lithium battery operation duration: 14.4 hours when microphone is continuously on; 48 hours when microphone is off



## Controls and Indicators

- Graphic 96×64 LCD with back-lighting for displaying channel number, language name, battery capacity, signal icon and emission angle icon
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Charging indicator
- Fully charged indicator
- Power switch
- Two headphone volume control buttons
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Power adapter interface

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....20 Hz to 20 kHz (-3dB)  
 Headphone load impedance.....≥16 Ohm × 2  
 Headphone output.....10 mW

#### Recommended external microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Sensitivity.....-46 dBV/Pa  
 Frequency response.....30 Hz to 20 kHz  
 Directionality 0°/180°.....>20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Max.SPL.....125 dB (THD<3%)

#### Interface data

Connector.....2 x Ø 3.5 mm stereo jack for headphone

#### Operation time of battery pack

When mic. is continuously on  
     Not omnidirectional.....Approx. 14.4 hours  
     Omnidirectional.....Approx. 10 hours  
 When mic. is off.....Approx. 48 hours  
 15% when mic. is on + 85% when mic. is off.....Approx. 36 hours

### Mechanical

Mounting.....Tabletop  
 Dimensions (h x w x d) (w/o Mic.).....68 x 180 x 132 mm  
 Weight  
     Excl. battery.....0.46 kg  
     Incl. battery.....0.78 kg  
 Color.....Silver/Gray

## Ordering Information

HCS-5300DE\_S.....Digital IR Wireless Delegate Unit  
 (5 voting buttons, 1+3 CHs, silver)  
 HCS-5300DE\_G.....Digital IR Wireless Delegate Unit  
 (5 voting buttons, 1+3 CHs, gray)

## **HCS-5301D**

### **Wireless Discussion Unit with Dual Channel Selection**



#### **Features**

- Table, stylish and ergonomic design
- Wireless unit, easy setup and removal
- Vertical acceptance/emission angle selectable
- Hi-Fi loudspeaker
- Pluggable microphone
- System controls up to 1000 contribution units
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Built-in dual channel selectors consist of up/down channel select keys and 2-digit channel indicator display
- The microphone on/off buttons provide dual delegate identification, used for individual delegate identification on the left and right respectively and easy for automatic video tracking
- Can be used as a dual delegate unit
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz to 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven lighting and mobile phones
- Microphone sensitivity and EQ can be adjusted individually
- Built-in rechargeable Lithium battery pack

The multi-functional wireless delegate unit can be used by two delegates. It provides facilities for speaking, listening and selecting language channels and has excellent immunity to RF interference from mobile phones. It features two separate headphone connections with individual volume control, two separate microphone on/off buttons and two separate channel selectors on both sides of the unit, allowing one unit to serve two delegates. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

Separate rechargeable Lithium battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

#### **Functions**

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- System controls up to 1000 contribution units
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven light and mobile phones
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Two Ø 3.5 mm stereo headphone jacks for headphones with separate volume control
- With two separate microphone on/off buttons for individual microphone control and individual delegate identification
- Can be used as a dual delegate unit
- Built-in dual channel selectors
  - ◆ Channel selector is operable only when earphone is inserted, built-in speaker will mute automatically on earphone insertion
- Microphone sensitivity and EQ can be adjusted individually
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
  - ◆ Simultaneous interpretation

- Automatic video tracking, when cooperating with camera and video switcher unit
- Built-in rechargeable Lithium battery operation duration: 14.4 hours when microphone is continuously on; 48 hours when microphone is off

## Controls and Indicators

- Two graphic 96×64 LCDs with back-lighting for channel number, language name, battery capacity, signal icon and emission angle icon
- Built-in two channel selectors consist of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Charging indicator
- Fully charged indicator
- Power switch
- Two headphone volume control buttons
- Two microphone On/Off buttons with indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Power adapter interface

## Technical Specifications

## Electrical

## Headphone connection

Frequency response.....20 Hz to 20 kHz (-3dB)  
Headphone load impedance ..... $\geq 16 \text{ Ohm} \times 2$   
Headphone output.....10 mW

### Recommended external microphone type

Transducer .....	Electret-condenser
Polar pattern .....	Uni-directional
Sensitivity .....	-46 dBV/Pa
Frequency response .....	30 Hz to 20 kHz
Directionality 0°/180° .....	>20 dB (1 kHz)
Equivalent noise .....	20 dBA (SPL)
Max.SPL .....	125 dB (THD<3%)

## Interface data

Connector..... 2 x Ø 3.5 mm stereo jack for headphone

### Operation time of battery pack

When mic. is continuously on

Not omnidirectional \_\_\_\_\_ Approx. 14.4 hours

Omnidirectional Approx. 10 hours

When mic. is off Approx. 48 hours

15% when mic. is on + 85% when mic. is off      Approx. 36 hours

## Mechanical

Mounting.....Tabletop

Dimensions (h x w x d) (w/o Mic.).....68 x 180 x 132 mm

Weight

Excl. battery	0.46 kg
---------------	---------

Incl. battery ..... 0.78 kg

Color \_\_\_\_\_ Silver/Gray

## Ordering Information

HCS-5301D\_S .....Digital IR Wireless Delegate Unit  
(1+3 CHs, 2 channel selectors, dual ID, silver)

HCS-5301D\_G.....Digital IR Wireless Delegate Unit  
(1+3 CHs, 2 channel selectors, dual ID, gray)

## **HCS-5302C Wireless Chairman Unit**



### **Features**

- **Table, stylish and ergonomic design**
- **Wireless unit, easy setup and removal**
- **Vertical acceptance/emission angle selectable**
- **Hi-Fi loudspeaker**
- **Priority key**
- **Pluggable microphone**
- **System controls up to 1000 contribution units**
- **Vertical emission angle selectable via LCD menu**
- **Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz to 20 kHz perfect sound quality, extremely low distortion factor**
- **Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed**
- **Excellent immunity to RF interference from HF-driven lighting and mobile phones**
- **Microphone sensitivity and EQ can be adjusted individually**
- **Built-in rechargeable Lithium battery pack**

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. Similar in appearance and function to HCS-5302D Delegate Unit, the HCS-5302C Chairman Unit includes an extra microphone priority key. When pressed, the priority key causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. Separate rechargeable Lithium battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

### **Functions**

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- System controls up to 1000 contribution units
- Vertical emission angle selectable via LCD menu
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven light and mobile phones
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Two Ø 3.5 mm stereo headphone jacks for headphones with separate volume control
- Microphone On/Off button
- Microphone sensitivity and EQ can be adjusted individually
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time provided that the total number of active microphones (including the active microphone of the chairman) is within the maximum of 4 active microphones allowed by the system
- Priority key can switch off or mute the speaking units according to preset
- System supports up to 20 chairman units, while only 1 chairman unit has the control facilities listed above
- Built-in rechargeable Lithium battery operation duration: 14.4 hours when microphone is continuously on; 48 hours when microphone is off

## Controls and Indicators

- Graphic 96×64 LCD with back-lighting for displaying battery capacity, signal icon and emission angle icon
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Charging indicator
- Fully charged indicator
- Power switch
- Two headphone volume control buttons
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Power adapter interface

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....20 Hz to 20 kHz (-3dB)  
 Headphone load impedance.....≥16 Ohm × 2  
 Headphone output.....10 mW

#### Recommended external microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Sensitivity.....-46 dBV/Pa  
 Frequency response.....30 Hz to 20 kHz  
 Directionality 0°/180°.....>20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Max.SPL.....125 dB (THD<3%)

#### Interface data

Connector.....2 x Ø 3.5 mm stereo jack for headphone

#### Operation time of battery pack

When mic. is continuously on  
     Not omnidirectional.....Approx. 14.4 hours  
     Omnidirectional.....Approx. 10 hours  
 When mic. is off.....Approx. 48 hours  
 15% when mic. is on + 85% when mic. is off.....Approx. 36 hours

### Mechanical

Mounting.....Tabletop  
 Dimensions (h x w x d) (w/o Mic.).....68 x 180 x 132 mm  
 Weight  
     Excl. battery.....0.46 kg  
     Incl. battery.....0.78 kg  
 Color.....Silver/Gray

---

## Ordering Information

HCS-5302C\_S.....Digital IR Wireless Chairman Unit (silver)  
 HCS-5302C\_G.....Digital IR Wireless Chairman Unit (gray)

## **HCS-5302D**

### **Wireless Discussion Unit**



#### **Features**

- **Table, stylish and ergonomic design**
- **Wireless unit, easy setup and removal**
- **Vertical acceptance/emission angle selectable**
- **Hi-Fi loudspeaker**
- **Pluggable microphone**
- **System controls up to 1000 contribution units**
- **Vertical emission angle selectable via LCD menu**
- **Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz to 20 kHz perfect sound quality, extremely low distortion factor**
- **Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed**
- **Excellent immunity to RF interference from HF-driven lighting and mobile phones**
- **Microphone sensitivity and EQ can be adjusted individually**
- **Built-in rechargeable Lithium battery pack**

This wireless delegate unit meets the basic demands of most conferences. It provides facilities for speaking and listening and has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

Separate rechargeable Lithium battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

#### **Functions**

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- System controls up to 1000 contribution units
- Vertical emission angle selectable via LCD menu
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven light and mobile phones
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Two Ø 3.5 mm stereo headphone jacks for headphones with separate volume control
- Microphone On/Off button
- Microphone sensitivity and EQ can be adjusted individually
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
- Automatic video tracking, when cooperating with camera and video switcher unit
- Built-in rechargeable Lithium battery operation duration: 14.4 hours when microphone is continuously on; 48 hours when microphone is off

#### **Controls and Indicators**

- Graphic 96×64 LCD with back-lighting for displaying battery capacity, signal icon and emission angle icon
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Charging indicator
- Fully charged indicator
- Power switch
- Two headphone volume control buttons
- Microphone On/Off button with indicator



## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Power adapter interface

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....20 Hz to 20 kHz (-3dB)  
 Headphone load impedance.....≥16 Ohm × 2  
 Headphone output.....10 mW

#### Recommended external microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Sensitivity.....-46 dBV/Pa  
 Frequency response.....30 Hz to 20 kHz  
 Directionality 0°/180°.....>20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Max.SPL.....125 dB (THD<3%)

#### Interface data

Connector.....2 x Ø 3.5 mm stereo jack for headphone

### Operation time of battery pack

When mic. is continuously on

Not omnidirectional.....Approx. 14.4 hours

Omnidirectional.....Approx. 10 hours

When mic. is off.....Approx. 48 hours

15% when mic. is on + 85% when mic. is off.....Approx. 36 hours

### Mechanical

Mounting.....Tabletop

Dimensions (h x w x d) (w/o Mic.).....68 x 180 x 132 mm

Weight

Excl. battery.....0.46 kg

Incl. battery.....0.78 kg

Color.....Silver/Gray

## Ordering Information

HCS-5302D\_S.....Digital IR Wireless Delegate Unit (silver)

HCS-5302D\_G.....Digital IR Wireless Delegate Unit (gray)

## Conference Units Function list

Type No.	Status	Discussion	Sign-in	Voting	Simultaneous interpretation
HCS-5300CE	chairman	√	√	√	1+3 CH
HCS-5300DE	delegate	√	√	√	1+3 CH
HCS-5301D	delegate	√			(1+3 CH)×2
HCS-5302C	chairman	√			
HCS-5302D	delegate	√			

## Coverage area of Transceivers

Type No.	Mounting height (H)	Coverage area radius (R)
HCS-5300TD-W HCS-5300TDS-W	2.5 m	13 m
	3.0 m	
	3.5 m	11 m
	4.0 m	
	4.5 m	
HCS-5300TD-N HCS-5300TDS-N	5.0 m	9 m
	5.5 m	
	6.0 m	
	6.5 m	
	7.0 m	

## HCS-5300TD-W Digital Infrared Transceiver



### Features

- Compliant to IEC 60914
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 2 ~ 8 MHz frequency band, eliminating the interference from HF-driven lights
- Tripod, wall or ceiling mounting, easy to install
- Inside the coverage area of infrared signals, HCS-5100R/RA digital infrared receivers can be in operation as well simultaneously to receive (1+3 channels) simultaneous interpretation

HCS-5300TD-W digital infrared transceiver manages communication between main unit and conference units. It can be mounted onto the ceiling and wall for optional coverage or fixed onto a tripod at any appropriate spot.

### Indicators

- Power indicating light

### Interconnections

- Equipped with a 2.0 m specific cable with 6P-DIN male plug. For extension purposes, 6P-DIN extension cable can be used.

### Technical Specifications

#### Electrical

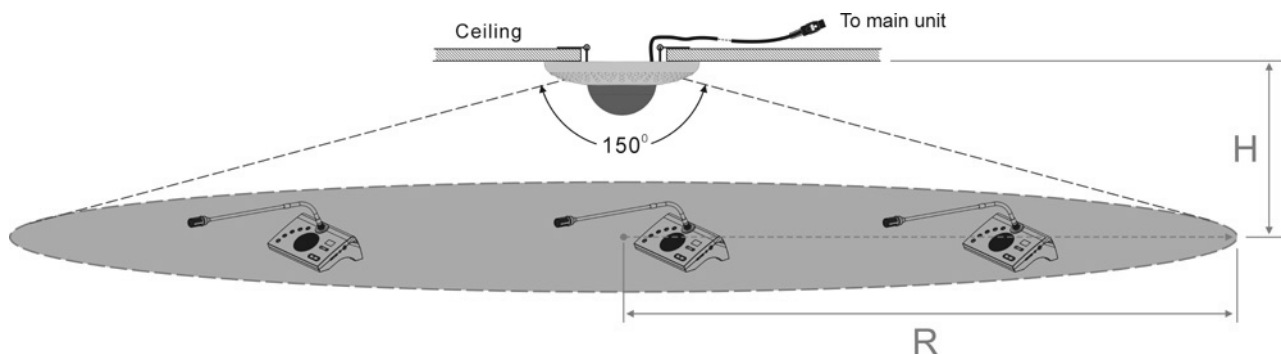
Wavelength	870 nm
Modulation method	DQPSK
Carrier frequency	2 ~ 8 MHz
Voltage	33 V DC (supplied from HCS-5300M)
Current consumption	Max. 550 mA
Connector	6P-DIN
Cable	2.0 m specific cable with 6P-DIN male plug
Acceptance/emission angle	
Vertical	150° (75°+75°)
Horizontal	360°
Communication area	Approx 13 m in radius from the point underneath the unit (ceiling height: 2.5 ~ 4.5 m)

#### Mechanical

Mounting	Tripod, wall or ceiling mounting
Dimensions	Ø 181 mm, 63 mm (height)
Weight	0.5 kg
Color	Red and gray

### Ordering Information

HCS-5300TD-W	Digital Infrared Transceiver (tripod, wall or ceiling mounting, wide-angle)
--------------	---



Footprint of HCS-5300TD-W digital infrared transceiver (If H=2.5 ~ 3.0 m, then R= 13 m; if H=3.5 ~ 4.5 m, then R= 11 m)

## HCS-5300TD-N Digital Infrared Transceiver



### Features

- Compliant to IEC 60914
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 2 ~ 8 MHz frequency band, eliminating the interference from HF-driven lights
- Tripod, wall or ceiling mounting, easy to install
- Inside the coverage area of infrared signals, HCS-5100R/RA digital infrared receivers can be in operation as well simultaneously to receive (1+3 channels) simultaneous interpretation

HCS-5300TD-N digital infrared transceiver manages communication between main unit and conference units. It can be mounted onto the ceiling and wall for optional coverage or fixed onto a tripod at any appropriate spot.

### Indicators

- Power indicating light

### Interconnections

- Equipped with a 2.0 m specific cable with 6P-DIN male plug. For extension purposes, 6P-DIN extension cable can be used.

### Technical Specifications

#### Electrical

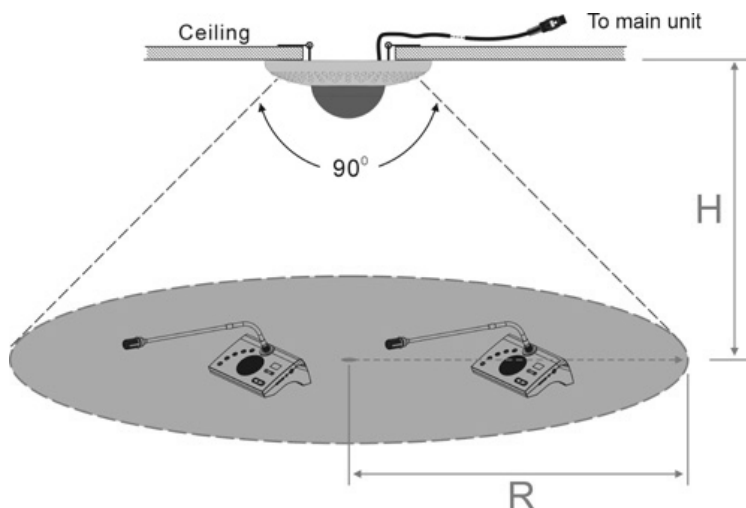
Wavelength	870 nm
Modulation method	DQPSK
Carrier frequency	2 ~ 8 MHz
Voltage	33 V DC (supplied from HCS-5300M)
Current consumption	Max. 550 mA
Connector	6P-DIN
Cable	2.0 m specific cable with 6P-DIN male plug
Acceptance/emission angle	
Vertical	90° (45°+45°)
Horizontal	360°
Communication area	Approx 9 m in radius from the point underneath the unit (ceiling height: 5 ~ 7 m)

#### Mechanical

Mounting	Tripod, wall or ceiling mounting
Dimensions	Ø 181 mm, 63 mm (height)
Weight	0.5 kg
Color	Red and gray

### Ordering Information

HCS-5300TD-N	Digital Infrared Transceiver (tripod, wall or ceiling mounting)
--------------	---



Footprint of HCS-5300TD-N digital infrared transceiver (If H=5 ~ 7 m, then R= 9 m)

## HCS-5300TDB Digital Infrared Transceiver



### Features

- Compliant to IEC 60914
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 2 ~ 8 MHz frequency band, eliminating the interference from HF-driven lights
- Tripod-mounting, easy to install
- Inside the coverage area of infrared signals, HCS-5100R/RA digital infrared receivers can be in operation as well simultaneously to receive (1+3 channels) simultaneous interpretation

HCS-5300TDB digital infrared transceiver manages communication between main unit and conference units. It can be fixed onto a tripod at any appropriate spot.

### Indicators

- Power indicating light

### Interconnections

- Equipped with a 2.0 m specific cable with 6P-DIN male plug. For extension purposes, 6P-DIN extension cable can be used.

### Technical Specifications

#### Electrical

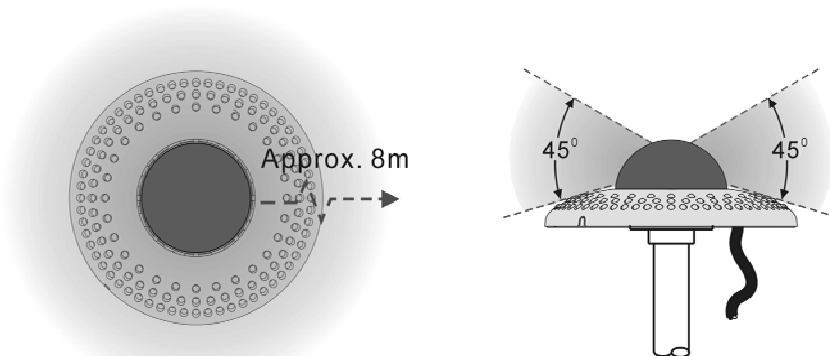
Wavelength	870 nm
Modulation method	DQPSK
Carrier frequency	2 ~ 8 MHz
Voltage	33 V DC (supplied from HCS-5300M)
Current consumption	Max. 550 mA
Connector	6P-DIN
Cable	2.0 m specific cable with 6P-DIN male plug
Acceptance/emission angle	
Vertical	40°
Horizontal	360°
Communication area	Approx 8 m in radius from the unit

#### Mechanical

Mounting	Tripod-mounting
Dimensions	Ø 181 mm, 63 mm (height)
Weight	0.5 kg
Color	Red and gray

### Ordering Information

HCS-5300TDB.....Digital Infrared Transceiver (tripod-mounting)



Footprint of HCS-5300TDB digital infrared transceiver

## HCS-5300TDS-W Digital Infrared Transceiver



### Features

- Compliant to IEC 60914
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 2 ~ 8 MHz frequency band, eliminating the interference from HF-driven lights
- Suspension mounting, easy to install
- Inside the coverage area of infrared signals, HCS-5100R/RA digital infrared receivers can be in operation as well simultaneously to receive (1+3 channels) simultaneous interpretation
- Optional suspension length: 0.5 m, 1.0 m or 2.0 m

HCS-5300TDS-W digital infrared transceiver manages communication between main unit and conference units. It can be mounted onto the ceiling and wall for optional coverage or fixed onto a tripod at any appropriate spot.

### Indicators

- Power indicating light

### Interconnections

- Equipped with a 2.0 m specific cable with 6P-DIN male plug. For extension purposes, 6P-DIN extension cable can be used.

### Technical Specifications

#### Electrical

Wavelength	870 nm
Modulation method	DQPSK
Carrier frequency	2 ~ 8 MHz
Voltage	33 V DC (supplied from HCS-5300M)
Current consumption	Max. 550 mA
Connector	6P-DIN
Cable	2.0 m specific cable with 6P-DIN male plug
Acceptance/emission angle	
Vertical	150° (75°+75°)
Horizontal	360°
Communication area	Approx 13 m in radius from the point underneath the unit (ceiling height: 2.5 ~ 4.5 m)

#### Mechanical

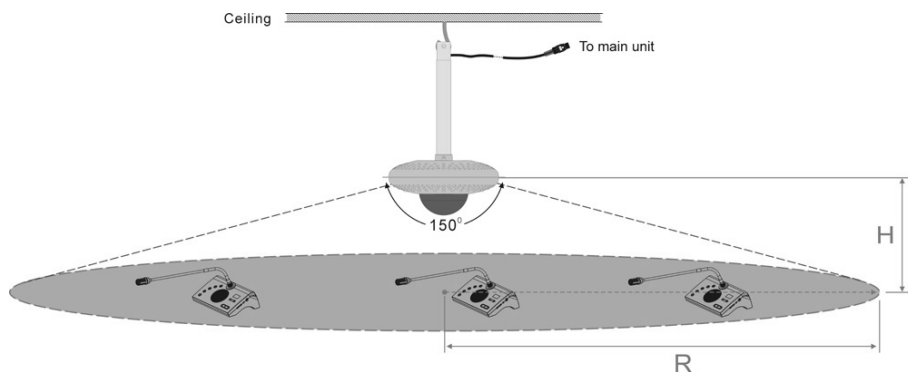
Mounting	Suspension mounting
Dimensions	Ø 201 mm, 100 mm (height)
Weight	0.63 kg
Color	Red and gray

### Ordering Information

HCS-5300TDS-W	Digital Infrared Transceiver (suspension, wide-angle)
---------------	---

#### Optional suspension

HCS-5300TDP-05	Mounting Suspension of Digital Infrared Transceiver (0.5 m)
HCS-5300TDP-10	Mounting Suspension of Digital Infrared Transceiver (1.0 m)
HCS-5300TDP-20	Mounting Suspension of Digital Infrared Transceiver (2.0 m)



Footprint of HCS-5300TDS-W digital infrared transceiver (If H=2.5 ~ 3.0 m, then R= 13 m; if H=3.5 ~ 4.5 m, then R=11 m)

## HCS-5300TDS-N Digital Infrared Transceiver



### Features

- Compliant to IEC 60914
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 2 ~ 8 MHz frequency band, eliminating the interference from HF-driven lights
- Suspension mounting, easy to install
- Inside the coverage area of infrared signals, HCS-5100R/RA digital infrared receivers can be in operation as well simultaneously to receive (1+3 channels) simultaneous interpretation
- Optional suspension length: 0.5 m, 1.0 m or 2.0 m

HCS-5300TDS-N digital infrared transceiver manages communication between main unit and conference units. It can be mounted onto the ceiling and wall for optional coverage or fixed onto a tripod at any appropriate spot.

### Indicators

- Power indicating light

### Interconnections

- Equipped with a 2.0 m specific cable with 6P-DIN male plug. For extension purposes, 6P-DIN extension cable can be used.

### Technical Specifications

#### Electrical

Wavelength	870 nm
Modulation method	DQPSK
Carrier frequency	2 ~ 8 MHz
Voltage	33 V DC (supplied from HCS-5300M)
Current consumption	Max. 550 mA
Connector	6P-DIN
Cable	2.0 m specific cable with 6P-DIN male plug
Acceptance/emission angle	
Vertical	90° (45°+45°)
Horizontal	360°
Communication area	Approx 9 m in radius from the point underneath the unit (ceiling height: 5 ~ 7 m)

#### Mechanical

Mounting	Suspension mounting
Dimensions	Ø 201 mm, 100 mm (height)
Weight	0.63 kg
Color	Red and gray

### Ordering Information

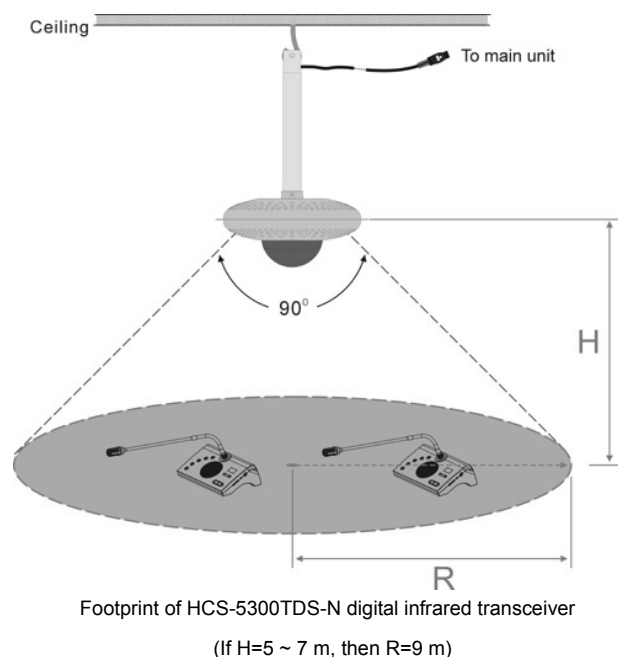
HCS-5300TDS-N.....Digital Infrared Transceiver (suspension)

#### Optional suspension

HCS-5300TDP-05.....Mounting Suspension of Digital Infrared Transceiver (0.5 m)

HCS-5300TDP-10.....Mounting Suspension of Digital Infrared Transceiver (1.0 m)

HCS-5300TDP-20.....Mounting Suspension of Digital Infrared Transceiver (2.0 m)





## HCS-5300MA Digital Infrared Wireless Conference Main Unit



### Features

- Original dirATC-digital infrared Audio Transmitting and Control technologies
- Supports up to 4 simultaneous interpretation language channels (incl. the original floor channel)
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Compatible with HCS-5100 series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- Microphone sensitivity and EQ can be adjusted individually
- Independent Mic. synchronous recording
- TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Excellent immunity to RF interference from mobile phones and comparable devices

The digital infrared wireless conference main unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator. In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology

- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Supports up to 4 simultaneous interpretation language channels (incl. the original floor channel)
- Controls up to 1000 contribution units
- Microphone sensitivity and EQ can be adjusted individually
- Speech can be recorded individually or the meeting can be recorded as a sum of all audio signals when connected to record devices
- Compatible with HCS-5100 series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
  - ◆ Simultaneous interpretation
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice/Opinion poll: 1/2/3/4/5
  - ◆ Audience response/Rating: --/0/+/++
- Automatic video tracking, when cooperating with camera and video switcher unit
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Connection to central control system through RS-232 interface for centralized control

### Controls and Indicators

- 256 × 32 LCD with back-lighting can display the main unit status and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- LINE IN electric level adjust knob
- Conference unit floor audio channel bass adjust knob
- Conference unit floor audio channel treble adjust knob
- Conference unit floor audio channel master volume adjust knob
- Microphone operation mode indicators (OPEN/OVERRIDE)
- Indicators of maximum active microphone number (1/2/3/4)

## Interconnections

- USB interface
- Ethernet interface
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
- 6 digital infrared transceiver interfaces, each interface can connect 4 transceivers if operating distributor HCS-5352, thus each main unit can connect up to 24 transceivers
- Balanced floor audio output interface (Ø 6.4 mm) for connection to PA
- Balanced LINE IN interface (Ø 6.4 mm) for connection to an external audio device
- Power supply socket
- Interpretation audio input interfaces (1 ~ 3)
- 4 single mic. output interfaces for recording speech individually
- 1 mixed audio output interface for recording the meeting
- HF signal output interface (BNC socket) for connection to HCS-5100T digital infrared radiator
- Interpreter's unit interface for connection up to 3 HCS-850PB/10 interpreter units
- RS-232 interface for connection to central control system

## Technical Specifications

### Electrical

Frequency response.....20 Hz to 20 kHz (-3dB)  
 SNR.....≥80 dBA  
 Dynamic range.....≥80 dB  
 THD at 1kHz.....≤0.05%  
 Isolation.....≥80 dB  
 Power supply  
     America, Japan.....AC 110 V ~ 120 V, 60 Hz  
     Asia, Europe.....AC 220 V ~ 240 V, 50 Hz  
 Power consumption.....Max. 160 W

### Audio inputs

LINE IN.....+6 dBV, BAL.  
 AUDIO INPUT (CH 1 ~ 3) RCA×3.....-12 dBV ~ +12 dBV, UNBAL.

### Audio outputs

LINE OUT.....+6 dBV, BAL.  
 SINGLE MIC. OUTPUT RCA×4.....-3 dBV, UNBAL.  
 MIX (1~4) OUTPUT RCA×1.....+6 dBV, UNBAL.

### Interface data

Transceivers I/O terminal .....6P-DIN socket × 6  
 External control terminal .....RS-232 D-sub (9P, male),  
     USB interface,  
     RJ-45 (ETHERNET)  
 Interpreter's unit terminal .....25P-DIN socket × 1  
 HF OUT (Radiator terminal).....BNC connector × 1  
 Alarm terminal .....3.81 mm Phoenix connectors, 2-pole  
 Video switcher terminal .....3.81 mm Phoenix connectors, 4-pole

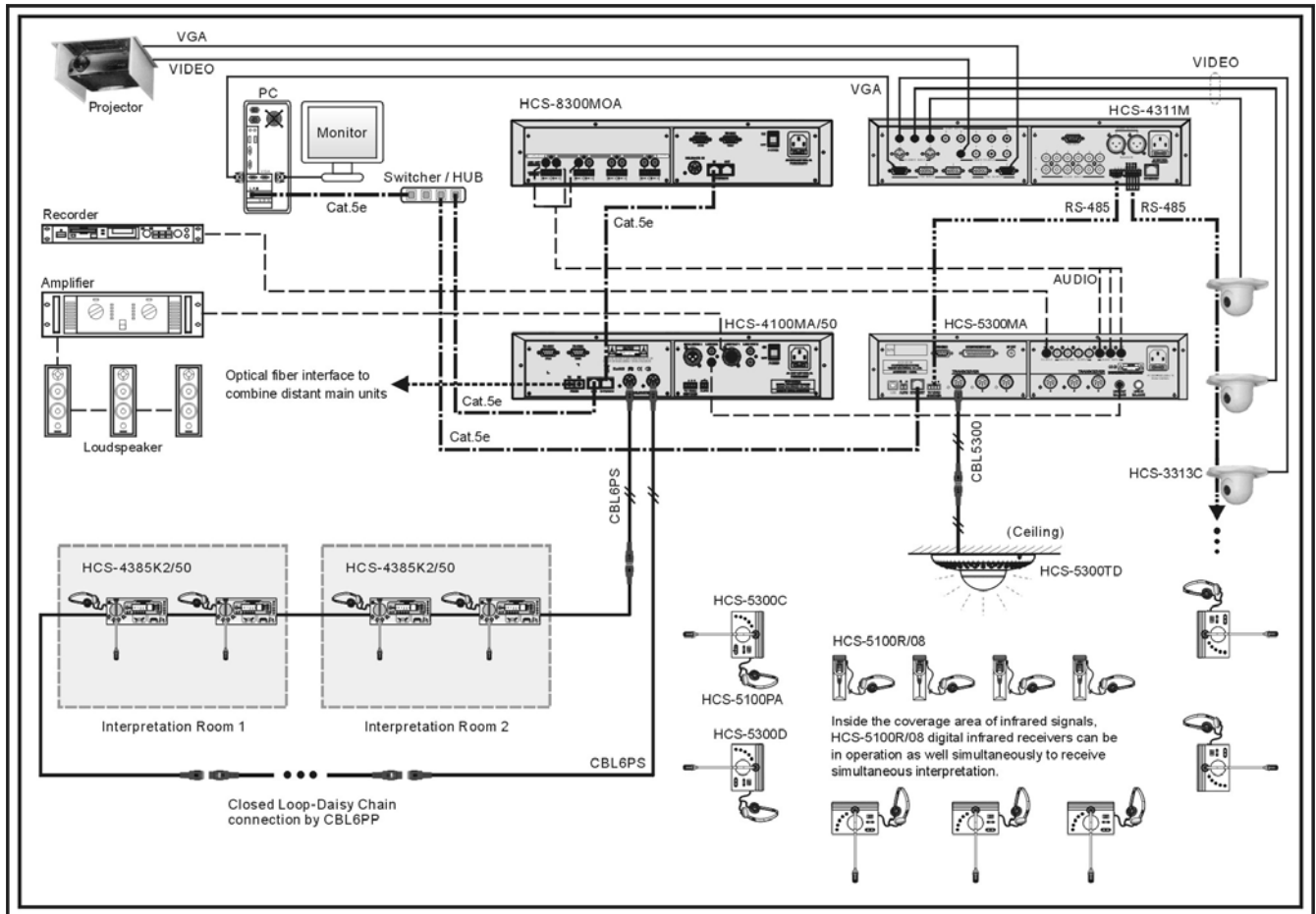
## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
 Dimensions (h x w x d)  
     For table use, with feet.....99 x 430 x 325 mm  
     For 19" rack use, with brackets.....89 x 478 x 350 mm  
 Weight.....8.3 kg  
 Color.....White

## Ordering Information

HCS-5300MA.....Digital IR Wireless Conference System Main Unit  
 (voting, 1+3 CHs)

**System Connection [Wireless discussion + 1+3 CHs digital simultaneous interpretation + voting + video tracking]**



## HCS-5300MB Digital Infrared Wireless Conference Main Unit



### Features

- Original dirATC-digital infrared Audio Transmitting and Control technologies
- Supports up to 4 simultaneous interpretation language channels (incl. the original floor channel)
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Compatible with HCS-5100 series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- Microphone sensitivity and EQ can be adjusted individually
- TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Excellent immunity to RF interference from mobile phones and comparable devices

The digital infrared wireless conference main unit includes features for controlling delegate microphones and distributing simultaneous interpretation, without an operator.

In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Supports up to 4 simultaneous interpretation language channels (incl. the original floor channel)
- Controls up to 1000 contribution units
- Microphone sensitivity and EQ can be adjusted individually
- Speech can be recorded individually or the meeting can be recorded as a sum of all audio signals when connected to record devices
- Compatible with HCS-5100 series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
  - ◆ Simultaneous interpretation
- Automatic video tracking, when cooperating with camera and video switcher unit
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Connection to central control system through RS-232 interface for centralized control

### Controls and Indicators

- 256 × 32 LCD with back-lighting can display the main unit status and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- LINE IN electric level adjust knob
- Conference unit floor audio channel bass adjust knob
- Conference unit floor audio channel treble adjust knob
- Conference unit floor audio channel master volume adjust knob
- Microphone operation mode indicators (OPEN/OVERRIDE)
- Indicators of maximum active microphone number (1/2/3/4)

## Interconnections

- USB interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
- Ethernet interface
- Video switcher interface
- Balanced floor audio output interface (Ø 6.4 mm) for connection to PA
- 6 digital infrared transceiver interfaces, each interface can connect 4 transceivers if operating distributor HCS-5352, thus each main unit can connect up to 24 transceivers
- Balanced LINE IN interface (Ø 6.4 mm) for connection to an external audio device
- Power supply socket
- Interpretation audio input interfaces (1 ~ 3)
- 4 single mic. output interfaces for recording speech individually
- 1 mixed audio output interface for recording the meeting
- HF signal output interface (BNC socket) for connection to HCS-5100T digital infrared radiator
- Interpreter's unit interface for connection up to 3 HCS-850PB/10 interpreter units
- RS-232 interface for connection to central control system

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 x 430 x 325 mm  
For 19" rack use, with brackets.....89 x 478 x 350 mm  
Weight.....8.3 kg  
Color.....White

## Ordering Information

HCS-5300MB....Digital IR Wireless Conference System Main Unit  
(1+3 CHs)

## Technical Specifications

## Electrical

Frequency response	20 Hz to 20 kHz (-3dB)
SNR	≥80 dBA
Dynamic range	≥80 dB
THD at 1kHz	≤0.05%
Isolation	≥80 dB
Power supply	
America, Japan	AC 110 V ~ 120 V, 60 Hz
Asia, Europe	AC 220 V ~ 240 V, 50 Hz
Power consumption	Max. 160 W

## Audio inputs

LINE IN.....+6 dBV, BAL.  
AUDIO INPUT (CH 1 ~ 3) RCA×3 -12 dBV ~ +12 dBV, UNBAL.

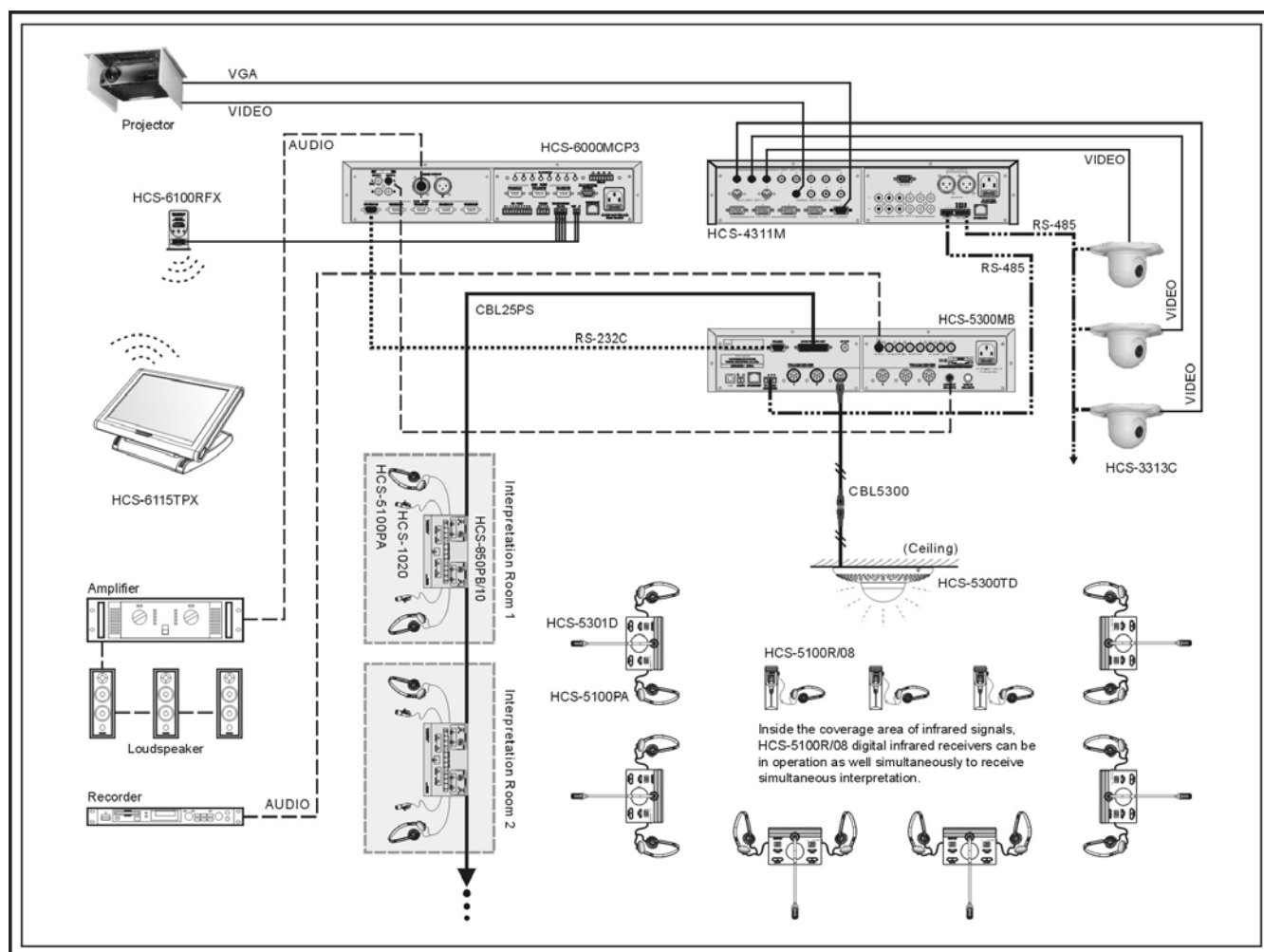
## Audio outputs

LINE OUT.....	+6 dBV, BAL.
SINGLE MIC. OUTPUT RCA×4.....	-3 dBV, UNBAL.
MIX (1~4) OUTPUT RCA×1.....	+6 dBV, UNBAL.

## Interface data

Transceivers I/O terminal .....	6P-DIN socket × 6
External control terminal .....	RS-232 D-sub (9P, male), USB interface, RJ-45 (ETHERNET)
Interpreter's unit terminal .....	25P-DIN socket × 1
HF OUT (Radiator terminal) .....	BNC connector × 1
Alarm terminal .....	3.81 mm Phoenix connectors, 2 pole
Video switcher terminal .....	3.81 mm Phoenix connectors, 4 pole

**System Connection [Wireless discussion + 1+3 CHs digital simultaneous interpretation + video tracking + centre control]**





## HCS-5300MC Digital Infrared Wireless Conference Main Unit



### Features

- Original dirATC-digital infrared Audio Transmitting and Control technologies
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Compatible with HCS-5100 series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- Microphone sensitivity and EQ can be adjusted individually
- TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Excellent immunity to RF interference from mobile phones and comparable devices

The digital infrared wireless conference main unit includes feature for controlling delegate microphones, without an operator. In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Controls up to 1000 contribution units
- Microphone sensitivity and EQ can be adjusted individually
- Speech can be recorded individually or the meeting can be recorded as a sum of all audio signals when connected to record devices
- Compatible with HCS-5100 series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
- Automatic video tracking, when cooperating with camera and video switcher unit
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Connection to central control system through RS-232 interface for centralized control

### Controls and Indicators

- 256 × 32 LCD with back-lighting can display the main unit status and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- LINE IN electric level adjust knob
- Conference unit floor audio channel bass adjust knob
- Conference unit floor audio channel treble adjust knob
- Conference unit floor audio channel master volume adjust knob
- Microphone operation mode indicators (OPEN/OVERRIDE)
- Indicators of maximum active microphone number (1/2/3/4)

## Interconnections

- USB interface
- Ethernet interface
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
- 6 digital infrared transceiver interfaces, each interface can connect 4 transceivers if operating distributor HCS-5352, thus each main unit can connect up to 24 transceivers
- Balanced floor audio output interface (Ø 6.4 mm) for connection to PA
- Balanced LINE IN interface (Ø 6.4 mm) for connection to an external audio device
- Power supply socket
- 4 single mic. output interfaces for recording speech individually
- 1 mixed audio output interface for recording the meeting
- HF signal output interface (BNC socket) for connection to HCS-5100T digital infrared radiator
- RS-232 interface for connection to central control system

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 x 430 x 325 mm  
For 19" rack use, with brackets.....89 x 478 x 350 mm  
Weight.....8.3 kg  
Color.....White

## Ordering Information

HCS-5300MC...Digital IR Wireless Conference System Main Unit

## Technical Specifications

## Electrical

Frequency response	20 Hz to 20 kHz (-3dB)
SNR	≥80 dBA
Dynamic range	≥80 dB
THD at 1kHz	≤0.05%
Isolation	≥80 dB
Power supply	
America, Japan	AC 110 V ~ 120 V, 60 Hz
Asia, Europe	AC 220 V ~ 240 V, 50 Hz
Power consumption	Max. 160 W

## Audio inputs

LINE IN +6 dBV, BAL.

## Audio outputs

LINE OUT.....+6 dBV, BAL.  
SINGLE MIC. OUTPUT RCA×4.....-3 dBV, UNBAL.  
MIX (1~4) OUTPUT RCA×1.....+6 dBV, UNBAL.

## Interface data

Transceivers I/O terminal .....6P-DIN socket × 6

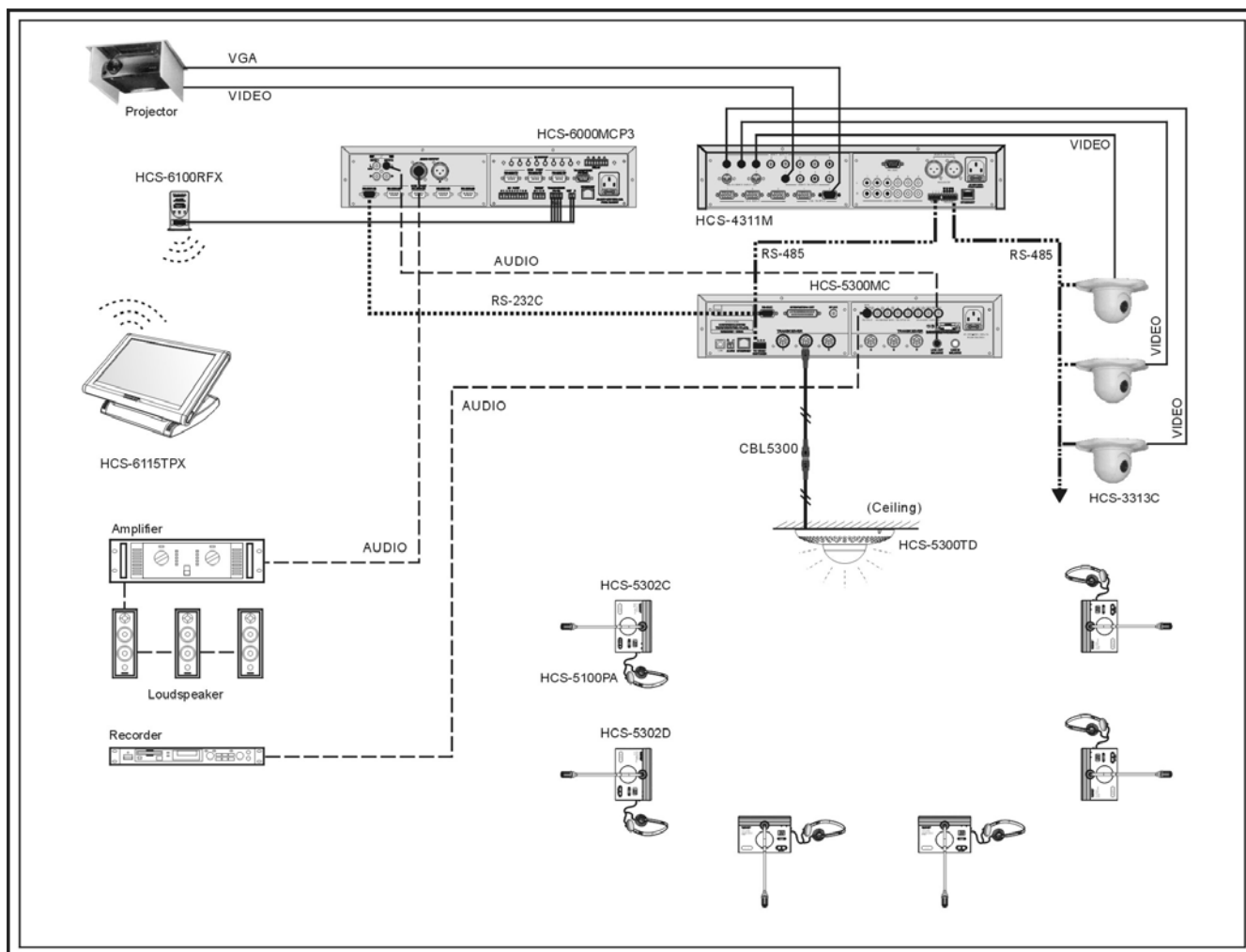
External control terminal.....RS-232 D-sub (9P, male),  
USB interface,  
RJ-45 (ETHERNET)

HF OUT (Radiator terminal).....BNC connector × 1

Alarm terminal .....3.81 mm Phoenix connectors, 2 pole

Video switcher terminal .....3.81 mm Phoenix connectors, 4 pole

**System Connection [Wireless discussion + video tracking + centrel control]**



**Function list**

Type No.	Discussion	Voting	Simultaneous interpretation
HCS-5300MA	√	√	1+3 CH
HCS-5300MB	√		1+3 CH
HCS-5300MC	√		

## HCS-5300BAT Lithium Rechargeable Battery Pack



### Features

- Lithium rechargeable battery pack
- Used for supplying power to HCS-5300 series digital infrared wireless conference unit

### Technical Specifications

#### Electrical

Nominal voltage..... 11.1 V DC  
Nominal capacity..... 4400 mAh

#### Mechanical

Dimensions (h x w x d)..... 28 × 140 × 58 mm  
Weight..... 0.32 kg  
Color..... black

### Ordering Information

HCS-5300BAT..... Lithium Rechargeable Battery Pack

## HCS-ADP15V Power Adapter



### Features

- Used for supplying power to HCS-5300 series digital infrared wireless conference unit

### Technical Specifications

#### Electrical

Mains voltage..... AC 100 ~ 240 V, 50/60 Hz  
Output..... DC 15V, 2.2A  
Connector..... UL, CE or VDE type, according to the territory of selling

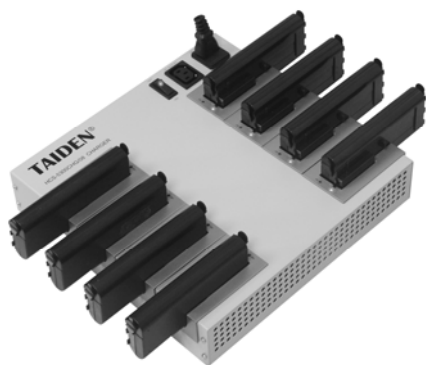
#### Mechanical

Cable length..... 3 m  
Dimensions (h x w x d)..... 28 × 95 × 45 mm  
Weight..... 0.3 kg  
Color..... black

### Ordering Information

HCS-ADP15V..... Power Adapter (DC 15 V, 2.2 A)

## HCS-5300CHG/08 Charging Unit



### Features

- Used for charging HCS-5300BAT Lithium batteries
- Charges 8 pcs of HCS-5300BAT batteries per charging
- Uses universal power supply with automatic voltage matching

### Controls and Indicators

- Power switch
- Charging indicator (red)
- Fully charged indicator (green)

### Interconnections

- Power output interface
- Power input interface
- Charging lattices

### Technical Specifications

#### Electrical

Mains voltage  
 America, Japan.....AC 110 V to 120 V, 60 Hz  
 Asia, Europe.....AC 220 V to 240 V, 50 Hz  
 Power consumption.....Max. 380 W  
 Charging time.....Approx 6 hours  
 Charging capacity.....8 HCS-5300BAT batteries

#### Mechanical

Dimensions (h x w x d).....74 × 288 × 300 mm  
 Weight.....4.5 kg  
 Color.....white

### Ordering Information

HCS-5300CHG/08.....Charging Unit (8 pcs/case)

## HCS-5352 1×4 Cable splitter



### Features

- Has one in and four out structure
- Each main unit has 6 digital infrared transceiver interfaces, each interface can connect 4 transceivers if operating distributor HCS-5352, thus each main unit can connect up to 24 transceivers

### Interconnections

- 4 × 6P-DIN sockets
- 1 m cable with 6P-DIN male plug

### Technical Specifications

#### Electrical

Voltage.....33 V DC (supplied from HCS-5300M)  
 Number of I/O terminals.....1 in / 4 out

#### Mechanical

Dimensions (h x w x d).....35 × 149 × 90 mm  
 Weight.....0.32 kg  
 Color.....black

### Ordering Information

HCS-5352 Cable Splitter (1 input & 4 outputs, for HCS-5300 series)

## CBL5300 Dedicated Transceiver Cable



### Features

- Dedicated cable for HCS-5300T series digital infrared transceiver
- 1 × 6P-DIN male plug
- 1 × 6P-DIN female socket
- Ø 6 mm
- Color: black

### Ordering Information

CBL5300-05.....5 m Dedicated Transceiver Cable  
 CBL5300-10.....10 m Dedicated Transceiver Cable  
 CBL5300-20.....20 m Dedicated Transceiver Cable  
 CBL5300-50.....50 m Dedicated Transceiver Cable

## HCS-5300TZJ Tripod



### Features

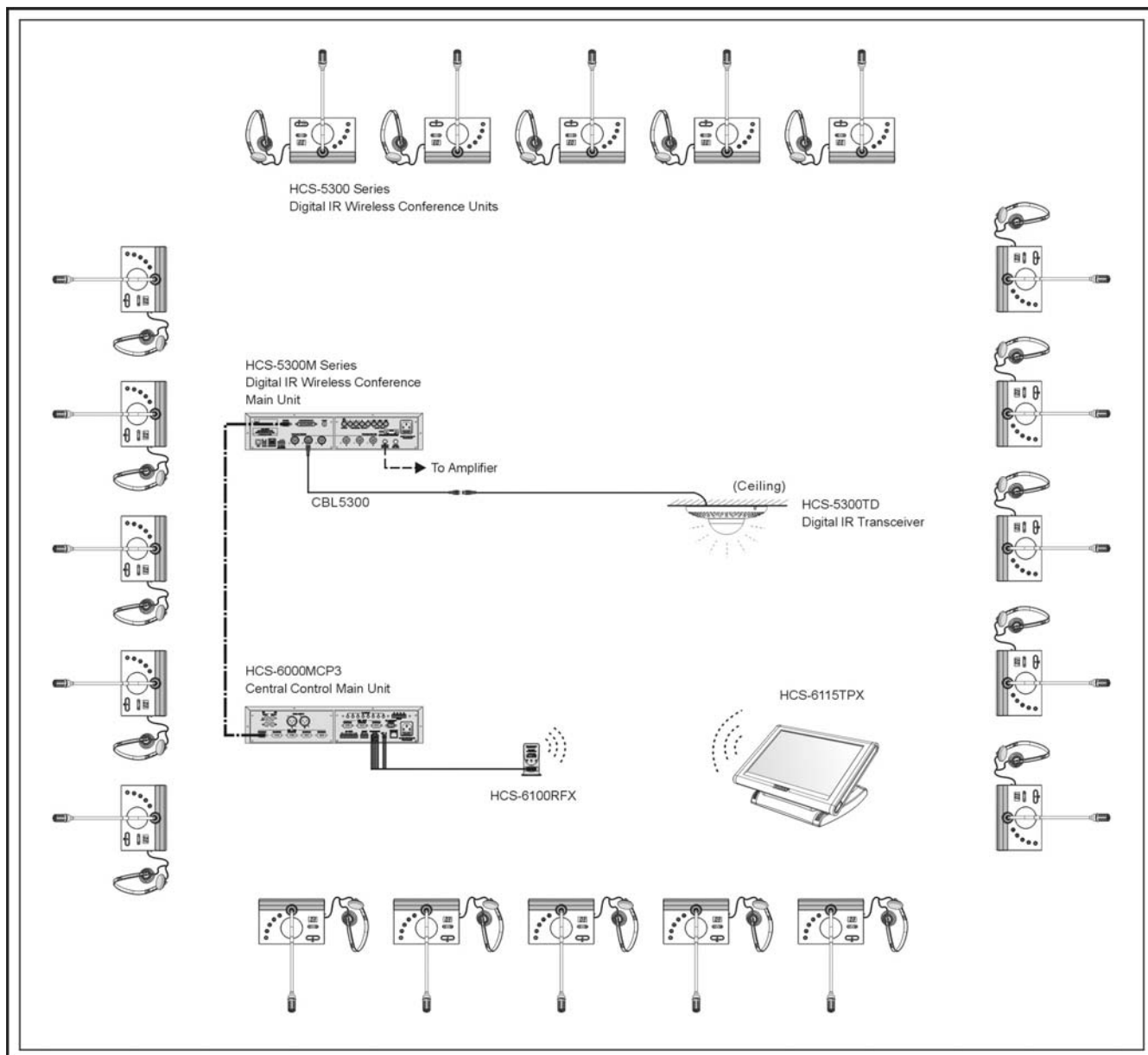
- Used for mounting HCS-5300TD or HCS-5300TDB
- Max. adjustable height: 1.4 m
- Weight: 2.55 kg

### Ordering Information

HCS-5300TZJ.....Tripod



**System Connection**



## HCS-5300 Series Application Software

HCS-5300 application software is comprehensive, reliable and user-friendly. But it is also an easy care software system which helps the operator to manage the conference efficiently from the very beginning of a meeting until the post-meeting work. With the PC installed HCS-5300 application software connected into the FDCS, operator can manage all aspects of the conference centrally. The operation turns out to be easy and efficient.

HCS-5300 application software is a modularized software with various functional modules:

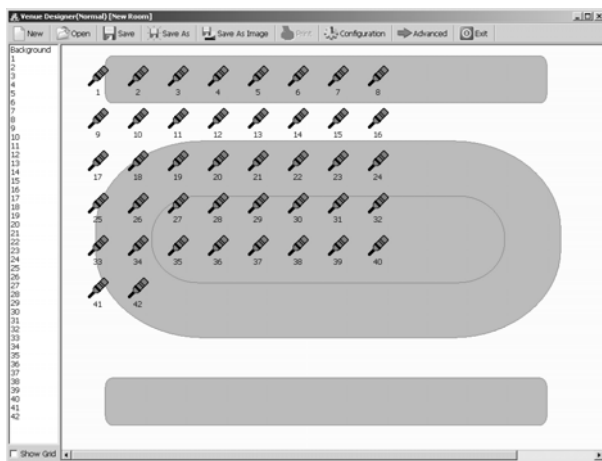
- Basic System Setup Management Module (HCS-5310/50)
- Professional Venue Design Module (HCS-5312/50)
- Microphone Management Module (HCS-5313/50)
- Voting Management Module (HCS-5314/50S)
- Video Control Module (HCS-5315/50)
- Simultaneous Interpretation Module (HCS-5316/50)
- Synchronous Audio Recording Management Module (HCS-5319/50)
- Synchronous Video Recording Management Module (HCS-5320/50)
- Multi-user Conference Control Management Module (HCS-5321/50)
- Dual PC Server Hot Spare Module (HCS-5322/50)
- Agenda Control Module (HCS-5323/50)



## HCS-5310/50 Basic Software Module

Basic software module consists of an amount of facilities, e.g. venue design (normal edition), conference management, main unit configuration, contribution unit configuration, information display, system report and user management.

### Venue design facility



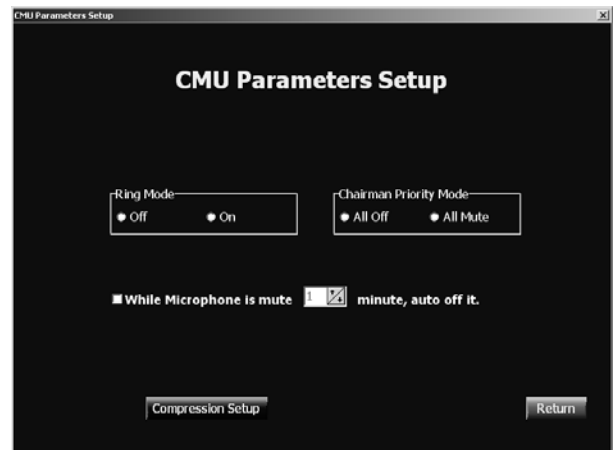
Venue design (normal edition)

### Functions

Converts the venue seating into an intuitive, graphical and controllable interface as a basis for further use, according to the actual layout of the venue

- Self-designing the background picture and color, supporting pictures of any size
- Microphone number, amount of microphones per line, icon type - icon transparency optionally
- Freely drag and drop the microphone icon
- Reconfiguration of the initialized settings, available at any time
- Save/open files for file management
- Especially suitable for small-scale and medium-sized meeting room/hall. The professional edition of venue design module offers more facilities described in HCS-5312/20 Professional Venue Design Module.

### Main unit configuration facility



CMU parameters setup



Main unit control panel

### Functions

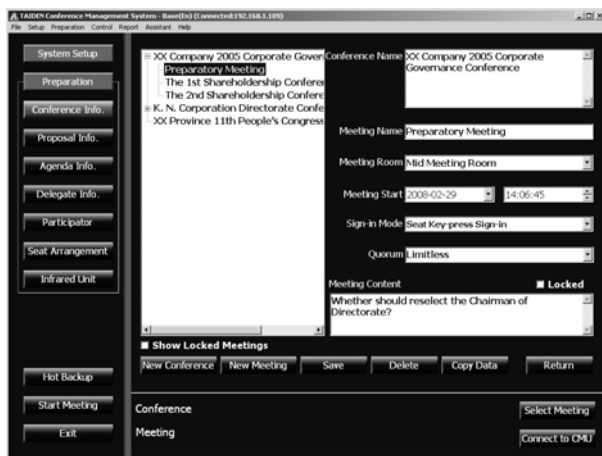
Module provides **CMU parameters setup** and **CMU control panel** sub-modules.

#### ■ CMU parameters setup:

- ◆ *Chairman priority mode*: enable *All off* or *All mute* operation when chairman presses priority button
  - *All off*: turn off all delegate microphones
  - *All mute*: temporarily mute all delegate microphones; the former state is restored once the button released
- ◆ *Ring mode*: turn on/off all kinds of ring tones of conference units triggered when pressing priority key
- ◆ *Automatically turn off microphone time*: the microphone will be automatically switch off after a period of silence and the period shall be setup
- ◆ *Compression setup*: Setup dynamic range compression parameters. Function: when the sound pressure is exceeding the compression threshold value, the gain level for the audio signal will be reduced by a given ratio.

- **CMU control panel:** synchronously display and adjust the status of the conference main unit, for flexible control of the CMU by the operator
  - ◆ Active Microphones (1/2/3/4)
  - ◆ Operation mode (OPEN/OVERRIDE/APPLY)
  - ◆ Original floor channel volume of the contribution unit (dB)
  - ◆ Original floor channel treble of the contribution unit (dB)
  - ◆ Original floor channel bass of the contribution unit (dB)
  - ◆ Line-in volume (dB)
  - ◆ Line-in mute

## Conference information management



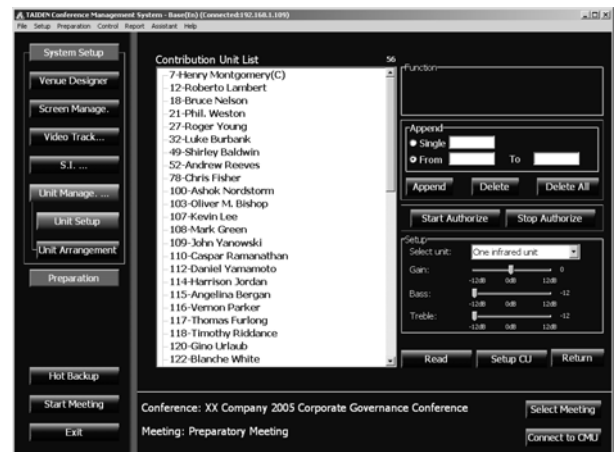
Conference Information

## Functions

Comprehensive conference information management facility, for clear and easy user management.

- Includes conference name and meeting information
- Each conference consists of several meetings
- Creation of a new meeting for appointed conference
- Meeting:
  - ◆ Meeting content: meeting name, meeting room name, meeting start time, sign in mode, quorum and conference content
  - ◆ Display of convoked meetings in distinct colors
  - ◆ Locking a convoked meeting for meeting data protection
- Freely switch between the meetings to manage

## Contribution unit configuration facility



Setup contribution unit interface

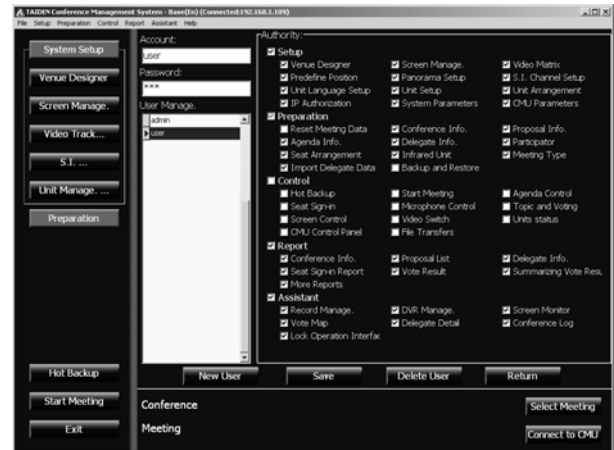
## Functions

Setup and reconfigure internal parameters of the contribution unit by the administrator.

Parameters include:

- Select contribution unit to setup
- Gain of the contribution unit (dB)
- Treble of the contribution unit (dB)
- Bass of the contribution unit (dB)

## User management



User management interface

## Functions

Create/delete a user, change user password and authorization

- Create a new user, and set his/her account, password, authority
- Change user's password and authorization
- Supports deleting a user

## Information display



Screen management

## Report system



Report system

### Functions

Include screen management: design of a screen and its related activated event.

- Set distinct screen projects for distinct conferences and languages
- Predetermination of screen page contents: includes page color, page name, page size, etc
- Editing screen page contents: includes add text, picture, delegate's photo, voting results, etc
- Select the page to display when conference event starts. Each conference event corresponds to a particular screen page
- Allocation of an *alias* for each screen for more convenience

### Functions

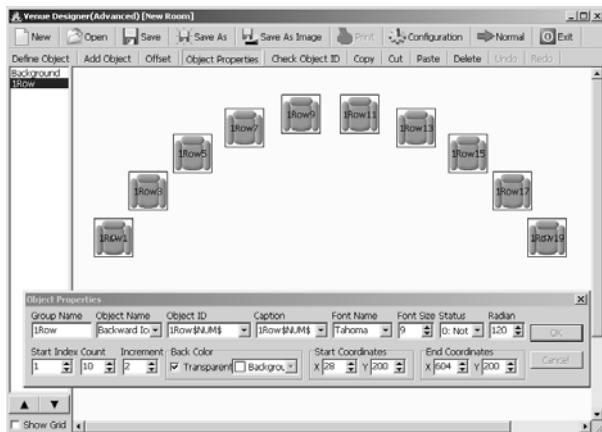
Conference information output from the software's database, for backup or printout purposes. The conference information includes:

- Conference information
- Proposal list
- Delegate information
- Sign-in report
- Voting result
- Summarizing voting results
- More reports

### Ordering Information

HCS-5310/50.....Basic Software Module

## HCS-5312/50 Professional Venue Design Module



Venue design (professional)

### Functions

In distinction from the normal edition of the Venue Design Module, the professional version has additional powerful functions to design manifold layouts of venues. The main difference is the availability of functional buttons for file operation (toolbar buttons) and object operation (buttons below toolbar buttons) in the toolbars. In addition, the functions are also available in the file right-click pop-up menu. Moreover, the *Object Properties* dialog box is floating on the window for fast changing the properties of current object.

- File operation:
  - ◆ Venue design supports file operation, including: new, open, save as, and print
  - ◆ Create a new conference file: set the background color, room size and other parameters, including:
    - Background
    - Line number
    - Amount per line
    - Seat icon
    - Seat direction
    - Transparent icon or not
    - Show as MIC. icon or not
    - Re-arrange seat position or not
  - ◆ The parameters above can be changed at any time through "Configuration" menu on the toolbar
  - ◆ Add seat/microphone icons line by line, 8 seats/mics per line as default value. The amount of seats/microphones per line can be modified. While the normal edition can add only one seat at one go, the professional venue design module can add groups with more than one seat/microphone per group.
  - ◆ Shifting facility for complete layout
- Define object:
  - ◆ Picture library with default (customized and/or recurrent) objects
  - ◆ Modifiable object information, e.g. object name, image path, distinguishable colors for displaying object images in different states (e.g. signed-in etc.)

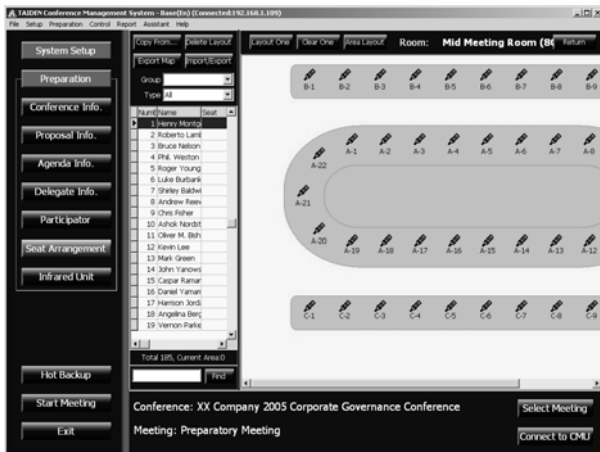
- Powerful "object attribute" function: object attribute can be set and changed, including:
  - ◆ Set group name and object name
  - ◆ Set unique ID and ID display mode for every object, supporting different fonts and sizes
  - ◆ Set starting object status
  - ◆ Set a radian for the object group and design seat layout according to true seating positions
  - ◆ Set start index of the object group
  - ◆ Change the amount of the units in an object group
  - ◆ Set numbering increment
  - ◆ Set initial background color and whether transparent or not
  - ◆ Set start and end coordinates of object group
- Object ID check facilities
- Support object copy, cut, paste and delete operation
- Object arrangement can be changed

### Ordering Information

HCS-5312/50.....Professional Venue Design Module



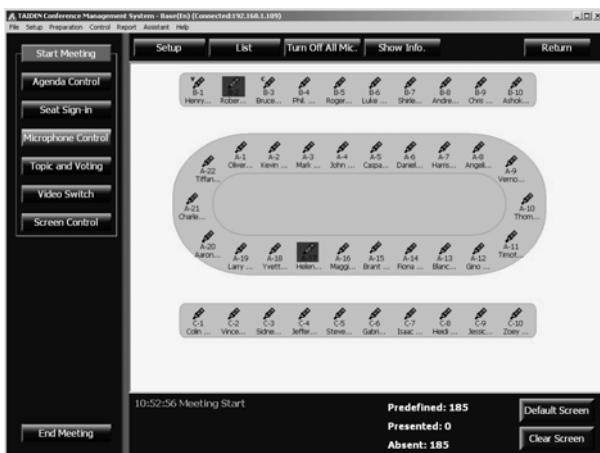
## HCS-5313/50 Microphone Management Module



Unit arrangement



Delegate information



Microphone control

### Functions

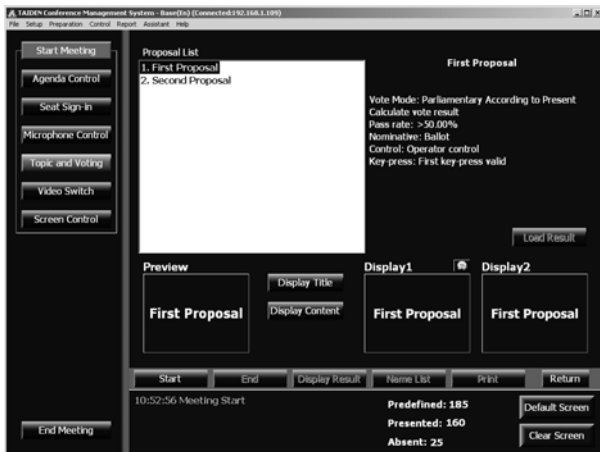
**Seat arrangement, delegate management and microphone control sub-modules**

- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the conference units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the conference units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Users can customize the options in the above items
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function
- **Microphone control**: combined with venue design, seating arrangement, delegate management, conference management and microphone setup, for controlling and monitoring current microphone status, as well as automatic video tracking. Facility includes:
  - ◆ Microphone on/off control
  - ◆ Close all active microphone
  - ◆ Delegate speech timing
  - ◆ Record and save speaking
  - ◆ Detailed information available from the delegate database for online display purposes
  - ◆ If cooperating with an automatic video tracking system, camera presets can be made for each discussion unit to transmit speaker's picture simultaneously to a hall display

### Ordering Information

HCS-5313/50.....Microphone Management Module

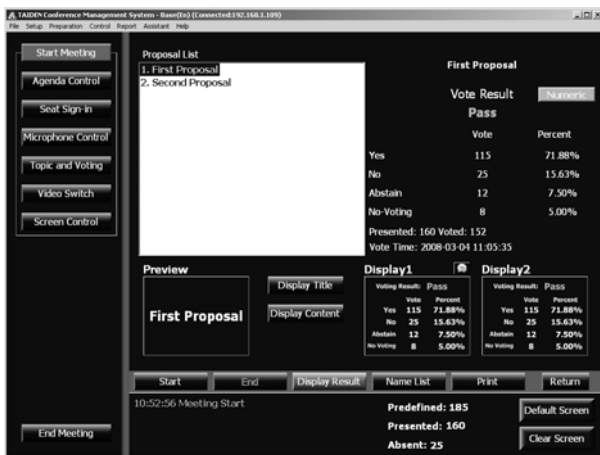
## HCS-5314/50S Voting Management Module



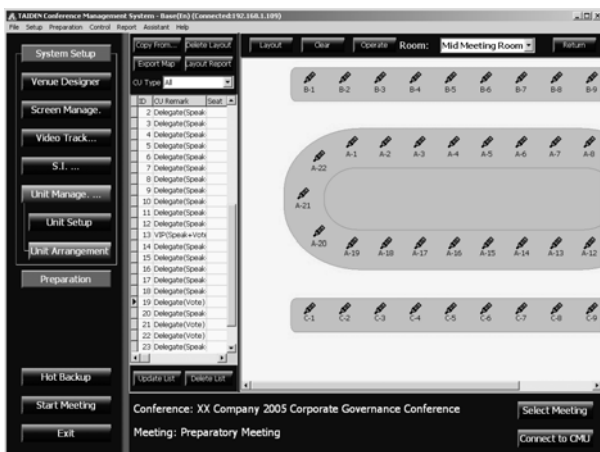
Topics and Voting



Delegate information



Display voting result



Unit arrangement

### Functions

Voting management, seat arrangement and delegate management sub modules.

#### ■ Voting management:

- ◆ Topics information management
  - Setup, save, add or delete topics file before the meeting
  - Open topics control interface and display topics content to large screen
  - Printout the topics list and information and distribute to delegates as meeting information
  - Multiple voting facilities available, suitable for various conferences, including:
    - ◇ For/Against
    - ◇ Parliamentary: YES/NO/ABSTAIN
    - ◇ Questionnaire /Opinion poll: 1/2/3/4/5
    - ◇ Audience response/Rating: --/-/0/+/-++
  - Calculation: predefined or in relation to the participants attending the meeting in person
  - Register mode: nominative/ballot
  - Validity mode: first key press valid/last key press valid
  - Pass rate: between 1% and 100%
- ◆ Display voting result to large screen
- ◆ Clear and vivid voting result display modes (numeric/bar/pie)
- ◆ Print or save voting result
- ◆ Sign-in before the voting to improve the security and validity of voting result

## HCS-5315/50 Video Control Module

- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the conference units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the conference units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function



Video matrix



Camera control

### Ordering Information

HCS-5314/50S.....Voting Management Module

### Functions

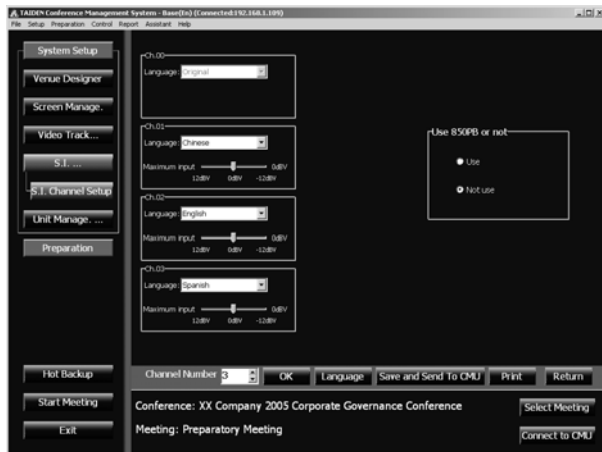
Carries out automatic video tracking when cooperating with camera and video switch unit.

- Setup video matrix: set input/output channels for computer, camera and other video apparatus according to the connections between video equipment and video switch unit. The configuration can be sent to the main unit for synchronization
- Video switch: switch among different input and output video signals according to the video matrix
- Camera preset: cooperating with microphone management module to set and adjust the camera preset for each seat/microphone and to transmit speaker's video picture simultaneously to a hall display
- Camera control: preset the panorama of the conference venue

### Ordering Information

HCS-5315/50.....Video Control Module

## HCS-5316/50 Simultaneous Interpretation Module



Interpretation Channel Setup

### Functions

Setup the simultaneous interpretation channels:

- Simultaneous interpretation channel setup:
  - ♦ Set the channel number and language for each channel and save into the database
  - ♦ Set max. input level of each channel when HCS-850PB/10 is not in use
  - ♦ Send the configuration to the main unit for synchronization
- Display main unit configuration on the window

### Ordering Information

HCS-5316/50.....Simultaneous Interpretation Module

## HCS-5319/50 Synchronous Recording Module



Voice record interface

### Functions

Records speakers' audio information:

- Integrated into **TAIDEN** conference management application software, easy to operate
- Automatic recording:
  - ♦ Begin/end automatic recording according to microphone on/off
  - ♦ Setup record audio quality
  - ♦ Once microphone enabled, speaking delegate's voice is recorded in audio file (WAV or MP3 format)
  - ♦ Saved audio file available for copying, playback, etc.
  - ♦ When using automatic recording function, the number of active microphones is limited to one
- If automatic audio recording is not activated, operator manually starts/stops recording. Record file name display
- Audio playback:
  - ♦ Integrated file management
  - ♦ Search facilities, search audio record file needed to playback quickly (by conference ID, speaker, begin time, continuous time, etc.)
  - ♦ "Playback All": recordings playback one by one
  - ♦ Recorded file playback, fast play, pause/stop etc.
  - ♦ General file format saving: saved file playback by conventional media player
  - ♦ Delete any recorded file or all recorded files

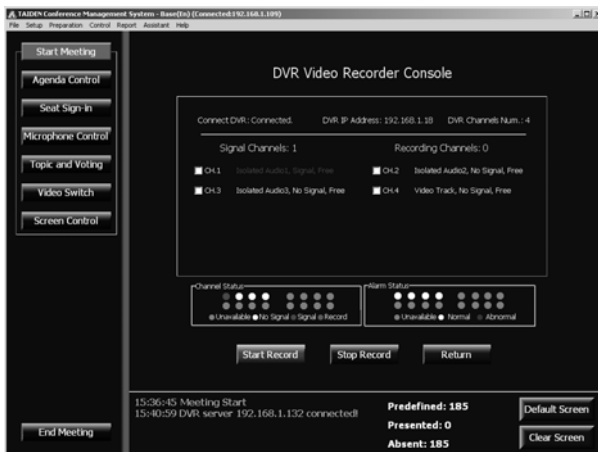
### Ordering Information

HCS-5319/50.....Synchronous Recording Module

## HCS-5320/50 Professional Digital Video & Audio Recorder Module



Preview interface



Setup channel parameters

### Functions

TAIDEN conference synchronous digital video & audio recorder integrates several techniques in the IT domain and realizes powerful video/audio compressing, video/audio recording and playback functions.

- Display of channel states, alarm states, connection status and DVR parameters (brightness, contrast, hue and saturation)

- Includes layout, preview, record, connect DCS, DVR control, capture, playback, setup system parameters, setup channel parameters and DVR channel list functions
  - ♦ **Layout:** setup layout of video preview sub screen – selection of 1, 4, 6, or 8 video preview sub screens
  - ♦ **Preview:** preview video/audio signal of each channel
  - ♦ **Record:** start/stop record for selected channel
  - ♦ **Connect DCS:** connect to DCS server and DCS backup server, ensuring an undisturbed recording process
  - ♦ **DVR control:** control DVR
  - ♦ **Capture:** capture a picture for selected sub screen
  - ♦ **Playback:**
    - Select channel number for playback – select anyone or all
    - Select file content for playback: panorama, video track, simultaneous interpretation and other
    - Select file type for playback: including all files, remote files, local video files and local pictures (local = on PC)
    - Search facility: search a video for playback by meeting ID, speaker name, speaking time, etc.
    - Play Control: fast play, pause/stop, etc.
  - ♦ **Setup system parameters:**
    - Set display format (e.g. sampling rate) for audio and video
    - Set DVR parameters
  - ♦ **Setup channel parameters:** set video and audio content for each channel, and record automatically according to conference status
    - Video content:
      - ✧ Video track: start record when microphone is turned on and stop record when microphone is turned off
      - ✧ Panorama: start record when conference begins and stop record when conference ends
      - ✧ Other: start/stop record manually by operator
      - ✧ Simultaneous interpretation: connect SI output channel of DCS to input channel of DVR, and select language for recording manually
    - Audio content
    - Stream type: video only or video & audio composite
      - ✧ Video only: record only video signal
      - ✧ Video & audio: record video and audio composite signal

### Ordering Information

HCS-5320/50.....Professional Digital Video & Audio Recorder Module

## HCS-5321/50 Multi-User Console Module



The primary window of multi-user console

### Functions

If more than one operator is involved, a multi-user console is available for controlling speaking and voting, apart the system application software. A maximum of 5 multi-user consoles can be connected at the same time.

Basic conference control module:

- Microphone control
- Sign-in management
- Voting management
- Connect Server
- System parameters setup and download venue files from the server

### Ordering Information

HCS-5321/50.....Multi-User Console Module

## HCS-5322/50 Dual PC Server Hot Spare Module



Start to backup interface

### Functions

HCS-5322/20 dual PC server hot-spare is a disaster protective structure. If the main operating computer breaks down during a conference, the backup computer immediately substitutes the main computer and continues conference management.

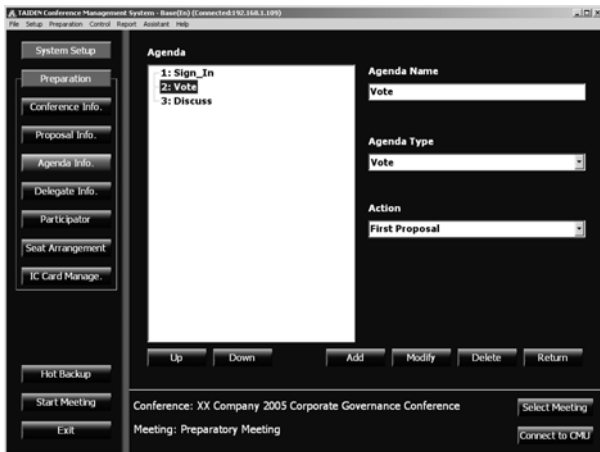
After connection to main operating computer, the backup console application first starts an automatic backup (incl. database and conference related information). If there is any change in the database, the backup console application will update backup automatically.

### Ordering Information

HCS-5322/50.....Dual PC Server Hot Spare Module



## HCS-5323/50 Agenda Management Module



Agenda Information

### Functions

Agenda is a list of meeting activities in the order in which they are to be worked off. The agenda is prepared beforehand. It may include sign-in, voting and discussion. Agenda edit prepares all activities and their sequence to ensure convenience and a well arranged course of events. Agenda Management module consists of agenda information management and agenda control sub modules.

- **Agenda information management:** edit agenda content and sequence
  - ◆ Includes agenda name, agenda type and activity
  - ◆ Sequence of each activity can be adjusted - user can add, modify, delete an activity
- **Agenda control:** control the meeting process according to the pre-defined agenda content and sequence
  - ◆ Select an agenda from the agenda list and execute it
  - ◆ List the status of each agenda
  - ◆ Agenda can be edited, added, modified, or deleted during the meeting

### Ordering Information

HCS-5323/50.....Agenda Management Module

## **HCS-5100 Series Digital Infrared Language Distribution System**

<b>HCS-5100 Series Digital Infrared Language Distribution System .....</b>	<b>4.3</b>
<b>HCS-5100M/S Series Digital Infrared Transmitters .....</b>	<b>4.4</b>
HCS-5100MA/04S      4 CHs Digital Infrared Transmitter (with 6-pin connector, compatible with HCS-4100M/50) .....	4.4
HCS-5100MA/08S      8 CHs Digital Infrared Transmitter (with 6-pin connector, compatible with HCS-4100M/50) .....	4.6
HCS-5100MB/04S      4 CHs Digital Infrared Transmitter (with 25-pin connector, compatible with HCS-850PB/10) .....	4.9
HCS-5100MB/08S      8 CHs Digital Infrared Transmitter (with 25-pin connector, compatible with HCS-850PB/10) .....	4.11
HCS-5100MB/16S      16 CHs Digital Infrared Transmitter (with 25-pin connector, compatible with HCS-850PB/10) .....	4.13
HCS-5100MC/04S      4 CHs Digital Infrared Transmitter .....	4.16
HCS-5100MC/08S      8 CHs Digital Infrared Transmitter .....	4.18
HCS-5100MC/16S      16 CHs Digital Infrared Transmitter .....	4.20
<b>HCS-5100T/S Series Digital Infrared Radiators .....</b>	<b>4.23</b>
HCS-5100T/15S      Multi-channel Digital Infrared Radiator (15 W, 75 $\Omega$ ) .....	4.23
HCS-5100T/25S      Multi-channel Digital Infrared Radiator (25 W, 75 $\Omega$ ) .....	4.24
HCS-5100T/35S      Multi-channel Digital Infrared Radiator (35 W, 75 $\Omega$ ) .....	4.25
HCS-5100TBZJ      Wall-mounting Bracket .....	4.26
<b>HCS-5100R Series Digital infrared Receivers .....</b>	<b>4.27</b>
HCS-5100R/04      4 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) .....	4.27
HCS-5100R/08      8 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) .....	4.27
HCS-5100R/16      16 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) .....	4.27
HCS-5100R/32      32 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) .....	4.27
HCS-5100RA/04      4 CHs Digital Infrared Receiver (LCD, language display, 2xAA alkaline cells) .....	4.29
HCS-5100RA/08      8 CHs Digital Infrared Receiver (LCD, language display, 2xAA alkaline cells) .....	4.29
HCS-5100RA/16      16 CHs Digital Infrared Receiver (LCD, language display, 2xAA alkaline cells) .....	4.29
HCS-5100RA/32      32 CHs Digital Infrared Receiver (LCD, language display, 2xAA alkaline cells) .....	4.29
<b>Accessories .....</b>	<b>4.31</b>
HCS-5100CHG/60      IR Receiver Charging Case (60 pcs/case) .....	4.31
HCS-5100KS      IR Receiver Storage Case (100 pcs/case) .....	4.31
HCS-5100PA      Headphone .....	4.32
EP-820AS      Single Earphone .....	4.32
EP-820BS      Single Earphone .....	4.32
EP-920BS      Inner Earphone .....	4.32
Sponge Ear Pads      Sponge Ear Pads .....	4.33
HCS-5100BAT-16      Ni-MH Rechargeable Battery Pack .....	4.33
RG-59      Coaxial-cable (75 $\Omega$ ) .....	4.33
BNC Connector      BNC Connector .....	4.33

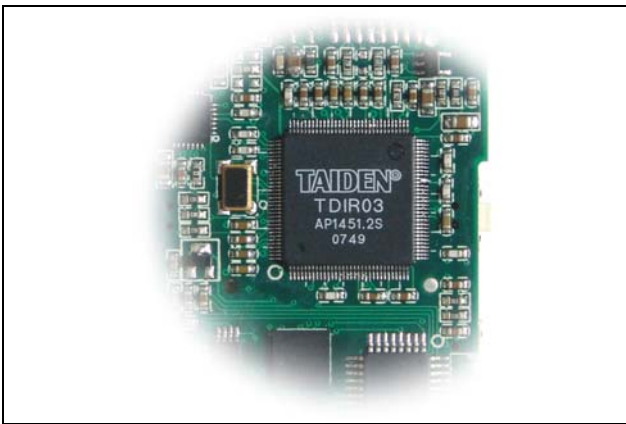
HCS-836	Burglarproof Detection System (for IR Receiver) .....	4.34
HCS-851A/02	Interpreter Booth (accommodates 2 interpreters).....	4.34
HCS-851A/03	Interpreter Booth (accommodates 3 interpreters).....	4.35

## HCS-5100 Series Digital Infrared Language Distribution System

### Overview

After the launch of HCS-4100 fully digital conference system, TAIDEN has now enhanced its existing product lines with HCS-5100 digital Infrared language distribution system. This system adopts TAIDEN independent intellectual property chipset and is compliant to international standard for digital IR systems, providing superb sound quality. HCS-5100 system also features complete language name display, 270° super wide reception angle and transmitter combination mode, making it the world's most advanced IR language distribution system.

Interpretations will always arrive in perfect condition, as the digital infrared language distribution system integrates seamlessly TAIDEN HCS-4100 fully digital congress system and simultaneous interpretation unit.



TAIDEN TDIR03 digital infrared processing chip

### Fully Certificated, Comprehensive Compatibility

HCS-5100 series is compliant to IEC 61603-7 and IEC 60914, moreover, compatible with any other IR system compliant to IEC 61603-7.

IEC 61603: Transmission of audio and/or video and related signals using infrared radiation

IEC 61603-Part 7: Digital audio signals for conference and similar applications

IEC 60914: Conference systems - Electrical and audio requirements

### Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR system compliant to IEC 61603-7
- Capable of distributing a maximum of 4, 8, 16 or 32 audio channels
- Immune to interference from HF-driven lighting
- Flexible configuration of channels and channel quality modes
- LCD receiver display shows channel number and complete language name
- Automatic synchronization: number of available channels is the same as number of channels in use by the system
- 270° super wide reception angle
- Works without errors, even in bright sunlight
- Combination mode
- Bypass mode, used for signal distribution to multiple rooms
- Delay compensation for cable transmission
- Audio frequency response: 20 Hz ~ 20 kHz (Perfect mode), weighted S/N >80 dBA
- Freedom of movement within the range of IR power radiator
- Conference privacy is guaranteed as infrared signals do not pass through opaque walls or ceilings
- The infrared communication frees users from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications



## HCS-5100MA/04S 4 CHs Digital Infrared Transmitter



### Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 4 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 4 channels
  - ◆ Mono, perfect quality, maximum 2 channels
  - ◆ Stereo, standard quality, maximum 2 channels
  - ◆ Stereo, perfect quality, maximum 1 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 8 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- With digital audio input connector for connecting to HCS-8300M and HCS-4100M/50 congress main unit directly, moreover, with 4 interpretation output channels for recording
- Universal mains power facility allows use worldwide

The transmitter is the heart of the HCS-5100 system. HCS-5100MA/04S accepts and modulates up to 4 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit and HCS-4100M/50 congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/04S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### Controls and Indicators

- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Digital audio output (6P-DIN) connector for connecting to HCS-4100/50 series and HCS-8300 series congress units
- Digital audio input (6P-DIN) connector for connecting to HCS-8300M and HCS-4100M/50 congress main unit directly
- Audio signal output connectors for output DCS multi-channel audio
- 4 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Extension interface





## **HCS-5100MA/08S** **8 CHs Digital Infrared Transmitter**



The transmitter is the heart of the HCS-5100 system. HCS-5100MA/08S accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit and HCS-4100M/50 congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/08S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### **Features**

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 8 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 8 channels
  - ◆ Mono, perfect quality, maximum 4 channels
  - ◆ Stereo, standard quality, maximum 4 channels
  - ◆ Stereo, perfect quality, maximum 2 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 16 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- With digital audio input connector for connecting to HCS-8300M and HCS-4100M/50 congress main unit directly, moreover, with 8 interpretation output channels for recording
- Universal mains power facility allows use worldwide

### **Controls and Indicators**

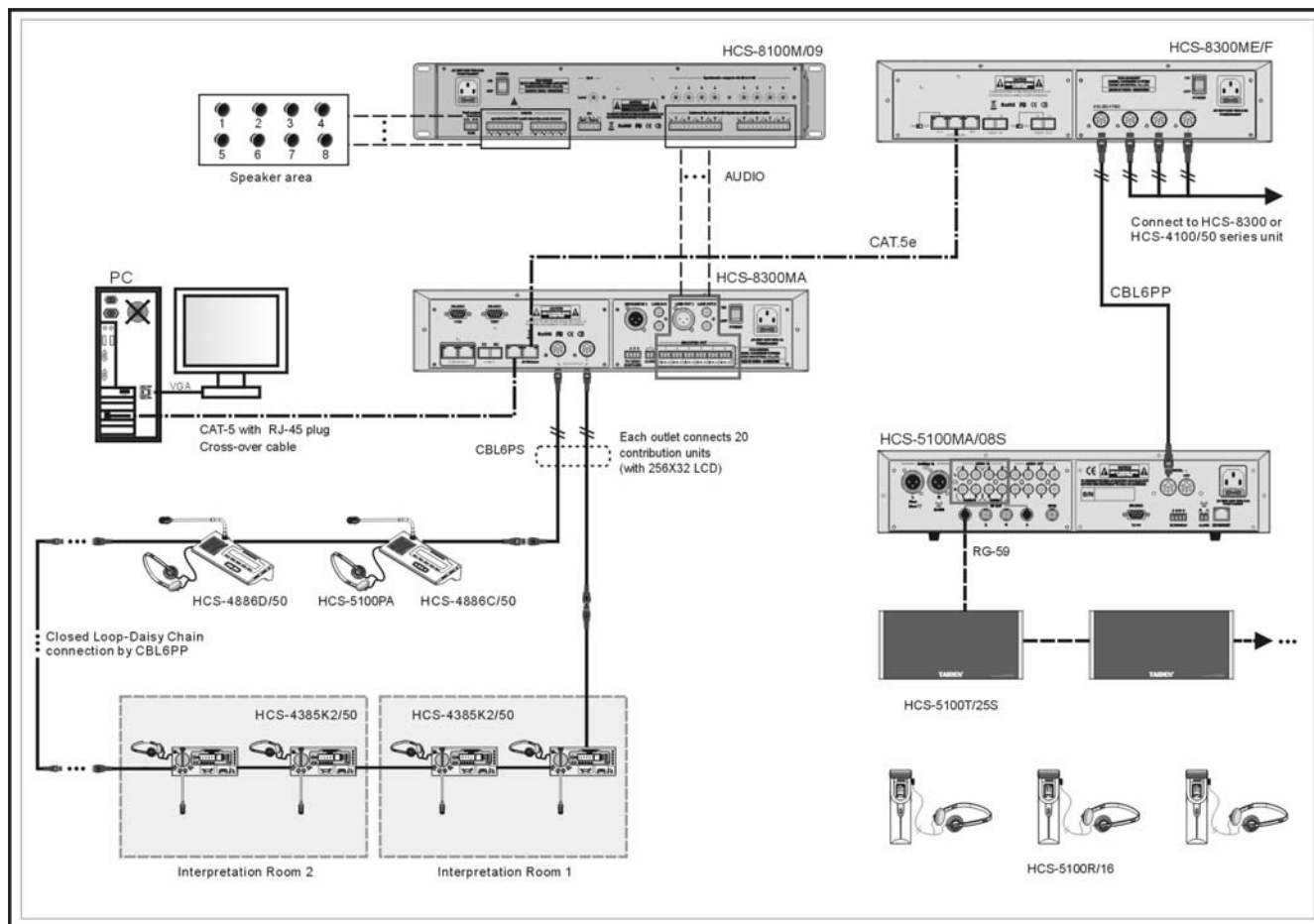
- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### **Interconnections**

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Digital audio output (6P-DIN) connector for connecting to HCS-4100/50 series and HCS-8300 series congress units
- Digital audio input (6P-DIN) connector for connecting to HCS-8300M and HCS-4100M/50 congress main unit directly
- Audio signal output connectors for output DCS multi-channel audio
- 8 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Extension interface



## System Connection



## HCS-5100MB/04S 4 CHs Digital Infrared Transmitter



### Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 4 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 4 channels
  - ◆ Mono, perfect quality, maximum 2 channels
  - ◆ Stereo, standard quality, maximum 2 channels
  - ◆ Stereo, perfect quality, maximum 1 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 8 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- With 25Pin D-SUB interface for connecting up to 3 HCS-850PB/10 interpretation desks
- Universal mains power facility allows use worldwide

The transmitter is the heart of the HCS-5100 system. HCS-5100MB/04S accepts and modulates up to 4 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-850PB/10 interpretation desks, HCS-8300M congress main unit and HCS-4100M/50 congress main unit through HCS-8300MO series audio output device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MB/04S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### Controls and Indicators

- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- 4 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Interpretation desk interface for connecting up to 3 HCS-850PB/10 interpretation desks
- Extension interface



## **HCS-5100MB/08S** **8 CHs Digital Infrared Transmitter**



The transmitter is the heart of the HCS-5100 system. HCS-5100MB/08S accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-850PB/10 interpretation desks, HCS-8300M congress main unit and HCS-4100M/50 congress main unit through HCS-8300MO series audio output device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MB/08S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### **Features**

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 8 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 8 channels
  - ◆ Mono, perfect quality, maximum 4 channels
  - ◆ Stereo, standard quality, maximum 4 channels
  - ◆ Stereo, perfect quality, maximum 2 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 16 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- With 25Pin D-SUB interface for connecting up to 7 HCS-850PB/10 interpretation desks
- Universal mains power facility allows use worldwide

### **Controls and Indicators**

- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### **Interconnections**

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- 8 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Interpretation desk interface for connecting up to 7 HCS-850PB/10 interpretation desks
- Extension interface





## HCS-5100MB/16S 16 CHs Digital Infrared Transmitter



### Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 16 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 16 channels
  - ◆ Mono, perfect quality, maximum 8 channels
  - ◆ Stereo, standard quality, maximum 8 channels
  - ◆ Stereo, perfect quality, maximum 4 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 32 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- With 25Pin D-SUB interface for connecting up to 11 HCS-850PB/10 interpretation desks
- Universal mains power facility allows use worldwide

The transmitter is the heart of the HCS-5100 system. HCS-5100MB/16S accepts and modulates up to 16 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-850PB/10 interpretation desks, HCS-8300M congress main unit and HCS-4100M/50 congress main unit through HCS-8300MO series audio output device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MB/16S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### Controls and Indicators

- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- 16 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Interpretation desk interface for connecting up to 11 HCS-850PB/10 interpretation desks
- Extension interface

## Technical Specifications

### System Specifications

Modulation.....DQPSK, according to IEC 61603-7  
 Modulation frequency  
     Carriers 0 to 5.....2 to 6 MHz, according to IEC 61603-7  
     Carriers 6 and 7.....up to 8 MHz  
 Frequency response.....20 Hz to 10 kHz (-3dB) at standard quality  
     .....20 Hz to 20 kHz (-3dB) at perfect quality  
 THD at 1 kHz.....<0.05%  
 Isolation.....>80 dB  
 Dynamic range.....>80 dB  
 Weighted SNR.....>80 dBA  
 Input range.....-12 dBV ~ +12 dBV (adjustable)

### System Environmental Conditions

Transport temperature.....-40 °C ~ +70 °C  
 Operating temperature.....0 °C ~ +45 °C  
 Max. relative humidity.....<95%  
 Safety.....Compliant to EN 60065  
 EMC emission.....Compliant to EN 61000-6-3, EN 55022  
 EMC immunity.....Compliant to EN 61000-4-3  
 EMC approvals.....CE, FCC  
 Static resistance.....Compliant to EN 61000-4-2  
 Power harmonics.....Compliant to EN 61000-3-2  
 Surge resistance.....Compliant to EN 61000-4-5  
 EFT test.....Compliant to EN 61000-4-4  
 Transient power-off test.....Compliant to EN 61000-4-11

### Electrical

Unbalanced audio inputs.....-12 to +12 dBV nominal  
 Balanced audio inputs.....-6 to +18 dBV nominal  
 Emergency switch connector.....Emergency control input  
 Headphone output.....32 Ohm to 2 kOhm  
 HF input.....Nominal 1 Vpp, minimum 10 mVpp, 75 Ohm  
 HF output.....1 Vpp, 6 V DC, 75 Ohm  
 Mains voltage.....110 to 260 V, 50 to 60 Hz  
 Power consumption.....Maximum 55 W  
 Power consumption (standby).....29 W

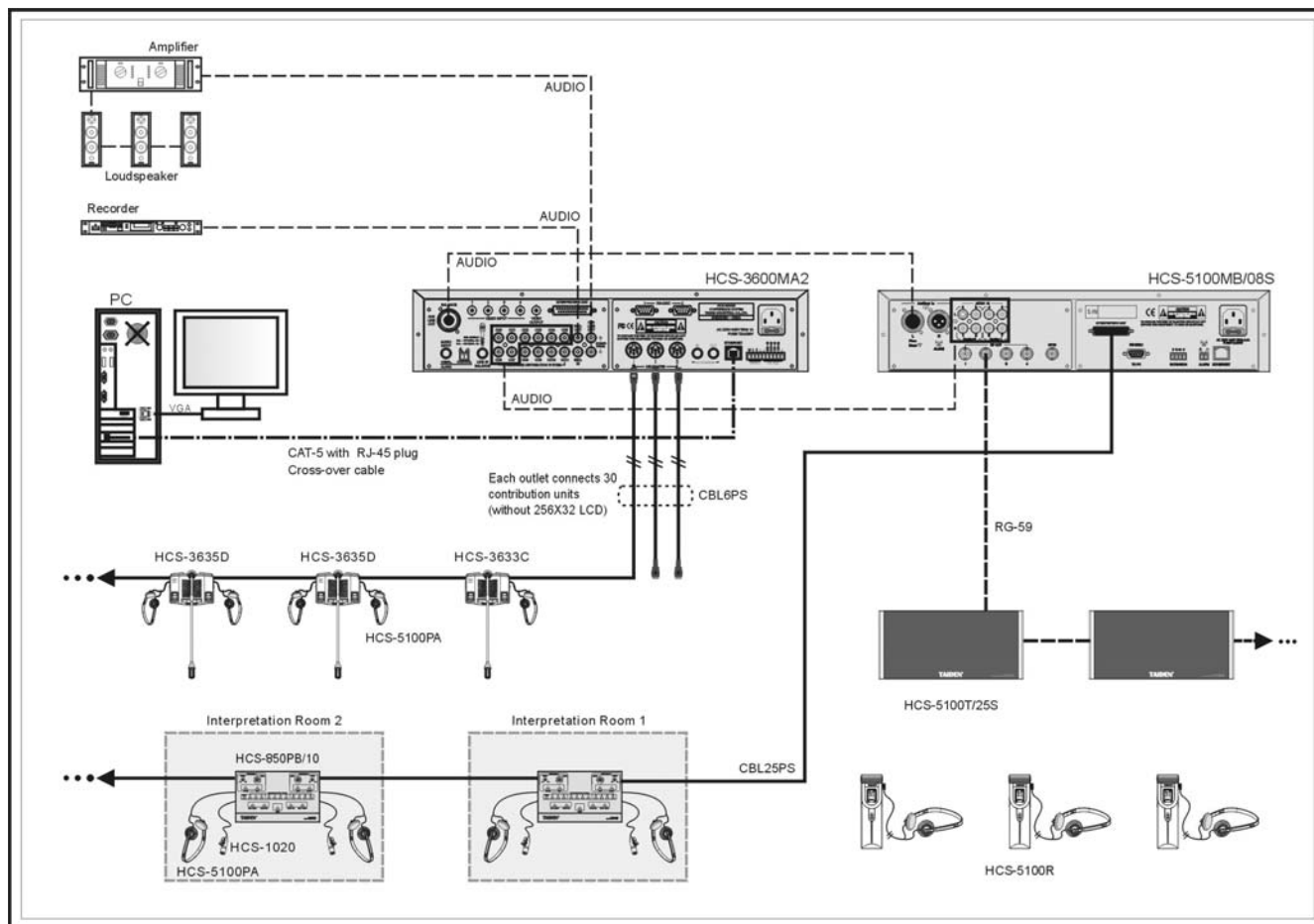
### Mechanical

Mounting.....Brackets for 19" rack mounting or fixing to a table top;  
     detachable feet for free-standing use on a table top  
 Dimensions h x w x d (mm).....99 × 430 × 325  
 Weight.....7.5 kg  
 Color.....White

### Ordering Information

HCS-5100MB/16S.....16 CHs Digital Infrared Transmitter  
 (with 25-pin connector, compatible with HCS-850PB/10)

## System Connection



## **HCS-5100MC/04S** **4 CHs Digital Infrared Transmitter**



The transmitter is the heart of the HCS-5100 system. HCS-5100MC/04S accepts and modulates up to 4 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit and HCS-4100M/50 congress main unit through HCS-8300MO series audio output device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/04S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### **Features**

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 4 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 4 channels
  - ◆ Mono, perfect quality, maximum 2 channels
  - ◆ Stereo, standard quality, maximum 2 channels
  - ◆ Stereo, perfect quality, maximum 1 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 8 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- Universal mains power facility allows use worldwide

### **Controls and Indicators**

- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### **Interconnections**

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- 4 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Extension interface





## **HCS-5100MC/08S** **8 CHs Digital Infrared Transmitter**



The transmitter is the heart of the HCS-5100 system. HCS-5100MC/08S accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit and HCS-4100M/50 congress main unit through HCS-8300MO series audio output device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/08S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### **Features**

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 8 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 8 channels
  - ◆ Mono, perfect quality, maximum 4 channels
  - ◆ Stereo, standard quality, maximum 4 channels
  - ◆ Stereo, perfect quality, maximum 2 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 16 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- Universal mains power facility allows use worldwide

### **Controls and Indicators**

- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### **Interconnections**

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- 8 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Extension interface



## HCS-5100MC/16S 16 CHs Digital Infrared Transmitter



The transmitter is the heart of the HCS-5100 system. HCS-5100MC/16S accepts and modulates up to 16 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit and HCS-4100M/50 congress main unit through HCS-8300MO series audio output device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/16S is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

### Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 16 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - ◆ Mono, standard quality, maximum 16 channels
  - ◆ Mono, perfect quality, maximum 8 channels
  - ◆ Stereo, standard quality, maximum 8 channels
  - ◆ Stereo, perfect quality, maximum 4 channels
- Adjustable sensitivity for each input to enable fine tuning of audio levels
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- Combination mode: two N channel IR transmitters can be incorporated to make up a 2N channel system, at most 32 channels
- During adjournment, music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- Universal mains power facility allows use worldwide

### Controls and Indicators

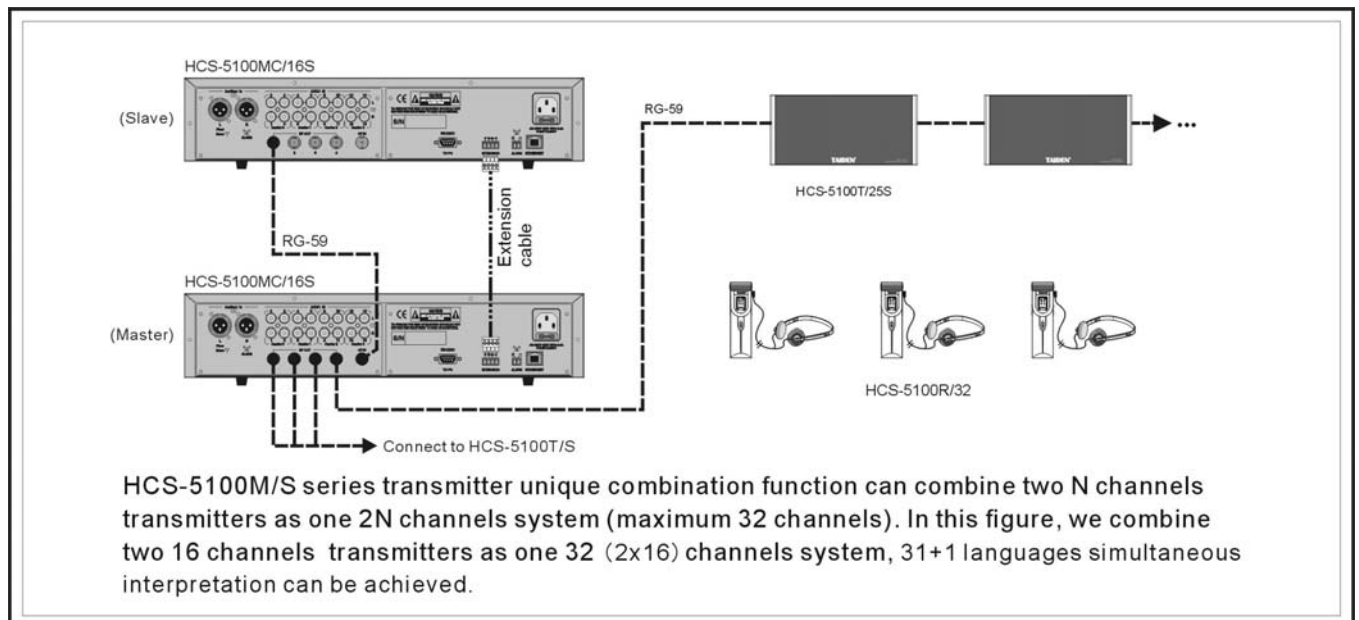
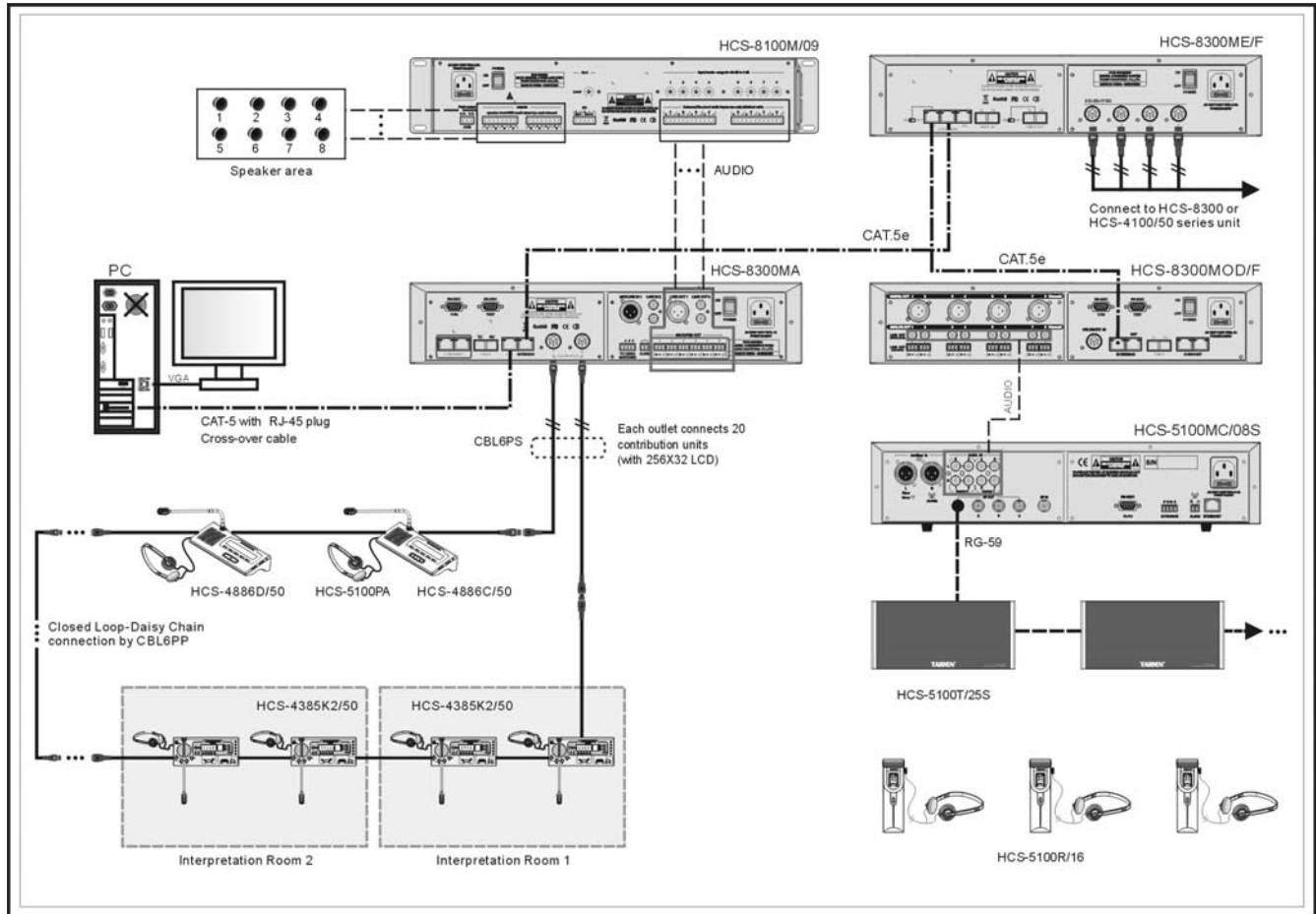
- 256×32 LCD can display the status of the transmitter and the menu of system configuration
- Four buttons for configuration
- Power switch with indicator (red)
- Monitor channel select knob
- Monitor volume control knob
- Mini IR radiators

### Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 4 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- Ethernet and RS-232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- 16 audio signal input connectors to connect external unbalanced audio input signals
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- Extension interface



## System Connection



# HCS-5100T/15S

## Multi-Channel Digital Infrared Radiator



## Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- Standby indication, working indication, failure indication
- Installation: fixed up by bracket or tripod (various mounting methods supported), 10 radiation angles
- Half-transmitting angle :  $\pm 22^\circ$
- Emission power: 15 W
- Power consumption: 35 W
- Maximum radiation range: 30 meters
- Synchronization ON/OFF with transmitter
- Automatic gain control
- Temperature control: if temperature is too high, control switches to half-power with LED indication
- Manual half-power switch on the rear, convenient for small conferences
- Delay compensation for differences in cable lengths between transmitter and radiators

The radiator receives carrier signals generated by the transmitter and emits infrared radiation, carrying up to 32 audio distribution channels. Radiators are connected to the HF (BNC) connectors of the IR transmitter. A maximum of 30 daisy chained radiators can be connected to each output.

## Controls and Indicators

- Power indicator
- Temperature protection indicator
- Input signal indicator
- Fault indicator
- Output power switch
- Delay compensation indicator
- Delay compensation buttons (-/+)

## Interconnections

- HF input and output connectors (2 x BNC) for connection to transmitter and loop-through to other radiators

## Technical Specifications

## Electrical and optical

Modulation\_\_\_\_\_DQPSK, according to IEC 61603-7

Modulation frequency:

Carriers 0 to 5 \_\_\_\_\_ 2 to 6 MHz, according to IEC 61603-7

Carriers 6 and 7 Up to 8 MHz

Angle of half intensity..... $\pm 22^\circ$

HF input\_\_\_\_\_Nominal 1 Vpp, minimum 10 mVpp, 75 Ohm

HF output 1 Vpp, 6 V DC, 75 Ohm

Mains voltage 110/220 V, 50 to 60 Hz

Power consumption ..... 35 W

Power consumption (standby)..... 8 W

## Mechanical

Mounting.....Suspension bracket for direct ceiling mounting;  
mounting plates for floor stands; wall mounting  
bracket HCS-5100TBZJ can be used for fixing  
radiator to wall surfaces

Dimensions h x w x d (mm) 245 x 450 x 145

Weight 5.0 kg

Front color	Red
-------------	-----

## Ordering Information

HCS-5100T/15S.....Multi-channel Digital Infrared Radiator  
(15 W, 75  $\Omega$ )



# HCS-5100T/25S

## Multi-Channel Digital Infrared Radiator



## Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- Standby indication, working indication, failure indication
- Installation: fixed up by bracket or tripod (various mounting methods supported), 10 radiation angles
- Half-transmitting angle :  $\pm 22^\circ$
- Emission power: 25 W
- Power consumption: 75 W
- Maximum radiation range: 50 meters
- Synchronization ON/OFF with transmitter
- Automatic gain control
- Temperature control: if temperature is too high, control switches to half-power with LED indication
- Manual half-power switch on the rear, convenient for small conferences
- Delay compensation for differences in cable lengths between transmitter and radiators

The radiator receives carrier signals generated by the transmitter and emits infrared radiation, carrying up to 32 audio distribution channels. Radiators are connected to the HF (BNC) connectors of the IR transmitter. A maximum of 30 daisy chained radiators can be connected to each output.

## Controls and Indicators

- Power indicator
- Temperature protection indicator
- Input signal indicator
- Fault indicator
- Output power switch
- Delay compensation indicator
- Delay compensation buttons (-/+)

## Interconnections

- HF input and output connectors (2 x BNC) for connection to transmitter and loop-through to other radiators

## Technical Specifications

## Electrical and optical

Modulation.....DQPSK, according to IEC 61603-7

Modulation frequency:

Carriers 0 to 5.....2 to 6 MHz, according to IEC 61603-7

Carriers 6 and 7.....Up to 8 MHz

Angle of half intensity..... $\pm 22^{\circ}$

HF input.....Nominal 1 Vpp, minimum 10 mVpp, 75 Ohm

HF output.....1 Vpp, 6 V DC, 75 Ohm

Mains voltage.....110/220 V, 50 to 60 Hz

Power consumption.....75 W

Power consumption (standby).....8 W

## Mechanical

Mounting.....Suspension bracket for direct ceiling mounting;  
mounting plates for floor stands; wall mounting  
bracket HCS-5100TBZJ can be used for fixing  
radiator to wall surfaces

Dimensions h x w x d (mm).....245 × 450 × 145

Weight.....5.0 kg

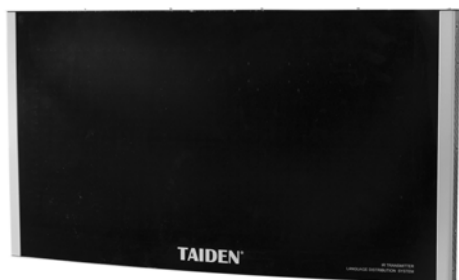
Front color.....Red

## Ordering Information

HCS-5100T/25S.....Multi-channel Digital Infrared Radiator  
(25 W, 75  $\Omega$ )

# HCS-5100T/35S

## Multi-Channel Digital Infrared Radiator



## Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- Standby indication, working indication, failure indication
- Installation: fixed up by bracket or tripod (various mounting methods supported), 10 radiation angles
- Half-transmitting angle:  $\pm 22^\circ$
- Emission power: 35 W
- Power consumption: 150 W
- Maximum radiation range: 97 meters
- Synchronization ON/OFF with transmitter
- Automatic gain control
- Temperature control: if temperature is too high, control switches to half-power with LED indication
- Manual half-power switch on the rear, convenient for small conferences
- Delay compensation for differences in cable lengths between transmitter and radiators

The radiator receives carrier signals generated by the transmitter and emits infrared radiation, carrying up to 32 audio distribution channels. Radiators are connected to the HF (BNC) connectors of the IR transmitter. A maximum of 30 daisy chained radiators can be connected to each output.

## Controls and Indicators

- Power indicator
- Temperature protection indicator
- Input signal indicator
- Fault indicator
- Output power switch
- Delay compensation indicator
- Delay compensation buttons (-/+)

## Interconnections

- HF input and output connectors (2 x BNC) for connection to transmitter and loop-through to other radiators

## Technical Specifications

## Electrical and optical

Modulation	DQPSK, according to IEC 61603-7
------------	---------------------------------

Modulation frequency:

Carriers 0 to 5 \_\_\_\_\_ 2 to 6 MHz, according to IEC 61603-7

Carriers 6 and 7 Up to 8 MHz

Angle of half intensity..... $\pm 22^{\circ}$

HF input\_\_\_\_\_Nominal 1 Vpp, minimum 10 mVpp, 75 Ohm

HF output 1 Vpp, 6 V DC, 75 Ohm

Mains voltage	110/220 V, 50 to 60 Hz
---------------	------------------------

Power consumption	150 W
-------------------	-------

Power consumption (standby)	8 W
-----------------------------	-----

## Mechanical

Mounting.....Suspension bracket for direct ceiling mounting;  
mounting plates for floor stands; wall mounting  
bracket HCS-5100TBZJ can be used for fixing  
radiator to wall surfaces

Dimensions h x w x d (mm) 305 x 500 x 145

Weight 6.5 kg

Front color	Red
-------------	-----

## Ordering Information

HCS-5100T/35S.....Multi-channel Digital Infrared Radiator  
(35 W, 75 Ω)

## HCS-5100TBZJ Wall Mounting Bracket



---

### Features

- Wall mounting bracket, can be used for fixing radiator to wall surfaces

---

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....203× 200 × 285  
Weight.....1.55 kg  
Color.....Silver

---

### Ordering Information

HCS-5100TBZJ.....Wall-mounting Bracket

## HCS-5100R Digital Infrared Receivers



### Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- Independent intellectual property chipset for digital infrared processor, and DQPSK digital modulation/demodulation technology
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Channel selection via up/down button, at most 4,8,16 or 32 channels available
- LCD display with channel number, language name, battery and signal status indication
- Number of available channels is always the same as the number of channels in use by the system, eliminating the need to scroll through unused channels
- Adjustable volume
- Unique 270° super wide reception angle, ensuring perfect sound quality even when casually placed
- Audio signal automatically muted when signal is too low, ensuring that the user receives only high quality audio
- Ergonomically compact and elegant design
- Lightweight and handy receiver in conjunction with single earphone (EP-820AS/EP-820BS) or headphone (HCS-5100PA) for easy and comfortable use
- Can be hung over the neck via a nice strap or fit into the shirt pocket
- Freedom of movement within the range of IR power radiator
- No limit to the receiver number within the IR power radiation range
- Works without errors, even in bright sunlight
- Built-in high precision rechargeable circuitry to prolong the battery life
- Can be used with disposable batteries (2×AA alkaline batteries, not included) or environmentally-friendly Ni-MH rechargeable battery pack (not included)
- No power consumption when headphone is disconnected
- Measurement mode for easy checking of radiator coverage
- Can be equipped with alarm system to prevent loss
- Can work with HCS-5300 digital infrared wireless conference system and achieve up to 1+3 channels infrared wireless simultaneous interpretation

HCS-5100R is a series of IR receivers, which can receive up to 32 language channels. Both rechargeable NI-HM battery and disposable battery can be used. The receiver is equipped with channel selector, volume control, power switch, Ø 3.5 mm stereo earphone jack, and charging circuit on the PCB. A LCD displays channel number with language name, received signal intensity, battery capacity and volume.

### Controls and Indicators

- LCD can display channel number, language name, battery capacity, signal intensity and volume
- Power switch
- Channel selector buttons
- Volume control buttons

### Interconnections

- Ø 3.5 mm stereo earphone jack
- Charging contacts

### Technical Specifications

#### System Specifications

Modulation.....	DQPSK, according to IEC 61603-7
Modulation frequency	
Carriers 0 to 5.....	2 to 6 MHz, according to IEC 61603-7
Carriers 6 and 7.....	up to 8 MHz
Frequency response.....	20 Hz to 10 kHz (-3dB) at standard quality;
	20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 KHz.....	<0.05%
Isolation.....	>80 dB
Dynamic range.....	>80 dB
Weighted SNR.....	>80 dBA
Input range.....	-12 dBV ~ +12 dBV (adjustable)

#### Electrical

IR irradiance level.....	4 mW/m <sup>2</sup> per carrier
Angle of sensitivity.....	270°
Headphone output level at 2.4 V.....	450 mVrms (speech at maximum volume, 32 Ohm headphone)
Headphone output freq. range.....	20 Hz to 20 kHz
Headphone output impedance.....	32 Ohm to 2 kOhm
Max. SNR.....	>80 dBA
Supply voltage.....	1.8 to 3.6 V, nominal 2.4 V
Power consumption	
Normal (at 2.4 V).....	38 mA (32 Ohm headphone)
Headphone jack unplugged.....	0 mA
Battery life	
2×AA alkaline cells.....	70 hours
Rechargeable battery pack.....	52 hours

## Mechanical

Dimensions h x w x d (mm).....155 × 46 × 24

### Weight

Excl. batteries.....80 g

Incl. batteries.....135 g

Color.....Gray

---

## Ordering Information

HCS-5100R/04.....4 CHs Digital Infrared Receiver  
(LCD, language display,  
optional rechargeable battery  
pack or 2xAA alkaline cells)

HCS-5100R/08.....8 CHs Digital Infrared Receiver  
(LCD, language display,  
optional rechargeable battery  
pack or 2xAA alkaline cells)

HCS-5100R/16.....16 CHs Digital Infrared Receiver  
(LCD, language display,  
optional rechargeable battery  
pack or 2xAA alkaline cells)

HCS-5100R/32.....32 CHs Digital Infrared Receiver  
(LCD, language display,  
optional rechargeable battery  
pack or 2xAA alkaline cells)

## HCS-5100RA

### Digital Infrared Receiver



## Features

- Compliant to IEC 61603-7 and IEC 60914
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- Independent intellectual property chipset for digital infrared processor, and DQPSK digital modulation/demodulation technology
- Transmitting in 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Channel selection via up/down button, at most 4,8,16 or 32 channels available
- LCD display with channel number, language name, battery and signal status indication
- Number of available channels is always the same as the number of channels in use by the system, eliminating the need to scroll through unused channels
- Adjustable volume
- Unique 270° super wide reception angle, ensuring perfect sound quality even when casually placed
- Audio signal automatically muted when signal is too low, ensuring that the user receives only high quality audio
- Ergonomically compact and elegant design
- Lightweight and handy receiver in conjunction with single earphone (EP-820AS/EP-820BS) or headphone (HCS-5100PA) for easy and comfortable use
- Can be hung over the neck via a nice strap or fit into the shirt pocket
- Freedom of movement within the range of IR power radiator
- No limit to the receiver number within the IR power radiation range
- Works without errors, even in bright sunlight
- Used with disposable batteries (2×AA alkaline batteries, not included)
- No power consumption when headphone is disconnected
- Measurement mode for easy checking of radiator coverage
- Can be equipped with alarm system to prevent loss
- Can work with HCS-5300 digital infrared wireless conference system and achieve up to 1+3 channels infrared wireless simultaneous interpretation

HCS-5100RA is a series of IR receivers, which can receive up to 32 language channels, only for disposable battery. The receiver is equipped with channel selector, volume control, power switch, Ø 3.5 mm stereo earphone jack. A LCD displays channel number with language name, received signal intensity, battery capacity and volume.

## Controls and Indicators

- LCD can display channel number, language name, battery capacity, signal intensity and volume
- Power switch
- Channel selector buttons
- Volume control buttons

## Interconnections

- Ø 3.5 mm stereo earphone jack

## Technical Specifications

## System Specifications

Modulation	DQPSK, according to IEC 61603-7
------------	---------------------------------

Modulation frequency

Carriers 0 to 5 \_\_\_\_\_ 2 to 6 MHz, according to IEC 61603-7

Carriers 6 and 7 up to 8 MHz

Frequency response.....20 Hz to 10 kHz (-3dB) at standard quality;

20 Hz to 20 kHz (-3dB) at perfect quality

THD at 1 KHz.....<0.05%

Isolation \_\_\_\_\_ &gt;80 dB

Dynamic range\_\_\_\_\_>80 dB

Weighted SNR.....>80 dBA

Input range.....-12 dBV ~ +12 dBV (adjustable)

## Electrical

IR irradiance level 4 mW/m<sup>2</sup> per carrier

Angle of sensitivity 270°

Headphone output level at 2.4 V...450 mVrms (speech at maximum volume, 32 Ohm headphone)

Headphone output freq. range 20 Hz to 20 kHz

Headphone output impedance 32 Ohm to 2 kOhm

Max. SNR	>80 dBA
----------	---------

Supply voltage	1.8 to 3.6 V, nominal 2.4 V
----------------	-----------------------------

## Power consumption

Normal ( at 2.4 V)                      38 mA (32 Ohm headphone)

Headphone jack unplugged..... 0 mA

Battery life.....70 hours

## Mechanical

Dimensions h x w x d (mm) 155 x 46 x 24

Weight

Excl. batteries ..... 80 g

Incl. batteries	135 g
-----------------	-------

Color Gray



## Ordering Information

HCS-5100RA/04.....4 CHs Digital Infrared Receiver  
(LCD, language display, 2xAA alkaline cells)

HCS-5100RA/08.....8 CHs Digital Infrared Receiver  
(LCD, language display, 2xAA alkaline cells)

HCS-5100RA/16.....16 CHs Digital Infrared Receiver  
(LCD, language display, 2xAA alkaline cells)

HCS-5100RA/32.....32 CHs Digital Infrared Receiver  
(LCD, language display, 2xAA alkaline cells)

## HCS-5100CHG/60 IR Receiver Charging Case



### Features

- Used for charging IR receivers (HCS-5100R)
- Charges 60 pcs of IR receivers per charging
- Uses universal power supply with automatic voltage matching

### Controls and Indicators

- Power switch
- Charging indicator on the receiver

### Interconnections

- Power output interface
- Power input interface
- Charging lattices

### Technical Specifications

#### Electrical

Mains voltage.....AC 110 V ~ 120 V/220 V ~ 240 V  
Power consumption.....125 W (60 receivers charging)  
Power consumption (standby).....7 W (no receiver in charging case)

#### Mechanical

Dimensions h x w x d (mm).....260 × 610 × 405  
Net weight.....14.5 kg (w/o IR receiver)  
Color.....Blue

### Ordering Information

HCS-5100CHG/60.....IR Receiver Charging Case (60 pcs/case)

## HCS-5100KS IR Receiver Storage Case



### Features

- Used for storing and transporting IR receivers
- Every case can store up to 100 IR receivers

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....205 × 669 × 307  
Net weight.....6 kg (w/o IR receiver)  
Gross weight.....14 kg (w/100 pcs IR receivers, w/o battery)  
Color.....Blue

### Ordering Information

HCS-5100KS.....IR Receiver Storage Case (100 pcs/case)

## HCS-5100PA Headphone (stereo)



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- $32\ \Omega \times 2$ ,  $\varnothing$  3.5 mm stereo plug
- Frequency response: 20 Hz to 20 kHz
- Sensitivity:  $\geq 108$  dBA/1 mW

### Ordering Information

HCS-5100PA.....Headphone (stereo)

## EP-820AS Single Earphone



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- $\varnothing$  3.5 mm stereo plug
- $32\ \Omega$  (Tip and Sleeve, Ring: NC)
- Frequency response: 50 Hz to 20 kHz
- Sensitivity:  $\geq 102$  dBA/1 mW

### Ordering Information

EP-820AS.....Single Earphone

## EP-920BS Inner Earphone (stereo)



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- $16\ \Omega \times 2$ ,  $\varnothing$  3.5 mm stereo plug
- Frequency response: 50 Hz to 20 kHz
- Sensitivity:  $\geq 108$  dBA/1 mW

### Ordering Information

EP-920BS.....Inner Earphone (stereo)

## EP-820BS Single Earphone



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- $\varnothing$  3.5 mm stereo plug
- $32\ \Omega$  (Tip and Sleeve, Ring: NC)
- Frequency response: 20 Hz to 20 kHz
- Sensitivity:  $\geq 108$  dBA/1 mW

### Ordering Information

EP-820BS.....Single Earphone

## Sponge Ear Pads



### Features

- Used for HCS-5100PA headphone
- 100 pairs per package
- Color: black

### Ordering Information

Sponge Ear Pads.....Sponge Ear Pads

## HCS-5100BAT-16 Ni-MH Rechargeable Battery Pack



### Features

- Ni-MH rechargeable battery pack
- Suitable for HCS-5100R series digital infrared receiver

### Technical Specifications

#### Electrical

Voltage.....2.4 V  
Capacity.....1600 mAh

#### Mechanical

Dimensions h x w x d (mm).....51 × 27 × 15  
Weight.....50 g  
Color.....Green

### Ordering Information

HCS-5100BAT-16.....Ni-MH Rechargeable Battery Pack

## RG-59 Coaxial-cable



### Features

- Equivalent impedance: 75 Ohm
- Ø 5 mm
- Length of per roll: 200 meter

### Ordering Information

RG-59.....Coaxial-cable (75 Ω)

## BNC Connector



### Features

- Used to connect HCS-5100M/S and HCS-5100T/S or between HCS-5100T/S
- Used with RG-59 Coaxial-cable

### Ordering Information

BNC Connector.....BNC Connector

## HCS-836 Burglarproof Detection System (for IR Receiver)



### Features

- High sensitivity, low failure rate
- Adopts multiple advanced techniques, such as PLL simultaneous reduction filtering, noise suppression circuit, etc
- User-friendly design with two ring tones and three volume levels optional
- Easy to install, debug and use
- Novel and unique appearance

### Technical Specifications

#### Electrical

Maximum scan bandwidth.....7.7 MHz ~ 8.7 MHz  
 Scan frequency.....162/171/180/189 Hz  
 Signal sampling period.....21.8  $\mu$ s  
 Detection range..... $\leq 1.2$  m  
 Tag detection frequency..... $\geq 2$  m/s  
 Frequency optional.....8.2 MHz/10.5 MHz  
 Alarm volume optional.....High/medium/low

#### Mechanical

Dimensions h x w x d (mm).....1650 x 340 x 85  
 Weight.....22 kg  
 Color.....Black

### Ordering Information

HCS-836.....Burglarproof Detection System (for IR receiver)

## HCS-851A/02 Interpreter Booth



### Features

- Compliant to ISO 4043
- Odorless, antistatic, fire-retardant material
- Optimum insulation and sound absorption
- Hinged door (with observation window 0.20 m x 0.22 m), opens outwards, operates silently
- Two front windows and two side windows (dimensions: 0.76 m x 0.85 m each); lower edge of the window: 0.80 m from booth floor
- Booth to hall (and vice versa) - sound pressure level difference: >18 dB (1 kHz)
- Reverberation time inside the booth: between 0.3 s and 0.5 s (octave bands from 125 Hz to 4000 Hz, booth unoccupied)
- Sound pressure level inside the booth by ventilating system  $\leq 40$  dBA
- Shipping needs HCS-851K (interpreter booth shipping case)
- Internal dimensions h x w x d (cm): 200 x 167 x 160, accommodates two interpreters

### Ordering Information

HCS-851A/02.....Interpreter Booth (accommodates 2 interpreters)

## **HCS-851A/03 Interpreter Booth**



---

### **Features**

- Compliant to ISO 4043
- Odorless, antistatic, fire-retardant material
- Optimum insulation and sound absorption
- Hinged door (with observation window 0.20 m × 0.22 m), opens outwards, operates silently
- Three front windows and two side windows (dimensions: 0.76 m × 0.85 m each); lower edge of the window: 0.80 m from booth floor
- Booth to hall (and vice versa) - sound pressure level difference: >18 dB (1 kHz)
- Reverberation time inside the booth: between 0.3 s and 0.5 s (octave bands from 125 Hz to 4000 Hz, booth unoccupied)
- Sound pressure level inside the booth by ventilating system ≤40 dBA
- Shipping needs HCS-851K (interpreter booth shipping case)
- Internal dimensions h × w × d (cm): 200×250×160, accommodates three interpreters

---

### **Ordering Information**

HCS-851A/03 \_\_\_\_\_Interpreter Booth (accommodates 3 interpreters)



## HCS-4100/50 Series Digital Congress System

<b>HCS-4100/50 Series Digital Congress System</b> .....		<b>5.6</b>
<b>HCS-4100/50 Series Congress Units' Functions List</b> .....		<b>5.13</b>
<b>HCS-4886/87/88 Series Congress Units</b> .....		<b>5.15</b>
HCS-4886C/50	Digital Congress System Chairman Unit (tabletop/flush-mounting, 5 voting keys, IC-Card, 64 CHs, 256x32" LCD, silver).....	5.15
HCS-4886D/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, 5 voting keys, IC-Card, 64 CHs, 256x32" LCD, silver).....	5.18
HCS-4886X/50	Digital Congress System Operator Unit (tabletop/flush-mounting, for intercom communication, 256x32" LCD, silver).....	5.20
HCS-4887D/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, 5 voting keys, IC-Card, 256x32" LCD, silver).....	5.22
HCS-4888DE/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, 5 voting keys, silver).....	5.24
HCS-4886MP	Mounting Plate (for HCS-4886/87/88 series).....	5.26
HCS-4886MP2	Mounting Plate (for HCS-4886/87/88 series + HCS-8386K/F).....	5.26
<b>HCS-4380/82/70/71 Series Congress Units</b> .....		<b>5.27</b>
HCS-4380SC/50	Digital Congress System Chairman Unit (tabletop/flush-mounting, 5 voting keys, IC-Card, 64 CHs, 256x32" LCD, gray).....	5.27
HCS-4380SD/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, 5 voting keys, IC-Card, 64 CHs, 256x32" LCD, gray).....	5.29
HCS-4380SX/50	Digital Congress System Operator Unit (tabletop/flush-mounting, for intercom communication, 256x32" LCD, gray).....	5.31
HCS-4382SD/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, 5 voting keys, 256x32" LCD, gray).....	5.33
HCS-4370SDE/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, 5 voting keys, IC-Card, 64 CHs, gray).....	5.35
HCS-4371SD/50	Digital Congress System Delegate Unit (tabletop/flush-mounting, gray).....	5.37
<b>HCS-4365/66 Series Congress Units</b> .....		<b>5.39</b>
HCS-4365C/50	Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, 256x32" LCD, cover, silver).....	5.39
HCS-4365D/50	Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, 256x32" LCD, cover, silver).....	5.41
HCS-4366DE/50	Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, silver).....	5.43
<b>HCS-4360/61/62/63 Series Conference Units</b> .....		<b>5.45</b>
HCS-4360CE/50	Digital Conference System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, gray).....	5.45
HCS-4360DE/50	Digital Conference System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, gray).....	5.47
HCS-4361DE/50	Digital Conference System Delegate Unit (flush-mounting, 5 voting keys, cover, gray).....	5.49
HCS-4362D/50	Digital Conference System Delegate Unit (flush-mounting, 64 CHs, cover, gray).....	5.51
HCS-4363D/50	Digital Conference System Delegate Unit (flush-mounting, cover, gray).....	5.53
<b>HCS-4335D/50 Digital Congress System Delegate Unit (tabletop, 64 CHs, 2 channel selectors, dual IDs, gray)</b> .....		<b>5.55</b>
<b>HCS-4335D S/50 Digital Congress System Delegate Unit (tabletop, 64 CHs, 2 channel selectors, dual IDs, silver)</b> .....		<b>5.55</b>

<b>HCS-4330/31/32/33 Series Congress Units</b> .....	<b>5.57</b>
HCS-4330CE/50 Digital Congress System Chairman Unit (tabletop, 5 voting keys, IC-Card, 64 CHs, gray).....	5.57
HCS-4330CE_S/50 Digital Congress System Chairman Unit (tabletop, 5 voting keys, IC-Card, 64 CHs, silver).....	5.57
HCS-4330DE/50 Digital Congress System Delegate Unit (tabletop, 5 voting keys, IC-Card, 64 CHs, gray).....	5.59
HCS-4330DE_S/50 Digital Congress System Delegate Unit (tabletop, 5 voting keys, IC-Card, 64 CHs, silver).....	5.59
HCS-4331CB/50 Digital Congress System Chairman Unit (tabletop, 64 CHs, speech timer, gray).....	5.61
HCS-4331CB_S/50 Digital Congress System Chairman Unit (tabletop, 64 CHs, speech timer, silver).....	5.61
HCS-4331DB/50 Digital Congress System Delegate Unit (tabletop, 64 CHs, speech timer, gray).....	5.63
HCS-4331DB_S/50 Digital Congress System Delegate Unit (tabletop, 64 CHs, speech timer, silver).....	5.63
HCS-4332DE/50 Digital Congress System Delegate Unit (tabletop, 5 voting keys, gray).....	5.65
HCS-4332DE_S/50 Digital Congress System Delegate Unit (tabletop, 5 voting keys, silver).....	5.65
HCS-4333CB/50 Digital Congress System Chairman Unit (tabletop, speech timer indicator, gray).....	5.67
HCS-4333CB_S/50 Digital Congress System Chairman Unit (tabletop, speech timer indicator, silver).....	5.67
HCS-4333DB/50 Digital Congress System Delegate Unit (tabletop, speech timer & request-to-speak indicator, gray).....	5.69
HCS-4333DB_S/50 Digital Congress System Delegate Unit (tabletop, speech timer & request-to-speak indicator, silver).....	5.69
<b>HCS-4320/21/22 Series Congress Units</b> .....	<b>5.71</b>
HCS-4320CE/50 Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, gray).....	5.71
HCS-4320DE/50 Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, gray).....	5.73
HCS-4321DE/50 Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, 64 CHs, cover, gray).....	5.75
HCS-4322D/50 Digital Congress System Delegate Unit (flush-mounting, 64 CHs, cover, gray).....	5.77
HCS-4320HCE/50 Digital Congress System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, gray, handheld MIC).....	5.79
HCS-4320HDE/50 Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, 64 CHs, cover, gray, handheld MIC).....	5.81
HCS-4321HDE/50 Digital Congress System Delegate Unit (flush-mounting, 5 voting keys, 64 CHs, cover, gray, handheld MIC).....	5.83
HCS-4322HD/50 Digital Congress System Delegate Unit (flush-mounting, 64 CHs, cover, gray, handheld MIC).....	5.85
<b>HCS-4341A Series Congress Units</b> .....	<b>5.87</b>
HCS-4341CA/50 Digital Congress System Chairman Unit (flush-mounting, HCS-4340CA/50 needed, gray).....	5.87
HCS-4341CA_S/50 Digital Congress System Chairman Unit (flush-mounting, HCS-4340CA/50 needed, silver).....	5.87
HCS-4341DA/50 Digital Congress System Delegate Unit (flush-mounting, HCS-4340DA/DT/50 needed, gray).....	5.89
HCS-4341DA_S/50 Digital Congress System Delegate Unit (flush-mounting, HCS-4340DA/DT/50 needed, silver).....	5.89
<b>HCS-4341B Series Congress Units</b> .....	<b>5.91</b>
HCS-4341CB/50 Digital Congress System Chairman Unit (boundary, HCS-4340CA/50 needed, black).....	5.91
HCS-4341DB/50 Digital Congress System Delegate Unit (boundary, HCS-4340DA/DT/50 needed, black).....	5.93
<b>HCS-4341H/50 Digital Congress System Handheld Delegate Unit (flush-mounting, HCS-4340HDA/HDT/50 needed, black, handheld MIC.)</b> .....	<b>5.94</b>

<b>HCS-4841N Series Congress Units</b>	<b>5.96</b>
HCS-4841NC/50 Digital Congress System Chairman Unit (flush-mounting, HCS-4340CA/50 needed, silver)	5.96
HCS-4841NC_G/50 Digital Congress System Chairman Unit (flush-mounting, HCS-4340CA/50 needed, gray)	5.96
HCS-4841ND/50 Digital Congress System Delegate Unit (flush-mounting, HCS-4340DA/DT/50 needed, silver)	5.98
HCS-4841ND_G/50 Digital Congress System Delegate Unit (flush-mounting, HCS-4340DA/DT/50 needed, gray)	5.98
<b>HCS-4842N/50 Flush-mounting 64-channel Selector (HCS-4340CA/DA/HDA/B/DT/HDT/50 needed, silver)</b>	<b>5.100</b>
<b>HCS-4842N_G/50 Flush-mounting 64-channel Selector (HCS-4340CA/DA/HDA/B/DT/HDT/50 needed, gray)</b>	<b>5.100</b>
<b>HCS-4843NT Series 3-key Voting Units</b>	<b>5.101</b>
HCS-4843NCTE/50 Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, HCS-4340CA/50 needed, silver)	5.101
HCS-4843NCTE_G/50 Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, HCS-4340CA/50 needed, gray)	5.101
HCS-4843NDTE/50 Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, HCS-4340DA/HDA/50 needed, silver)	5.101
HCS-4843NDTE_G/50 Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, HCS-4340DA/HDA/50 needed, gray)	5.101
HCS-4843NCTKE/50 Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340CA/50 needed, silver)	5.102
HCS-4843NCTKE_G/50 Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340CA/50 needed, gray)	5.102
HCS-4843NDTKE/50 Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, silver)	5.103
HCS-4843NDTKE_G/50 Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, gray)	5.103
<b>HCS-4843NF Series 5-key Voting Units</b>	<b>5.104</b>
HCS-4843NCFE/50 Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, HCS-4340CA/50 needed, silver)	5.104
HCS-4843NCFE_G/50 Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, HCS-4340CA/50 needed, gray)	5.104
HCS-4843NDFE/50 Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, HCS-4340DA/HDA/50 needed, silver)	5.105
HCS-4843NDFE_G/50 Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, HCS-4340DA/HDA/50 needed, gray)	5.105
HCS-4843NCFKE/50 Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, HCS-4340CA/50 needed, silver)	5.106
HCS-4843NCFKE_G/50 Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, HCS-4340CA/50 needed, gray)	5.106
HCS-4843NDFKE/50 Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, silver)	5.107
HCS-4843NDFKE_G/50 Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, gray)	5.107
<b>HCS-4844N Series Flush Loudspeaker Panels</b>	<b>5.108</b>
HCS-4844N/50 Flush Loudspeaker Panel (silver)	5.108
HCS-4844N_G/50 Flush Loudspeaker Panel (gray)	5.108
HCS-4844NA/50 Flush Loudspeaker Panel (silver, cover)	5.108

HCS-4844NA_G /50	Flush Loudspeaker Panel (gray, cover).....	5.108
<b>HCS-4845N Series Flush End Caps.....</b>		<b>5.108</b>
HCS-4845N/50	Flush End Cap (silver, 50 pairs/pack).....	5.108
HCS-4845N_G/50	Flush End Cap (gray, 50 pairs/pack).....	5.108
<b>HCS-4846N Series Covers.....</b>		<b>5.109</b>
HCS-4846N1/50	Cover (for one unit, 213.8 mm, silver).....	5.109
HCS-4846N1_G/50	Cover (for one unit, 213.8 mm, gray).....	5.109
HCS-4846N2/50	Cover (for two units, 325.0 mm, silver).....	5.109
HCS-4846N2_G/50	Cover (for two units, 325.0 mm, gray).....	5.109
HCS-4846N3/50	Cover (for three units, 436.2 mm, silver).....	5.109
HCS-4846N3_G/50	Cover (for three units, 436.2 mm, gray).....	5.109
<b>HCS-4340 Series Multi-function Connectors.....</b>		<b>5.111</b>
HCS-4340CA/50	Multi-function Connector (for connection to 1 chairman unit + 1 voting unit + 1 channel selector).....	5.111
HCS-4340DA/50	Multi-function Connector (for connection to 1 delegate unit + 1 voting unit + 1 channel selector).....	5.111
HCS-4340HDA/50	Multi-function Connector (for connection to 1 handheld delegate unit+ 1 voting unit + 1 channel selector).....	5.112
HCS-4340B/50	Multi-function Connector (for connection to 4 pcs of channel selector).....	5.112
HCS-4340DT/50	Multi-function Connector (for connection to 2 delegate units+ 2 channel selectors).....	5.113
HCS-4340HDT/50	Multi-function Connector (for connection to 1 handheld delegate unit + 2 channel selectors).....	5.113
<b>HCS-4368 Series 5-key Voting Units.....</b>		<b>5.115</b>
HCS-4368CF_R/50	Digital Voting System Chairman Unit (tabletop, 5 voting keys, 256x32" LCD, waterproof, red).....	5.115
HCS-4368DF_R/50	Digital Voting System Delegate Unit (tabletop, 5 voting keys, 256x32" LCD, waterproof, red).....	5.116
HCS-4368CF/FM_R/50	Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red).....	5.117
HCS-4368CF/FM_S/50	Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver).....	5.117
HCS-4368DF/FM_R/50	Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red).....	5.118
HCS-4368DF/FM_S/50	Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver).....	5.118
HCS-4368CFK_R/50	Digital Voting System Chairman Unit (tabletop, 5 voting keys, 256x32" LCD, IC-Card, red).....	5.119
HCS-4368DFK_R/50	Digital Voting System Delegate Unit (tabletop, 5 voting keys, 256x32" LCD, IC-Card, red).....	5.120
HCS-4368CFK/FM_R/50	Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, red).....	5.121
HCS-4368CFK/FM_S/50	Digital Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, silver).....	5.121
HCS-4368DFK/FM_R/50	Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, red).....	5.122
HCS-4368DFK/FM_S/50	Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, silver).....	5.122
<b>HCS-4385K2/50 Digital Congress System Interpreter Unit (64 CHs, IC-Card, 256x64" LCD, MIC, loud-speaker).....</b>		<b>5.123</b>

HCS-4385MP	Mounting Plate (for HCS-4385K2/50).....	5.125
HCS-1020	Clip Microphone.....	5.125
<b>HCS-4100M/50 Series Digital Congress System Main Units.....</b>		<b>5.126</b>
HCS-4100MA/50	Digital Congress System Main Unit (discussion, voting, 64 CHs, 256x32" LCD, optical fiber interface).....	5.126
HCS-4100MB/50	Digital Congress System Main Unit (discussion, voting, 64 CHs, 256x32" LCD).....	5.129
HCS-4100MC/50	Digital Congress System Main Unit (discussion, voting, 256x32" LCD).....	5.132
<b>HCS-4100/50 Series Application Software.....</b>		<b>5.136</b>
HCS-4210/50	Basic System Setup Management Module.....	5.137
HCS-4212/50	Professional Venue Design Module.....	5.141
HCS-4213/50	Microphone Management Module.....	5.142
HCS-4214/50S	Voting Management Module (including delegate management, parliamentary voting, multi voting).....	5.143
HCS-4215/50	Video Control Module.....	5.145
HCS-4216/50	Simultaneous Interpretation Module.....	5.145
HCS-4217/50	Conference Sign-in Management Module.....	5.146
HCS-4218/50	Intercom Software Module.....	5.147
HCS-4219/50	Synchronous Audio Recording Management Module.....	5.148
HCS-4220/50	Synchronous Video Recording Management Module.....	5.149
HCS-4221/50	Multi-user Conference Control Management Module.....	5.150
HCS-4222/50	Dual PC Server Hot Spare Module.....	5.150
HCS-4223/50	Agenda Control Module.....	5.151
HCS-4224/50	Speech Prompt Module.....	5.151
HCS-4225/50	Dual System Main Unit Hot Spare Module.....	5.152
HCS-4226/50	Touch IC-Card Sign-in Management Module.....	5.153

## HCS-4100/50 Series Digital Congress System

### Overview

By using TAIDEN originated MCA-STREAM multi-channel audio digital transmitting technology, TAIDEN HCS-4100/50 Fully Digital Congress System (FDCS) revolutionizes conference systems technology by incorporating both the latest fully digital technologies and network techniques. Furthermore, with perfect integration of TAIDEN Conference Sign-in System and Intelligent Central Control System, HCS-4100/50 takes the leadership in providing comprehensive and efficient digital conference system solutions.

"Closed Loop - Daisy Chain" connection technology, to connect all congress units and simplifying installation, as well as dual connection backup have been opted for.

Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz.

### ● MCA-STREAM multi-channel audio digital transmitting technology

TAIDEN proprietary MCA-STREAM technology is the essential data transmission technology in the HCS-4100/50 system, e.g. transmitting up to 64 CHs high quality digital, control and other information data over a single dedicated 100 Mbps high speed 6-pin cable. Every unit - congress main unit, conference / discussion unit, language distribution unit, interpretation unit - is equipped with a high performance CPU as the kernel of the advanced technology infrastructure.

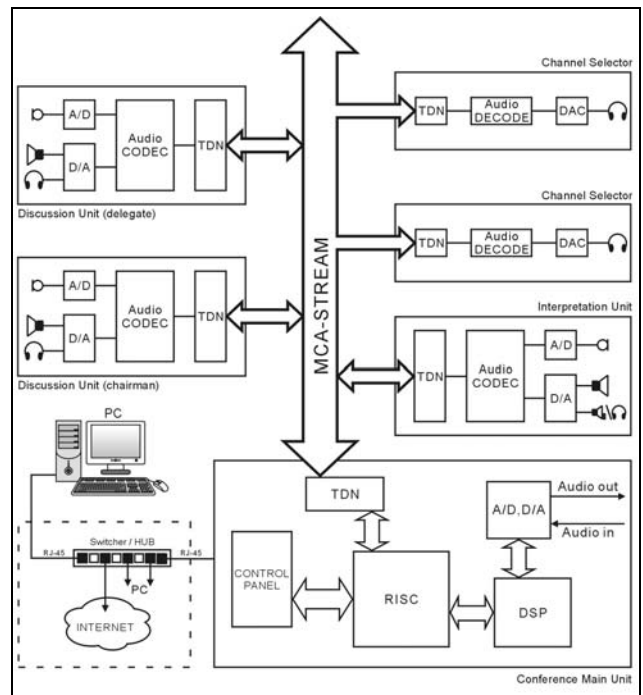
By virtue of using the MCA-STREAM technology, HCS-4100/50 FDCS carries out:

- ♦ Ease of system cabling and enhancement of system reliability by utilizing a single dedicated 6-pin cable to transmit up to 64 CHs floor and interpretation language signals, avoiding the necessity to use complicated multi-core cables,
- ♦ Prevention of noise caused by the ground wire in stereo projects as well of interference brought by other equipment (such as stage lights, recording apparatus, etc.). SNR reaches 96 dB and isolation is better than 85 dB. The frequency response verges on 30 Hz-20 kHz; making the system sound approaching CD quality.
- ♦ Provision of Hi-Fi sound quality, even in long range transmission, which makes the system widely suitable for various applications such as mini/medium type meeting rooms, large venues, stadiums, etc.

### ● HCS-4100/50 system hardware structure

HCS-4100/50 system hardware is an embedded structure based on dual high performance CPUs. Even in stand-alone mode, HCS-4100/50 is competent for the management of various meetings via several basic conference management facilities, such

as basic microphone management, electronic management, electronic voting, multilingual simultaneous interpretation, and automatic video tracking, etc.



In the figure above:

Audio CODEC: Dedicated audio coding and decoding chip of discussion unit and interpretation unit

TDN: Dedicated digital communication chip for TAIDEN digital conference system networking

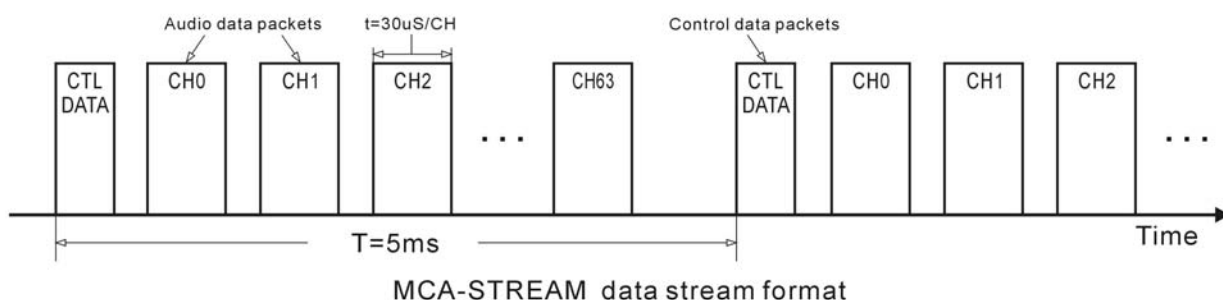
DAC: Digital-to-analog conversion chip

RISC: Central processing chipset of congress main unit, controlling the DSP and AD/DA conversion IC to provide 2-channel audio line in/out and record in/out facilities

Based on advanced hardware, HCS-4100/50 system features high security software, easy to operate, convenient to maintain and to upgrade. The meeting is fully controlled and monitored by the operator.

### ● Modular system structure

Any kind of configuration can be set up just by daisy-chaining HCS-4100/50 fully digital congress units. The modular system structure of HCS-4100/50 is applicable to any kind of conference and provides an accurate and efficient solution. Additional congress units can be added when needed. More system functions are available in connection with a PC and control software.





### ● HCS-4100/50 system software infrastructure

HCS-4100/50 system software is designed for the prevalent Client/Server structure. Client and server communicate with each other by using TCP/IP network protocol, ensuring both data security and transmission efficiency. Client and server software can run on the same computer as well as on different computers in the same LAN, enabling the operator to manage the conference more flexibly.

HCS-4100/50 system software imports the hot-spare dual server structure by using a main server and a back-up server. While the main server is processing, data are stored real time on the back-up server to prevent conference related information from loss in case of a crash of the main server. As a result, security and reliability of the conference system are improved vitally.

### ● Duplicate and backup connection via "Closed Loop - Daisy Chain" connection

For important meetings, especially those which consider connection reliability as their leading point, HCS-4100/50 Series Digital Congress System adopts advanced "Closed Loop - Daisy Chain" connection topology, connecting the last unit in the loop back to the congress main unit. Therefore, any congress unit in the loop has two connection paths to the congress main unit. As a result, breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units. As such the system features the advantages of a daisy chain connection system with its simpleness of cabling as well as the improvement of the system reliability through duplicate and backup connection functions.

### ● Advanced TCP/IP communication protocol in PC control

In a PC controlled system, the congress main unit and the PC use the advanced TCP/IP protocol. Theoretically, the communication distance between the PC and the CMU can be infinite. This is decisively different to traditional RS-232 connection modes where the distance between the PC and the CMU cannot exceed 15 meters. TCP/IP enables remote control, remote diagnosis and remote update.

By using network techniques, conference systems are tightly linked to the rapidly developing internet technology, computer science and communication technology. Users enjoy the convenience of the contemporary leading techniques, e.g. by using the compatible wireless LAN techniques (802.11) - such as PDAs - which can be used to control a conference system wirelessly. The import of network topology also makes the conference system merge with intelligent building networks.

### ● CMU and EMU

The congress main unit forms the core of the entire conference system. It provides power supply to all contribution units and serves as key component to link system hardware to application software. One CMU has two (6P-DIN) trunk-line cable outlets. If more congress units are needed, additional extension main units HCS-8300ME or HCS-8300ME/F are required, each EMU has four (6P-DIN) trunk-line cable outlets. HCS-4100/50 system maximum capacity: 378 simultaneous interpretation units (63 interpretation booths, 6 interpretation units in each), 4096 discussion/voting units and any number of channel selectors.

In stand-alone mode without a PC, the CMU carries out basic management facilities, simultaneous interpretation, electric voting and 64 CHs digital audio transmission. By operating HCS-4100/50 application software in PC-controlled mode, more comprehensive management facilities can be implemented.

### ● Contribution units

Contribution units are units used by participants to contribute to a conference and include: discussion unit (chairman/delegate), voting unit, interpretation unit, channel selector, etc. The basic contribution unit has discussion, voting and channel select facility. The upgraded units combine discussion, voting and channel select, furthermore built-in loudspeaker, IC-card reader and graphic 256x32/256x64 LCD with back-lighting, forming a wide variety of product series. The chairman unit has microphone priority facility with a priority key to switch off or to mute speaking units. If required, different functions can be allocated to delegate stations, including listening, discussion, request to speak, voting, IC-card sign-in, short message, information display, etc.

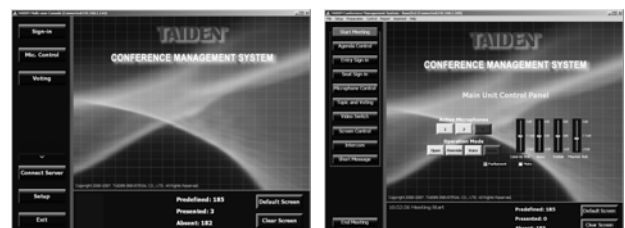
The interpretation unit consists of a graphic 256x64 LCD with back-lighting, an IC-card reader, a 63-channel selector, a built-in loudspeaker, a pluggable microphone, headphone sockets, etc. It supports direct and relay interpretation (with auto-relay facility) operation mode and optional voice input/output modes, simplifying interpreter's work remarkably.

A discussion unit - chairman or delegate unit with discussion facility - is the important component of the HCS-4100/50 system. Depending on the option, discussion units can be divided into foldaway, tabletop, flush-mounted and component. Each style consists of various products, which significantly enriches users' choices.

### ● Application software

HCS-4100/50 application software is comprehensive, reliable and user-friendly. It is also an easy-care software system which helps the operator to manage the conference efficiently from the very beginning of a meeting until the post-meeting work. Once the PC installed and the HCS-4100/50 application software integrated into the FDCS, the operator manages all aspects of the conference centrally. The operation turns out to be easy and efficient.

HCS-4100/50 application software is a modular software with various functional modules: System Setup Management Module, Microphone Management Module, Voting Management Module, Simultaneous Interpretation Module, Intercom Software Module, Synchronous Audio Recording Management Module, Synchronous Video Recording Management Module, Multi-user Conference Control Management Module, Dual PC Server Hot Spare Module, Agenda Control Module, Dual System Main Unit Hot Spare Module, etc.





### ● Installation and transportation

Easy installation is another important feature of HCS-4100/50 FDCS. All HCS-4100/50 digital congress units have a 1.5-meter-6P-DIN cable (with male connector) and a 0.6-meter-6P-DIN cable (with female connector) except HCS-4330/50 series which has a 2.1-meter-6P-DIN cable (with male connector) and a female connector. All congress units are connected together in a daisy chain configuration and connected to the main unit by the dedicated extension cable.

## Functions

### ● Discussion

- ✧ "Active microphones" (1/2/4), sets the number of delegates permitted to speak at the same time, and sets speaking time limit function.
- ✧ Four discussion modes:
  - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
  - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
  - "PTT" mode, press microphone key to talk
- ✧ VIP unit configurable:
  - By using contribution unit configuration module in HCS-4100/50 application software, a maximum of 32 delegate units can be set as VIP units
  - VIP unit can be activated in any mode freely, as long as the total number of active microphones does not exceeded 6 (including chairman / delegate / VIP)
- ✧ Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- ✧ Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed

### ● 64 CHs simultaneous interpretation

- ✧ Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz;
- ✧ HCS-4100/50 system can accommodate 378 simultaneous interpretation units (63 interpretation booths, 6 interpretation units in each), and provide 64 CHs (including floor language) simultaneous interpretation;
- ✧ The interpretation unit is equipped with a uni-directional electret condenser microphone. Gain and EQ (5 band) of each microphone adjustable separately for different acoustic features to get perfect sound performance for different orators. It features also 5 pre-defined input channels and 3 output interpretation channels and their corresponding short keys, high lightness 256×64 graphic LCD with back-lighting, built-in IC-card reader and audio record and playback function.
- ✧ Delegates use channel select to listen to different languages. In cooperation with channel selectors and/or infrared language distribution system, a larger listening audience can join in the meeting.

### ● Voting

- ✧ If the system is equipped with a chairman unit with a graphic LCD, parliamentary voting (YES/NO/ABSTAIN) can be implemented even without a PC. The result is displayed on the LCD of every contribution unit

- ✧ Cooperating with corresponding software modules, multiform voting can be implemented:
  - For/Against
  - Parliamentary: YES/NO/ABSTAIN
  - Multiple choice: 1/2/3/4/5
  - Audience response: --/0/+/>++
  - Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - Rating:
    - ✧ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
    - (Three keys voting: satisfied/basically satisfied/unsatisfied)
    - (Two keys voting: satisfied/unsatisfied)
  - ✧ Qualified (four/three/two keys voting)
  - ✧ Competent (four/three/two keys voting)

### ● Complex IC-card sign-in

HCS-4100/50 system takes the leading role in using the complex IC-card sign-in techniques for conference sign-in, i.e. delegates can use the same IC-card for both touched and contactless sign-in. This TAIDEN patent technology has not only simplified authentication and sign-in of the delegates, but has also eased operator's delegate management. Delegate information is displayed on congress units with IC-card reader and LCD display. More functions can be achieved when cooperating with HCS-4100/50 system software.

### ● Information display

- ✧ By using the information display module of the HCS-4100/50 application software, conference title, content, conference related information as well as meeting related notice can be displayed on large screen display (or projector).
- ✧ Contribution units equipped with graphic 256×32 LCD show :
  - Active microphone amount, request amount, delegates' signed-in and voting results, etc.
  - Messages (messages from system administrator to all or part of participants)
  - Multilingual (simplified/traditional Chinese and English, etc) menu

### ● Automatic video tracking system

Automatic video tracking can be carried out with video switch unit and camera.

### ● Comprehensive conference management

- ✧ The routine and trivial conference steps are handled in perfect order by the conference management software, meanwhile various information is processed and published real-time.
- ✧ Powerful control functions for venue circumstances, conference procedure and delegate arrangement, etc.

### ● Remote control and remote diagnosis

Using advanced TCP/IP network protocol in communication between PC and CMU - to implement remote control, remote diagnosis and remote update for the conference system - for easy central control of a multi-room configuration.

- **Intercom**

The built-in intercom facility allows bidirectional vocal communication between conference participants, interpreters and operators, if an operator unit is in the system. Extra equipment is not required.

- **Multi-room configuration function**

Several main units can constitute several independent conference systems, or can be combined together easily as a large multi-room conference system configuration.

- **Integrated optical fiber interface**

Optical fiber interface is integrated into HCS-4100MA/50 congress main unit, in cooperation with HCS-8300 series extension main unit, audio input interface or audio output device. Thus several mutually distant conference rooms can be combined and be operated as one venue.

Dual connection backup is implemented between HCS-4100MA/50 congress main unit and HCS-8300 series extension main unit via optical fiber and CAT5 cable.

- **Seamlessly Integrated with conference sign-in system and central control system**

The seamless integration of HCS-4100/50 FDCS, TAIDEN conference sign-in system and intelligent central control system provides comprehensive conference system solutions. Besides the basic conference management (discussion, voting, simultaneous interpretation, video tracking, etc.), it also provides conference sign-in and access control for the conference participants. Furthermore, it gives complete facilities to manage conference system power supply and peripheral multimedia equipment, surrounding lights, projector display and sound equipment. The easy incorporation of peripheral components upgrades the system into an advanced intelligent conference system with integrated solutions for conferencing, audio, lighting control etc.

- **Fully compatible with TAIDEN HCS-4100/20 Fully Digital Conference System and HCS-8300 Digital Congress System**

Fully compatible with TAIDEN HCS-4100/20 Fully Digital Conference System: HCS-4100/20 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-4100/20 system (exclusive functions only available with HCS-4100/50 contribution units).

Fully compatible with TAIDEN HCS-8300 Digital Congress System: HCS-8300 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units).

- **Other facilities**

- ✧ With the 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for infrared language distribution system or recording
- ✧ Built-in self-detecting functions in each contribution unit for automatic detection of microphone and keys

## Features

### ● System reliability

System reliability, as described below, has always been the guiding principle while designing HCS-4100/50 fully digital conference system:

- ✧ "Closed Loop - Daisy Chain" connection technology, breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units.
- ✧ Built-in communication auto termination function to prevent system collapse if the TCP/IP cable is pulled out
- ✧ Auto recovery function, supports PnP
- ✧ If PC malfunction happens, CMU will return to control status automatically and take over control of the meeting, ensuring continuation of the meeting process
- ✧ HCS-4100/50 system software imports the hot-spare dual server structure by operating the main server and the back-up server at the same time. While the main server is processing, data are stored real time on the back-up server to prevent conference related information from loss in case of a crash of the main server, thus improving security and reliability of the conference system remarkably.
- ✧ Dual connection backup is implemented between HCS-4100MA/50 congress main unit and HCS-8300 series extension main unit via optical fiber and CAT5 cable.

### ● System technological progress

HCS-4100/50 FDCS - based on TAIDEN originated independent intellectual property rights digital processing and transmitting technologies MCA-STREAM - adopts embedded hardware structure based on high performance dual CPUs. HCS-4100/50 system software is based on Client/Server and hot-spare dual server structure. CMU and PC use advanced TCP/IP protocol for communication, perfectly integrated to benefit from modern technologies.

Furthermore, conference sign-in system and intelligent central control system can be integrated into TAIDEN HCS-4100/50 FDCS to provide the first complete and efficient solution in the world.

### ● System operability

CMU controls efficiently: basic microphone control, simultaneous interpretation, video tracking - without the intervention of an operator.

With a PC and HCS-4100/50 system software, more functions can be achieved, including enhanced microphone control, simultaneous interpretation, delegate information management, sign-in control, meeting data management and distribution, voting control and output audio processing. HCS-4100/50 can also be set up according to user requirements.

HCS-4100/50 adopts Client/Server structure - the process of the meeting is controlled by the operator from any PC within the same LAN. If PC malfunction occurs, CMU will return to control status automatically and take over control of the meeting, ensuring continuation of the meeting.

### ● Fine extensibility

The interpretation unit of HCS-4100/50 has a maximum of 64 channels (including floor channel) and satisfies the requirements of large-scale international meetings: allocating a language for each channel, selecting a channel, interlock facility. To avoid reciprocal interference and crosstalk the language of each channel can be released separately. The system supports a maximum of 4096 congress units and an infinite number of channel selectors.

HCS-4100/50 system is modular: just daisy-chain HCS-4100/50 units to set-up a configuration. If extra system capacity is needed, units can be connected easily, starting from any access point.

### ● Economical and convenient installation

In virtue of the fully digital techniques of HCS-4100/50 system, system installation becomes simple and economical, especially in conjunction with the economical and durable HCS-4100/50 system dedicated 6-PIN cable (substitutable by shielded CAT5 cable). The cable, suitable for the requirements of any kind of meeting, transmits up to 64 high quality audio signals, control data and information simultaneously.

Every delegate unit is assigned an individual ID for convenient setup and perpetual prevention of double ID.

System connection reliability is improved by the professional 6P-DIN standard plug and clasp which facilitates system installation as well as disassembly. As a result of the daisy-chain design of the contribution units, insertion into the system can be done at any desired point, simplifying equipment extension and maintenance significantly.

### ● System maintenance

TAIDEN system software provides testing functions for online testing the operating conditions such as validity of the keys, LCD and microphones.

A detailed test report is issued for quick and simple maintenance of the system device.

## **System environmental conditions**

- **Temperature range:**
  - ✧ Transport: -40 °C ~ +70 °C
  - ✧ Operating: -10 °C ~ +45 °C
- **Humidity range:**
  - ✧ Max. relative humidity: <95%
- **Safety: Compliant to EN 60065**
- **EMC generic standards: Compliant to EN 61000-6-3, EN 55022**
- **Compatible to EN 55024: Information technology equipment. Immunity characteristics. Limits and methods of measurement**
- **EMC immunity: Compliant to EN 61000-4-3**
- **EMC approvals: CE**
- **Electrostatic discharge immunity: Compliant to EN 61000-4-2**
- **Power harmonics: Compliant to EN 61000-3-2**
- **Voltage fluctuations and flicker: EN61000-3-3**
- **Surge resistance: Compliant to EN61000-4-5**
- **EFT test: Compliant to EN61000-4-4**
- **Transient power-off test: Compliant to EN61000-4-11**

## **Acquired certifications**

- **UK royalty UKAS ISO9001:2000 quality system authentication**
- **CE authentication (safety and electromagnetic compatibility)**
- **FCC authentication**



## HCS-4100/50 Series Contribution Units' Function List

Type No.	Status	Lang.	Mic.	Voting	Simul. Interp.	Graphic LCD	Intercom	IC-card reader	Speaker	Cover	Main Unit	Cable	Mounting	Color	Dimensions (L×W×H, mm)				
HCS-4368CF/FM/50	C	CHI/ENG		5-key		√				√	HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50	6-pin	Flush- mounting	Silver/ Red	197×86×60				
HCS-4368DF/FM/50	D	CHI/ENG		5-key		√				√									
HCS-4368CFK/FM/50	C	CHI/ENG		5-key		√		√		√									
HCS-4368DFK/FM/50	D	CHI/ENG		5-key		√		√		√									
HCS-4886C/50	C	CHI/ENG	√	5-key	64CHs	√	√	√	√		HCS-4100MA/50 HCS-4100MB/50	6-pin	Tabletop / Flush- mounting	Silver	251×151×66 (excl. mic. stem)				
HCS-4886D/50	D	CHI/ENG	√	5-key	64CHs	√	√	√	√										
HCS-4886X/50	Op	CHI/ENG			64CHs	√	√		√										
HCS-4887D/50	D	CHI/ENG	√	5-key		√	√	√	√		HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50								
HCS-4888DE/50	D	ENG	√	5-key					√										
HCS-4380SC/50	C	CHI/ENG	√	5-key	64CHs	√	√	√	√		HCS-4100MA/50 HCS-4100MB/50	6-pin	Tabletop / Flush- mounting	Gray	245×137×55 (excl. mic. stem)				
HCS-4380SD/50	D	CHI/ENG	√	5-key	64CHs	√	√	√	√										
HCS-4380SX/50	Op	CHI/ENG			64CHs	√	√		√										
HCS-4382SD/50	D	CHI/ENG	√	5-key		√	√		√		HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50								
HCS-4370SDE/50	D	ENG	√	5-key	64CHs			√	√		HCS-4100MA/50 HCS-4100MB/50								
HCS-4371SD/50	D		√						√		HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50								
HCS-4365C/50	C	CHI/ENG	√	5-key	64CHs	√	√	√	√	√	HCS-4100MA/50 HCS-4100MB/50	6-pin	Flush- mounting	Silver	378×107×100 (excl. mic. stem)				
HCS-4365D/50	D		√	5-key	64CHs	√	√	√	√	√									
HCS-4366D/50	D		√	5-key	64CHs			√	√	√									
HCS-4360CE/20	C	ENG	√	5-key	64CHs			√	√	√	HCS-4100MA/50 HCS-4100MB/50	6-pin	Flush- mounting	Gray	220×100×57 (excl. mic. stem)				
HCS-4360DE/20	D	ENG	√	5-key	64CHs			√	√	√									
HCS-4362D/20	D		√		64CHs				√	√									
HCS-4361DE/20	D	ENG	√	5-key					√	√	HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50								
HCS-4363D/20	D		√						√	√									
HCS-4335D/50	D		√		64CHs ×2				√		HCS-4100MA/50 HCS-4100MB/50	6-pin	Tabletop	Silver /Gray	156×125×61 (excl. mic. stem)				
HCS-4330CE/50	C	ENG	√	5-key	64CHs			√	√		HCS-4100MA/50 HCS-4100MB/50	6-pin	Tabletop	Silver /Gray	157×112×59 (excl. mic. stem)				
HCS-4330DE/50	D	ENG	√	5-key	64CHs			√	√										
HCS-4331CB/50	C		√		64CHs				√										
HCS-4331DB/50	D		√		64CHs				√										
HCS-4332DE/50	D	ENG	√	5-key					√		HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50							157×112×59 (excl. mic. stem)	
HCS-4333CB/50	D		√						√									156×125×61 (excl. mic. stem)	
HCS-4333DB/50	D		√						√								156×125×61 (excl. mic. stem)		

## HCS-4100/50 Series Contribution Units' Function List (continued)

Type No.	Status	Lang.	Mic.	Voting	Simul. Interp.	Graphic LCD	Intercom	IC-card reader	Speaker	Cover	Main Unit	Cable	Mounting	Color	Dimensions (L×W×H, mm)
HCS-4320CE/50	C	ENG	√	5-key	64CHs			√		√	HCS-4100MA/50 HCS-4100MB/50	6-pin	Flush-mounting	Gray	220×40×105 (excl. mic. stem)
HCS-4320DE/50	D	ENG	√	5-key	64CHs			√		√					
HCS-4321DE/50	D	ENG	√	5-key	64CHs					√					
HCS-4322D/50	D		√		64CHs					√					
HCS-4320HCE/50	C	ENG	√	5-key	64CHs			√		√					220×40×105 (handheld mic.)
HCS-4320HDE/50	D	ENG	√	5-key	64CHs			√		√					
HCS-4321HDE/50	D	ENG	√	5-key	64CHs					√					
HCS-4322HD/50	D		√		64CHs					√					
HCS-4341CA/50	C		√								HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50	6-pin Cat.5e	Flush-mounting	Silver /Gray	93×45×34 (excl. mic. stem)
HCS-4341DA/50	D		√										Tabletop	Black	92×50×24
HCS-4341CB/50	C		√												
HCS-4341DB/50	D		√												
HCS-4341H/50	D		√										Flush-mounting		143 x 40 x 40 (handheld mic.)
HCS-4841NC/50	C		√								HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50				111x41x83 (excl. mic. stem)
HCS-4841ND/50	D		√												
HCS-4842N/50					64CHs										
HCS-4843NCTE/50	C	ENG		3-key							HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50	6-pin Cat.5e	Flush-mounting	Silver /Gray	111x41x83
HCS-4843NDTE/50	D	ENG		3-key											
HCS-4843NCTKE/50	C	ENG		3-key				√							
HCS-4843NDTKE/50	D	ENG		3-key				√							
HCS-4843NCFE/50	C	ENG		5-key											
HCS-4843NDFE/50	D	ENG		5-key											
HCS-4843NCFKE/50	C	ENG		5-key				√							
HCS-4843NDFKE/50	D	ENG		5-key				√							
HCS-4368CF/50	C	CHI/ENG		5-key		√					HCS-4100MA/50 HCS-4100MB/50 HCS-4100MC/50	6-pin	Tabletop	Red	197×86×64
HCS-4368DF/50	D			5-key		√									
HCS-4368CFK/50	C			5-key		√		√							
HCS-4368DFK/50	D			5-key		√		√							
HCS-4385K2/50	I	ENG	√		64CHs	√	√	√	√		HCS-4100MA/50 HCS-4100MB/50	6-pin	Tabletop / Flush-mounting	Silver	290×127×78 (excl. mic. stem)

## HCS-4886C/50 Chairman Unit with Voting and Channel Selection



Tabletop



Flush-mounting

### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading

- Fingerprint identification & password keypad module (HCS-8386F) for unit upgrading

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4886D/50 Delegate Unit, the HCS-4886C/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, cancel a request-to-speak, turn off all active microphones and recall messages for display. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading. The IC card may also be used for the access sign-in system
- Fingerprint identification & password keypad module (HCS-8386F) for biometric authentication with high reliability. The problem of a delegate's forgotten or lost IC card is also solved
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever

- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop
- Controls on-off switch for displaying voting results on delegate unit's LCD
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
  - ◆ Channel number and language name
- Built-in channel selector with up/down channel select keys
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting\_Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop.....66 x 251 x 121 mm  
 Flush-mounting.....13 x 251 x 121 mm  
 Weight.....0.75 kg  
 Color.....Silver

---

**Ordering Information**

HCS-4886C/50.....Digital Congress System Chairman Unit  
(tabletop/flush-mounting, 5 voting keys,  
IC-Card, 64 CHs, 256x32" LCD, silver)

## HCS-4886D/50 Discussion Unit with Voting and Channel Selection



Tabletop



Flush-mounting

### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading
- Fingerprint identification & password keypad module (HCS-8386F) for unit upgrading

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting, selecting language channels, IC-card reading and displaying conference and user-related information. Excellent immunity to RF interference from mobile phones. Channel selector, IC-card reader and graphic display with backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD is able to display characters from complex European languages or icon-based-scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading. The IC card may also be used for the access sign-in system
- Fingerprint identification & password keypad module (HCS-8386F) for biometric authentication with high reliability. The problem of a delegate's forgotten or lost IC card is also solved
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever



- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC Built-in multi-channel intercom facility
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
  - ◆ Channel number and language name
- Built-in channel selector with up/down channel select keys
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)

- Headphones volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting\_Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop.....66 x 251 x 121 mm  
 Flush-mounting.....13 x 251 x 121 mm  
 Weight.....0.75 kg  
 Color.....Silver

## Ordering Information

HCS-4886D/50.....Digital Congress System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 IC-Card, 64 CHs, 256x32" LCD, silver)

## HCS-4886X/50 Intercom Communication Operator Unit



Tabletop



Flush-mounting

### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys
- Excellent immunity to RF interference from mobile phones
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility

HCS-4886X/50 Operator Unit is only used for control of intercom facility, but cannot be used for conference discussion. Excellent immunity to RF interference from mobile phones. Channel selector and graphic display with backlighting, able to display characters from complex European languages or icon-based-scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Built-in multi-channel intercom facility
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount and request amount
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
  - ◆ Channel number and language name
- Built-in channel selector with up/down channel select keys
- Uni-directional electret condenser microphone with illuminated ring (red)
- Headphones volume up and down
- Five operating buttons with indicators

### Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.

.....2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting, Tabletop (portable or fixed mounting) and flush-mounting

Dimensions (h x w x d) (w/o Mic.)

Tabletop.....66 x 251 x 121 mm

Flush-mounting.....13 x 251 x 121 mm

Weight.....0.75 kg

Color.....Silver

---

## Ordering Information

HCS-4886X/50.....Digital Congress System Operator Unit  
(tabletop/flush-mounting, for intercom  
communication, 256x32" LCD, silver)

## **HCS-4887D/50 Discussion Unit with Voting**



Tabletop



Flush-mounting

### **Features**

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading
- Fingerprint identification & password keypad module (HCS-8386F) for unit upgrading

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting, IC-card reading and displaying conference and user-related information. Excellent immunity to RF interference from mobile phones. IC-card reader and graphic display with permanent backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD is able to display characters from complex European languages or icon-based-scripts such as Chinese. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading. The IC card may also be used for the access sign-in system
- Fingerprint identification & password keypad module (HCS-8386F) for biometric authentication with high reliability. The problem of a delegate's forgotten or lost IC card is also solved
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever

- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop.....66 x 251 x 121 mm  
 Flush-mounting.....13 x 251 x 121 mm  
 Weight.....0.75 kg  
 Color.....Silver

## Ordering Information

HCS-4887D/50.....Digital Congress System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 IC-Card, 256x32" LCD, silver)

## **HCS-4888DE/50 Discussion Unit with Voting**



Tabletop



Flush-mounting

### **Features**

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading
- Fingerprint identification & password keypad module (HCS-8386F) for unit upgrading

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening and voting. Excellent immunity to RF interference from mobile phones. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Contactless IC card & password keypad module (HCS-8386K) for unit upgrading. The IC card may also be used for the access sign-in system
- Fingerprint identification & password keypad module (HCS-8386F) for biometric authentication with high reliability. The problem of a delegate's forgotten or lost IC card is also solved
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)



- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....2 × Ø 3.5 mm stereo jack for headphone

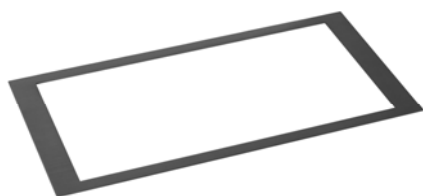
### Mechanical

Mounting\_Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop.....66 x 251 x 121 mm  
 Flush-mounting.....13 x 251 x 121 mm  
 Weight.....0.75 kg  
 Color.....Silver

## Ordering Information

HCS-4888DE/50.....Digital Congress System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys, silver)

## HCS-4886MP Mounting Plate



### Features

- Used for flush-mounting of HCS-4886/87/88 series congress unit

### Technical Specifications

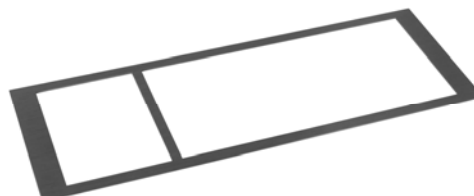
#### Mechanical

Dimensions (h x w x d).....1.5 x 288 x 139 mm  
 Weight.....42 g  
 Color.....Gray

### Ordering Information

HCS-4886MP.....Mounting Plate (for HCS-4886/87/88 series)

## HCS-4886MP2 Mounting Plate



### Features

- Used for flush-mounting of HCS-4886/87/88 series congress unit and HCS-8386K (contactless IC card & password keypad module) / HCS-8386F (Fingerprint identification & password keypad module)

### Technical Specifications

#### Mechanical

Dimensions (h x w x d).....1.5 x 378 x 139 mm  
 Weight.....50 g  
 Color.....Gray

### Ordering Information

HCS-4886MP2.....Mounting Plate (for HCS-4886/87/88 series + HCS-8386K/F)

## HCS-4380SC/50 Chairman Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi flat-panel loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4380SD/50 Delegate Unit, the HCS-4380SC/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, cancel a request-to-speak, turn off all active microphones and recall messages for display. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Flat-panel loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop
- Controls on-off switch for displaying voting results on delegate unit's LCD
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop.....55 x 245 x 137 mm  
 Flush-mounting.....35 x 245 x 137 mm  
 Weight.....1.68 kg  
 Color.....Gray

## Ordering Information

HCS-4380SC/50.....Digital Congress System Chairman Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 IC-Card, 64 CHs, 256x32" LCD, gray)

## HCS-4380SD/50 Discussion Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi flat-panel loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting, selecting language channels, IC-card reading and displaying conference and user-related information. Excellent immunity to RF interference from mobile phones. Channel selector, IC-card reader and graphic display with backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD is able to display characters from complex European languages or icon-based-scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Flat-panel loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop.....55 x 245 x 137 mm  
 Flush-mounting.....35 x 245 x 137 mm  
 Weight.....1.68 kg  
 Color.....Gray

## Ordering Information

HCS-4380SD/50.....Digital Congress System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 IC-Card, 64 CHs, 256x32" LCD, gray)



## **HCS-4380SX/50 Intercom Communication Operator Unit**



### **Features**

- Stylish and ergonomic design
- Hi-Fi flat-panel loudspeaker
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility

HCS-4380SX/50 Operator Unit is only used for control of intercom facility, but cannot be used for conference discussion. Excellent immunity to RF interference from mobile phones. Channel selector and graphic display with backlighting. The graphic LCD is able to display characters from complex European languages or icon-based-scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Flat-panel loudspeaker with superior acoustics with minimal feedback for increasing intelligibility. When the unit is not being used, the loudspeaker panel can be folded down conveniently.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Built-in multi-channel intercom facility
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### **Controls and Indicators**

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount and request amount
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring (red)
- Headphone volume up and down
- Five operating buttons with indicators

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.

.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop (portable or fixed mounting) and flush-mounting

Dimensions (h x w x d) (w/o Mic.)

Tabletop.....55 x 245 x 137 mm

Flush-mounting.....35 x 245 x 137 mm

Weight.....1.68 kg

Color.....Gray

---

## Ordering Information

HCS-4380SX/50.....Digital Congress System Operator Unit  
(tabletop/flush-mounting, for intercom  
communication, 256x32" LCD, gray)

## **HCS-4382SD/50 Discussion Unit with Voting**



### **Features**

- **Stylish and ergonomic design**
- **Hi-Fi flat-panel loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **"Closed Loop - Daisy Chain" connection topology**
- **Supporting 48 kHz audio sampling rate**
- **Excellent immunity to RF interference from mobile phones**
- **Gain and EQ (5 band) of each microphone adjustable separately**
- **Supporting "PnP" (plug and play)**
- **Built-in multi-channel intercom facility**

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting, displaying conference and user-related information. Excellent immunity to RF interference from mobile phones. The graphic LCD screen with backlighting is able to display characters from complex European languages or icon-based-scripts such as Chinese. Flat-panel loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting\_Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop.....55 x 245 x 137 mm  
 Flush-mounting.....35 x 245 x 137 mm  
 Weight.....1.68 kg  
 Color.....Gray

## Ordering Information

HCS-4382SD/50.....Digital Congress System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 256x32" LCD, gray)

## **HCS-4370SDE/50 Discussion Unit with Voting and Channel Selection**



### **Features**

- **Stylish and ergonomic design**
- **Hi-Fi flat-panel loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **"Closed Loop - Daisy Chain" connection topology**
- **Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable**
- **Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz**
- **Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display**
- **Excellent immunity to RF interference from mobile phones**
- **Gain and EQ (5 band) of each microphone adjustable separately**
- **Supporting "PnP" (plug and play)**

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting, selecting language channels and IC-card reading. Excellent immunity to RF interference from mobile phones. Channel selector and IC-card reader. Channel selection is automatically limited to the number of language channels available. Flat-panel loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting\_Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop.....55 x 245 x 137 mm  
 Flush-mounting.....35 x 245 x 137 mm  
 Weight.....1.68 kg  
 Color.....Gray

## Ordering Information

HCS-4370SDE/50.....Digital Congress System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 IC-Card, 64 CHs, gray)



## HCS-4371SD/50 Discussion Unit



### Features

- Stylish and ergonomic design
- Hi-Fi flat-panel loudspeaker
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The delegate unit provides facilities for speaking and listening. Excellent immunity to RF interference from mobile phones. Flat-panel loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.

..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop (portable or fixed mounting) and flush-mounting

Dimensions (h x w x d) (w/o Mic.)

Tabletop ..... 55 x 245 x 137 mm

Flush-mounting ..... 35 x 245 x 137 mm

Weight ..... 1.68 kg

Color ..... Gray

---

## Ordering Information

HCS-4371SD/50 ..... Digital Congress System Delegate Unit  
(tabletop/flush-mounting, gray)

## HCS-4365C/50 Chairman Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Modular Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility
- Equipped with cover to protect the unit from damage during the adjournment

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. Excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4365D/50 Delegate Unit, the HCS-4365C/50 Chairman Unit has a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, cancel a request-to-speak, turn off all active microphones and recall messages for display. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop
- Controls on-off switch for displaying voting results on delegate unit's LCD
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic. and speaker).....64 x 283 x 86 mm  
 Weight.....1.68 kg  
 Color.....Silver

## Ordering Information

HCS-4365C/50.....Digital Congress System Chairman Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, 256x32" LCD, cover, silver)

## HCS-4365D/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Modular Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Built-in multi-channel intercom facility
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting, selecting language channels, IC-card reading and displaying conference and user-related information. Excellent immunity to RF interference from mobile phones. Channel selector, IC-card reader and graphic display with backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD is able to display characters from complex European languages or icon-based-scripts such as Chinese. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic. and speaker)....64 x 283 x 86 mm  
 Weight.....1.68 kg  
 Color.....Silver

## Ordering Information

HCS-4365D/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, 256x32" LCD, cover, silver)



## HCS-4366DE/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Modular Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting, selecting language channels and IC-card reading. Excellent immunity to RF interference from mobile phones. Channel selector and IC-card reader. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic. and speaker).....64 x 283 x 86 mm  
 Weight.....1.68 kg  
 Color.....Silver

## Ordering Information

HCS-4366DE/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, cover, silver)

## HCS-4360CE/50 Chairman Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4360DE/50 Delegate Unit, the HCS-4360CE/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, turn off all active microphones. Channel selection is automatically limited to the number of language channels available. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied)
      - (Three keys voting: satisfied/basicly satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....57 x 220 x 100 mm  
 Weight.....0.72 kg  
 Color.....Gray

## Ordering Information

HCS-4360CE/50.....Digital Congress System Chairman Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, cover, gray)

## HCS-4360DE/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting, selecting language channels and IC-card reading. It has excellent immunity to RF interference from mobile phones. It features a channel selector and an IC-card reader. Channel selection is automatically limited to the number of language channels available. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multifunction voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....57 x 220 x 100 mm  
 Weight.....0.72 kg  
 Color.....Gray

## Ordering Information

HCS-4360DE/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, cover, gray)



## **HCS-4361DE/50 Discussion Unit with Voting**



### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **"Closed Loop - Daisy Chain" connection topology**
- **Supporting 48 kHz audio sampling rate**
- **Excellent immunity to RF interference from mobile phones**
- **Gain and EQ (5 band) of each microphone adjustable separately**
- **Supporting "PnP" (plug and play)**
- **Equipped with cover to protect the unit from damage during the adjournment**

The multi-functional delegate unit meets the demands of most conferences. It provides facilities for speaking, listening and voting. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....57 x 220 x 100 mm  
 Weight.....0.72 kg  
 Color.....Gray

## Ordering Information

HCS-4361DE/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, cover, gray)

## HCS-4362D/50 Discussion Unit with Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and selecting language channels. It has excellent immunity to RF interference from mobile phones. It features a channel selector, channel selection is automatically limited to the number of language channels available. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz  
Earphone load impedance ..... >16 Ohm  
Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
Polar pattern ..... Uni-directional  
Operating voltage ..... 5 VDC  
Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
Frequency response ..... 30 Hz to 20 kHz  
Input impedance ..... 2 kOhm  
Directivity 0°/180° ..... > 20 dB (1 kHz)  
Equivalent noise ..... 20 dBA (SPL)  
Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting  
Dimensions (h x w x d) (w/o Mic.) ..... 57 x 220 x 100 mm  
Weight ..... 0.72 kg  
Color ..... Gray

---

## Ordering Information

HCS-4362D/50 ..... Digital Congress System Delegate Unit  
(flush-mounting, 64 CHs, cover, gray)

## HCS-4363D/50 Discussion Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The delegate unit meets the basic demands of conferences. It provides facilities for speaking and listening. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting

Dimensions (h x w x d) (w/o Mic.) ..... 57 x 220 x 100 mm

Weight ..... 0.72 kg

Color ..... Gray

---

## Ordering Information

HCS-4363D/50 ..... Digital Congress System Delegate Unit  
(flush-mounting, cover, gray)



## HCS-4335D/50 Discussion Unit with Dual Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in dual channel selectors consist of up/down channel select keys and 2-digit channel indicator displays
- The microphone button provides dual delegate identification, used for individual delegate identification on the left and right respectively and easy for automatic video tracking
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, and selecting language channels. Excellent immunity to RF interference from mobile phones. It features dual channel selectors, the microphone button provides dual delegate identification, used for individual delegate identification on the left and right. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- The microphone button provides dual delegate identification, used for individual delegate identification on the left and right respectively and easy for automatic video tracking
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Two microphone On/Off buttons
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in two channel selectors consist of up/down channel select keys and 2-digit channel indicator displays
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Two microphone On/Off buttons

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 x Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting

Dimensions (h x w x d) (w/o Mic.) ..... 61 x 156 x 125 mm

Weight ..... 0.74 kg

Color ..... Gray/Silver

---

## Ordering Information

HCS-4335D/50 ..... Digital Congress System Delegate Unit  
(tabletop, 64 CHs, 2 channel selectors,  
dual IDs, gray)

HCS-4335D\_S/50 ..... Digital Congress System Delegate Unit  
(tabletop, 64 CHs, 2 channel selectors,  
dual IDs, silver)

## HCS-4330CE/50 Chairman Unit with Voting and Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4330DE/50 Delegate Unit, the HCS-4330CE/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting and turn off all active microphones. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.).....59 x 157 x 112 mm  
 Weight.....0.74 kg  
 Color.....Gray/Silver

## Ordering Information

HCS-4330CE/50.....Digital Congress System Chairman Unit  
 (tabletop, 5 voting keys, IC-Card, 64 CHs, gray)  
 HCS-4330CE\_S/50.....Digital Congress System Chairman Unit  
 (tabletop, 5 voting keys, IC-Card, 64 CHs, silver)

## **HCS-4330DE/50 Discussion Unit with Voting and Channel Selection**



### **Features**

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting, selecting language channels and IC-card reading. Excellent immunity to RF interference from mobile phones. Channel selector and IC-card reader. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied)
      - (Three keys voting: satisfied/basicly satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.).....59 x 157 x 112 mm  
 Weight.....0.74 kg  
 Color.....Gray/Silver

## Ordering Information

HCS-4330DE/50.....Digital Congress System Delegate Unit  
 (tabletop, 5 voting keys, IC-Card, 64 CHs, gray)  
 HCS-4330DE\_S/50.....Digital Congress System Delegate Unit  
 (tabletop, 5 voting keys, IC-Card, 64 CHs, silver)



## HCS-4331CB/50 Chairman Unit with Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- Speech timer indicator
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4331DB/50 Delegate Unit, the HCS-4331CB/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to turn off all active microphones. Channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Speech timer indicator
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting

Dimensions (h x w x d) (w/o Mic.) ..... 61 x 156 x 125 mm

Weight ..... 0.74 kg

Color ..... Gray/Silver

---

## Ordering Information

HCS-4331CB/50 ..... Digital Congress System Chairman Unit  
(tabletop, 64 CHs, speech timer, gray)

HCS-4330CB\_S/50 ..... Digital Congress System Chairman Unit  
(tabletop, 64 CHs, speech timer, silver)

## **HCS-4331DB/50 Discussion Unit with Channel Selection**



### **Features**

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- Speech timer indicator
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and selecting language channels. Excellent immunity to RF interference from mobile phones. It features a channel selector, the channel selection is automatically limited to the number of language channels available. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 30 Hz to 20 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 20 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 61 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-4331DB/50 ..... Digital Congress System Delegate Unit  
 (tabletop, 64 CHs, speech timer, gray)  
 HCS-4331DB\_S/50 ..... Digital Congress System Delegate Unit  
 (tabletop, 64 CHs, speech timer, silver)

## HCS-4332DE/50 Discussion Unit with Voting



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and voting. Excellent immunity to RF interference from mobile phones. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.).....59 x 157 x 112 mm  
 Weight.....0.74 kg  
 Color.....Gray/Silver

## Ordering Information

HCS-4332DE/50.....Digital Congress System Delegate Unit  
 (tabletop, 5 voting keys, gray)  
 HCS-4332DE\_S/50.....Digital Congress System Delegate Unit  
 (tabletop, 5 voting keys, silver)



## HCS-4333CB/50 Chairman Unit



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- Speech timer indicator
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4333DB/50 Delegate Unit, the HCS-4333CB/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to turn off all active microphones. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Speech timer indicator
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting

Dimensions (h x w x d) (w/o Mic.) ..... 61 x 156 x 125 mm

Weight ..... 0.74 kg

Color ..... Gray/Silver

---

## Ordering Information

HCS-4333CB/50 ..... Digital Congress System Chairman Unit  
(tabletop, speech timer indicator, gray)

HCS-4333CB\_S/50 ..... Digital Congress System Chairman Unit  
(tabletop, speech timer indicator, silver)

## HCS-4333DB/50 Discussion Unit



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- Speech timer & request- to- speak indicator
- "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The delegate unit meets the basic demands of conferences. It provides facilities for speaking and listening. Excellent immunity to RF interference from mobile phones. Loudspeaker with superior acoustics with minimal feedback for increasing intelligibility.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer & request- to- speak indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 30 Hz to 20 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 20 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 61 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-4333DB/50 ..... Digital Congress System Delegate Unit  
 (tabletop, speech timer &  
 request-to-speak indicator, gray)  
 HCS-4333DB\_S/50 ..... Digital Congress System Delegate Unit  
 (tabletop, speech timer &  
 request-to-speak indicator, silver)

## HCS-4320CE/50 Chairman Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Priority key
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. Excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4320DE/50 Delegate Unit, the HCS-4320CE/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, turn off all active microphones. Channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied) (Three keys voting: satisfied/basicly satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....105 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

## Ordering Information

HCS-4320CE/50.....Digital Congress System Chairman Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, cover, gray)

## HCS-4320DE/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting, selecting language channels and IC-card reading. Excellent immunity to RF interference from mobile phones. Channel selector and IC-card reader. Channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation



- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basicly satisfied/unsatisfied)
      - (Three keys voting: satisfied/basicly satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....105 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

## Ordering Information

HCS-4320DE/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys,  
 IC-Card, 64 CHs, cover, gray)

## HCS-4321DE/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting and selecting language channels. Excellent immunity to RF interference from mobile phones. It features a channel selector, channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multi-form voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....105 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

## Ordering Information

HCS-4321DE/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, 64 CHs,  
 cover, gray)

## HCS-4322D/50 Discussion Unit with Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and selecting language channels. Excellent immunity to RF interference from mobile phones. It features a channel selector, channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Headphone volume up and down
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting

Dimensions (h x w x d) (w/o Mic.) ..... 105 x 220 x 40 mm

Weight ..... 0.9 kg

Color top ..... Gray

---

## Ordering Information

HCS-4322D/50 ..... Digital Congress System Delegate Unit  
(flush-mounting, 64 CHs, cover, gray)

## HCS-4320HCE/50 Chairman Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Priority key
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. Excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4320HDE/50 Delegate Unit, the HCS-4320HCE/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, turn off all active microphones. Channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Handheld microphone available for flush-mounting in tablesps, on top or at the front, or in armrests of seats
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off buttons on both panel and handheld microphone stem, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- A microphone On/Off button on handheld microphone stem
- A microphone On/Off button with indicator on panel
- Priority key

### Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....105 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

## Ordering Information

HCS-4320HCE/50.....Digital Congress System Chairman Unit  
 (flush-mounting, 5 voting keys, IC-Card,  
 64 CHs, cover, gray, handheld MIC)



## HCS-4320HDE/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting, selecting language channels and IC-card reading. Excellent immunity to RF interference from mobile phones. Channel selector and IC-card reader. Channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Handheld microphone available for flush-mounting in tablesps, on top or at the front, or in armrests of seats
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off buttons on both panel and handheld microphone stem, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- A microphone On/Off button on handheld microphone stem
- A microphone On/Off button with indicator on panel

## Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....105 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

## Ordering Information

HCS-4320HDE/50\_\_Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card, 64  
 CHs, cover, gray, handheld MIC)

## HCS-4321HDE/50 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening, voting and selecting language channels. Excellent immunity to RF interference from mobile phones. It features a channel selector, channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off buttons on both panel and handheld microphone stem, 5 voting keys
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation

- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied) (Three keys voting: satisfied/basically satisfied/unsatisfied) (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- A microphone On/Off button on handheld microphone stem
- A microphone On/Off button with indicator on panel

### Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....105 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

## Ordering Information

HCS-4321HDE/50.....Digital Congress System Delegate Unit  
 (flush-mounting, 5 voting keys, 64 CHs,  
 cover, gray, handheld MIC)

## HCS-4322HD/50 Discussion Unit with Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- "Closed Loop - Daisy Chain" connection topology
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The multi-functional delegate unit meets the demands of even the largest conferences. It provides facilities for speaking, listening and selecting language channels. Excellent immunity to RF interference from mobile phones. It features a channel selector, channel selection is automatically limited to the number of language channels available.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Handheld microphone available for flush-mounting in tablesps, on top or at the front, or in armrests of seats
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off buttons on both panel and handheld microphone stem
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Simultaneous interpretation
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

## Controls and Indicators

- Built-in channel selector consists with up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- A microphone On/Off button on handheld microphone stem
- A microphone On/Off button with indicator on panel

## Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 30 Hz to 20 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 30 Hz to 20 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 20 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 105 x 220 x 40 mm  
 Weight ..... 0.9 kg  
 Color ..... Gray

---

## Ordering Information

HCS-4322HD/50 ..... Digital Congress System Delegate Unit  
 (flush-mounting, 64 CHs, cover, gray,  
 handheld MIC)

## HCS-4341CA/50 Chairman Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- Priority key
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4341DA/50 Delegate Unit, the HCS-4341CA/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring (red)
- Microphone On/Off button with indicator
- Priority key



## Interconnections

- Socket for pluggable microphone
- RJ45 standard interface: connect with HCS-4340CA/50 (Multi-function Connector) via cat. 5 cable

---

## Technical Specifications

### Electrical

Frequency response ..... 30 Hz to 20 kHz

### Recommended microphone type

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 30 Hz to 20 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 20 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

### Mechanical

Mounting ..... Flush-mounting

Dimensions (h x w x d) (w/o Mic.) ..... 34 x 93 x 45 mm

Weight ..... 0.1 kg

Color ..... Silver/Gray

---

## Ordering Information

HCS-4341CA/50 ..... Digital Congress System Chairman Unit  
(flush-mounting, HCS-4340CA/50 needed, gray)

HCS-4341CA\_S/50 ..... Digital Congress System Chairman Unit  
(flush-mounting, HCS-4340CA/50 needed, silver)

## HCS-4341DA/50 Discussion Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

This delegate unit meets the basic demands of most conferences. It provides facilities for speaking and registering a request-to-speak.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring (red)
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- RJ45 standard interface: connect with HCS-4340DA/DT/50 (Multi-function Connector) via cat. 5 cable

---

## Technical Specifications

### Electrical

Frequency response.....30 Hz to 20 kHz

### Recommended microphone type

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

### Mechanical

Mounting.....Flush-mounting

Dimensions (h x w x d) (w/o Mic.).....34 x 93 x 45 mm

Weight.....0.1 kg

Color.....Silver/Gray

---

## Ordering Information

HCS-4341DA/50.....Digital Congress System Delegate Unit  
(flush-mounting, HCS-4340DA/DT/50  
needed, gray)

HCS-4341DA\_S/50.....Digital Congress System Delegate Unit  
(flush-mounting, HCS-4340DA/DT/50  
needed, silver)

## HCS-4341CB/50 Chairman Unit



### Features

- **Tabletop, stylish and ergonomic design**
- **Built-in half-cardioid electret condenser microphone, no microphone stem**
- **Priority key**
- **Supporting 48 kHz audio sampling rate**
- **Excellent immunity to RF interference from mobile phones**
- **Gain and EQ (5 band) of each microphone adjustable separately**
- **Supporting "PnP" (plug and play)**

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4341DB/50 Delegate Unit, the HCS-4341CB/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Half-cardioid electret condenser microphone
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- RJ45 standard interface: connect with HCS-4340CA/50 (Multi-function Connector) via cat. 5 cable

## Technical Specifications

### Electrical

Frequency response .....30 Hz to 20 kHz

### Microphone

Transducer .....Electret-condenser

Polar pattern .....Half-cardioid

Operating voltage .....5 VDC

Sensitivity .....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response .....30 Hz to 20 kHz

Input impedance .....2 kOhm

Directivity 0°/180° .....> 20 dB (1 kHz)

Equivalent noise .....20 dBA (SPL)

Maximum sound pressure level .....125 dB (THD<3%)

### Mechanical

Mounting .....Tabletop mounting

Dimensions (h x w x d) (w/o Mic.) .....24 x 92 x 50 mm

Weight .....80 g

Color .....Black

## Ordering Information

HCS-4341CB/50 .....Digital Congress System Chairman Unit  
(boundary, HCS-4340CA/50 needed, black)

## HCS-4341DB/50 Discussion Unit



### Features

- Tabletop, stylish and ergonomic design
- Built-in half-cardioid electret condenser microphone, no microphone stem
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

This delegate unit meets the basic demands of most conferences. It provides facilities for speaking and registering a request-to-speak.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time

- ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
  - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
  - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
  - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Half-cardioid electret condenser microphone
- Microphone On/Off button with indicator

### Interconnections

- RJ45 standard interface: connect with HCS-4340DA/DT/50 (Multi-function Connector) via cat. 5 cable

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz

#### Microphone

Transducer.....Electret-condenser

Polar pattern.....Half-cardioid

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Mounting.....Tabletop mounting

Dimensions (h x w x d) (w/o Mic.).....24 x 92 x 50 mm

Weight.....80 g

Color.....Black

### Ordering Information

HCS-4341DB/50.....Digital Congress System Delegate Unit  
(boundary, HCS-4340DA/DT/50 needed, black)

## HCS-4341H/50 Discussion Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

This delegate unit meets the basic demands of most conferences. It provides facilities for speaking and registering a request-to-speak.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off buttons on handheld microphone stem
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever

- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring (red)
- A microphone On/Off button on handheld microphone stem

### Interconnections

- Handheld microphone stem with 2.0 m cable
- RJ45 standard interface: connect with HCS-4340DA/DT/50 (Multi-function Connector) via cat. 5 cable

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz

#### Recommended microphone type

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Mounting.....Flush-mounting

Dimensions (h x w x d) (w/o Mic.).....143 x 40 x 40 mm

Weight.....110 g

Color.....Black



---

**Ordering Information**

HCS-4341H/50...Digital Congress System Handheld Delegate Unit  
(flush-mounting, HCS-4340HDA/HDT/50 needed,  
black, handheld MIC)

## HCS-4841NC/50 Chairman Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- Priority key
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-4841ND/50 Delegate Unit, the HCS-4841NC/50 Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Activation at any time (if the amount of active microphones in the system is less than 6)
- Priority key to switch off or to mute the speaking units according to preset (except VIP)
- Approves/denies delegates' speaking request
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring (red)
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- RJ45 standard interface: connect with HCS-4340CA/50 (Multi-function Connector) via cat. 5 cable

---

## Technical Specifications

### Electrical

Frequency response.....30 Hz to 20 kHz

### Recommended microphone type

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....30 Hz to 20 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....20 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

### Mechanical

Mounting.....Flush-mounting

Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm

Weight.....80 g

Color.....Gray/Silver

---

## Ordering Information

HCS-4841NC/50.....Digital Congress System Chairman Unit  
(flush-mounting, HCS-4340CA/50 needed, silver)

HCS-4841NC\_G/50.....Digital Congress System Chairman Unit  
(flush-mounting, HCS-4340CA/50 needed, gray)

## HCS-4841ND/50 Discussion Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- Supporting 48 kHz audio sampling rate
- Excellent immunity to RF interference from mobile phones
- Gain and EQ (5 band) of each microphone adjustable separately
- Supporting "PnP" (plug and play)

This delegate unit meets the basic demands of most conferences. It provides facilities for speaking and registering a request-to-speak.

### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by high performance DSP: sound quality approaching CD quality
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time.
- Supporting 48 kHz audio sampling rate
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone stem can be unplugged during adjournment, easy to maintain
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone On/Off button
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever

- Facilities in stand-alone operation:
  - ◆ Set the number of delegates permitted to speak at the same time
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system
- Length of microphone stem: 330 mm, 410 mm (default), 470 mm

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring (red)
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- RJ45 standard interface: connect with HCS-4340DA/DT/50 (Multi-function Connector) via cat. 5 cable

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz

#### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....80 g  
 Color.....Gray/Silver

---

**Ordering Information**

HCS-4841ND/50.....Digital Congress System Delegate Unit  
(flush-mounting, HCS-4340DA/DT/50 needed, silver)

HCS-4841ND\_G/50.....Digital Congress System Delegate Unit  
(flush-mounting, HCS-4340DA/DT/50 needed, gray)

## HCS-4842N/50 Flush-mounting 64-channel Selector



### Features

- Ergonomically compact and elegant design
- 64 language channels for simultaneous interpretation, all channels with a frequency response of 30 Hz~20 kHz
- Superior acoustics, faster data-processing by using fully digital audio technology in combination with the built-in high performance CPU
- Built-in "Silent" function
- Automatically adapts to available channels
- No audio output until the headphone is connected
- Flush mountable in tabletops, on top or at the front, or in arm rests of seats

The HCS-4842N/50 is a compact and stylish single-user audio channel selector for listening by headphone. It provides a choice of up to 64 high-quality audio channels used for distribution of interpretation and floor channels.

### Functions

- 64 language channels for simultaneous interpretation, all channels with a frequency response of 30 Hz~20 kHz
- Built-in channel selector (w/. up/down key) and 2-digit channel indicator display
- The channel selector is active only when the headphone is inserted
- Built-in "Silent" function, no audio output until one of the keys has been pressed to eliminate audible noise from the headphone when not in use
- Upon insertion of a headphone the default "floor" channel (channel 0) is selected with a comfortable headphone volume and the dimmed backlighting is activated

### Controls and Indicators

- Two push-buttons (up/down) for channel selection
- Two push-buttons (up/down) for headphone volume control
- Backlight 2-digit LCD for channel number indication

### Interconnections

- Ø 3.5 mm jack for headphone
- RJ45 standard interface: connect with HCS-4340A/B/T/50 (Multi-function Connector) via cat. 5 cable

### Technical Specifications

#### Electrical

Frequency response.....30 Hz to 20 kHz  
Headphone load impedance.....>16 Ohm  
Output power.....10 mW

#### Mechanical

Mounting.....Flush-mounting  
Dimensions (h x w x d).....83 x 111 x 41 mm  
Weight.....76 g  
Color.....Gray/Silver

### Ordering Information

HCS-4842N/50.....Flush-mounting 64-channel Selector  
(HCS-4340CA/DA/HDA/B/DT/HDT/50 needed, silver)  
HCS-4842N\_G/50.....Flush-mounting 64-channel Selector  
(HCS-4340CA/DA/HDA/B/DT/HDT/50 needed, gray)

## HCS-4843NCTE/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys
- Controls voting start and stop

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, parliamentary voting can be implemented: YES/NO/ABSTAIN
  - ◆ Pass-rate setup, voting result calculated automatically
  - ◆ Voting result calculated according to predefined or present attendance
- Controls voting start and stop
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340CA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
Weight.....93 g  
Color.....Gray/Silver

### Ordering Information

HCS-4843NCTE/50.....Digital Voting System Chairman Unit  
(flush-mounting, 3 voting keys, HCS-4340CA/50 needed, silver)  
HCS-4843NCTE\_G/50.....Digital Voting System Chairman Unit  
(flush-mounting, 3 voting keys, HCS-4340CA/50 needed, gray)

## HCS-4843NDTE/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, parliamentary voting can be implemented: YES/NO/ABSTAIN
  - ◆ Pass-rate setup, voting result calculated automatically
  - ◆ Voting result calculated according to predefined or present attendance
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340DA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
Weight.....93 g  
Color.....Gray/Silver

### Ordering Information

HCS-4843NDTE/50.....Digital Voting System Delegate Unit  
(flush-mounting, 3 voting keys, HCS-4340DA/HDA/50 needed, silver)  
HCS-4843NDTE\_G/50.....Digital Voting System Delegate Unit  
(flush-mounting, 3 voting keys, HCS-4340DA/HDA/50 needed, gray)



## HCS-4843NCTKE/50 Voting Unit with IC-Card Reader



### Ordering Information

HCS-4843NCTKE/50.....	Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340CA/50 needed, silver)
HCS-4843NCTKE_G/50.....	Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340CA/50 needed, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys
- Controls voting start and stop
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, parliamentary voting can be implemented: YES/NO/ABSTAIN
  - ◆ Pass-rate setup, voting result calculated automatically
  - ◆ Voting result calculated according to predefined or present attendance
- Controls voting start and stop
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340CA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....	Flush-mounting
Dimensions (h x w x d) (w/o Mic.).....	83 x 111 x 41 mm
Weight.....	93 g
Color.....	Gray/Silver

## HCS-4843NDTKE/50 Voting Unit with IC-Card Reader



### Ordering Information

HCS-4843NDTKE/50	Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, silver)
HCS-4843NDTKE_G/50	Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, parliamentary voting can be implemented: YES/NO/ABSTAIN
  - ◆ Pass-rate setup, voting result calculated automatically
  - ◆ Voting result calculated according to predefined or present attendance
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340DA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting	Flush-mounting
Dimensions (h x w x d) (w/o Mic.)	83 x 111 x 41 mm
Weight	93 g
Color	Gray/Silver

## HCS-4843NCFE/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Controls voting start and stop

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Controls voting start and stop
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340CA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4843NCFE/50.....Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys,  
 HCS-4340CA/50 needed, silver)  
 HCS-4843NCFE\_G/50.....Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys,  
 HCS-4340CA/50 needed, gray)

## HCS-4843NDFE/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340DA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4843NDFE/50.....Digital Voting System Delegate Unit  
 (flush-mounting, 5 voting keys,  
 HCS-4340DA/HDA/50 needed, silver)  
 HCS-4843NDFE\_G/50.....Digital Voting System Delegate Unit  
 (flush-mounting, 5 voting keys,  
 HCS-4340DA/HDA/50 needed, gray)

## HCS-4843NCFKE/50 Voting Unit with IC-Card Reader



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Controls voting start and stop
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Controls voting start and stop
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340CA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4843NCFKE/50.....Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys,  
 IC-Card, HCS-4340CA/50 needed,  
 silver)  
 HCS-4843NCFKE\_G/50.....Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys,  
 IC-Card, HCS-4340CA/50 needed,  
 gray)

## HCS-4843NDFKE/50 Voting Unit with IC-Card Reader



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
    - (Three keys voting: satisfied/basically satisfied/unsatisfied)
    - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- RJ45 standard interface
- Used with HCS-4340DA/50 (Multi-function Connector)

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4843NDFKE/50.....Digital Voting System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, silver)  
 HCS-4843NDFKE\_G/50.....Digital Voting System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card, HCS-4340DA/HDA/50 needed, gray)

## HCS-4844N/50 Flush Loudspeaker Panel



### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....27 x 94 x 99 mm  
 Weight.....154 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4844N/50.....Flush Loudspeaker Panel (silver)  
 HCS-4844N\_G/50.....Flush Loudspeaker Panel (gray)

## HCS-4844NA/50 Flush Loudspeaker Panel



### Technical Specifications

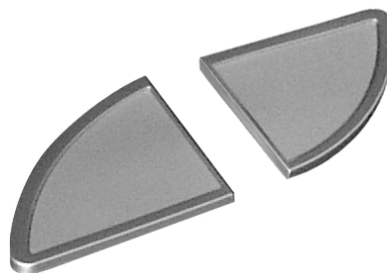
#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....61 x 94 x 99 mm  
 Weight.....164 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4844NA/50.....Flush Loudspeaker Panel (silver, cover)  
 HCS-4844NA\_G/50.....Flush Loudspeaker Panel (gray, cover)

## HCS-4845N/50 Flush End Caps



### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....3 x 48 x 41 mm  
 Weight.....3.5 g  
 Color.....Gray/Silver

### Ordering Information

HCS-4845N/50.....Flush End Cap (silver, 50 pairs/pack)  
 HCS-4845N\_G /50.....Flush End Cap (gray, 50 pairs/pack)



## HCS-4846N1/50 Cover



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) ..... 5 x 214 x 45 mm  
 Weight ..... 79 g  
 Color ..... Gray/Silver

### Ordering Information

HCS-4846N1/50 ..... Cover (for one unit, 213.8 mm, silver)  
 HCS-4846N1\_G/50 ..... Cover (for one unit, 213.8 mm, gray)

## HCS-4846N3/50 Cover



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) ..... 5 x 436 x 45 mm  
 Weight ..... 169 g  
 Color ..... Gray/Silver

### Ordering Information

HCS-4846N3/50 ..... Cover (for three units, 436.2 mm, silver)  
 HCS-4846N3\_G/50 ..... Cover (for three units, 436.2 mm, gray)

## HCS-4846N2/50 Cover



### Technical Specifications

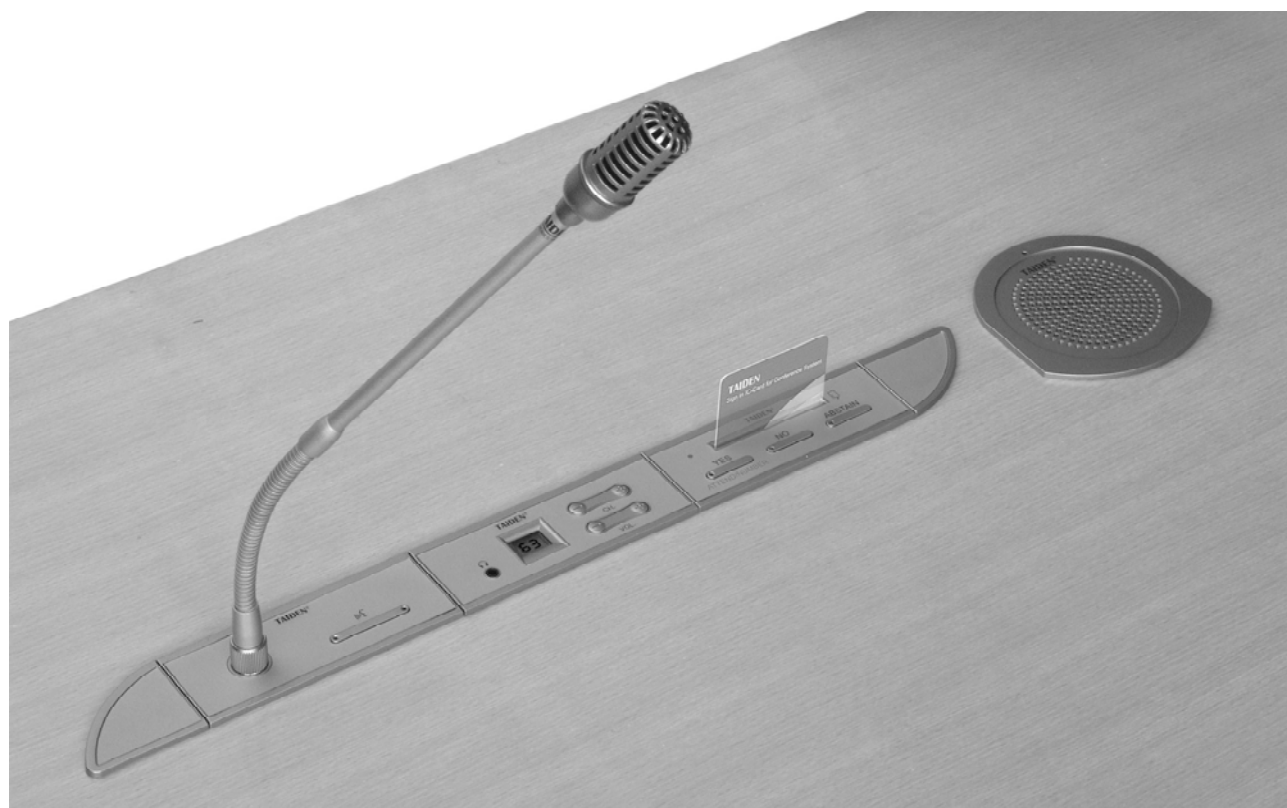
#### Mechanical

Dimensions (h x w x d) ..... 5 x 325 x 45 mm  
 Weight ..... 124 g  
 Color ..... Gray/Silver

### Ordering Information

HCS-4846N2/50 ..... Cover (for two units, 325.0 mm, silver)  
 HCS-4846N2\_G/50 ..... Cover (for two units, 325.0 mm, gray)

## System connection



## **HCS-4340CA/50**

### **Multi-function Connector**



---

#### **Functions**

- Direct or indirect connection with discussion unit, voting unit, IC-card reader or channel selector
- "Closed Loop - Daisy Chain" connection topology
- Data transmission between the units by patented "MCA-STREAM" technology
- Automatic recovery facility, supporting "PnP"(plug and play)

#### **Interconnections**

- Built-in 4 x RJ45 interface:
  - ◆ HCS-4340CA/50 can connect 1 voting unit, 1 chairman unit and 1 channel selector
- 2 m cable with 6P-DIN plug for connection to system CMU or to another Multi-function Connector
- 6P-DIN standard socket for loop-through interconnection

---

#### **Technical Specifications**

##### **Mechanical**

Mounting.....fixed mounting  
Dimensions (h x w x d).....35 X 170 X 112 mm  
Weight.....0.85 kg  
Color.....Gray

---

#### **Ordering Information**

HCS-4340CA/50.....Multi-function Connector (for connection to  
1 chairman unit + 1 voting unit + 1 channel  
selector)

## **HCS-4340DA/50**

### **Multi-function Connector**



---

#### **Functions**

- Direct or indirect connection with discussion unit, voting unit, IC-card reader or channel selector
- "Closed Loop - Daisy Chain" connection topology
- Data transmission between the units by patented "MCA-STREAM" technology
- Automatic recovery facility, supporting "PnP"(plug and play)

#### **Interconnections**

- Built-in 4 x RJ45 interface:
  - ◆ HCS-4340DA/50 can connect 1 voting unit, 1 delegate unit and 1 channel selector
- 2 m cable with 6P-DIN plug for connection to system CMU or to another Multi-function Connector
- 6P-DIN standard socket for loop-through interconnection

---

#### **Technical Specifications**

##### **Mechanical**

Mounting.....fixed mounting  
Dimensions (h x w x d).....35 X 170 X 112 mm  
Weight.....0.85 kg  
Color.....Gray

---

#### **Ordering Information**

HCS-4340DA/50.....Multi-function Connector (for connection  
to 1 delegate unit + 1 voting unit + 1  
channel selector)

## HCS-4340HDA/50 Multi-function Connector



### Functions

- Direct or indirect connection with discussion unit, voting unit, IC-card reader or channel selector
- "Closed Loop - Daisy Chain" connection topology
- Data transmission between the units by patented "MCA-STREAM" technology
- Automatic recovery facility, supporting "PnP"(plug and play)

### Interconnections

- Built-in 4 x RJ45 interface:
  - ◆ HCS-4340HDA/50 can connect 1 voting unit, 1 handheld delegate unit and 1 channel selector
- 2 m cable with 6P-DIN plug for connection to system CMU or to another Multi-function Connector
- 6P-DIN standard socket for loop-through interconnection

### Technical Specifications

#### Mechanical

Mounting.....fixed mounting  
 Dimensions (h x w x d).....35 X 170 X 112 mm  
 Weight.....0.85 kg  
 Color.....Gray

### Ordering Information

HCS-4340HDA/50.....Multi-function Connector (for connection to 1 handheld delegate unit + 1 voting unit + 1 channel selector)

## HCS-4340B/50 Multi-function Connector



### Functions

- Direct or indirect connection with channel selector
- "Closed Loop - Daisy Chain" connection topology
- Data transmission between the units by patented "MCA-STREAM" technology
- Automatic recovery facility, supporting "PnP" (plug and play)

### Interconnections

- Built-in 4 x RJ45 interface:
  - ◆ HCS-4340B/50 can connect 4 pcs channel selectors
- 2 m cable with 6P-DIN plug for connection to system CMU or to another Multi-function Connector
- 6P-DIN standard socket for loop-through interconnection

### Technical Specifications

#### Mechanical

Mounting.....fixed mounting  
 Dimensions (h x w x d).....35 X 170 X 112 mm  
 Weight.....0.85 kg  
 Color.....Gray

### Ordering Information

HCS-4340B/50.....Multi-function Connector (for connection to 4 pcs of channel selectors)

## HCS-4340DT/50 Multi-function Connector



### Functions

- Direct or indirect connection with discussion unit or channel selector
- "Closed Loop - Daisy Chain" connection topology
- Data transmission between the units by patented "MCA-STREAM" technology
- Automatic recovery facility, supporting "PnP"(plug and play)

### Interconnections

- Built-in 4 x RJ45 interface:
  - ◆ HCS-4340DT/50 can connect 2 delegate units and 2 channel selectors
- 2 m cable with 6P-DIN plug for connection to system CMU or to another Multi-function Connector
- 6P-DIN standard socket for loop-through interconnection

### Technical Specifications

#### Mechanical

Mounting.....fixed mounting  
 Dimensions (h x w x d).....35 X 170 X 112 mm  
 Weight.....0.85 kg  
 Color.....Gray

### Ordering Information

HCS-4340DT/50.....Multi-function Connector (for connection to 2 delegate units + 2 channel selectors)

## HCS-4340HDT/50 Multi-function Connector



### Functions

- Direct or indirect connection with discussion unit or channel selector
- "Closed Loop - Daisy Chain" connection topology
- Data transmission between the units by patented "MCA-STREAM" technology
- Automatic recovery facility, supporting "PnP"(plug and play)

### Interconnections

- Built-in 4 x RJ45 interface:
  - ◆ HCS-4340HDT/50 can connect 1 handheld delegate unit and 2 channel selectors
- 2 m cable with 6P-DIN plug for connection to system CMU or to another Multi-function Connector
- 6P-DIN standard socket for loop-through interconnection

### Technical Specifications

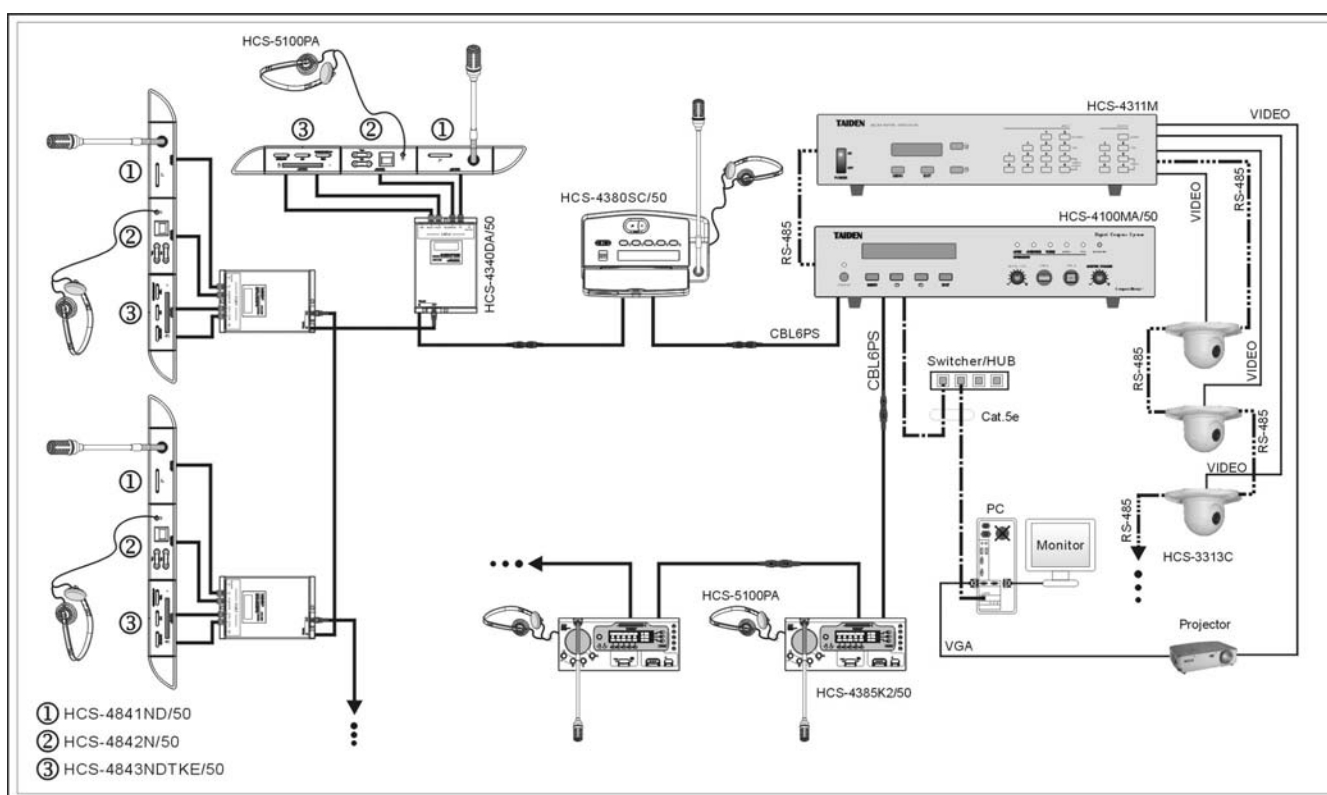
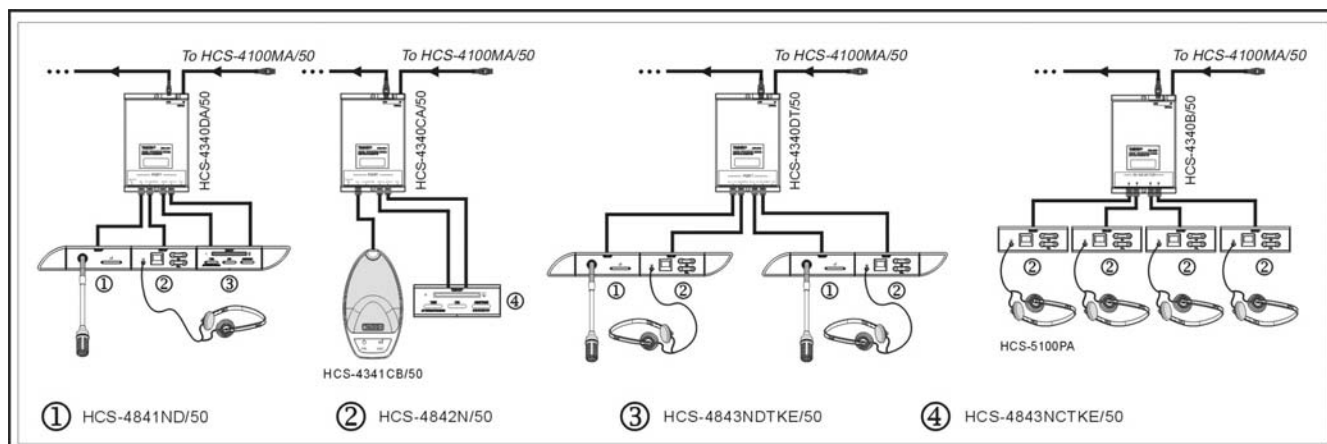
#### Mechanical

Mounting.....fixed mounting  
 Dimensions (h x w x d).....35 X 170 X 112 mm  
 Weight.....0.85 kg  
 Color.....Gray

### Ordering Information

HCS-4340HDT/50.....Multi-function Connector (for connection to 1 handheld delegate unit + 2 channel selectors)

## System Connection



## HCS-4368CF/50 Voting Unit



### Features

- Tabletop-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Controls voting start, suspend, re-start and stop
- Waterproof facility

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+ /++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop
- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu

- Key-press sign-in
- Automatic detection
- Waterproof facility

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d).....64 x 197 x 86 mm  
 Color.....Red

### Ordering Information

HCS-4368CF\_R/50.....Digital Voting System Chairman Unit  
 (tabletop, 5 voting keys, 256x32" LCD, waterproof, red)



## HCS-4368DF/50 Voting Unit



### Features

- Tabletop-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Waterproof facility

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d).....64 x 197 x 86 mm  
 Color top.....Red

### Ordering Information

HCS-4368DF\_R/50.....Digital Voting System Delegate Unit  
 (tabletop, 5 voting keys, 256x32"  
 LCD, waterproof, red)

## HCS-4368CF/FM/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Controls voting start, suspend, re-start and stop
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....60 x 197 x 86 mm  
 Color.....Silver/Red

### Ordering Information

HCS-4368CF/FM\_R/50.....Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red)  
 HCS-4368CF/FM\_S/50.....Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver)

## HCS-4368DF/FM/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Key-press sign-in
- Automatic detection

- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....60 x 197 x 86 mm  
 Color.....Silver/Red

### Ordering Information

HCS-4368DF/FM\_R/50.....Digital Voting System Delegate Unit  
 (flush-mounting, 5 voting keys,  
 256x32" LCD, waterproof, cover,  
 red)  
 HCS-4368DF/FM\_S/50.....Digital Voting System Delegate Unit  
 (flush-mounting, 5 voting keys,  
 256x32" LCD, waterproof, cover,  
 silver)

## HCS-4368CFK/50 Voting Unit with IC-Card Reader



### Features

- Tabletop-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Controls voting start, suspend, re-start and stop
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d).....64 x 197 x 86 mm  
 Color.....Red

### Ordering Information

HCS-4368CFK\_R/50.....Digital Voting System Chairman Unit  
 (tabletop, 5 voting keys, 256x32"  
 LCD, IC-Card, red)

## HCS-4368DFK/50 Voting Unit with IC-Card Reader



### Features

- Tabletop-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in IC-card reader

- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d).....64 x 197 x 86 mm  
 Color.....Red

### Ordering Information

HCS-4368DFK\_R/50.....Digital Voting System Delegate Unit  
 (tabletop, 5 voting keys, 256x32"  
 LCD, IC-Card, red)

## HCS-4368CFK/FM/50 Voting Unit with IC-Card Reader



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Controls voting start, suspend, re-start and stop
- Built-in IC-card reader
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
    - (Three keys voting: satisfied/basically satisfied/unsatisfied)
    - (Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop

- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting..... Flush-mounting  
 Dimensions (h x w x d)..... 60 x 197 x 86 mm  
 Color..... Silver/Red

### Ordering Information

HCS-4368CFK/FM\_R/50..... Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys,  
 256x32" LCD, IC-Card, cover, red)  
 HCS-4368CFK/FM\_S/50..... Digital Voting System Chairman Unit  
 (flush-mounting, 5 voting keys,  
 256x32" LCD, IC-Card, cover, silver)

## HCS-4368DFK/FM/50 Voting Unit with IC-Card Reader



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology
- Built-in IC-card reader
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Graphic 256x32" LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (messages from system administrator to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu

- Built-in IC-card reader
- Key-press sign-in
- Automatic detection
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....	Flush-mounting
Dimensions (h x w x d).....	60 x 197 x 86 mm
Color.....	Silver/Red

### Ordering Information

HCS-4368DFK/FM_R/50.....	Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, red)
HCS-4368DFK/FM_S/50.....	Digital Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, silver)



## **HCS-4385K2/50 64-channel Simultaneous Interpretation Unit**



### **Features**

- Compliant to ISO 2603, ISO 4043 and IEC 60914
- "Closed Loop - Daisy Chain" connection topology
- Up to 64 interpretation channels including the original floor language
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Excellent immunity to RF interference from mobile phones
- Ergonomic design with features for visually impaired
- Adjustable microphone sensitivity
- Repeat function (REP. key)
- Graphic LCD with backlighting for bright information display in dark conditions
- 5 pre-select keys for relay languages with activation indication at the display
- Microphone gain and EQ adjustable individually
- Built-in multi-channel intercom facility

HCS-4385K2/50 Simultaneous Interpretation Unit provides up to 64 CHs language channels. It is composed of a graphic 256x64" LCD with back-lighting, built-in 64 CHs channel selector and loudspeaker, pluggable microphone stem and headphone/microphone jacks. LCD can display channel number, language name, input language, quality indication, and short message, etc. Unit's connection cable is compatible with the trunk-line cable, thus it is easy for interpretation unit to connect into existent system cabling.


It provides two operational modes: normal interpretation and relay interpretation with auto-relay.

### **Functions**

- Fully digital audio technology, compliant to ISO 2603, ISO 4043 and IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units in the system
- Accommodates up to 64 interpretation channels (incl. floor channel)
- Supporting 48 kHz audio sampling rate, all 64 channels with a frequency response of 30 Hz~20 kHz
- Integrated 80 Hz (18 dB/octave) high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic feedback prevention when listening to own interpretation
- Direct and relay interpretation available
- Auto relay interpretation facility
- Presets language name either by the main unit or the system software
- Uni-directional electret condenser microphone with illuminated ring
- Microphone can be unplugged during adjournment, easy to maintain
- Microphone gain and EQ adjustable individually
- Built-in IC-Card reader
- Built-in loudspeaker with volume control. If all microphones in the same booth are off and "FLOOR" indicator is on, the speaker will play floor language
- Built-in multi-channel intercom facility
- Permits only one microphone on a channel to be activated at any time, ensuring the uniqueness of language channels
- Two necessary modes between interpreter booths:
  - Interlock: Blocks another interpreter from using the same channel in another interpreter booth.
  - Override: Allows an interpreter to override another interpreter in another interpreter booth supplying the same interpretation channel.
- A maximum of six interpreter units can be installed in each booth
- Length of microphone stem: 330 mm (default), 410 mm, 470 mm

### **Controls and Indicators**

- Graphic 256x64" LCD with back-lighting can display of the following:
  - Unit configuration information
  - Incoming/outgoing channel number and language name
  - Incoming language indication
    - ♦ If the monitoring language comes from the original floor channel, a "FLOOR" is displayed on the corresponding language channel
    - ♦ If the monitoring language comes from the direct interpretation channel, a "+" is displayed
    - ♦ If the monitoring language comes from the relay interpretation channel, a "-" is displayed
    - ♦ Note: The indication means to remind the interpreters to avoid using the relay interpretation as often as possible if the direct interpretation is available

- Short messages (administrator can send messages to all or part of participants, even a certain one)
- Multilingual menus available (Simplified/Traditional Chinese and English, etc.)
- Integrated real-time clock displays time on the LCD of the interpretation unit to inform interpreter to stay on schedule
- 5 pre-select keys (a/b/c/d/e) for relay languages with active indication on LCD
- Rotary step control for fast selecting language channels
- A & B & C channel key with status and engaged indicator
- Mute facility prevents constrained voice being transmitted (MUTE key)
- Speak slowly facility to alert the current speaker to slow down (SLOW key)
- Call to an operator (CALL key)
- Repeat function (REP. key)
- Interpretation unit's microphone can be turned off and A/B/C output channels can be switched by operator, when operating conference system management software
- Volume and bass/treble of the headphone adjustable
- Volume of the speaker adjustable
- Floor channel ON/OFF switch
- Microphone ON/OFF switch
- When connected to PC and controlled by application software, call for help and help information will be displayed on status bar of the application software (HELP key)
- Setup an intercom channel directly to an appointed congress unit, which is appointed by main unit (CHAIR key)
- Beeps function
- Message key (  )

### Interconnections

- Socket for pluggable microphone
- IC card socket
- Ø 6.4 mm headphone jack
- Ø 3.5 mm jacks for headset
- 1.5 m cable with 6P-DIN standard plug for connection with system CMU or the next Simultaneous Interpretation Unit
- 0.6 m cable with 6P-DIN standard socket for loop-through interconnection

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....30 Hz to 20 kHz  
 arphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm mono jack for external mic.  
 .....Ø 3.5 mm stereo jack for headphone  
 .....Ø 6.4 mm stereo jack for headphone

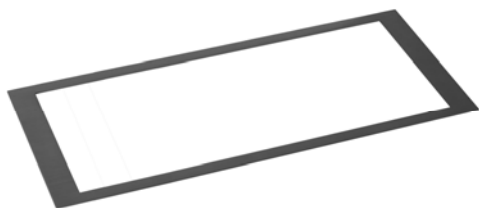
#### Mechanical

Mounting.....free-standing, flush-mounting or mounted on a table  
 Dimensions (h x w x d) (w/o Mic.).....78 x 290 x 127 mm  
 Slope.....23 degrees  
 Weight.....1.05 kg  
 Color.....Silver

### Ordering Information

HCS-4385K2/50.....Digital Congress System Interpreter Unit  
 (64 CHs, IC-Card, 256x64" LCD, MIC,  
 loud-speaker)

## HCS-4385MP Mounting Plate



### Features

- Used for flush-mounting of HCS-4385K2/50 Interpreter Unit

### Technical Specifications

#### Mechanical

Dimensions (h x w x d).....1.5 x 328 x 144 mm  
 Weight.....44 g  
 Color.....Gray

### Ordering Information

HCS-4385MP.....Mounting Plate (for HCS-4385K2/50)

## HCS-1020 Clip Microphone



### Features

- Stylish and ergonomic design
- Excellent immunity to RF interferences from mobile phones
- Ø 3.5 mm stereo plug with a 1.5 meter cable

### Technical Specifications

#### Electrical

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Dimensions (h x w x d).....51 x 25 x 13 mm  
 Weight.....3 g  
 Color.....Black

### Ordering Information

HCS-1020.....Clip Microphone

## HCS-4100MA/50 Congress Main Unit



### Features

- Connectable to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 30 Hz~20 kHz
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Dual connection backup via CAT5 cable between congress main unit and extension main unit
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Voting facilities without PC intervention
- Built-in multi-channel intercom facility
- Plug and play for all units
- Excellent immunity to RF interference from mobile phones and comparable devices
- System power controllable by central control system

The Congress Main Unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator.

In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the main unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- System power controllable by central control system
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate. All 64 channels feature perfect sound quality with a frequency response of 30 Hz~20 kHz
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
- 2 audio line in or 1 audio line in + 1 microphone input: gain and EQ for each input adjustable separately, +24 V phantom power available at microphone input, a condenser microphone can be connected directly
- Unit offers connection facilities to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Dual connection backup between congress main unit and extension main unit via optical fiber and CAT5 cable
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding users application spectrum (HCS-8300MI series audio input interface required)
- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/F are required:
  - ◆ 4096 discussion or voting units
  - ◆ 378 interpretation units (with maximum 63 booths, each booth with maximum 6 interpretation units)
  - ◆ Any quantity of channel selectors
- With the HCS-8300 series 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for infrared language distribution system or recording
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ Set-up of speaking time limitation (1~240 minutes)

- ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
  - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
  - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
  - "PTT" mode, press microphone key to talk
- ◆ Parliamentary voting (YES/NO/ABSTAIN)
- ◆ 64 (1+63) channels simultaneous interpretation function. Cooperates with channel selector or infrared language distribution system enabling a larger audience to follow the conference
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Centralized microphone management
  - ◆ Multi-form voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/-/0/+/>++
    - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV
    - Rating:
      - ◇ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
      - ◇ Qualified (four/three/two keys voting)
      - ◇ Competent (four/three/two keys voting)
  - ◆ Several sign-in modes: entrance sign-in/seat sign-in
  - ◆ Depending on the purchased HCS-4100/50 software modules, user has access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- Hot spare dual server structure: another congress main unit is set up as backup main unit and connected to the system, takes over automatically if the main congress main unit fails
- Multi-room configuration: congress main unit(s) can be used as extension main unit(s) to carry out multi-room configuration flexibly. Multiple main unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Fully compatible with TAIDEN HCS-4100/20 Fully Digital Conference System: HCS-4100/20 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-4100/20 system (exclusive functions only available with HCS-4100/50 contribution units).

- Fully compatible with TAIDEN HCS-8300 Digital Congress System: HCS-8300 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units).
- Built-in unit detection facilities: detect the unit's microphone, speaker, LEDs and voting keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, congress main unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference

### Controls and Indicators

- Graphic 256x32" LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- LINE IN electric level adjust knob
- Congress unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ One balanced XLR-type connector for microphone input: or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLR-type connector for audio line out
  - ◆ Two symmetrical RCA output interfaces for audio line out
- 2 x RS-232 port for connection to intelligent central control system and system diagnosis each
- Optical fiber interface to combine two mutually distant conference rooms and to operate as one unique coherent system
- 1 x RJ45 standard socket for connection to Ethernet interface (LAN)
- 1 x RJ45 standard socket (output) for connection with a congress extension main unit (EXTENSION)
- 2 x outlet (6P-DIN) trunk-line cable outlet
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to congress units
- 2 x USB interfaces at front panel to upgrade system and to save system parameters

## Technical Specifications

### Electrical

Frequency response.....30 Hz to 20 kHz  
 SNR.....>96 dBA  
 Dynamic range.....>94 dB  
 Isolation.....>85 dB  
 THD.....<0.05%  
 Power supply.....AC 110 V/220 V  
 Power consumption.....200 W  
 DCS system supply.....33 VDC, max 60 W per DCS socket  
 Total supply power.....120 W  
 RS-232 connection.....2 x 9-pole Sub-D female socket

### Max. audio inputs

LINE IN 1.....+10 dBu, BAL.  
 LINE IN 2.....+10 dBu, UNBAL.

### Max. audio outputs

LINE OUT 1.....+20 dBu, BAL.  
 LINE OUT 2.....+14 dBu, UNBAL.  
 GROUP OUT (1...6).....+20 dBu, BAL.

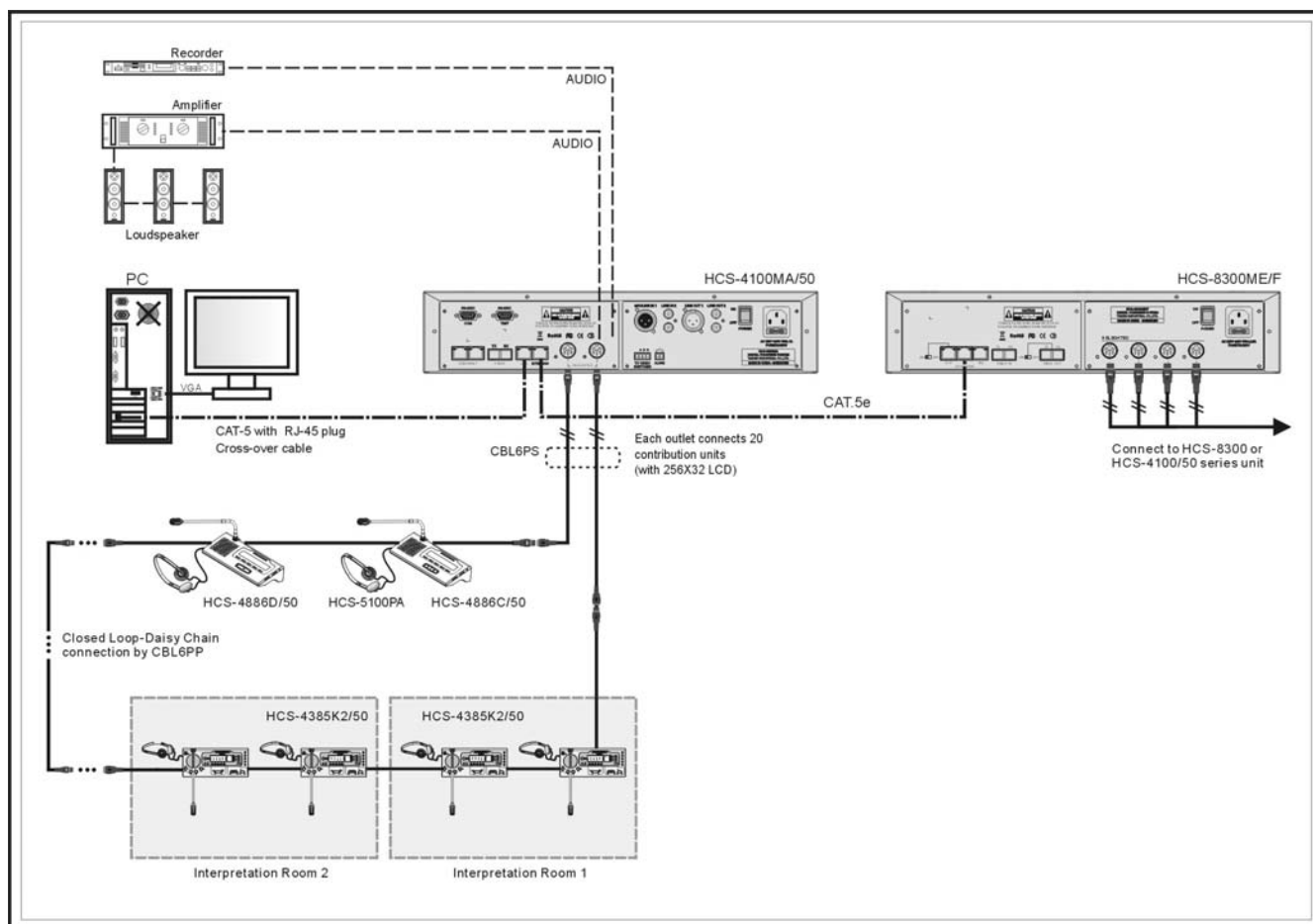
## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
 Dimensions (h x w x d)  
 For table use, with feet.....99 X 430 X 325 mm  
 For 19" rack use, with brackets.....89 X 478 X 350 mm  
 Weight.....7.81 kg  
 Color.....White

## Ordering Information

HCS-4100MA/50.....Digital Congress System Main Unit  
 (discussion, voting, 64 CHs, 256x32" LCD,  
 optical fiber interface)

## System Connection





## HCS-4100MB/50 Congress Main Unit



### Features

- Connectable to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 30 Hz~20 kHz
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Dual connection backup via CAT5 cable between congress main unit and extension main unit
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Voting facilities without PC intervention
- Built-in multi-channel intercom facility
- Plug and play for all units
- Excellent immunity to RF interference from mobile phones and comparable devices
- System power controllable by central control system

The Congress Main Unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator.

In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the main unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- System power controllable by central control system
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate. All 64 channels feature perfect sound quality with a frequency response of 30 Hz~20 kHz
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time
- Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
- 2 audio line in or 1 audio line in + 1 microphone input: gain and EQ for each input adjustable separately, +24 V phantom power available at microphone input, a condenser microphone can be connected directly
- Unit offers connection facilities to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Dual connection backup between congress main unit and extension main unit via CAT5 cable
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding users application spectrum (HCS-8300MI series audio input interface required)
- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/F are required:
  - ◆ 4096 discussion or voting units
  - ◆ 378 interpretation units (with maximum 63 booths, each booth with maximum 6 interpretation units)
  - ◆ Any quantity of channel selectors
- With the HCS-8300 series 8 channel digital/analog audio output device (several units cascable), multi-channel digital/analog audio signals are available as output signals for infrared language distribution system or recording
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC



- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ Set-up of speaking time limitation (1~240 minutes)
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time adjustable continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate only speaks when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
  - ◆ 64 (1+63) channels simultaneous interpretation function. Cooperates with channel selector or infrared language distribution system enabling a larger audience to follow the conference
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Centralized microphone management
  - ◆ Multiform voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/-/0/+/>++
    - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV
    - Rating:
      - ◇ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
      - ◇ Qualified (four/three/two keys voting)
      - ◇ Competent (four/three/two keys voting)
  - ◆ Several sign-in modes: entrance sign-in/seat sign-in
  - ◆ Depending on the purchased HCS-4100/50 software modules, user has access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- Hot spare dual server structure: another congress main unit is set up as backup main unit and connected to the system, takes over automatically if the main congress main unit fails
- Multi-room configuration: congress main unit(s) can be used as extension main unit(s) to carry out multi-room configuration flexibly. Multiple main unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Fully compatible with TAIDEN HCS-4100/20 Fully Digital Conference System: HCS-4100/20 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-4100/20 system (exclusive functions only available with HCS-4100/50 contribution units).

- Fully compatible with TAIDEN HCS-8300 Digital Congress System: HCS-8300 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units).
- Built-in unit detection facilities: detect the unit's microphone, speaker, LEDs and voting keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, congress main unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference

### Controls and Indicators

- Graphic 256x32" LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- LINE IN electric level adjust knob
- Congress unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ One balanced XLR-type connector for microphone input: or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLRM-type connector for audio line out
  - ◆ Two symmetrical RCA output interfaces for audio line out
- 2 x RS-232 port for connection to intelligent central control system and system diagnosis each
- 1 x RJ45 standard socket for connection to Ethernet interface (LAN)
- 1 x RJ45 standard socket (output) for connection with a congress extension main unit (EXTENSION)
- 2 x outlet (6P-DIN) trunk-line cable outlet
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to congress units
- 2 x USB interfaces at front panel to upgrade system and to save system parameters

---

## Technical Specifications

### Electrical

Frequency response.....30 Hz to 20 kHz  
SNR.....>96 dBA  
Dynamic range.....>94 dB  
Isolation.....>85 dB  
THD.....<0.05%  
Power supply.....AC 110 V/220 V  
Power consumption.....200 W  
DCS system supply.....33 VDC, max 60 W per DCS socket  
Total supply power.....120 W  
RS-232 connection.....2 x 9-pole Sub-D female socket

### Max. audio inputs

LINE IN 1.....+10 dBu, BAL.  
LINE IN 2.....+10 dBu, UNBAL.

### Max. audio outputs

LINE OUT 1.....+20 dBu, BAL.  
LINE OUT 2.....+14 dBu, UNBAL.  
GROUP OUT (1...6).....+20 dBu, BAL.

### Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 X 430 X 325 mm  
For 19" rack use, with brackets.....89 X 478 X 350 mm  
Weight.....7.81 kg  
Color.....White

---

## Ordering Information

HCS-4100MB/50.....Digital Congress System Main Unit  
(discussion, voting, 64 CHs, 256x32" LCD)

## HCS-4100MC/50 Congress main unit



### Features

- Connectable to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz and 32 kHz audio sampling rate
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Voting facilities without PC intervention
- Built-in multi-channel intercom facility
- Plug and play for all units
- Excellent immunity to RF interference from mobile phones and comparable devices
- System power controllable by central control system

The Congress Main Unit includes features for controlling delegate microphones, and conducting voting sessions, without an operator. In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the main unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- System power controllable by central control system
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time

- Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
- 2 audio line in or 1 audio line in + 1 microphone input: gain and EQ for each input adjustable separately, +24 V phantom power available at microphone input, a condenser microphone can be connected directly
- Unit offers connection facilities to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding users application spectrum (HCS-8300MI series audio input interface required)
- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/F are required:
  - ◆ 4096 discussion or voting units
  - ◆ Any quantity of channel selectors
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ Set-up of speaking time limitation (1~240 minutes)
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time can be adjusted continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Centralized microphone management
  - ◆ Multiform voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/0/+/>++
    - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV
    - Rating:
      - ◆ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
      - ◆ Qualified (four/three/two keys voting)
      - ◆ Competent (four/three/two keys voting)

- ◆ Several sign-in modes: entrance sign-in/seat sign-in
- ◆ Depending on the purchased HCS-4100/50 software modules, user has access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- Hot spare dual server structure: another congress main unit is set up as backup main unit and connected to the system, takes over automatically if the main congress main unit fails
- Multi-room configuration: congress main unit(s) can be used as extension main unit(s) to carry out multi-room configuration flexibly. Multiple main unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Fully compatible with TAIDEN HCS-4100/20 Fully Digital Conference System: HCS-4100/20 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-4100/20 system (exclusive functions only available with HCS-4100/50 contribution units).
- Fully compatible with TAIDEN HCS-8300 Digital Congress System: HCS-8300 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units).
- Built-in unit detection facilities: detect the unit's microphone, speaker, LEDs and voting keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, congress main unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference

### Controls and Indicators

- Graphic 256x32" LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- LINE IN electric level adjust knob
- Congress unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ One balanced XLR-F-type connector for microphone input: or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLR-M-type connector for audio line out
  - ◆ Two symmetrical RCA output interfaces for audio line out
- 2 x RS-232 port for connection to intelligent central control system and system diagnosis each
- 1 x RJ45 standard socket for connection to Ethernet interface (LAN)

- 1 x RJ45 standard socket (output) for connection with a congress extension main unit (EXTENSION)
- 2 x outlet (6P-DIN) trunk-line cable outlet
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to congress units
- 2 x USB interfaces at front panel to upgrade system and to save system parameters

### Technical Specifications

#### Electrical

Frequency response	20 Hz to 20 kHz
SNR	>96 dBA
Dynamic range	>94 dB
Crosstalk	>85 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	200 W
DCS system supply	33 VDC, max 60 W per DCS socket
Total supply power	120 W
RS-232 connection	2 x 9-pole Sub-D female socket

#### Max. audio inputs

LINE IN 1	+10 dBu, BAL.
LINE IN 2	+10 dBu, UNBAL.

#### Max. audio outputs

LINE OUT 1	+20 dBu, BAL.
LINE OUT 2	+14 dBu, UNBAL.
GROUP OUT (1...6)	+20 dBu, BAL.

#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h x w x d)	
For table use, with feet	99 X 430 X 325 mm
For 19" rack use, with brackets	89 X 478 X 350 mm
Weight	7.8 kg
Color	White

### Ordering Information

HCS-4100MC/50	Digital Congress System Main Unit (discussion, voting, 256x32" LCD)
---------------	--

## Low power consumption design

Low power consumption design is adopted in HCS-8300 and HCS-4100/50 series congress units, convenient for wiring and installation. All congress units of HCS-8300 and HCS-4100/50 series (except HCS-8318 series) are supplied by the main unit's 6P-DIN interface. Since the power capacity of the 6P-DIN interface is limited, it must be ensured during installation that the added up values of a) the total power consumption of all congress units connected in each path and b) the power loss in extension cables do in no case exceed the maximum possible value delivered by each 6P-DIN interface. Otherwise the system will not work properly or automatic protection will be triggered.

(1). The output power of each 6P-DIN interface of control main unit or backup main unit is 60 W; the output power of each 6P-DIN interface of extension main unit is 80 W.

(2). Refer to the following table for the power consumption of each type of congress units:

Table 1 Power consumption

Type	Type No.	Max. power consumption
Equipped with 7" LCD and built-in speaker	HCS-8307	7.5 W
Equipped with 256×32" LCD and built-in speaker	HCS-4886/50、HCS-4887/50、HCS-4380/50、HCS-4382/50、HCS-4365/50	2.3 W
Equipped with 256×32" LCD and without built-in speaker	HCS-4368/50	1.8 W
Equipped with built-in speaker and without 256×32" LCD	HCS-8310、HCS-8311、HCS-8312、HCS-4888/50、HCS-4370/50、HCS-4371/50、HCS-4366/50、HCS-4360/50、HCS-4361/50、HCS-4362/50、HCS-4363/50、HCS-4330/50、HCS-4331/50、HCS-4332/50、HCS-4333/50、HCS-4335/50	
Without 256×32" LCD and built-in speaker	HCS-8313、HCS-8314、HCS-8315、HCS-4320/50、HCS-4321/50、HCS-4322/50	1.3 W
Equipped with 256×64" LCD and built-in speaker	HCS-4385K2/50	2.8 W
Multi-function Connector	HCS-4340/50	2.1 W
Cable Splitter (relay facility)	HCS-4352/50	1.0 W

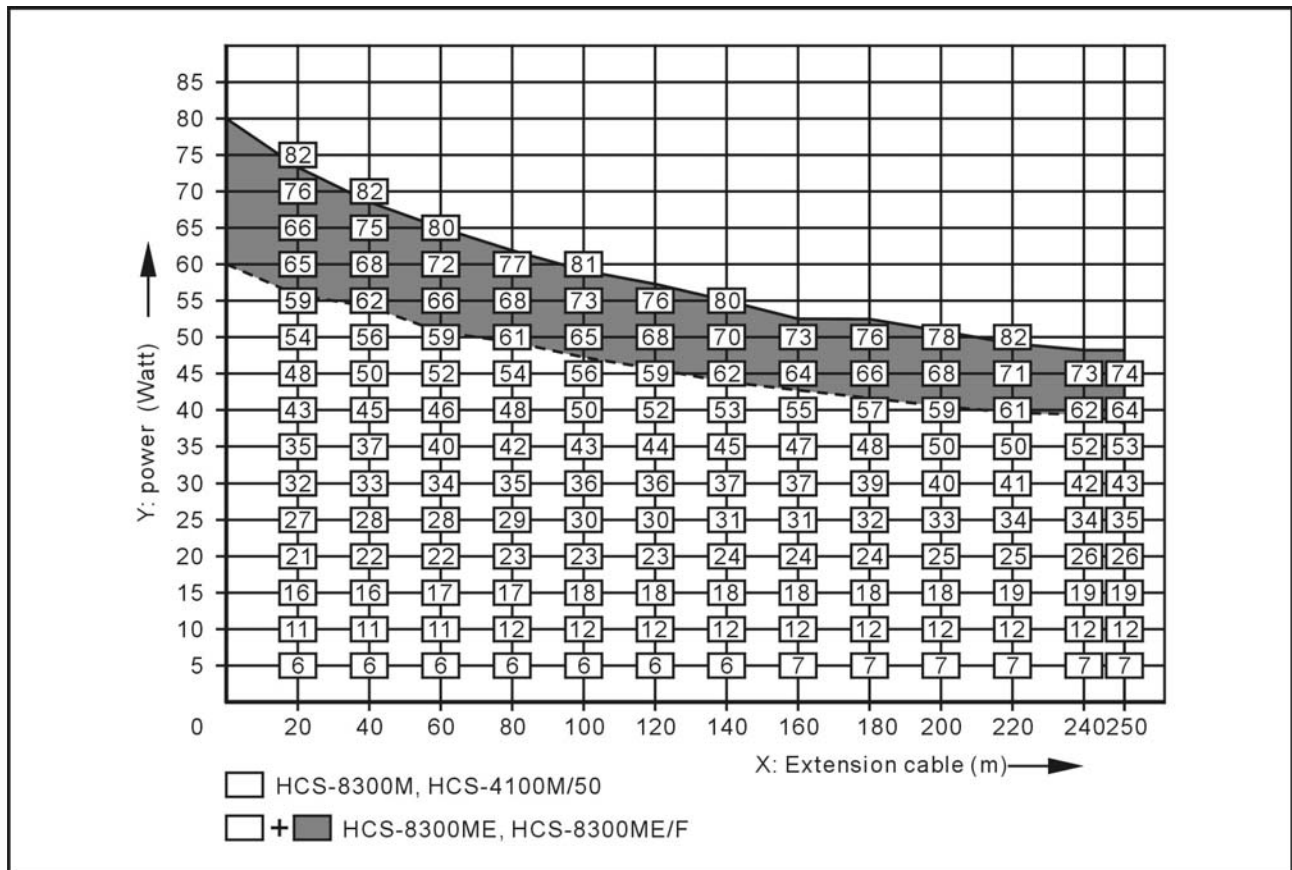
### (3). Lengths of extension cables

- The total added up cable length from the main unit to the furthest congress unit shall not exceed 250 m.
- Any connection cable length should be less than 100 meters (including the cable between the main unit and the next congress unit and the cable between any two sequential congress units), otherwise it will affect the signal quality. In case the length exceeds 100m, repeaters are needed.
- The connection cable between the main unit and the first congress unit is always carrying the maximum current, induced by the totality of the congress units connected to the dedicated socket. Due to Ohm's law the available supply voltage at the opposite end of this cable is lower than on the socket. This voltage drop is dependent on the cable length and the current. The number of overall connectable congress units to the main unit is therefore a function of the cable length and vice versa. However, when the cable is connected between the last two congress units, the influence is insignificant.

**(4). The necessary power (the total power consumption of the units and the connection cables connected to the socket)**

- Find the power consumption of each unit from the consumption table (refer to table 1), add up the power of all units. The result is the total power consumption of the units connected to the socket;
- Add up the lengths of all connection cables related to the socket;
- Find the total power consumption calculated according to a) on the vertical axis (Y) of the power correction graph (for example, 50 W); find the overall length of the connection cables calculated according to b) on the horizontal axis (X) of the power correction graph (for example, 60 m). The intersection of both values gives the necessary power from the socket (in this example 59 W).

Table 2 Power correction graph





## HCS-4100/50 Series Application Software

HCS-4100/50 application software is comprehensive, reliable and user-friendly. But it is also an easy care software system which helps the operator to manage the conference efficiently from the very beginning of a meeting until the post-meeting work. With the PC installed HCS-4100/50 application software connected into the FDCS, operator can manage all aspects of the conference centrally. The operation turns out to be easy and efficient.

HCS-4100/50 application software is a modularized software with various functional modules:

- Basic System Setup Management Module (HCS-4210/50)
- Professional Venue Design Module (HCS-4212/50)
- Microphone Management Module (HCS-4213/50)
- Voting Management Module (HCS-4214/50S)
- Video Control Module (HCS-4215/50)
- Simultaneous Interpretation Module (HCS-4216/50)
- Conference Sign-in Management Module (HCS-4217/50)
- Intercom Software Module (HCS-4218/50)
- Synchronous Audio Recording Management Module (HCS-4219/50)
- Synchronous Video Recording Management Module (HCS-4220/50)
- Multi-user Conference Control Management Module (HCS-4221/50)
- Dual PC Server Hot Spare Module (HCS-4222/50)
- Agenda Control Module (HCS-4223/50)
- Speech Prompt Module (HCS-4224/50)
- Dual System Main Unit Hot Spare Module (HCS-4225/50)
- Touch IC-Card Sign-in Management Module (HCS-4226/50)

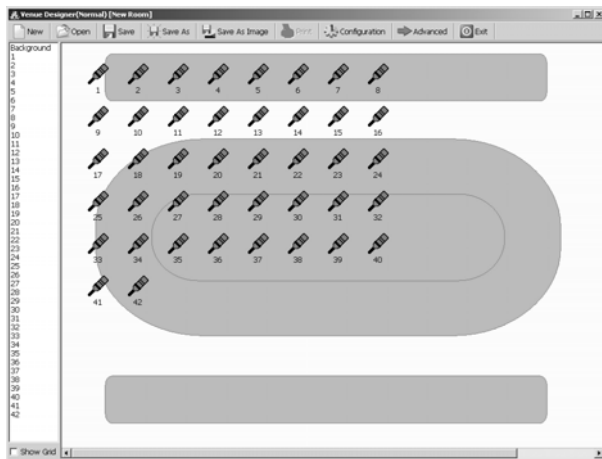




## HCS-4210/50 Basic Software Module

Basic software module consists of an amount of facilities, e.g. venue design (normal edition), conference management, main unit configuration, contribution unit configuration, information display, system detection, system report and user management.

### Venue design facility



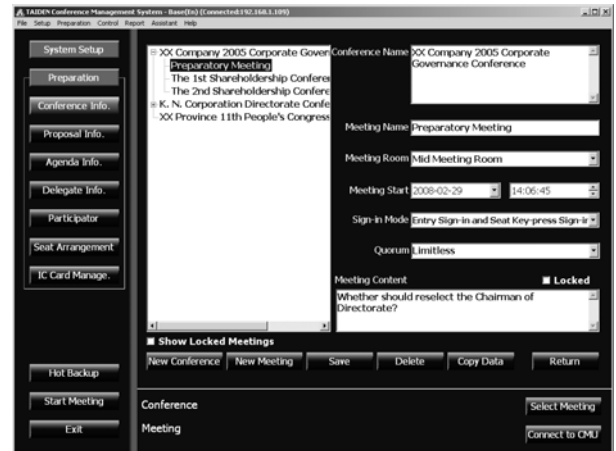
Venue design (normal edition)

### Functions

Converts the venue seating into an intuitive, graphical and controllable interface as a basis for further use, according to the actual layout of the venue

- Self-designing the background picture and color, supporting pictures of any size
- Microphone number, amount of microphones per line, icon type - icon transparency optionally
- Freely drag and drop the microphone icon
- Reconfiguration of the initialized settings, available at any time
- Save/open files for file management
- Especially suitable for small-scale and medium-sized meeting room/hall. The professional edition of venue design module offers more facilities described in HCS-4212/50 Professional Venue Design Module.

### Conference information management



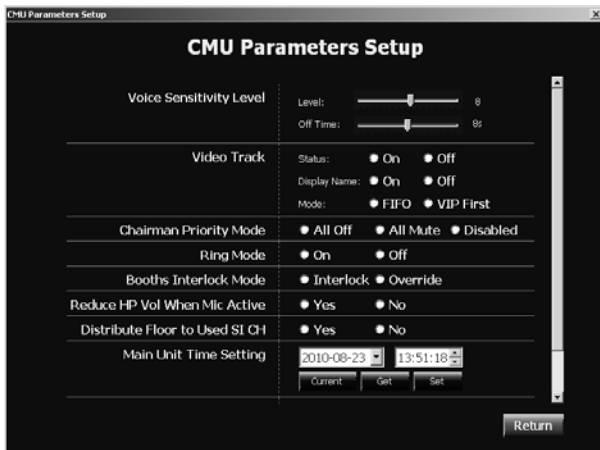
Conference Information

### Functions

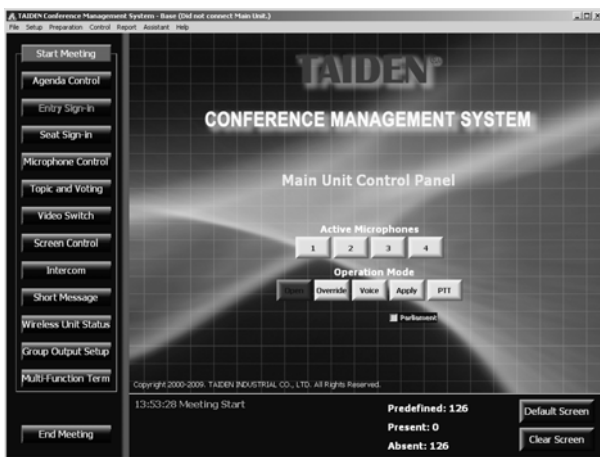
Comprehensive conference information management facility, for clear and easy user management.

- Includes conference name and meeting information
- Each conference consists of several meetings
- Creation of a new meeting for appointed conference
- Meeting:
  - ◆ Meeting content: meeting name, meeting room name, meeting start time, sign in mode, quorum and conference content
  - ◆ Display of convoked meetings in distinct colors
  - ◆ Locking a convoked meeting for meeting data protection
- Freely switch between the meetings to manage

## Main unit configuration facility



CMU parameters setup



Main unit control panel

## Functions

Module provides **CMU parameters setup** and **CMU control panel** sub-modules.

### ■ CMU parameters setup:

- ◆ *Voice sensitivity level*: set sensitivity level to open microphone and auto turn off time in "Voice" mode
- ◆ *Video track*:
  - *Status*: turn on/off video track
  - *Display name*: turn on/off name display
  - *Mode*: select FIFO or VIP first
- ◆ *Chairman priority mode*: enable *All off* or *All mute* operation when chairman presses priority button
  - *All off*: turn off all delegate microphones
  - *All mute*: temporarily mute all delegate microphones; the former state is restored once the button released
  - *Disabled*
- ◆ *Ring mode*: turn on/off all kinds of ring tones of congress units triggered when applying to speak, receiving short message or IC card insertion
- ◆ *Booths interlock mode*: interlock or override
- ◆ *Reduce headphone volume when mic. active or not*
- ◆ *Distribute floor to used SI channel or not*
- ◆ *"Closed Loop - Daisy Chain" connection allowed or not*
- ◆ *Use extension port or not*
- ◆ *Main unit time setting*

### ■ CMU control panel: synchronously display and adjust the status of the congress main unit, for flexible control of the CMU by the operator

- ◆ Active Microphones (1/2/3/4)
- ◆ Operation mode (OPEN/OVERRIDE/VOICE/APPLY/PTT)

## Contribution unit configuration facility



Setup contribution unit interface

## Information display



Short message

## Functions

Setup and reconfigure internal parameters of the contribution unit by the administrator.

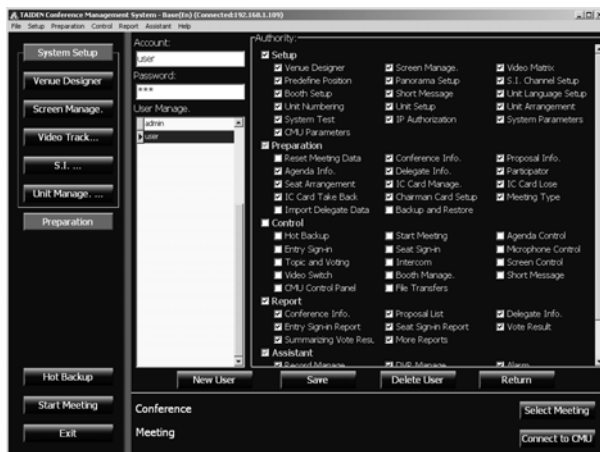
Parameters include:

- Contribution unit status (delegate/VIP/audience)
- Built-in facilities (discussion/vote/IC-card sign-in)
- Display language (simplified/traditional Chinese, English or other language)
- Microphone sensitivity and EQ
- Easy reconfiguration of the internal settings
- Easy selection of any chairman unit to be *Executive* chairman unit



Screen management

## User management



User management interface

## Functions

Include screen management and short message.

- **Screen management:** design of a screen and its related activated event
  - ♦ Set distinct screen projects for distinct conferences and languages
  - ♦ Predetermination of screen page contents: includes page color, page name, page size, etc
  - ♦ Editing screen page contents: includes add text, picture, delegate's photo, voting results, etc
  - ♦ Select the page to display when conference event starts. Each conference event corresponds to a particular screen page
  - ♦ Allocation of an *alias* for each screen for more convenience
- **Short message:** includes *write SM* and *send SM*
  - ♦ *Write SM:* write short message up to the permitted message size, synchronous display for preview purposes. Supports various Chinese/English fonts and formats.
  - ♦ *Send SM:* select the compiled SM and send it/them to the unit(s), e.g. all contribution units (CU), all interpreters / non-interpreters, chairman and selected CU etc.
  - ♦ Contribution unit should be equipped with LCD to receive and display the SM.

## Functions

Create/delete a user, change user password and authorization

- Create a new user, and set his/her account, password, authority
- Change user's password and authorization
- Supports deleting a user

## System detection

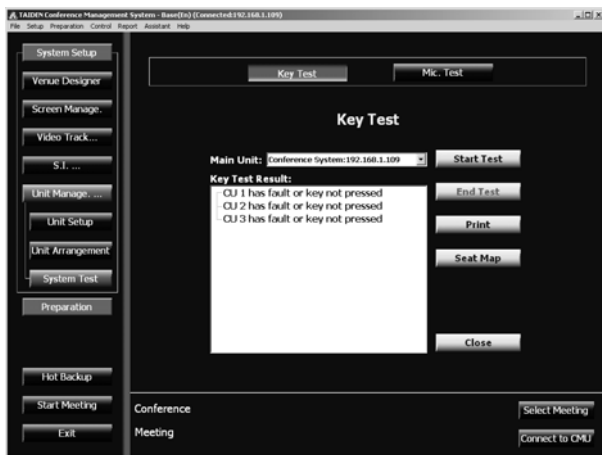


Microphone test interface

## Report system



Report system



Key test interface

## Functions

Conference information output from the software's database, for backup or printout purposes. The conference information includes:

- Conference information
- Proposal list
- Delegate information
- Sign-in report
- Voting result
- Summarizing voting results
- More reports

## Functions

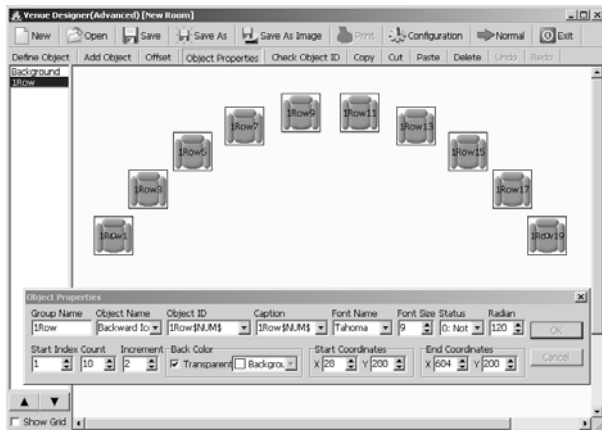
Online system test facility, including **microphone test** and **key test**.

- **Microphone test**, includes:
  - ◆ Time setting for testing a microphone, valid for all microphones
  - ◆ Facility to issue white noise for testing assistance
  - ◆ Auto-detection of system-connected microphones with ID display of current tested microphone
  - ◆ Sequential automatic test procedure: once time setting value reached, the tested unit is cleared and the sequencing unit is processed
- **Key test**: starts key test for all system-connected contribution unit
  - ◆ Main unit IP address display
  - ◆ Contribution units enter key detection state for key tests immediately on start of key test routine
  - ◆ Result display on software interface on routine completion
  - ◆ Supports printout

## Ordering Information

HCS-4210/50.....Basic Software Module

## HCS-4212/50 Professional Venue Design Module



Venue design (professional)

### Functions

In distinction from the normal edition of the Venue Design Module, the professional version has additional powerful functions to design manifold layouts of venues. The main difference is the availability of functional buttons for file operation (toolbar buttons) and object operation (buttons below toolbar buttons) in the toolbars. In addition, the functions are also available in the file right-click pop-up menu. Moreover, the *Object Properties* dialog box is floating on the window for fast changing the properties of current object.

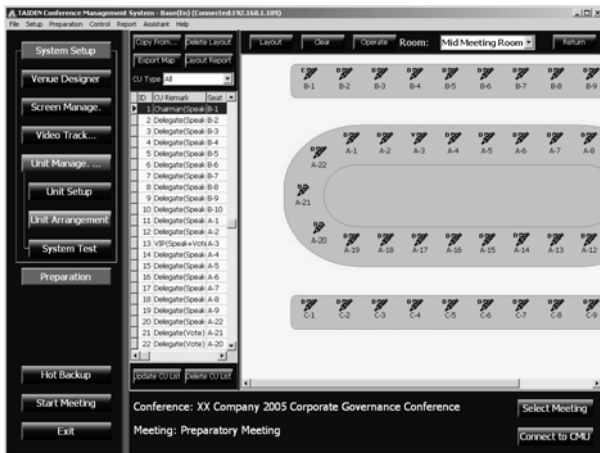
- File operation:
  - ♦ Venue design supports file operation, including: new, open, save as, and print
  - ♦ Create a new conference file: set the background color, room size and other parameters, including:
    - Background
    - Line number
    - Amount per line
    - Seat icon
    - Seat direction
    - Transparent icon or not
    - Show as MIC. icon or not
    - Re-arrange seat position or not
  - ♦ The parameters above can be changed at any time through "Configuration" menu on the toolbar
  - ♦ Add seat/microphone icons line by line, 8 seats/mics per line as default value. The amount of seats/microphones per line can be modified. While the normal edition can add only one seat at one go, the professional venue design module can add groups with more than one seat/microphone per group.
  - ♦ Shifting facility for complete layout
- Define object:
  - ♦ Picture library with default (customized and/or recurrent) objects
  - ♦ Modifiable object information, e.g. object name, image path, distinguishable colors for displaying object images in different states (e.g. signed-in etc.)

- Powerful "object attribute" function: object attribute can be set and changed, including:
  - ♦ Set group name and object name
  - ♦ Set unique ID and ID display mode for every object, supporting different fonts and sizes
  - ♦ Set starting object status
  - ♦ Set a radian for the object group and design seat layout according to true seating positions
  - ♦ Set start index of the object group
  - ♦ Change the amount of the units in an object group
  - ♦ Set numbering increment
  - ♦ Set initial background color and whether transparent or not
  - ♦ Set start and end coordinates of object group
- Object ID check facilities
- Support object copy, cut, paste and delete operation
- Object arrangement can be changed

### Ordering Information

HCS-4212/50.....Professional Venue Design Module

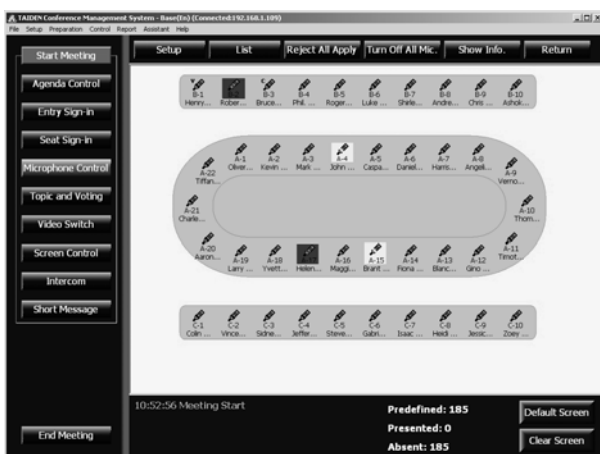
## HCS-4213/50 Microphone Management Module



Unit arrangement



Delegate information



Microphone control

### Functions

**Seat arrangement, delegate management and microphone control sub-modules**

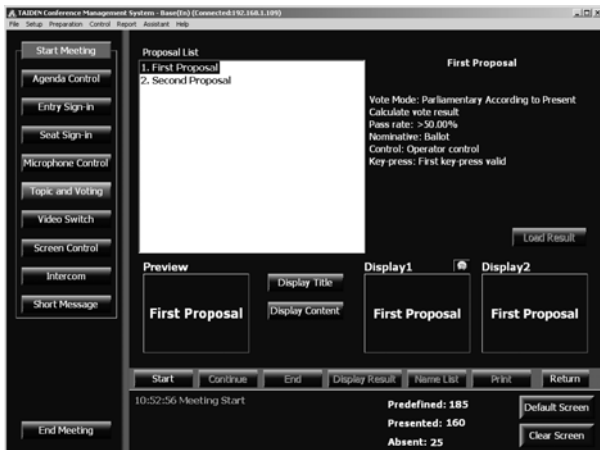
- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the congress units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the congress units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Users can customize the options in the above items
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function
- **Microphone control**: combined with venue design, seating arrangement, delegate management, conference management and microphone setup, for controlling and monitoring current microphone status, as well as automatic video tracking. Facility includes:
  - ◆ Microphone on/off control
  - ◆ Close all active microphone
  - ◆ Approve/deny delegates' speaking requests
  - ◆ Deny all speaking requests
  - ◆ Delegate speech timing
  - ◆ Record and save speaking
  - ◆ Parliamentary mode control
  - ◆ Detailed information available from the delegate database for online display purposes
  - ◆ If cooperating with an automatic video tracking system, camera presets can be made for each discussion unit to transmit speaker's picture simultaneously to a hall display

### Ordering Information

HCS-4213/50.....Microphone Management Module



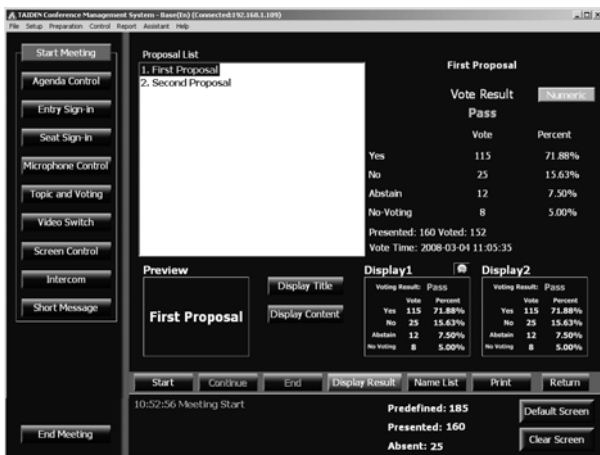
## HCS-4214/50S Voting Management Module



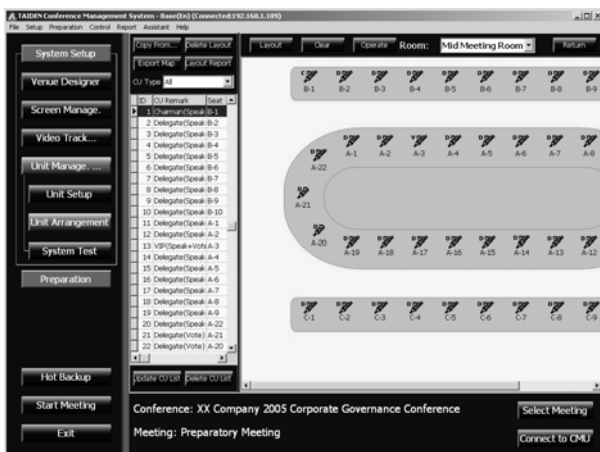
Topics and Voting



Delegate information



Display voting result



Unit arrangement

### Functions

Voting management, seat arrangement and delegate management sub modules.

#### ■ Voting management:

- ◆ Topics information management
  - Setup, save, add or delete topics file before the meeting
  - Open topics control interface and display topics content to large screen
  - Printout the topics list and information and distribute to delegates as meeting information
  - Multiple voting facilities available, suitable for various conferences, including:
    - ✧ For/Against
    - ✧ Parliamentary: YES/NO/ABSTAIN
    - ✧ Questionnaire /Opinion poll: 1/2/3/4/5
    - ✧ Audience response/Rating: --/-0/+/-++
    - ✧ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - Control modes: chairman control/ operator control/time controlled voting
  - Calculation: predefined or in relation to the participants attending the meeting in person
  - Register mode: nominative/ballot
  - Validity mode: first key press valid/last key press valid
  - Pass rate: between 1% and 100%
- ◆ Display voting result to large screen
- ◆ Clear and vivid voting result display modes (numeric/bar/pie)
- ◆ Print or save voting result
- ◆ Sign-in before the voting to improve the security and validity of voting result



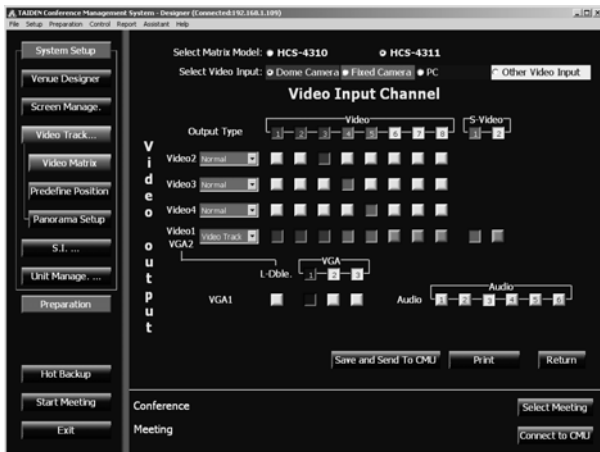
- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the congress units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the congress units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

---

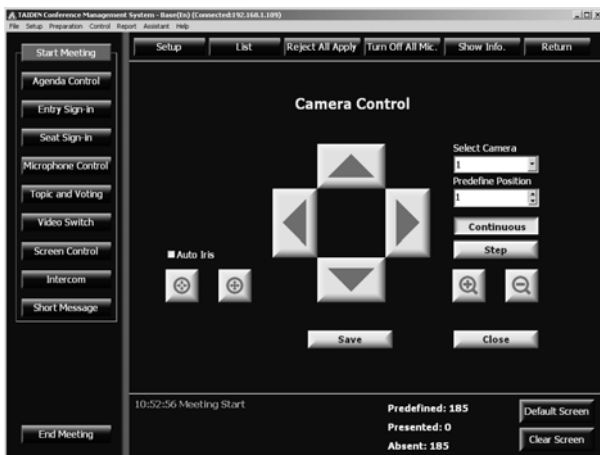
### Ordering Information

HCS-4214/50S\_\_\_\_\_ Voting Management Module

## HCS-4215/50 Video Control Module



Video matrix



Camera control

### Functions

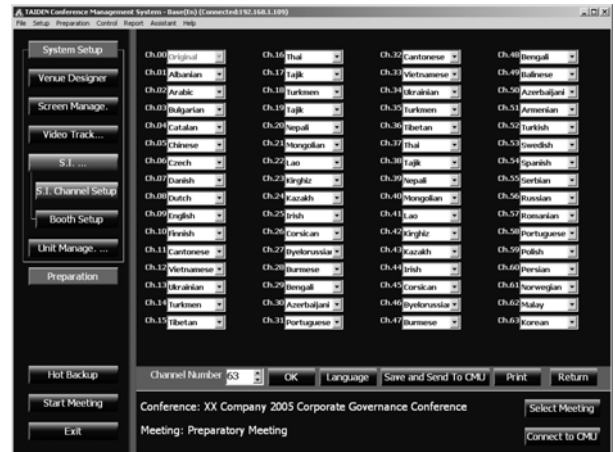
Carries out automatic video tracking when cooperating with camera and video switch unit.

- Setup video matrix: set input/output channels for computer, camera and other video apparatus according to the connections between video equipment and video switch unit. The configuration can be sent to the main unit for synchronization
- Video switch: switch among different input and output video signals according to the video matrix
- Camera preset: cooperating with microphone management module to set and adjust the camera preset for each seat/microphone and to transmit speaker's video picture simultaneously to a hall display
- Camera control: preset the panorama of the conference venue

### Ordering Information

HCS-4215/50.....Video Control Module

## HCS-4216/50 Simultaneous Interpretation Module



Interpretation Channel Setup



Interpretation Booth Setup

### Functions

Setup the simultaneous interpretation channels, interpretation booth(s) and booth IC card:

- Simultaneous interpretation channel setup:
  - ◆ Set the channel number and language for each channel and save into the database
  - ◆ Set language and its abbreviation
  - ◆ Send the configuration to the main unit for synchronization
- Display main unit configuration on the window
- Setup interpretation booth(s)
  - ◆ Set the number of interpretation booth, and save into database
  - ◆ Set the outgoing for channel A, B and C of each booth
  - ◆ Send configuration to the main unit for synchronization
- Manage interpretation booth: synchronously control and communicate with the booth during the meeting
- Setup booth IC card: Booth use or do not use IC card, set IC card password and write IC card

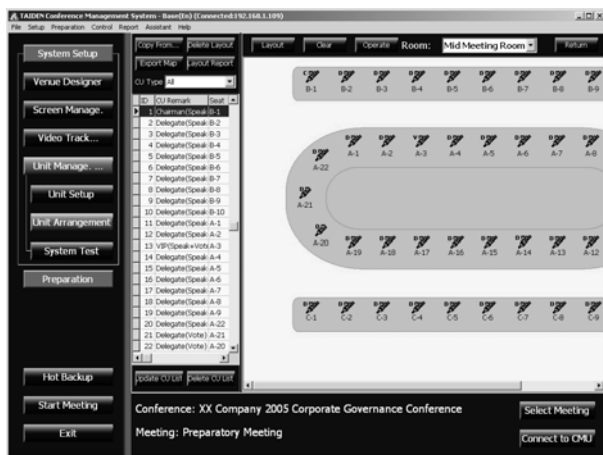
### Ordering Information

HCS-4216/50.....Simultaneous Interpretation Module

## HCS-4217/50 Conference Sign-in Management Module



Entrance sign-in system interface



Unit arrangement



Delegate information

### Functions

Conference sign-in, seat arrangement and delegate management sub-modules

- **Conference sign-in** module consists of complex IC-card and contactless IC-card distribution and sign-in, IC card loss, IC card take back and sign-in server management. More facilities can be achieved in cooperation with the contactless IC-card sign-in server.
  - ♦ IC card distribution:
    - The IC card contains conference number, participant's number, identity, rights, etc.
    - Card authentication restricted to one conference facility. New authentication subject to IC card rewriting
    - Sign-in with backup card if master card is lost
  - ♦ IC card loss: report card loss. Cards counted for lost cannot carry out conference sign-in
  - ♦ IC card take back: when the conference is over, the cards used during the conference can be taken back, erased and rewritten for next use
  - ♦ Contactless IC-card sign-in:
    - Entrance access control - delegate control right at conference start
    - Delegate sign-in speed-up and simplification
    - Client/Server structure of IC-card sign-in machine and sign-in server, for system safety and reliability
  - ♦ *Conference sign-in management*: based on the venue design and delegate arrangement. Operator monitors a) venue setup, b) presence of participants and delegates, c) controls start/stop of sign-in by simply controlling open / close of sign-in server
  - ♦ Supports manual sign-in if participant's normal sign-in fails
  - ♦ Supports delegate absence management: absence is reported if delegate cannot attend the meeting
  - ♦ Supports displaying sign-in result to large screen, and supports multi display mode:
    - Seat map: indicate current sign-in status
    - Full screen digital display
  - ♦ *Sign-in report*: create conference sign-in report based on the actual situation, and printout if needed. An amount of statistical data can be created simultaneously
- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ♦ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ♦ Unit arrangement: assign the congress units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the congress units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement

- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

### Ordering Information

HCS-4217/50.....Conference Sign-in Module

## HCS-4218/50 Intercom Software Module



Intercom interface

### Functions

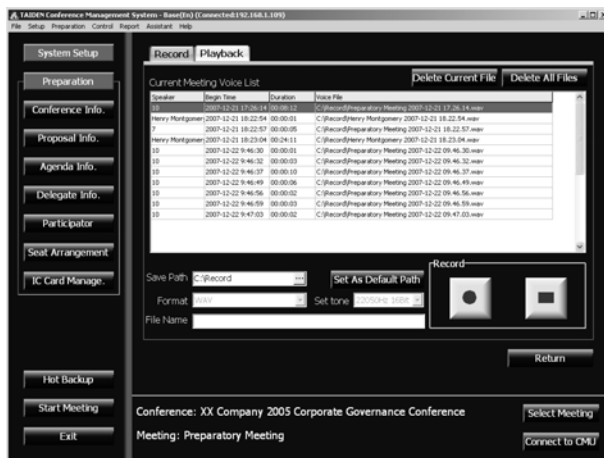
Provides bidirectional communication among the chairman, delegates, interpreters and operators:

- Multiplex communication session available
- Search facilities, fast locating of a delegate within the venue
- Easy to operate via control menu
- Communication session guided by the operator
- Intercom only available for congress units equipped with LCD

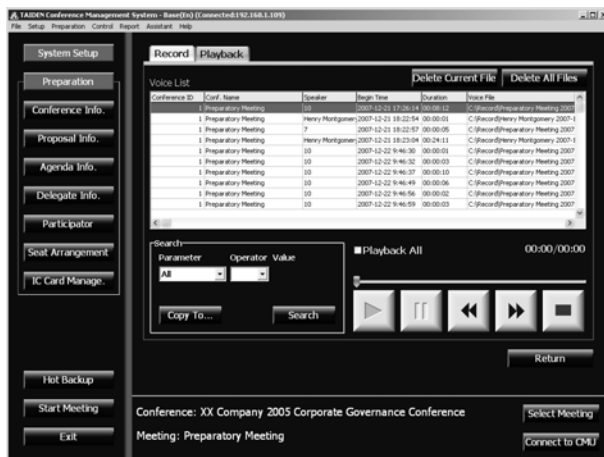
### Ordering Information

HCS-4218/50.....Intercom Software Module

## HCS-4219/50 Synchronous Recording Module



Voice record interface



Playback interface

- Audio playback:
  - ◆ Integrated file management
  - ◆ Search facilities, search audio record file needed to playback quickly (by conference ID, speaker, begin time, continuous time, etc.)
  - ◆ "Playback All": recordings playback one by one
  - ◆ Recorded file playback, fast play, pause/stop etc.
  - ◆ General file format saving: saved file playback by conventional media player
  - ◆ Delete any recorded file or all recorded files

### Ordering Information

HCS-4219/50.....Synchronous Recording Module

### Functions

Records speakers' audio information:

- Integrated into **TAIDEN** conference management application software, easy to operate
- Automatic recording:
  - ◆ Begin/end automatic recording according to microphone on/off
  - ◆ Setup record audio quality
  - ◆ Once microphone enabled, speaking delegate's voice is recorded in audio file (WAV or MP3 format)
  - ◆ Saved audio file available for copying, playback, etc.
- If automatic audio recording is not activated, operator manually starts/stops recording. Record file name display

## HCS-4220/50 Professional Digital Video & Audio Recorder Module



Preview interface



Setup channel parameters

### Functions

TAIDEN conference synchronous digital video & audio recorder integrates several techniques in the IT domain and realizes powerful video/audio compressing, video/audio recording and playback functions.

- Display of channel states, alarm states, connection status and DVR parameters (brightness, contrast, hue and saturation)

- Includes layout, preview, record, connect DCS, DVR control, capture, playback, setup system parameters, setup channel parameters and DVR channel list functions
  - ◆ **Layout:** setup layout of video preview sub screen – selection of 1, 4, 6, or 8 video preview sub screens
  - ◆ **Preview:** preview video/audio signal of each channel
  - ◆ **Record:** start/stop record for selected channel
  - ◆ **Connect DCS:** connect to DCS server and DCS backup server, ensuring an undisturbed recording process
  - ◆ **DVR control:** control DVR
  - ◆ **Capture:** capture a picture for selected sub screen
  - ◆ **Playback:**
    - Select channel number for playback – select anyone or all
    - Select file content for playback: panorama, video track, simultaneous interpretation and other
    - Select file type for playback: including all files, remote files, local video files and local pictures (local = on PC)
    - Search facility: search a video for playback by meeting ID, speaker name, speaking time, etc.
    - Play control: fast play, pause/stop, etc.
- ◆ **Setup system parameters:**
  - Set display format (e.g. sampling rate) for audio and video
  - Set DVR parameters
- ◆ **Setup channel parameters:** set video and audio content for each channel, and record automatically according to conference status
  - Video content:
    - ✧ Video track: start record when microphone is turned on and stop record when microphone is turned off
    - ✧ Panorama: start record when conference begins and stop record when conference ends
    - ✧ Other: start/stop record manually by operator
    - ✧ Simultaneous interpretation: connect SI output channel of DCS to input channel of DVR, and select language for recording manually
  - Audio content
  - Stream type: video only or video & audio composite
    - ✧ Video only: record only video signal
    - ✧ Video & audio: record video and audio composite signal

### Ordering Information

HCS-4220/50.....Professional Digital Video & Audio Recorder Module



## HCS-4221/50 Multi-User Console Module



The primary window of multi-user console

### Functions

If more than one operator is involved, a multi-user console is available for controlling speaking and voting, apart the system application software. A maximum of 5 multi-user consoles can be connected at the same time.

Basic conference control module:

- Microphone control
- Sign-in management
- Voting management
- Connect Server
- System parameters setup and download venue files from the server

### Ordering Information

HCS-4221/50.....Multi-User Console Module

## HCS-4222/50 Dual PC Server Hot Spare Module



Start to backup interface



Backuper interface

### Functions

HCS-4100/50 dual PC server hot-spare is a disaster protective structure. If the main operating computer breaks down during a conference, the backup computer immediately substitutes the main computer and continues conference management.

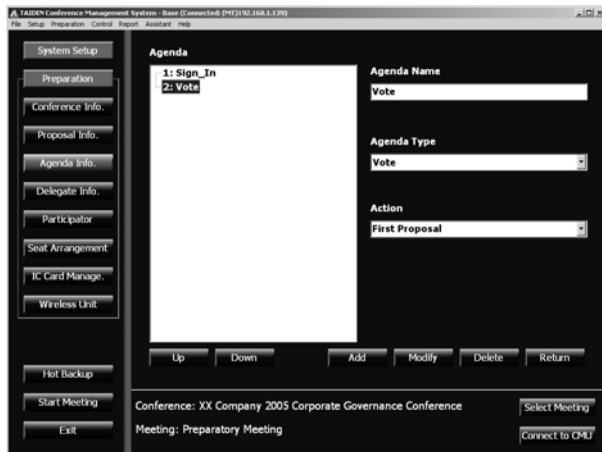
After connection to main operating computer, the backup console application first starts an automatic backup (incl. database and conference related information). If there is any change in the database, the backup console application will update backup automatically.

### Ordering Information

HCS-4222/50.....Dual PC Server Hot Spare Module



## HCS-4223/50 Agenda Management Module



Agenda Information



Agenda control

### Functions

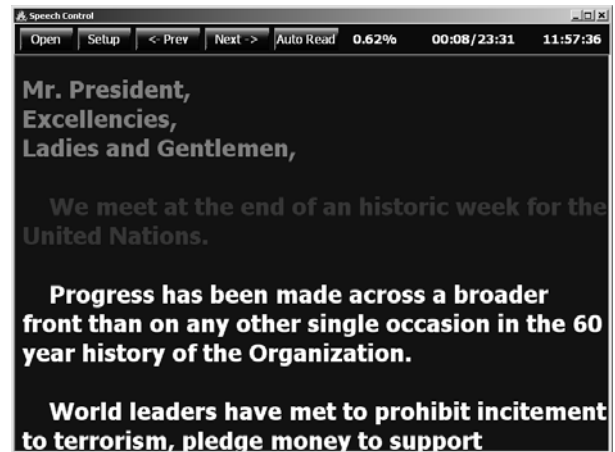
Agenda is a list of meeting activities in the order in which they are to be worked off. The agenda is prepared beforehand. It may include sign-in, voting and discussion. Agenda edit prepares all activities and their sequence to ensure convenience and a well arranged course of events. Agenda Management module consists of agenda information management and agenda control sub modules.

- **Agenda information management:** edit agenda content and sequence
  - ◆ Includes agenda name, agenda type and activity
  - ◆ Sequence of each activity adjustable - user can add, modify, delete an activity
- **Agenda control:** control the meeting process according to the pre-defined agenda content and sequence
  - ◆ Select an agenda from the agenda list and execute it
  - ◆ List the status of each agenda
  - ◆ Agenda can be edited, added, modified, or deleted during the meeting

### Ordering Information

HCS-4223/50.....Agenda Management Module

## HCS-4224/10 Speech Prompt Module



### Functions

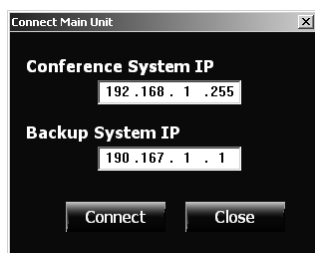
Speech Prompt Module is a displayed line-by-line reproduction of the speech to assist the speaker. The lecture unrolls smoothly and can be controlled manually or automatically.

- Manual control: unrolling sentence by sentence, operator can unroll the lecture by "Previous (Sentence)" or "Next (Sentence)"
- Automatic control: automatically unroll the lecture character by character, the scrolling rate can be set

### Ordering Information

HCS-4224/50.....Speech Prompt Module

## HCS-4225/50 Dual Congress main unit Hot Spare Module



Connect to CMU

---

### Functions

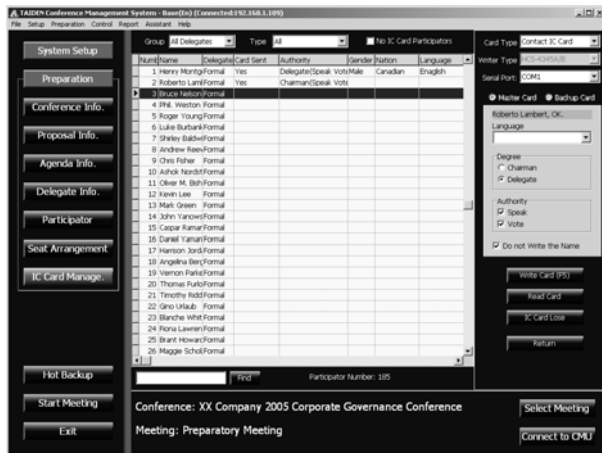
HCS-4100 dual main unit hot spare is a disaster protective structure. Besides the main unit, user can set another CMU as backup CMU and connect it to the system. If the main unit breaks down during the conference, the backup main unit substitutes the main unit and system software will connect to backup CMU automatically, ensuring consistency of the conference.

---

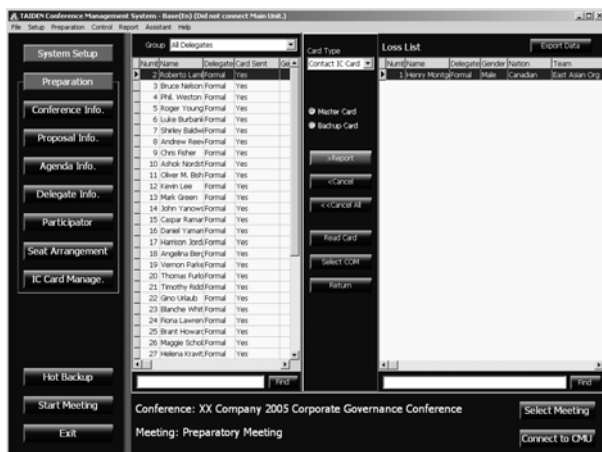
### Ordering Information

HCS-4225/50.....Dual Congress main unit Hot Spare Module

## HCS-4226/50 Touch IC Card Sign-in Management Module



### IC card distribution



IC card loss



### Delegate information

## Functions

IC card distribution, IC card loss, IC card take back and delegate management sub modules

- **IC card distribution:**

- ◆ The IC card contains conference number, participant's number, identity, rights, etc.
- ◆ Card authentication restricted to one conference facility.  
New authentication subject to IC card rewriting
- ◆ Write IC card before IC card distribution:
  - Select participant's language
  - Select participant's degree (chairman or delegate)
  - Set participant's rights (speak/vote)

- IC card loss: report card loss. Cards counted for lost cannot carry out conference sign-in

- IC card take back: when the conference is over, the cards used during the conference can be taken back, erased and rewritten for next use

- Chairman card setup: chairman unit can only be used by chairman with a chairman card. Appoint a chairman by :

- ✧ using a previously distributed card with a chairman status or
- ✧ appoint a chairman by selection from a list and by marking the card with chairman status

- **Delegate management** includes two sub-modules: delegate information and participants

- ◆ Delegate information: create and manage the delegate's database
  - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
  - Customer-specific options for above items
  - Supports customized delegate grouping
  - Fast search facility
  - Database updatable
- ◆ Participants: select the delegates to participate in the conference from the database
  - List delegate information by group or by delegate type
  - Group adding function

## Ordering Information

HCS-4226/50 Touch IC Card Sign-in Management Module

## HCS-3600 Series Economic Conference System

<b>HCS-3600 Series Conference Units' Functions List</b> .....	<b>6.5</b>
<b>HCS-3886/87 Series Conference Units</b> .....	<b>6.7</b>
HCS-3886C Economic Conference System Chairman Unit (tabletop/flush-mounting, 5 voting keys, 256×32" LCD, IC-Card, silver) .....	6.7
HCS-3886D Economic Conference System Delegate Unit (tabletop/flush-mounting, 5 voting keys, 256×32" LCD, IC-Card, silver) .....	6.9
HCS-3887DE Economic Conference System Delegate Unit (tabletop/flush-mounting, 5 voting keys, silver) .....	6.11
<b>HCS-3670/71/55 Series Conference Units</b> .....	<b>6.13</b>
HCS-3670C Economic Conference System Chairman Unit (tabletop/flush-mounting, 5 voting keys, 256×32" LCD, IC-Card, gray) .....	6.13
HCS-3670D Economic Conference System Delegate Unit (tabletop/flush-mounting, 5 voting keys, 256×32" LCD, IC-Card, gray) .....	6.15
HCS-3671DE Economic Conference System Delegate Unit (tabletop/flush-mounting, 5 voting keys, gray) .....	6.17
HCS-3655C Economic Conference System Chairman Unit (tabletop/flush-mounting, gray) .....	6.19
HCS-3655D Economic Conference System Delegate Unit (tabletop/flush-mounting, gray) .....	6.21
<b>HCS-3665/66 Series Conference Units</b> .....	<b>6.22</b>
HCS-3665C Economic Conference System Chairman Unit (flush-mounting, 5 voting keys, 256×32" LCD, IC-Card, cover, silver) .....	6.22
HCS-3665D Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, 256×32" LCD, IC-Card, cover, silver) .....	6.24
HCS-3666DE Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, cover, silver) .....	6.26
<b>HCS-3663 Series Conference Units</b> .....	<b>6.28</b>
HCS-3663C Economic Conference System Chairman Unit (tabletop, gray, 1 pc of 6P T-type+C113 cable included) .....	6.28
HCS-3663D Economic Conference System Delegate Unit (tabletop, gray, 1 pc of 6P T-type+C113 cable included) .....	6.29
<b>HCS-3660/61/62 Series Conference Units</b> .....	<b>6.30</b>
HCS-3660CBE Economic Conference System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, cover, gray) .....	6.30
HCS-3660DBE Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, cover, gray) .....	6.32
HCS-3661DBE Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, cover, gray) .....	6.34
HCS-3662DB Economic Conference System Delegate Unit (flush-mounting, cover, gray) .....	6.36
<b>HCS-3630/31/32 Series Conference Units</b> .....	<b>6.37</b>
HCS-3630CE Economic Conference System Chairman Unit (tabletop, 5 voting keys, IC-Card, gray) .....	6.38
HCS-3630CE_S Economic Conference System Chairman Unit (tabletop, 5 voting keys, IC-Card, silver) .....	6.38
HCS-3630DE Economic Conference System Delegate Unit (tabletop, 5 voting keys, IC-Card, gray) .....	6.40
HCS-3630DE_S Economic Conference System Delegate Unit (tabletop, 5 voting keys, IC-Card, silver) .....	6.40
HCS-3631DE Economic Conference System Delegate Unit (tabletop, 5 voting keys, gray) .....	6.42
HCS-3631DE_S Economic Conference System Delegate Unit (tabletop, 5 voting keys, silver) .....	6.42
HCS-3632CB Economic Conference System Chairman Unit (tabletop, speech timer indicator, gray) .....	6.44
HCS-3632CB_S Economic Conference System Chairman Unit (tabletop, speech timer indicator, silver) .....	6.44

HCS-3632DB	Economic Conference System Delegate Unit (tabletop, speech timer & request-to-speak indicator, gray).....	6.46
HCS-3632DB_S	Economic Conference System Delegate Unit (tabletop, speech timer & request-to-speak indicator, silver).....	6.46
HCS-3632CF	Economic Conference System Chairman Unit (tabletop, speech timer indicator, gray, fixed gooseneck).....	6.47
HCS-3632CF_S	Economic Conference System Chairman Unit (tabletop, speech timer indicator, silver, fixed gooseneck).....	6.47
HCS-3632DF	Economic Conference System Delegate Unit (tabletop, speech timer & request-to-speak indicator, gray, fixed gooseneck).....	6.49
HCS-3632DF_S	Economic Conference System Delegate Unit (tabletop, speech timer & request-to-speak indicator, silver, fixed gooseneck).....	6.49
<b>HCS-3633/35 Series Conference Units with Channel Selector</b> .....		<b>6.51</b>
HCS-3633C	Economic Conference System Chairman Unit (tabletop, LCD channel selector, 6 CHs, speech timer indicator, gray).....	6.51
HCS-3633C_S	Economic Conference System Chairman Unit (tabletop, LCD channel selector, 6 CHs, speech timer indicator, silver).....	6.51
HCS-3633D	Economic Conference System Delegate Unit (tabletop, LCD channel selector, 6 CHs, speech timer indicator, gray).....	6.53
HCS-3633D_S	Economic Conference System Delegate Unit (tabletop, LCD channel selector, 6 CHs, speech timer indicator, silver).....	6.53
HCS-3635D	Economic Conference System Delegate Unit (tabletop, two LCD channel selectors, 6 CHs x 2, dual IDs, gray).....	6.55
HCS-3635D_S	Economic Conference System Delegate Unit (tabletop, two LCD channel selectors, 6 CHs x 2, dual IDs, silver).....	6.55
<b>HCS-3620/21/22 Series Conference Units</b> .....		<b>6.58</b>
HCS-3620CE	Economic Conference System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, cover, gray).....	6.58
HCS-3620HCE	Economic Conference System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, cover, gray, handheld MIC).....	6.60
HCS-3620DE	Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, cover, gray).....	6.62
HCS-3620HDE	Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, cover, gray, handheld MIC).....	6.64
HCS-3621DE	Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, cover, gray).....	6.66
HCS-3621HDE	Economic Conference System Delegate Unit (flush-mounting, 5 voting keys, cover, gray, handheld MIC).....	6.67
HCS-3622D	Economic Conference System Delegate Unit (flush-mounting, cover, gray).....	6.68
HCS-3622HD	Economic Conference System Delegate Unit (flush-mounting, cover, gray, handheld MIC).....	6.69
<b>HCS-3641N Series Conference Units</b> .....		<b>6.70</b>
HCS-3641NC	Economic Conference System Chairman Unit (flush-mounting, silver).....	6.70
HCS-3641NC_G	Economic Conference System Chairman Unit (flush-mounting, gray).....	6.70
HCS-3641ND	Economic Conference System Delegate Unit (flush-mounting, silver).....	6.71
HCS-3641ND_G	Economic Conference System Delegate Unit (flush-mounting, gray).....	6.71
<b>HCS-3643NT Series 3-key Voting Units</b> .....		<b>6.73</b>

HCS-3643NCTE	Economic Voting System Chairman Unit (flush-mounting, 3 voting keys, silver).....	6.73
HCS-3643NCTE_G	Economic Voting System Chairman Unit (flush-mounting, 3 voting keys, gray).....	6.73
HCS-3643NDTE	Economic Voting System Delegate Unit (flush-mounting, 3 voting keys, silver).....	6.73
HCS-3643NDTE_G	Economic Voting System Delegate Unit (flush-mounting, 3 voting keys, gray).....	6.73
HCS-3643NCTKE	Economic Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, silver).....	6.74
HCS-3643NCTKE_G	Economic Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, gray).....	6.74
HCS-3643NDTKE	Economic Voting System Delegate Unit (flush-mounting, 3 voting keys, IC-Card, silver).....	6.75
HCS-3643NDTKE_G	Economic Voting System Delegate Unit (flush-mounting, 3 voting keys, IC-Card, gray).....	6.75
<b>HCS-3643NF Series 5-key Voting Units.....</b>		<b>6.76</b>
HCS-3643NCFE	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, silver).....	6.76
HCS-3643NCFE_G	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, gray).....	6.76
HCS-3643NDFE	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, silver).....	6.70
HCS-3643NDFE_G	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, gray).....	6.77
HCS-3643NCFKE	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, silver).....	6.78
HCS-3643NCFKE_G	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, IC-Card, gray).....	6.78
HCS-3643NDFKE	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, silver).....	6.79
HCS-3643NDFKE_G	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, IC-Card, gray).....	6.79
<b>HCS-4844N Series Flush Loudspeaker Panels.....</b>		<b>6.80</b>
HCS-4844N/50	Flush Loudspeaker Panel (silver).....	6.80
HCS-4844N_G/50	Flush Loudspeaker Panel (gray).....	6.80
HCS-4844NA/50	Flush Loudspeaker Panel (silver, cover).....	6.80
HCS-4844NA_G/50	Flush Loudspeaker Panel (gray, cover).....	6.80
<b>HCS-4845N Series Flush End Caps.....</b>		<b>6.80</b>
HCS-4845N/50	Flush End Cap (silver, 50 pairs/pack).....	6.80
HCS-4845N_G/50	Flush End Cap (gray, 50 pairs/pack).....	6.80
<b>HCS-4846N Series Covers.....</b>		<b>6.81</b>
HCS-4846N1/50	Cover (for one unit, 213.8 mm, silver).....	6.81
HCS-4846N1_G/50	Cover (for one unit, 213.8 mm, gray).....	6.81
HCS-4846N2/50	Cover (for two units, 325.0 mm, silver).....	6.81
HCS-4846N2_G/50	Cover (for two units, 325.0 mm, gray).....	6.81
HCS-4846N3/50	Cover (for three units, 436.2 mm, silver).....	6.81
HCS-4846N3_G/50	Cover (for three units, 436.2 mm, gray).....	6.81
<b>HCS-3668 Series 5-key Voting Units.....</b>		<b>6.82</b>
HCS-3668CF_R	Economic Voting System Chairman Unit (tabletop, 5 voting keys, 256x32" LCD, waterproof, red).....	6.82
HCS-3668DF_R	Economic Voting System Delegate Unit (tabletop, 5 voting keys, 256x32" LCD, waterproof, red).....	6.83
HCS-3668CFK_R	Economic Voting System Chairman Unit (tabletop, 5 voting keys, 256x32" LCD, IC-Card, red)....	6.84
HCS-3668DFK_R	Economic Voting System Delegate Unit (tabletop, 5 voting keys, 256x32" LCD, IC-Card, red)....	6.85
HCS-3668CF/FM_R	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red).....	6.86

HCS-3668CF/FM_S	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver).....	6.86
HCS-3668DF/FM_R	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red).....	6.87
HCS-3668DF/FM_S	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver).....	6.87
HCS-3668CFK/FM_R	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, red).....	6.88
HCS-3668CFK/FM_S	Economic Voting System Chairman Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, silver).....	6.88
HCS-3668DFK/FM_R	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, red).....	6.89
HCS-3668DFK/FM_S	Economic Voting System Delegate Unit (flush-mounting, 5 voting keys, 256x32" LCD, IC-Card, cover, silver).....	6.89
<b>HCS-850PB/10 Digital Conference System Interpreter Unit (12 CHs, gray, 25-Pin cable needed).....</b>		<b>6.90</b>
HCS-5100PA	Headphone.....	6.91
HCS-1020	Clip Microphone.....	6.91
<b>HCS-3600M Series Digital Conference System Main Units.....</b>		<b>6.92</b>
HCS-3600MA2	Economic Conference System Main Unit (voting, 256x32" LCD, 12 CHs, 6P sockets).....	6.92
HCS-3600MB2	Economic Conference System Main Unit (voting, 256x32" LCD, 6P sockets).....	6.94
HCS-3600MC2	Economic Conference System Main Unit (256x32" LCD, 6 CHs, 13P sockets).....	6.96
HCS-3600MAP2	Economic Conference System Main Unit (256x32" LCD, 12 CHs, 6P sockets).....	6.98
HCS-3600MBP2	Economic Conference System Main Unit (256x32" LCD, 6P sockets).....	6.100
<b>HCS-3600ME Digital Conference System Extension Main Unit (6P sockets).....</b>		<b>6.102</b>
<b>HCS-3600 Series Application Software.....</b>		<b>6.104</b>
HCS-4210TS/50	Basic System Setup Management Module.....	6.105
HCS-4212TS/50	Professional Venue Design Module.....	6.109
HCS-4213TS/50	Microphone Management Module.....	6.110
HCS-4214TS/50S	Voting Management Module (including delegate management, parliamentary voting, multi voting).....	6.111
HCS-4215TS/50	Video Control Module.....	6.113
HCS-4219TS/50	Synchronous Audio Recording Management Module.....	6.113
HCS-4220TS/50	Synchronous Video Recording Management Module.....	6.114
HCS-4221TS/50	Multi-user Conference Control Management Module.....	6.115
HCS-4222TS/50	Dual PC Server Hot Spare Module.....	6.115
HCS-4223TS/50	Agenda Control Module.....	6.116
HCS-4224TS/50	Speech Prompt Module.....	6.116
HCS-4226TS/50	Touch IC-Card Sign-in Management Module.....	6.117



## HCS-3600 Series Contribution Units' Function List

Type No.	Status	Lang.	Mic.	Voting	Simul. Interp.	Graphic LCD	IC-card reader	Speaker	Main Unit	Cable	Mounting	Color	Dimensions (L×W×H, mm)
HCS-3886C	C	CHI/ENG	√	5-key		√	√	√	HCS-3600MA2 HCS-3600MB2	6-pin	Tabletop/ Flush- mounting	Silver	251×151×66 (excl. mic. stem)
HCS-3886D	D	CHI/ENG	√	5-key		√	√	√					
HCS-3887DE	D	ENG	√	5-key				√					
HCS-3670C	C	CHI/ENG	√	5-key		√	√	√	HCS-3600MA2 HCS-3600MB2	6-pin	Tabletop/ Flush- mounting	Gray	245×137×55 (excl. mic. stem)
HCS-3670D	D	CHI/ENG	√	5-key		√	√	√					
HCS-3671DE	D	ENG	√	5-key				√					
HCS-3655C	C		√					√	HCS-3600MA2 HCS-3600MB2 HCS-3600MAP2 HCS-3600MBP2	6-pin	Tabletop/ Flush- mounting	Gray	245×137×55 (excl. mic. stem)
HCS-3655D	D		√					√					
HCS-3665C	C	CHI/ENG	√	5-key		√	√	√					
HCS-3665D	D	CHI/ENG	√	5-key		√	√	√	HCS-3600MA2 HCS-3600MB2	6-pin	Flush- mounting	Silver	378×100×107 (excl. mic. stem)
HCS-3666DE	D	ENG	√	5-key				√					
HCS-3663C	C		√										
HCS-3663D	D		√						HCS-3600MA2 HCS-3600MB2 HCS-3600MAP2 HCS-3600MBP2	6-pin	Tabletop	Gray	150×112×53 (excl. mic. stem)
HCS-3660CBE	C	ENG	√	5-key			√	√					
HCS-3660DBE	D	ENG	√	5-key			√	√					
HCS-3661DBE	D	ENG	√	5-key				√	HCS-3600MA2 HCS-3600MB2	6-pin	Flush- mounting	Gray	220×100×57 (excl. mic. stem)
HCS-3662DB	D		√					√					
HCS-3630CE	C	ENG	√	5-key			√	√					
HCS-3630DE	D	ENG	√	5-key			√	√	HCS-3600MA2 HCS-3600MB2	6-pin	Tabletop	Gray / Silver	157×112×59 (excl. mic. stem)
HCS-3631DE	D	ENG	√	5-key				√					HCS-3600MA2 HCS-3600MB2 HCS-3600MAP2 HCS-3600MBP2
HCS-3632CB	C		√					√					
HCS-3632DB	D		√					√					
HCS-3632CF	C		√					√					
HCS-3632DF	D		√					√					
HCS-3633C	C		√		6CHs			√	HCS-3600MC2				13-pin
HCS-3633D	D		√		6CHs			√					
HCS-3635D	D		√		6CHs× 2			√					
HCS-3620CE	C	ENG	√	5-key			√		HCS-3600MA2 HCS-3600MB2	6-pin	Flush- mounting	Gray	220×40×65 (excl. mic. stem)
HCS-3620DE	D	ENG	√	5-key			√						
HCS-3621DE	D	ENG	√	5-key									
HCS-3622D	D		√						HCS-3600MA2 HCS-3600MB2 HCS-3600MAP2 HCS-3600MBP2				
HCS-3620HCE	C	ENG	√	5-key			√						HCS-3600MA2 HCS-3600MB2
HCS-3620HDE	D	ENG	√	5-key			√						

## HCS-3600 Series Contribution Units' Function List (continued)

Type No.	Status	Lang.	Mic.	Voting	Simul. Interp.	Graphic LCD	IC-card reader	Speaker	Main Unit	Cable	Mounting	Color	Dimensions (L×W×H, mm)
HCS-3621HDE	D	ENG	√	5-key					HCS-3600MA2 HCS-3600MB2	6-pin	Flush- mounting	Gray	220×40×65 (handheld mic.)
HCS-3622HD	D		√						HCS-3600MA2 HCS-3600MB2 HCS-3600MAP2 HCS-3600MBP2				
HCS-3641NC	C		√						HCS-3600MA2 HCS-3600MB2				
HCS-3641ND	D		√						HCS-3600MAP2 HCS-3600MBP2				
HCS-3643NCTE	C	ENG		3-key					HCS-3600MA2 HCS-3600MB2	6-pin	Flush- mounting	Gray / Silver	111x41x83
HCS-3643NDTE	D	ENG		3-key									
HCS-3643NCTKE	C	ENG		3-key			√						
HCS-3643NDTKE	D	ENG		3-key			√						
HCS-3643NCFE	C	ENG		5-key									
HCS-3643NDFE	D	ENG		5-key									
HCS-3643NCFKE	C	ENG		5-key			√						
HCS-3643NDFKE	D	ENG		5-key			√						
HCS-3668CF	C	CHI/ENG		5-key		√			HCS-3600MA2 HCS-3600MB2	6-pin	Tabletop	Red	197×86×64
HCS-3668DF	D	CHI/ENG		5-key		√							
HCS-3668CFK	C	CHI/ENG		5-key		√	√						
HCS-3668DFK	D	CHI/ENG		5-key		√	√						
HCS-3668CF/FM	C	CHI/ENG		5-key		√					Flush- mounting	Silver/ Red	197×86×60
HCS-3668DF/FM	D	CHI/ENG		5-key		√							
HCS-3668CFK/FM	C	CHI/ENG		5-key		√	√						
HCS-3668DFK/FM	D	CHI/ENG		5-key		√	√						
HCS-850PB/10	I				12CHs				HCS-3600MA2 HCS-3600MC2 HCS-3600MAP2	25-pin	Tabletop	Gray	331×200×41

## **HCS-3886C Chairman Unit with Voting**



Tabletop



Flush-mounting

### **Features**

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3886D Delegate Unit, the HCS-3886C Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, cancel a request-to-speak and turn off all active microphones. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop

- Controls on-off switch for displaying voting results on delegate unit's LCD
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Multilingual (simplified/traditional Chinese, English, etc) menu
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.  
 ..... 2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop ..... 66 x 251 x 121 mm  
 Flush-mounting ..... 13 x 251 x 121 mm  
 Weight ..... 0.75 kg  
 Color ..... Silver

### Ordering Information

HCS-3886C ..... Economic Conference System Chairman Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 256×32" LCD, IC-Card, silver)

## **HCS-3886D Discussion Unit with Voting**



Tabletop



Flush-mounting

### **Features**

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- 5 voting keys
- Excellent immunity to RF interference from mobile phones

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening, voting, IC-card reading and displaying conference and user-related information. It has excellent immunity to RF interference from mobile phones. It features an IC-card reader and a graphic display with backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD screen has permanent backlighting, and can display characters from complex European languages or icon-based-scripts such as Chinese. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

## Controls and Indicators

- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Multilingual (simplified/traditional Chinese, English, etc) menu
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response .....40 Hz to 16 kHz  
 Earphone load impedance .....>16 Ohm  
 Earphone output .....10 mW

#### Recommended external microphone type (or headset microphone)

Transducer .....Electret-condenser  
 Polar pattern .....Uni-directional  
 Operating voltage .....5 VDC  
 Sensitivity .....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response .....80 Hz to 18 kHz  
 Input impedance .....2 kOhm  
 Directivity 0°/180° .....> 20 dB (1 kHz)  
 Equivalent noise .....25 dBA (SPL)  
 Maximum sound pressure level .....125 dB (THD<3%)

#### Interface data

Connector .....Ø 3.5 mm socket for external mic.  
 .....2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting .....Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop .....66 x 251 x 121 mm  
 Flush-mounting .....13 x 251 x 121 mm  
 Weight .....0.75 kg  
 Color .....Silver

---

## Ordering Information

HCS-3886D .....Economic Conference System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 256×32" LCD, IC-Card, silver)

## **HCS-3887DE Discussion Unit with Voting**



Tabletop



Flush-mounting

### **Features**

- **Stylish and ergonomic design**
- **Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and voting. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### **Interconnections**

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket



---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 80 Hz to 18 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 25 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.

..... 2 × Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting, Tabletop (portable or fixed mounting) and flush-mounting

Dimensions (h x w x d) (w/o Mic.)

Tabletop ..... 66 x 251 x 121 mm

Flush-mounting ..... 13 x 251 x 121 mm

Weight ..... 0.75 kg

Color ..... Silver

---

## Ordering Information

HCS-3887DE ..... Economic Conference System Delegate Unit  
(tabletop/flush-mounting, 5 voting keys, silver)

## **HCS-3670C Chairman Unit with Voting**



### **Features**

- **Stylish and ergonomic fold-away design**
- **Hi-Fi flat-panel loudspeaker**
- **Priority key**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3670D Delegate Unit, the HCS-3670C Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, cancel a request-to-speak and turn off all active microphones. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop
- Controls on-off switch for displaying voting results on delegate unit's LCD
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

## Controls and Indicators

- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Multilingual (simplified/traditional Chinese, English, etc) menu
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.  
 ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop ..... 55 x 245 x 137 mm  
 Flush-mounting ..... 35 x 245 x 137 mm  
 Weight ..... 1.68 kg  
 Color ..... Gray

## Ordering Information

HCS-3670C ..... Economic Conference System Chairman Unit  
 (tabletop/flush-mounting, 5 voting keys,  
 256×32" LCD, IC-Card, gray)

## **HCS-3670D**

### **Discussion Unit with Voting**



#### **Features**

- **Stylish and ergonomic fold-away design**
- **Hi-Fi flat-panel loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening, voting, IC-card reading and displaying conference and user-related information. It has excellent immunity to RF interference from mobile phones. It features an IC-card reader and a graphic display with backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD screen has permanent backlighting, and can display characters from complex European languages or icon-based-scripts such as Chinese. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

#### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

#### **Controls and Indicators**

- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Multilingual (simplified/traditional Chinese, English, etc) menu
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 80 Hz to 18 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 25 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.

..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting, Tabletop (portable or fixed mounting) and flush-mounting

Dimensions (h x w x d) (w/o Mic.)

Tabletop ..... 55 x 245 x 137 mm

Flush-mounting ..... 35 x 245 x 137 mm

Weight ..... 1.68 kg

Color ..... Gray

---

## Ordering Information

HCS-3670D ..... Economic Conference System Delegate Unit  
(tabletop/flush-mounting, 5 voting keys,  
256×32" LCD, IC-Card, gray)

## **HCS-3671DE**

### **Discussion Unit with Voting**



#### **Features**

- **Stylish and ergonomic fold-away design**
- **Hi-Fi flat-panel loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and voting. It has excellent immunity to RF interference from mobile phones. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

#### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

#### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

#### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.  
 ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting, Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop ..... 55 x 245 x 137 mm  
 Flush-mounting ..... 35 x 245 x 137 mm  
 Weight ..... 1.68 kg  
 Color ..... Gray

---

## Ordering Information

HCS-3671DE ..... Economic Conference System Delegate Unit  
 (tabletop/flush-mounting, 5 voting keys, gray)



## HCS-3655C Chairman Unit



### Features

- Stylish and ergonomic fold-away design
- Hi-Fi flat-panel loudspeaker
- Priority key
- Pluggable microphone
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3655D Delegate Unit, the HCS-3655C Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.  
 ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting, Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)

Tabletop ..... 55 x 245 x 137 mm  
 Flush-mounting ..... 35 x 245 x 137 mm  
 Weight ..... 1.68 kg  
 Color ..... Gray

---

## Ordering Information

HCS-3655C ..... Economic Conference System Chairman Unit  
 (tabletop/flush-mounting, gray)

## HCS-3655D Discussion Unit



### Features

- Stylish and ergonomic fold-away design
- Hi-Fi flat-panel loudspeaker
- Pluggable microphone
- Excellent immunity to RF interference from mobile phones

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking, registering a request-to-speak and listening. It has excellent immunity to RF interference from mobile phones. The flat-panel loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi flat-panel loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode

- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm socket for external mic.  
 .....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Tabletop (portable or fixed mounting) and flush-mounting  
 Dimensions (h x w x d) (w/o Mic.)  
 Tabletop.....55 x 245 x 137 mm  
 Flush-mounting.....35 x 245 x 137 mm  
 Weight.....1.68 kg  
 Color.....Gray

### Ordering Information

HCS-3655D.....Economic Conference System Delegate Unit  
 (tabletop/flush-mounting, gray)

## **HCS-3665C Chairman Unit with Voting**



### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Priority key**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3665D Delegate Unit, the HCS-3665C Chairman Unit has one microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, cancel a request-to-speak and turn off all active microphones. A graphic LCD screen with permanent backlighting can display characters from complex European languages or icon-based scripts such as Chinese. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop
- Controls on-off switch for displaying voting results on delegate unit's LCD
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

## Controls and Indicators

- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Multilingual (simplified/traditional Chinese, English, etc) menu
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

## Technical Specifications

## Electrical

## Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
Earphone load impedance ..... >16 Ohm  
Earphone output ..... 10 mW

**Recommended external microphone type (or headset microphone)**

Transducer	Electret-condenser
Polar pattern	Uni-directional
Operating voltage	5 VDC
Sensitivity	-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)
Frequency response	80 Hz to 18 kHz
Input impedance	2 kOhm
Directivity 0°/180°	> 20 dB (1 kHz)
Equivalent noise	25 dBA (SPL)
Maximum sound pressure level	125 dB (THD<3%)

## Interface data

Connector.....Ø 3.5 mm socket for external mic.  
.....Ø 3.5 mm stereo jack for headphone

## Mechanical

Mounting.....	Flush-mounting
Dimensions (h x w x d) (w/o Mic).....	107 x 378 x 100 mm
Weight.....	1.68 kg
Color.....	Silver

## Ordering Information

HCS-3665C.....Economic Conference System Chairman Unit  
(flush-mounting, 5 voting keys, 256×32" LCD,  
IC-Card, cover, silver)

## **HCS-3665D**

### **Discussion Unit with Voting**



#### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening, voting, IC-card reading and displaying conference and user-related information. It has excellent immunity to RF interference from mobile phones. It features an IC-card reader and a graphic display with backlighting. When the IC-card is inserted into the card reader, the graphic LCD screen automatically displays user-related information in the language assigned to the delegate chip card. The graphic LCD screen has permanent backlighting, and can display characters from complex European languages or icon-based-scripts such as Chinese. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

#### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

#### **Controls and Indicators**

- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Active microphone amount, request amount, delegates signed-in and voting results, etc.
  - ◆ Multilingual (simplified/traditional Chinese, English, etc) menu
- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

## Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 80 Hz to 18 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 25 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.

..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting

Dimensions (h x w x d) (w/o Mic) ..... 107 x 378 x 100 mm

Weight ..... 1.68 kg

Color ..... Silver

---

## Ordering Information

HCS-3665D ..... Economic Conference System Delegate Unit  
(flush-mounting, 5 voting keys, 256×32" LCD,  
IC-Card, cover, silver)



## **HCS-3666DE Discussion Unit with Voting**



### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The multi-functional delegate unit meets the demands of multi-form conferences. It provides facilities for speaking, registering a request-to-speak, listening and voting. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multi-form voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- Ø 3.5 mm socket for external microphone or headset microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm socket for external mic.  
 ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting  
 Dimensions (h x w x d) (w/o Mic) ..... 107 x 378 x 100 mm  
 Weight ..... 1.68 kg  
 Color ..... Silver

---

## Ordering Information

HCS-3666DE ..... Economic Conference System Delegate Unit  
 (flush-mounting, 5 voting keys, cover, silver)

## HCS-3663C Chairman Unit



### Features

- Stylish and ergonomic design
- Pluggable microphone
- Priority key
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3663D Delegate Unit, the HCS-3663C Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode

- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- 1.5 m cable with 6P-DIN plug
- Combined with 6PIN tap-off cable (CBL6PT) for cascade connection

### Technical Specifications

#### Electrical

##### Recommended microphone type

Transducer.....	Electret-condenser
Polar pattern.....	Uni-directional
Operating voltage.....	5 VDC
Sensitivity.....	-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)
Frequency response.....	80 Hz to 18 kHz
Input impedance.....	2 kOhm
Directivity 0°/180°.....	> 20 dB (1 kHz)
Equivalent noise.....	25 dBA (SPL)
Maximum sound pressure level.....	125 dB (THD<3%)

#### Mechanical

Mounting.....	Flush-mounting
Dimensions (h x w x d) (w/o Mic.).....	53 x 150 x 112 mm
Weight.....	0.97 kg
Color.....	Gray

### Ordering Information

HCS-3663C.....Economic Conference System Chairman Unit  
(tabletop, gray, 1 pc of 6P T-type+C113 cable included)

## HCS-3663D Discussion Unit



### Features

- Stylish and ergonomic design
- Pluggable microphone
- Excellent immunity to RF interference from mobile phones

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking and registering a request-to-speak. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit

- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- 1.5 m cable with 6P-DIN plug
- Combined with 6PIN tap-off cable (CBL6PT) for cascade connection

### Technical Specifications

#### Electrical

##### Recommended microphone type

Transducer.....	Electret-condenser
Polar pattern.....	Uni-directional
Operating voltage.....	5 VDC
Sensitivity.....	-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)
Frequency response.....	80 Hz to 18 kHz
Input impedance.....	2 kOhm
Directivity 0°/180°.....	> 20 dB (1 kHz)
Equivalent noise.....	25 dBA (SPL)
Maximum sound pressure level.....	125 dB (THD<3%)

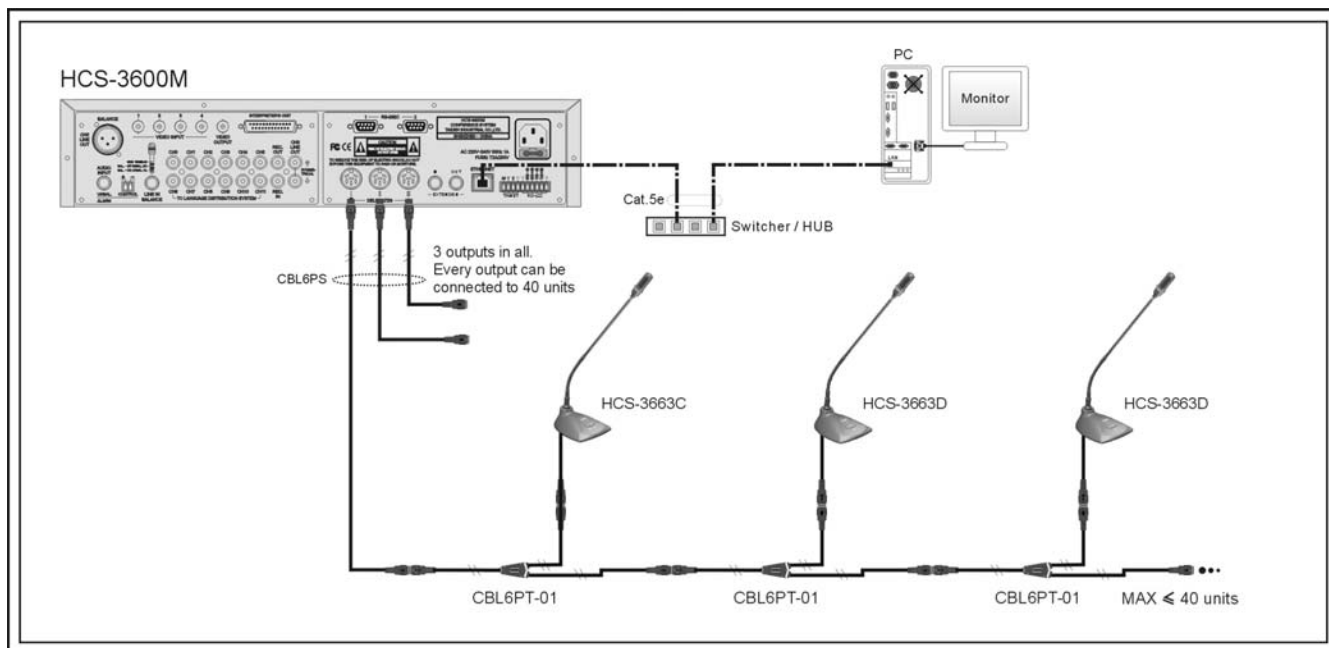
#### Mechanical

Mounting.....	Flush-mounting
Dimensions (h x w x d) (w/o Mic.).....	53 x 150 x 112 mm
Weight.....	0.97 kg
Color.....	Gray

### Ordering Information

HCS-3663D.....	Economic Conference System Delegate Unit (tabletop, gray, 1 pc of 6P T-type+C113 cable included)
----------------	---

## System Connection



## **HCS-3660CBE Chairman Unit with Voting**



### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Priority key**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3660DBE Delegate Unit, the HCS-3660CBE Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, turn off all active microphones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ♦ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ♦ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ♦ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ♦ "VOICE" mode, microphone activation on speaking
  - ♦ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ♦ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ♦ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ♦ Parliamentary: YES/NO/ABSTAIN
  - ♦ Multi choice: 1/2/3/4/5
  - ♦ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz

Earphone load impedance ..... >16 Ohm

Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser

Polar pattern ..... Uni-directional

Operating voltage ..... 5 VDC

Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response ..... 80 Hz to 18 kHz

Input impedance ..... 2 kOhm

Directivity 0°/180° ..... > 20 dB (1 kHz)

Equivalent noise ..... 25 dBA (SPL)

Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting

Dimensions (h x w x d) (w/o Mic) ..... 57 x 220 x 100 mm

Weight ..... 0.72 kg

Color ..... Gray

---

## Ordering Information

HCS-3660CBE ..... Economic Conference System Chairman Unit  
(flush-mounting, 5 voting keys, IC-Card, cover, gray)



## **HCS-3660DBE Discussion Unit with Voting**



### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The multi-functional delegate unit meets the demands of multi-form conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening, voting and IC-card reading. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ♦ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ♦ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ♦ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ♦ "VOICE" mode, microphone activation on speaking
  - ♦ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ♦ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ♦ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multi-form voting can be implemented:
  - ♦ Parliamentary: YES/NO/ABSTAIN
  - ♦ Multi choice: 1/2/3/4/5
  - ♦ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ♦ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting  
 Dimensions (h x w x d) (w/o Mic) ..... 57 x 220 x 100 mm  
 Weight ..... 0.72 kg  
 Color ..... Gray

---

## Ordering Information

HCS-3660DBE ..... Economic Conference System Delegate Unit  
 (flush-mounting, 5 voting keys, IC-Card, cover, gray)

## **HCS-3661DBE Discussion Unit with Voting**



### **Features**

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The multi-functional delegate unit meets the demands of multi-form conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond, listening and voting. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multi-form voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended external microphone type (or headset microphone)

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting  
 Dimensions (h x w x d) (w/o Mic) ..... 57 x 220 x 100 mm  
 Weight ..... 0.72 kg  
 Color ..... Gray

---

## Ordering Information

HCS-3661DBE ..... Economic Conference System Delegate Unit  
 (flush-mounting, 5 voting keys, cover, gray)

## HCS-3662DB Discussion Unit



### Features

- **Flush-mounting, stylish and ergonomic design**
- **Modular Hi-Fi loudspeaker**
- **Pluggable microphone**
- **Excellent immunity to RF interference from mobile phones**
- **Equipped with cover to protect the unit from damage during the adjournment**

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking, registering a request-to-speak, registering a request-to-respond and listening. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Modular Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application

- ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended external microphone type (or headset microphone)

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic).....57 x 220 x 100 mm  
 Weight.....0.72 kg  
 Color.....Gray

### Ordering Information

HCS-3662DB.....Economic Conference System Delegate Unit  
 (flush-mounting, cover, gray)

## HCS-3630CE Chairman Unit with Voting



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- 5 voting keys
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3630DE Delegate Unit, the HCS-3630CE Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting and turn off all active microphones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 59 x 157 x 112 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-3630CE ..... Economic Conference System Chairman Unit  
 (tabletop, 5 voting keys, IC-Card, gray)  
 HCS-3630CE\_S ..... Economic Conference System Chairman Unit  
 (tabletop, 5 voting keys, IC-Card, silver)



## **HCS-3630DE Discussion Unit with Voting**



### **Features**

- **Stylish and ergonomic design**
- **Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening, voting and IC-card reading. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 59 x 157 x 112 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-3630DE ..... Economic Conference System Delegate Unit  
 (tabletop, 5 voting keys, IC-Card, gray)  
 HCS-3630DE\_S ..... Economic Conference System Delegate Unit  
 (tabletop, 5 voting keys, IC-Card, silver)

## **HCS-3631DE Discussion Unit with Voting**



### **Features**

- **Stylish and ergonomic design**
- **Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Excellent immunity to RF interference from mobile phones**

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and voting. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 59 x 157 x 112 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-3631DE ..... Economic Conference System Delegate Unit  
 (tabletop, 5 voting keys, gray)  
 HCS-3631DE\_S ..... Economic Conference System Delegate Unit  
 (tabletop, 5 voting keys, silver)

## HCS-3632CB Chairman Unit



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- Speech timer indicator
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3632DB Delegate Unit, the HCS-3632CB Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- 2 x Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 x Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 62 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-3632CB ..... Economic Conference System Chairman Unit  
 (tabletop, speech timer indicator, gray)  
 HCS-3632CB\_S ..... Economic Conference System Chairman Unit  
 (tabletop, speech timer indicator, silver)

## HCS-3632DB Discussion Unit



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- Speech timer indicator
- Request-to-speak indicator
- Excellent immunity to RF interference from mobile phones

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking, registering a request-to-speak and listening. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode

- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator
- Request-to-speak indicator

### Interconnections

- Socket for pluggable microphone
- 2 x Ø 3.5 mm headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....2 x Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.).....62 x 156 x 125 mm  
 Weight.....0.74 kg  
 Color.....Gray/Silver

### Ordering Information

HCS-3632DB.....Economic Conference System Delegate Unit  
 (tabletop, speech timer & request-to-speak indicator, gray)  
 HCS-3632DB\_S.....Economic Conference System Delegate Unit  
 (tabletop, speech timer & request-to-speak indicator, silver)



## HCS-3632CF Chairman Unit



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Fixed microphone stem
- Speech timer indicator
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3632DF Delegate Unit, the HCS-3632CF Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Fixed microphone stem
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ♦ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ♦ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ♦ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ♦ "VOICE" mode, microphone activation on speaking.
  - ♦ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ♦ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator
- Priority key

### Interconnections

- 2 x Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response.....40 Hz to 16 kHz

Earphone load impedance.....>16 Ohm

Earphone output.....10 mW

#### Microphone type

Transducer.....Electret-condenser

Polar pattern.....Uni-directional

Operating voltage.....5 VDC

Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)

Frequency response.....80 Hz to 18 kHz

Input impedance.....2 kOhm

Directivity 0°/180°.....> 20 dB (1 kHz)

Equivalent noise.....25 dBA (SPL)

Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....2 x Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting.....Tabletop mounting

Dimensions (h x w x d) (w/o Mic.).....62 x 156 x 125 mm

Weight.....0.74 kg

Color.....Gray/Silver

---

## Ordering Information

HCS-3632CF.....Economic Conference System Chairman Unit  
(tabletop, speech timer indicator, gray, fixed gooseneck)

HCS-3632CF\_S.....Economic Conference System Chairman Unit  
(tabletop, speech timer indicator, silver, fixed gooseneck)

## HCS-3632DF Discussion Unit



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Fixed microphone stem
- Speech timer indicator
- Request-to-speak indicator
- Excellent immunity to RF interference from mobile phones

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking, registering a request-to-speak and listening. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Fixed microphone stem
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ♦ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ♦ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ♦ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ♦ "VOICE" mode, microphone activation on speaking.
  - ♦ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ♦ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ♦ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator
- Request-to-speak indicator

### Interconnections

- 2 x Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 6P-DIN plug
- 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 x Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 62 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Gray/Silver

---

## Ordering Information

HCS-3632DF ..... Economic Conference System Delegate Unit  
 (tabletop, speech timer & request-to-speak  
 indicator, gray, fixed gooseneck)  
 HCS-3632DF\_S ..... Economic Conference System Delegate Unit  
 (tabletop, speech timer & request-to-speak  
 indicator, silver, fixed gooseneck)

## HCS-3633C Chairman Unit with Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Priority key
- Pluggable microphone
- Transmitting up to 6 CHs high quality digital audio signals on a dedicated 13P cable
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Speech timer indicator
- Excellent immunity to RF interference from mobile phones

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3633D Delegate Unit, the HCS-3633C Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. Channel selection is automatically limited to the number of language channels available. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Transmitting up to 6 CHs high quality digital audio signals on a dedicated 13P cable
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
  - ◆ The channel selector is activated when the headphone is connected
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Simultaneous interpretation
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- 2 x Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 13P-DIN plug
- 13P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 x Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting: ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 62 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Silver/Gray

---

## Ordering Information

HCS-3633C ..... Economic Conference System Chairman Unit  
 (tabletop, LCD channel selector, 6 CHs,  
 speech timer indicator, gray)  
 HCS-3633C\_S ..... Economic Conference System Chairman Unit  
 (tabletop, LCD channel selector, 6 CHs,  
 speech timer indicator, silver)

## HCS-3633D Discussion Unit with Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- Transmitting up to 6 CHs high quality digital audio signals on a dedicated 13P cable
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Speech timer indicator
- Excellent immunity to RF interference from mobile phones

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and selecting language channels. It has excellent immunity to RF interference from mobile phones. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Transmitting up to 6 CHs high quality digital audio signals on a dedicated 13P cable
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
  - ◆ The channel selector is activated when the headphone is connected
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Simultaneous interpretation
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Built-in channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator
- Speech timer indicator

### Interconnections

- Socket for pluggable microphone
- 2 x Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 13P-DIN plug
- 13P-DIN socket



---

**Technical Specifications**
**Electrical**
**Headphone connection**

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

**Recommended microphone type**

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

**Interface data**

Connector ..... 2 x Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting: ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 62 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Silver/Gray

---

**Ordering Information**

HCS-3633D ..... Economic Conference System Delegate Unit  
 (tabletop, LCD channel selector, 6 CHs,  
 speech timer indicator, gray)

HCS-3633D\_S ..... Economic Conference System Delegate Unit  
 (tabletop, LCD channel selector, 6 CHs,  
 speech timer indicator, silver)

## HCS-3635D Discussion Unit with Dual Channel Selection



### Features

- Stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable microphone
- Transmitting up to 6 CHs high quality digital audio signals on a dedicated 13P cable
- Built-in dual channel selector consists of up/down channel select keys and 2-digit channel indicator display
- The microphone button provides dual delegate identification, used for individual delegate identification on the left and right respectively and easy for automatic video tracking
- Excellent immunity to RF interference from mobile phones

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and selecting language channels. It has excellent immunity to RF interference from mobile phones. It features dual channel selectors, the microphone button provides dual delegate identification, used for individual delegate identification on the left and right. The loudspeaker offers superior acoustics with minimal feedback, so increasing intelligibility.

### Functions

- Compliant to IEC 60914
- Transmitting up to 6 CHs high quality digital audio signals on a dedicated 13P cable
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Built-in dual channel selector consists of up/down channel select keys and 2-digit channel indicator display
  - ◆ The channel selector is activated when the headphone is connected
- Hi-Fi loudspeaker, minimal feedback, automatically mutes when microphone is active
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Simultaneous interpretation
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Built-in dual channel selector consists of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with illuminated ring
- Headphones volume up and down
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- 2 x Ø 3.5 mm stereo headphone jack
- 2.1 m cable with 13P-DIN plug
- 13P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... 2 x Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting: ..... Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 62 x 156 x 125 mm  
 Weight ..... 0.74 kg  
 Color ..... Silver/Gray

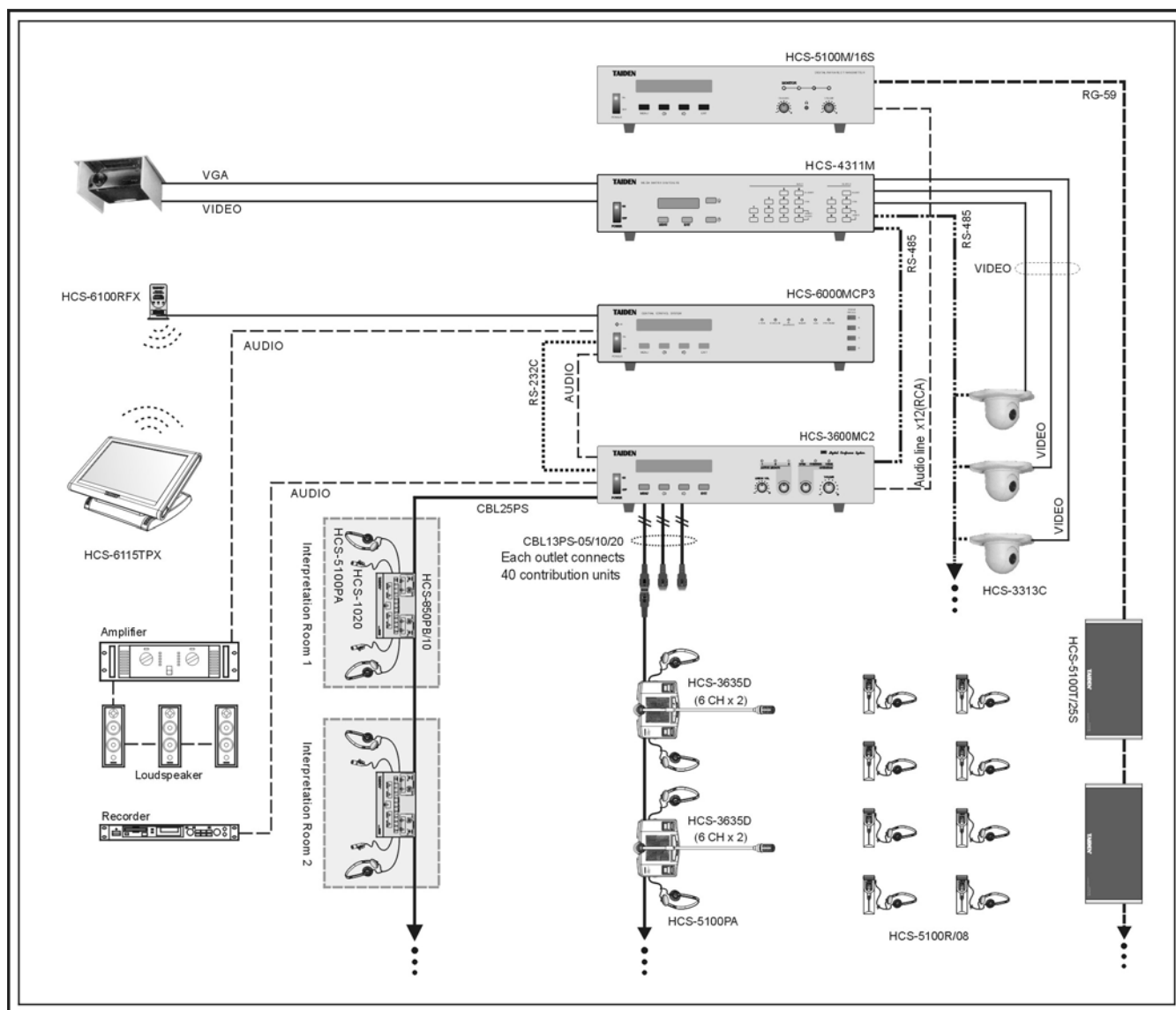
---

## Ordering Information

HCS-3635D ..... Economic Conference System Delegate Unit  
 (tabletop, two LCD channel selectors, 6 CHs  
 x 2, dual IDs, gray)

HCS-3635D\_S ..... Economic Conference System Delegate Unit  
 (tabletop, two LCD channel selectors, 6 CHs  
 x 2, dual IDs, silver)

**System Connection**



## **HCS-3620CE Chairman Unit with Voting**



### **Features**

- Flush-mounting, stylish and ergonomic design
- Priority key
- Pluggable microphone
- 5 voting keys
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3620DE Delegate Unit, the HCS-3620CE Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, turn off all active microphones.

### **Functions**

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
  - Built-in IC-card reader
  - Key-press sign-in
  - Automatic video tracking, when cooperating with camera and video switcher unit
  - Can be activated at any time
  - Priority key can switch off or mute the speaking units according to preset
  - Approves/denies all delegates' speaking requests
  - Controls voting start and stop
  - System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### **Controls and Indicators**

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator
- Priority key

### **Interconnections**

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

---

## Technical Specifications

### Electrical

#### Headphone connection

Frequency response ..... 40 Hz to 16 kHz  
 Earphone load impedance ..... >16 Ohm  
 Earphone output ..... 10 mW

#### Recommended microphone type

Transducer ..... Electret-condenser  
 Polar pattern ..... Uni-directional  
 Operating voltage ..... 5 VDC  
 Sensitivity ..... -46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response ..... 80 Hz to 18 kHz  
 Input impedance ..... 2 kOhm  
 Directivity 0°/180° ..... > 20 dB (1 kHz)  
 Equivalent noise ..... 25 dBA (SPL)  
 Maximum sound pressure level ..... 125 dB (THD<3%)

#### Interface data

Connector ..... Ø 3.5 mm stereo jack for headphone

### Mechanical

Mounting ..... Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.) ..... 65 x 220 x 40 mm  
 Weight ..... 0.9 kg  
 Color ..... Gray

---

## Ordering Information

HCS-3620CE ..... Economic Conference System Chairman Unit  
 (flush-mounting, 5 voting keys, IC-Card, cover, gray)

## HCS-3620HCE Chairman Unit with Voting



### Features

- Flush-mounting, stylish and ergonomic design
- Priority key
- 5 voting keys
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The stylish and ergonomically designed chairman unit has all the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3620HDE Delegate Unit, the HCS-3620HCE Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting. The chairman unit can also be used to start or stop voting, turn off all active microphones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application

- ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- Controls voting start and stop
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button on handheld microphone stem
- Microphone On/Off button with indicator on panel
- Priority key

### Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

##### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone



**Mechanical**

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

---

**Ordering Information**

HCS-3620HCE.....Economic Conference System Chairman Unit  
 (flush-mounting, 5 voting keys, IC-Card, cover,  
 gray, handheld MIC)

## HCS-3620DE Discussion Unit with Voting



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- 5 voting keys
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening, voting and IC-card reading. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)

- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

##### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

---

**Ordering Information**

HCS-3620DE.....Economic Conference System Delegate Unit  
(flush-mounting, 5 voting keys, IC-Card,  
cover, gray)

## HCS-3620HDE Discussion Unit with Voting



### Features

- Flush-mounting, stylish and ergonomic design
- 5 voting keys
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening, voting and IC-card reading. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)

- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>
- Built-in IC-card reader
- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button on handheld microphone stem
- Microphone On/Off button with indicator on panel

### Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

---

**Ordering Information**

HCS-3620HDE.....Economic Conference System Delegate Unit  
(flush-mounting, 5 voting keys, IC-Card,  
cover, gray, handheld MIC)

## HCS-3621DE Discussion Unit with Voting



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- 5 voting keys
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and voting. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- Automatic video tracking, when cooperating with camera and video switcher unit

- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
- Key-press sign-in
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

##### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

### Ordering Information

HCS-3621DE.....Economic Conference System Delegate Unit  
 (flush-mounting, 5 voting keys, cover, gray)

## HCS-3621HDE Discussion Unit with Voting



### Features

- Flush-mounting, stylish and ergonomic design
- 5 voting keys
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The multi-functional delegate unit meets the demands of multiform conferences. It provides facilities for speaking, registering a request-to-speak, listening and voting. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Microphone On/Off button, 5 voting keys
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/-++

- Key-press sign-in
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Five voting buttons with indicators
- Microphone On/Off button on handheld microphone stem
- Microphone On/Off button with indicator on panel

### Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

### Ordering Information

HCS-3621HDE.....Economic Conference System Delegate Unit  
 (flush-mounting, 5 voting keys, cover, gray, handheld MIC)



## HCS-3622D Discussion Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Pluggable microphone
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking, registering a request-to-speak and listening. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

### Ordering Information

HCS-3622D.....Economic Conference System Delegate Unit  
 (flush-mounting, cover, gray)

## HCS-3622HD Discussion Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Excellent immunity to RF interference from mobile phones
- Equipped with cover to protect the unit from damage during the adjournment
- Handheld microphone available for flush-mounting on the armrest of the chair

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking, registering a request-to-speak and listening. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Handheld microphone available for flush-mounting in tabletops, on top or at the front, or in armrests of seats
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Headphone volume up and down
- Microphone On/Off button on handheld microphone stem
- Microphone On/Off button with indicator on panel

### Interconnections

- Handheld microphone stem with 2.0 m cable
- Ø 3.5 mm stereo headphone jack
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....40 Hz to 16 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....10 mW

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Interface data

Connector.....Ø 3.5 mm stereo jack for headphone

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....65 x 220 x 40 mm  
 Weight.....0.9 kg  
 Color.....Gray

### Ordering Information

HCS-3622HD.....Economic Conference System Delegate Unit  
 (flush-mounting, cover, gray, handheld MIC)

## HCS-3641NC Chairman Unit



### Features

- **Flush-mounting, stylish and ergonomic design**
- **Pluggable microphone**
- **Priority key**
- **Excellent immunity to RF interference from mobile phones**

The stylish and ergonomically designed chairman unit has the necessary facilities to enable the user to chair a conference. It has excellent immunity to RF interference from mobile phones. Similar in appearance to HCS-3641ND Delegate Unit, the HCS-3641NC Chairman Unit includes a microphone priority button. When pressed, the priority button causes all currently active delegate microphones to be temporarily or permanently switched off, allowing the chairman to take control of the meeting.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application

- ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit
- Can be activated at any time
- Priority key can switch off or mute the speaking units according to preset
- Approves/denies all delegates' speaking requests
- System supports up to 100 chairman units, while only 1 chairman unit has the control facilities listed above (set by software)

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Microphone On/Off button with indicator
- Priority key

### Interconnections

- Socket for pluggable microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Recommended microphone type

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 18 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....25 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....80 g  
 Color.....Silver/Gray

### Ordering Information

HCS-3641NC.....Economic Conference System Chairman Unit  
 (flush-mounting, silver)  
 HCS-3641NC\_G.....Economic Conference System Chairman Unit  
 (flush-mounting, gray)

## HCS-3641ND Discussion Unit



### Features

- **Flush-mounting, stylish and ergonomic design**
- **Pluggable microphone**
- **Excellent immunity to RF interference from mobile phones**

The delegate unit meets the basic demands of the conferences. It provides facilities for speaking and registering a request-to-speak. It has excellent immunity to RF interference from mobile phones.

### Functions

- Compliant to IEC 60914
- Excellent immunity to RF interference from mobile phones and comparable devices
- Microphone stem can be unplugged during adjournment, easy to maintain
- Microphone On/Off button
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking.
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- Automatic video tracking, when cooperating with camera and video switcher unit

- Set any delegate unit to be VIP unit
  - ◆ VIP unit can be activated as long as the total of active microphones is not beyond 6. Up to 32 units can be set as VIP in one system

### Controls and Indicators

- Uni-directional electret condenser microphone with illuminated ring
- Microphone On/Off button with indicator

### Interconnections

- Socket for pluggable microphone
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Electrical

##### Recommended microphone type

Transducer	Electret-condenser
Polar pattern	Uni-directional
Operating voltage	5 VDC
Sensitivity	-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)
Frequency response	80 Hz to 18 kHz
Input impedance	2 kOhm
Directivity 0°/180°	> 20 dB (1 kHz)
Equivalent noise	25 dBA (SPL)
Maximum sound pressure level	125 dB (THD<3%)

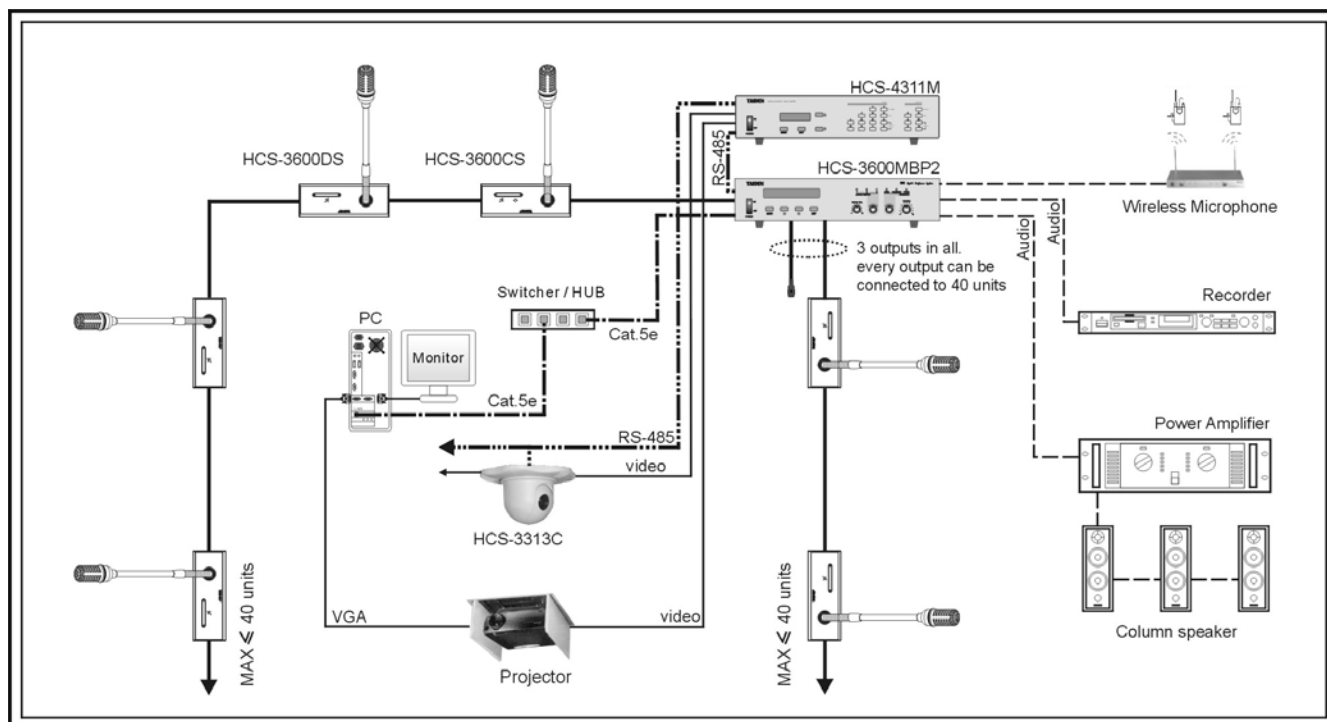
#### Mechanical

Mounting	Flush-mounting
Dimensions (h x w x d) (w/o Mic.)	83 x 111 x 41 mm
Weight	80 g
Color	Silver/Gray

### Ordering Information

HCS-3641ND	Economic Conference System Delegate Unit (flush-mounting, silver)
HCS-3641ND_G	Economic Conference System Delegate Unit (flush-mounting, gray)

**System Connection**



## HCS-3643NCTE Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys
- Controls voting start and stop

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
- Controls voting start and stop
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Silver/Gray

### Ordering Information

HCS-3643NCTE.....Economic Voting System Chairman Unit  
 (flush-mounting, 3 voting keys, silver)  
 HCS-3643NCTE\_G.....Economic Voting System Chairman Unit  
 (flush-mounting, 3 voting keys, gray)

## HCS-3643NDTE Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Silver/Gray

### Ordering Information

HCS-3643NDTE.....Economic Voting System Delegate Unit  
 (flush-mounting, 3 voting keys, silver)  
 HCS-3643NDTE\_G.....Economic Voting System Delegate Unit  
 (flush-mounting, 3 voting keys, gray)

## HCS-3643NCTKE Voting Unit with IC-Card Reader



### Ordering Information

HCS-3643NCTKE	Economic Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, silver)
HCS-3643NCTKE_G	Economic Voting System Chairman Unit (flush-mounting, 3 voting keys, IC-Card, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys
- Controls voting start and stop
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
- Controls voting start and stop
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....	Flush-mounting
Dimensions (h x w x d) (w/o Mic.).....	83 x 111 x 41 mm
Weight.....	93 g
Color.....	Silver/Gray



## HCS-3643NDTKE Voting Unit with IC-Card Reader



### Ordering Information

HCS-3643NDTKE.....Economic Voting System Delegate Unit  
(flush-mounting, 3 voting keys, IC-Card, silver)

HCS-3643NDTKE\_G.....Economic Voting System Delegate Unit  
(flush-mounting, 3 voting keys, IC-Card, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 3 voting keys
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

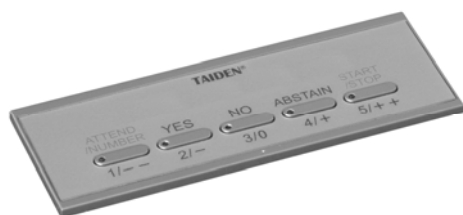
- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Silver/Gray

## HCS-3643NCFE Voting Unit



### Ordering Information

HCS-3643NCFE.....Economic Voting System Chairman Unit  
(flush-mounting, 5 voting keys, silver)

HCS-3643NCFE\_G.....Economic Voting System Chairman Unit  
(flush-mounting, 5 voting keys, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Controls voting start and stop

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Controls voting start and stop
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Silver/Gray

## HCS-3643NDFE Voting Unit



### Ordering Information

HCS-3643NDFE	.....	Economic Voting System Delegate Unit	
		(flush-mounting, 5 voting keys, silver)	
HCS-3643NDFE_G	.....	Economic Voting System Delegate Unit	
		(flush-mounting, 5 voting keys, gray)	

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting	.....	Flush-mounting
Dimensions (h x w x d) (w/o Mic.)	.....	83 x 111 x 41 mm
Weight	.....	93 g
Color	.....	Silver/Gray

## HCS-3643NCFKE Voting Unit with IC-Card Reader



### Ordering Information

HCS-3643NCFKE.....Economic Voting System Chairman Unit  
(flush-mounting, 5 voting keys, IC-Card, silver)

HCS-3643NCFKE\_G.....Economic Voting System Chairman Unit  
(flush-mounting, 5 voting keys, IC-Card, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Controls voting start and stop
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Controls voting start and stop
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Silver/Gray

## HCS-3643NDFKE Voting Unit with IC-Card Reader



### Ordering Information

HCS-3643NDFKE.....Economic Voting System Delegate Unit  
(flush-mounting, 5 voting keys, IC-Card, silver)

HCS-3643NDFKE\_G.....Economic Voting System Delegate Unit  
(flush-mounting, 5 voting keys, IC-Card, gray)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Built-in IC-card reader

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 8 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN plug
- 0.6 m cable with 6P-DIN socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....83 x 111 x 41 mm  
 Weight.....93 g  
 Color.....Silver/Gray

## HCS-4844N/50 Flush Loudspeaker Panel



### Technical Specifications

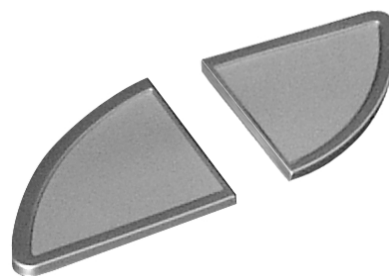
#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....27 x 94 x 99 mm  
 Weight.....154 g  
 Color.....Silver/Gray

### Ordering Information

HCS-4844N/50.....Flush Loudspeaker Panel (silver)  
 HCS-4844N\_G/50.....Flush Loudspeaker Panel (gray)

## HCS-4845N/50 Flush End Caps



### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....3 x 48 x 41 mm  
 Weight.....3.5 g  
 Color.....Silver/Gray

### Ordering Information

HCS-4845N/50.....Flush End Cap (silver, 50 pairs/pack)  
 HCS-4845N\_G /50.....Flush End Cap (gray, 50 pairs/pack)

## HCS-4844NA/50 Flush Loudspeaker Panel



### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d).....61 x 94 x 99 mm  
 Weight.....164 g  
 Color.....Silver/Gray

### Ordering Information

HCS-4844NA/50.....Flush Loudspeaker Panel (silver, cover)  
 HCS-4844NA\_G/50.....Flush Loudspeaker Panel (gray, cover)

## HCS-4846N1/50 Cover



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) ..... 5 x 214 x 45 mm  
 Weight ..... 79 g  
 Color ..... Gray/Silver

### Ordering Information

HCS-4846N1/50 ..... Cover (for one unit, 213.8 mm, silver)  
 HCS-4846N1\_G/50 ..... Cover (for one unit, 213.8 mm, gray)

## HCS-4846N3/50 Cover



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) ..... 5 x 436 x 45 mm  
 Weight ..... 169 g  
 Color ..... Gray/Silver

### Ordering Information

HCS-4846N3/50 ..... Cover (for three units, 436.2 mm, silver)  
 HCS-4846N3\_G/50 ..... Cover (for three units, 436.2 mm, gray)

## HCS-4846N2/50 Cover



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) ..... 5 x 325 x 45 mm  
 Weight ..... 124 g  
 Color ..... Gray/Silver

### Ordering Information

HCS-4846N2/50 ..... Cover (for two units, 325.0 mm, silver)  
 HCS-4846N2\_G/50 ..... Cover (for two units, 325.0 mm, gray)

## System Connection





## HCS-3668CF Voting Unit



### Features

- **Tabletop-mounting, stylish and ergonomic design**
- **Max system capacity: 4096 voting units**
- **5 voting keys**
- **Controls voting start and stop**
- **Waterproof facility**

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.).....64 x 197 x 86 mm  
 Color.....Red

### Ordering Information

HCS-3668CF\_R.....Economic Voting System Chairman Unit  
 (tabletop, 5 voting keys, 256x32" LCD, waterproof, red)

## HCS-3668DF Voting Unit



### Ordering Information

HCS-3668DF\_R.....Economic Voting System Delegate Unit  
(tabletop, 5 voting keys, 256x32" LCD,  
waterproof, red)

### Features

- Tabletop-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Waterproof facility

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
Dimensions (h x w x d) (w/o Mic.).....64 x 197 x 86 mm  
Color.....Red

## HCS-3668CFK Voting Unit with IC-Card Reader



### Features

- **Tabletop-mounting, stylish and ergonomic design**
- **Max system capacity: 4096 voting units**
- **5 voting keys**
- **Controls voting start and stop**
- **Built-in IC-card reader**

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
 Dimensions (h x w x d) (w/o Mic.).....64 x 197 x 86 mm  
 Color.....Red

### Ordering Information

HCS-3668CFK\_R.....Economic Voting System Chairman Unit  
 (tabletop, 5 voting keys, 256x32" LCD,  
 IC-Card, red)

## HCS-3668DFK Voting Unit with IC-Card Reader



### Ordering Information

HCS-3668DFK\_R.....Economic Voting System Delegate Unit  
(tabletop, 5 voting keys, 256x32" LCD,  
IC-Card, red)

### Features

- **Tabletop-mounting, stylish and ergonomic design**
- **Max system capacity: 4096 voting units**
- **5 voting keys**
- **Built-in IC-card reader**

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Tabletop mounting  
Dimensions (h x w x d) (w/o Mic.).....64 x 197 x 86 mm  
Color.....Red

## HCS-3668CF/FM Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Controls voting start and stop
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....60 x 197 x 86 mm  
 Color.....Silver/Red

### Ordering Information

HCS-3668CF/FM\_S.....Economic Voting System Chairman Unit  
 (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver)  
 HCS-3668CF/FM\_R.....Economic Voting System Chairman Unit  
 (flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red)

## HCS-3668DF/FM Voting Unit



### Ordering Information

- HCS-3668DF/FM\_S.....Economic Voting System Delegate Unit  
(flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, silver)
- HCS-3668DF/FM\_R.....Economic Voting System Delegate Unit  
(flush-mounting, 5 voting keys, 256x32" LCD, waterproof, cover, red)

### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting

Dimensions (h x w x d) (w/o Mic.).....60 x 197 x 86 mm

Color.....Silver/Red

## HCS-3668CFK/FM Voting Unit with IC-Card Reader



### Features

- Flush-mounting, stylish and ergonomic design
- Max system capacity: 4096 voting units
- 5 voting keys
- Controls voting start and stop
- Built-in IC-card reader
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/0/+/++
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start and stop
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....60 x 197 x 86 mm  
 Color.....Silver/Red

### Ordering Information

HCS-3668CFK/FM\_S.....Economic Voting System Chairman Unit  
 (flush-mounting, 5 voting keys, 256x32"  
 LCD, IC-Card, cover, silver)  
 HCS-3668CFK/FM\_R.....Economic Voting System Chairman Unit  
 (flush-mounting, 5 voting keys, 256x32"  
 LCD, IC-Card, cover, red)



## HCS-3668DFK/FM Voting Unit with IC-Card Reader



### Features

- **Flush-mounting, stylish and ergonomic design**
- **Max system capacity: 4096 voting units**
- **5 voting keys**
- **Built-in IC-card reader**
- **Equipped with ferromagnetic cover to protect the unit from damage during the adjournment**

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, conforms to IEC CISPR 24
- Max system capacity: 4096 voting units
- 5 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
  - ◆ Multi choice: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/++
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Multilingual (simplified/traditional Chinese and English) menu
- Built-in IC-card reader
- Key-press sign-in
- Automatic detection
- Equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting.....Flush-mounting  
 Dimensions (h x w x d) (w/o Mic.).....60 x 197 x 86 mm  
 Color.....Silver/Red

### Ordering Information

HCS-3668DFK/FM\_S.....Economic Voting System Delegate Unit  
 (flush-mounting, 5 voting keys, 256x32"  
 LCD, IC-Card, cover, silver)  
 HCS-3668DFK/FM\_R.....Economic Voting System Delegate Unit  
 (flush-mounting, 5 voting keys, 256x32"  
 LCD, IC-Card, cover, red)

## HCS-850PB/10 12-channel Simultaneous Interpretation Unit



### Features

- Compliant to IEC 60914 and CE
- Two alternating interpreters can use one interpretation unit in turn
- Headset earphone with microphone (EP-950AS) for monitoring and speaking
- Up to 12 interpretation channels (incl. the original floor channel)
- Easy to operate
- Suitable for various types of conference
- Adjustable volume and automatic acoustic feedback prevention facility
- Optional channel interlock facility
- Auto relay interpretation facility
- Auto-numbering facility
- More participants can join in the meeting if cooperating with infrared language distribution system

HCS-850PB/10 Simultaneous Interpretation Unit provides up to 12 language channels. Two alternating interpreters can use one interpretation unit in turn.

It provides two operational modes: direct interpretation and relay interpretation with auto-relay.

### Functions

- Two alternating interpreters can use one interpretation unit in turn
- Up to 12 interpretation channels (incl. the original floor channel)
- Automatic acoustic feedback prevention when listening to own interpretation
- Direct and relay interpretation available
- Auto relay interpretation facility
- Permits only one microphone on a channel to be activated at any time, ensuring the uniqueness of language channels
- Headset earphone with microphone (EP-950AS) for monitoring and speaking
- Adjustable volume and automatic acoustic feedback prevention facility
- Auto-numbering facility
- When cooperated with infrared language distribution system, more participants can join in the meeting

### Controls and Indicators

- Relay interpretation switches (RELAY)
- Floor channel switches (ORIGINAL)
- Rotary step control for fast selecting relay language channel
- Adjustable headphone volume
- Numbering key (NUMBER)
- Output channel selectors (1~11)
- Microphone ON/OFF keys
- Mute facility prevents constrained voice being transmitted (COUGH CUT key)
- Speak slowly facility to alert the current speaker to slow down (SLOW key)

### Interconnections

- Ø 3.5 mm record output ports
- Ø 3.5 mm sockets for headsets
- 3 m cable with 25P-DIN plug and socket at each cable end
- 25P-DIN connector (plug and socket) at the back of unit for loop-through interconnection

### Technical Specifications

#### Electrical

##### Headphone connection

Frequency response.....100 Hz to 15 kHz  
 Earphone load impedance.....>16 Ohm  
 Earphone output.....1.5 V

##### Recommended headset microphone

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....80 Hz to 16 kHz  
 Input impedance.....2 kOhm

#### Interface data

Connector.....Ø 3.5 mm record output ports  
 .....Ø 3.5 mm stereo jacks for headsets

#### Mechanical

Mounting.....Free-standing on a table  
 Dimensions (h x w x d).....41×331×200 mm  
 Weight.....2.75 kg  
 Color.....Gray

### Ordering Information

HCS-850PB/10.....Economic Conference System Interpreter  
 Unit (12 CHs, gray, 25-Pin cable needed)

## HCS-5100PA Headphone (stereo)



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- $32\ \Omega \times 2$ ,  $\varnothing$  3.5 mm stereo plug
- Frequency response: 20 Hz to 20 kHz
- Sensitivity:  $\geq 108$  dBA/1 mW

### Ordering Information

HCS-5100PA.....Headphone (stereo)

## HCS-1020 Clip Microphone



### Features

- Stylish and ergonomic design
- Excellent immunity to RF interferences from mobile phones
- $\varnothing$  3.5 mm stereo plug with a 1.5 meter cable

### Technical Specifications

#### Electrical

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity  $0^\circ/180^\circ$ .....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Dimensions (h x w x d).....51 x 25 x 13 mm  
 Weight.....3 g  
 Color.....Black

### Ordering Information

HCS-1020.....Clip Microphone

## HCS-3600MA2 Conference Main Unit



### Features

- Controls up to 256 contribution units
- Supports up to 12 simultaneous interpretation language channels (incl. the original floor channel)
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Parallel redundancy & multi-room configuration
- Excellent immunity to RF interference from mobile phones and comparable devices

The Conference Main Unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator.

In combination with a PC, the control unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the control unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914 and CE
- Controls up to 256 contribution units
- Supports up to 12 simultaneous interpretation language channels (incl. the original floor channel). Can accommodate more audience to join in the conference if cooperating with channel selector or/and infrared language distribution system
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ Speaking time limit can be setup (1-240 minutes)
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)

- ◆ "VOICE" mode, microphone activation on speaking
- ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
- ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- ◆ Parliamentary voting (YES/NO/ABSTAIN)
- ◆ Simultaneous interpretation
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Intensive microphone management
  - ◆ Sign-in mode (entry sign-in/seat sign-in)
  - ◆ Multifunction voting:
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience responses: --/0/+/++
- ◆ In PC-control mode, according to the application software modules purchased, multiple conference management facilities are available
- Automatic video tracking, when cooperating with camera and video switcher unit
- Multi-room configuration: CMU can be used as extension main unit. Multiple CMUs can either be connected into one conference system or be used separately as several independent conference systems, therefore multi-room configuration can be carried out flexibly.
- Built-in unit detection facilities, detect the unit's microphone, voting keys, speaker and LED before the meeting.
- If the PC is broken down, CMU enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of conference.

### Controls and Indicators

- Graphic LCD with back-lighting displays the status and the menu of system configuration, supporting multilingual menus
- Four buttons for configuration
- Power switch with indicator
- LINE IN electric level adjust knob
- Maximum active microphone (1/2/4) selector and indicators
- Operation mode selector (OPEN/ OVERRIDE/ VOICE/ APPLY) and indicators
- Conference unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ Two symmetrical RCA output interfaces, enabling long range transmission with low noise
  - ◆ One record input/output port
  - ◆ One balanced line-in interface (Ø 6.4 mm, 3-Pin socket) with level control
  - ◆ One unbalanced audio input port (Ø 6.4 mm, 2-Pin socket)
  - ◆ One balanced line-out interface (XLR socket)
  - ◆ 11 RCA interpretation channel outputs, automatically turn to floor channel when interpreter units are disconnected

- ◆ Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
- Built-in video switcher:
  - ◆ 4 BNC video input ports, 1 BNC video output port, cooperating with video control software for automatic video tracking
  - ◆ When cooperating with video switcher unit, more cameras and video signals can be automatically switched and tracked
- 2 RS-232 ports for connection to intelligent central control system and system diagnosis each
- One TAINET interface for connection to central control system
- One Interpreter's unit interface: 11 HCS-850PB/10 interpreter units can be connected via a 25-pin D-type connector to reach simultaneous interpretation function
- 3×outlet (6P-DIN) trunk-line cable outlets
- Ethernet interface (RJ-45)
- Extension interface

## Technical Specifications

## Electrical

Frequency response	40 Hz to 16 kHz
SNR	>80 dBA
Dynamic range	>85 dB
Isolation	>70 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	150 W
RS-232 connection	2 x nine-pole Sub-D female socket

## Audio inputs

LINE IN.....0.775 V BAL.  
REC. IN.....0.775 V UNBAL.

## Audio outputs

REC. OUTPUT X 1.....0.775 V  
ORIGINAL OUTPUT RCA x 2.....0.775 V

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 X 430 X 325 mm  
For 19" rack use, with brackets.....89 X 478 X 350 mm  
Weight.....11.5 kg  
Color.....White

## Ordering Information

HCS-3600MA2.....Economic Conference System Main Unit  
(voting, 256x32" LCD, 12 CHs, 6P sockets)

## HCS-3600MB2 Conference Main Unit



### Features

- Controls up to 256 contribution units
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Parallel redundancy & multi-room configuration
- Excellent immunity to RF interference from mobile phones and comparable devices

The Conference Main Unit includes features for controlling delegate microphones and conducting voting sessions, without an operator. In combination with a PC, the control unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the control unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914 and CE
- Controls up to 256 contribution units
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ Speaking time limit can be setup (1-240 minutes)
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)

- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Intensive microphone management
  - ◆ Sign-in mode (entry sign-in/seat sign-in)
  - ◆ Multiform voting:
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/0/+/++
  - ◆ In PC-control mode, according to the application software modules purchased, multiple conference management facilities are available
- Automatic video tracking, when cooperating with camera and video switcher unit
- Multi-room configuration: CMU can be used as extension main unit. Multiple CMUs can either be connected into one conference system or be used separately as several independent conference systems, therefore multi-room configuration can be carried out flexibly.
- Built-in unit detection facilities, detect the unit's microphone, voting keys, speaker and LED before the meeting.
- If the PC is broken down, CMU enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of conference.

### Controls and Indicators

- Graphic LCD with back-lighting displays the status and the menu of system configuration, supporting multilingual menus
- Four buttons for configuration
- Power switch with indicator
- LINE IN electric level adjust knob
- Maximum active microphone (1/2/4) selector and indicators
- Operation mode selector (OPEN/ OVERRIDE/ VOICE/ APPLY) and indicators
- Conference unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ Two symmetrical RCA output interfaces, enabling long range transmission with low noise
  - ◆ One record input/output port
  - ◆ One balanced line-in interface (Ø 6.4 mm, 3-Pin socket) with level control
  - ◆ One unbalanced audio input port (Ø 6.4 mm, 2-Pin socket)
  - ◆ One balanced line-out interface (XLR socket)
  - ◆ Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
- Built-in video switcher:
  - ◆ 4 BNC video input ports, 1 BNC video output port, cooperated with video control software for automatic video tracking
  - ◆ When cooperating with video switcher unit, more cameras and video signals can be automatically switched and tracked

- 2 RS-232 ports for connection to intelligent central control system and system diagnosis each
- One TAINET interface for connection to central control system
- 3×outlet (6P-DIN) trunk-line cable outlets
- Ethernet interface (RJ-45)
- Extension interface

## Technical Specifications

## Electrical

Frequency response	40 Hz to 16 kHz
SNR	>80 dBA
Dynamic range	>85 dB
Isolation	>70 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	150 W
RS-232 connection	2 x nine-pole Sub-D female socket

## Audio inputs

LINE IN.....0.775 V BAL.  
REC. IN.....0.775 V UNBAL.

## Audio outputs

REC. OUTPUT X 1.....0.775 V  
ORIGINAL OUTPUT RCA x 2.....0.775 V

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack

Dimensions (h x w x d)

For table use, with feet.....99 X 430 X 325 mm

For 19" rack use, with brackets.....89 X 478 X 350 mm

Weight.....11.5 kg

Color.....White

## Ordering Information

HCS-3600MB2.....Economic Conference System Main Unit  
(voting, 256x32" LCD, 6P sockets)



## HCS-3600MC2 Conference Main Unit



### Features

- Controls up to 120 contribution units
- Supports up to 6 simultaneous interpretation language channels (incl. the original floor channel)
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Parallel redundancy & multi-room configuration
- Excellent immunity to RF interference from mobile phones and comparable devices

The Conference Main Unit includes features for controlling delegate microphones and distributing simultaneous interpretation, without an operator.

In combination with a PC, the control unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the control unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914 and CE
- Controls up to 120 contribution units
- Supports up to 6 simultaneous interpretation language channels (incl. the original floor channel). Can accommodate more audience to join in the conference when cooperating with channel selector or/and infrared language distribution system
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ Speaking time limit can be setup (1-240 minutes)
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)

- ◆ "VOICE" mode, microphone activation on speaking
- ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
- ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- ◆ Simultaneous interpretation
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Intensive microphone management
  - ◆ Sign-in mode (entry sign-in/seat sign-in)
  - ◆ In PC-control mode, according to the application software modules purchased, multiple conference management facilities are available
- Automatic video tracking, when cooperating with camera and video switcher unit
- Multi-room configuration: CMU can be used as extension main unit. Multiple CMUs can either be connected into one conference system or be used separately as several independent conference systems, therefore multi-room configuration can be carried out flexibly.
- Built-in unit detection facilities, detect the unit's microphone, speaker and LED before the meeting.
- If the PC is broken down, CMU enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of conference.

### Controls and Indicators

- Graphic LCD with back-lighting displays the status and the menu of system configuration, supporting multilingual menus
- Four buttons for configuration
- Power switch with indicator
- LINE IN electric level adjust knob
- Maximum active microphone (1/2/4) selector and indicators
- Operation mode selector (OPEN/ OVERRIDE/ VOICE/ APPLY) and indicators
- Conference unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ Two symmetrical RCA output interfaces, enabling long range transmission with low noise
  - ◆ One record input/output port
  - ◆ One balanced line-in interface (Ø 6.4 mm, 3-Pin socket) with level control
  - ◆ One unbalanced audio input port (Ø 6.4 mm, 2-Pin socket)
  - ◆ One balanced line-out interface (XLR socket)
  - ◆ Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
  - ◆ 5 RCA interpretation channel balanced outputs, automatically turn to floor channel when interpreter units are disconnected

- Built-in video switcher:
  - ◆ 4 BNC video input ports, 1 BNC video output port, cooperating with video control software for automatic video tracking
  - ◆ When cooperating with video switcher unit, more cameras and video signals can be automatically switched and tracked
- 2 RS-232 ports for connection to intelligent central control system and system diagnosis each
- One TAINET interface for connection to central control system
- One Interpreter's unit interface: 5 HCS-850PB/10 interpreter units can be connected via a 25-pin D-type connector to reach simultaneous interpretation function
- 3×outlet (13P-DIN) trunk-line cable outlets
- Ethernet interface (RJ-45)
- Extension interface

## Technical Specifications

## Electrical

Frequency response	40 Hz to 16 kHz
SNR	>80 dBA
Dynamic range	>85 dB
Isolation	>70 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	150 W
RS-232 connection	2 x nine-pole Sub-D female socket

## Audio inputs

LINE IN.....0.775 V BAL.  
REC. IN.....0.775 V UNBAL.

## Audio outputs

REC. OUTPUT X 1.....	0.775 V
ORIGINAL OUTPUT RCA x 2.....	0.775 V

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 X 430 X 325 mm  
For 19" rack use, with brackets.....89 X 478 X 350 mm  
Weight.....11.5 kg  
Color.....White

## Ordering Information

HCS-3600MC2.....Economic Conference System Main Unit  
(256x32" LCD, 6 CHs, 13P sockets)

## HCS-3600MAP2 Conference Main Unit



### Features

- Controls up to 256 contribution units
- Supports up to 12 simultaneous interpretation language channels (incl. the original floor channel)
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Parallel redundancy & multi-room configuration
- Excellent immunity to RF interference from mobile phones and comparable devices

The Conference Main Unit includes features for controlling delegate microphones and distributing simultaneous interpretation, without an operator.

In combination with a PC, the control unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the control unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914 and CE
- Controls up to 256 contribution units
- Supports up to 12 simultaneous interpretation language channels (incl. the original floor channel). Can accommodate more audience to join in the conference when cooperating with channel selector or/and infrared language distribution system
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ Speaking time limit can be setup (1-240 minutes)
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)

- ◆ "VOICE" mode, microphone activation on speaking
- ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
- ◆ "DAIS" mode, chairman unit with control facility is always active in this mode
- ◆ Simultaneous interpretation
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Intensive microphone management
  - ◆ Sign-in mode (entry sign-in/seat sign-in)
  - ◆ In PC-control mode, according to the application software modules purchased, multiple conference management facilities are available
- Automatic video tracking, when cooperating with camera and video switcher unit
- Multi-room configuration: CMU can be used as extension main unit. Multiple CMUs can either be connected into one conference system or be used separately as several independent conference systems, therefore multi-room configuration can be carried out flexibly.
- Built-in unit detection facilities, detect the unit's microphone, speaker and LED before the meeting.
- If the PC is broken down, CMU enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of conference.

### Controls and Indicators

- Graphic LCD with back-lighting displays the status and the menu of system configuration, supporting multilingual menus
- Four buttons for configuration
- Power switch with indicator
- LINE IN electric level adjust knob
- Maximum active microphone (1/2/4) selector and indicators
- Operation mode selector (OPEN/ OVERRIDE/ VOICE/ APPLY) and indicators
- Conference unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ Two symmetrical RCA output interfaces, enabling long range transmission with low noise
  - ◆ One record input/output port
  - ◆ One balanced line-in interface (Ø 6.4 mm, 3-Pin socket) with level control
  - ◆ One unbalanced audio input port (Ø 6.4 mm, 2-Pin socket)
  - ◆ One balanced line-out interface (XLR socket)
  - ◆ Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
  - ◆ 11 RCA interpretation channel outputs, automatically turn to floor channel when interpreter units are disconnected

- Built-in video switcher:
  - ◆ 4 BNC video input ports, 1 BNC video output port, cooperating with video control software for automatic video tracking
  - ◆ When cooperating with video switcher unit, more cameras and video signals can be automatically switched and tracked
- 2 RS-232 ports for connection to intelligent central control system and system diagnosis each
- One TAINET interface for connection to central control system
- One Interpreter's unit interface: 11 HCS-850PB/10 interpreter units can be connected via a 25-pin D-type connector to reach simultaneous interpretation function
- 3×outlet (6P-DIN) trunk-line cable outlets
- Ethernet interface (RJ-45)
- Extension interface

## Technical Specifications

## Electrical

Frequency response	40 Hz to 16 kHz
SNR	>80 dBA
Dynamic range	>85 dB
Isolation	>70 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	150 W
RS-232 connection	2 x nine-pole Sub-D female socket

## Audio inputs

LINE IN.....0.775 V BAL.  
REC. IN.....0.775 V UNBAL.

## Audio outputs

REC. OUTPUT X 1.....	0.775 V
ORIGINAL OUTPUT RCA x 2.....	0.775 V

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 X 430 X 325 mm  
For 19" rack use, with brackets.....89 X 478 X 350 mm  
Weight.....11.5 kg  
Color.....White

## Ordering Information

HCS-3600MAP2.....Economic Conference System Main Unit  
(256x32" LCD, 12 CHs, 6P sockets)

## HCS-3600MBP2 Conference Main Unit



### Features

- Controls up to 256 contribution units
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Parallel redundancy & multi-room configuration
- Excellent immunity to RF interference from mobile phones and comparable devices

The Conference Main Unit includes features for controlling delegate microphones without an operator.

In combination with a PC, the control unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the control unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914 and CE
- Controls up to 256 contribution units
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- System when operated in stand-alone mode can implement the following facilities:
  - ◆ "ACTIVE MICS", set the number of delegates permitted to speak at the same time
  - ◆ Speaking time limit can be setup (1-240 minutes)
  - ◆ "OPEN" mode, microphone key with request-to-speak registration (AUTO)
  - ◆ "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
  - ◆ "VOICE" mode, microphone activation on speaking
  - ◆ "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
  - ◆ "DAIS" mode, chairman unit with control facility is always active in this mode

- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Intensive microphone management
  - ◆ Sign-in mode (entry sign-in/seat sign-in)
  - ◆ In PC-control mode, according to the application software modules purchased, multiple conference management facilities are available
- Automatic video tracking, when cooperating with camera and video switcher unit
- Multi-room configuration: CMU can be used as extension main unit. Multiple CMUs can either be connected into one conference system or be used separately as several independent conference systems, therefore multi-room configuration can be carried out flexibly.
- Built-in unit detection facilities, detect the unit's microphone, speaker and LED before the meeting.
- If the PC is broken down, CMU enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of conference

### Controls and Indicators

- Graphic LCD with back-lighting displays the status and the menu of system configuration, supporting multilingual menus
- Four buttons for configuration
- Power switch with indicator
- LINE IN electric level adjust knob
- Maximum active microphone (1/2/4) selector and indicators
- Operation mode selector (OPEN/ OVERRIDE/ VOICE/ APPLY) and indicators
- Conference unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ Two symmetrical RCA output interfaces, enabling long range transmission with low noise
  - ◆ One record input/output port
  - ◆ One balanced line-in interface (Ø 6.4 mm, 3-Pin socket) with level control
  - ◆ One unbalanced audio input port (Ø 6.4 mm, 2-Pin socket)
  - ◆ One balanced line-out interface (XLR socket)
  - ◆ Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to conference units
- Built-in video switcher:
  - ◆ 4 BNC video input ports, 1 BNC video output port, cooperating with video control software for automatic video tracking
  - ◆ When cooperating with video switcher unit, more cameras and video signals can be automatically switched and tracked
- 2 RS-232 ports for connection to intelligent central control system and system diagnosis each
- One TAINET interface for connection to central control system
- 3×outlet (6P-DIN) trunk-line cable outlets
- Ethernet interface (RJ-45)
- Extension interface

## Technical Specifications

## Electrical

Frequency response	40 Hz to 16 kHz
SNR	>80 dBA
Dynamic range	>85 dB
Isolation	>70 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	150 W
RS-232 connection	2 x nine-pole Sub-D female socket

## Audio inputs

LINE IN ..... 0.775 V BAL.  
REC. IN ..... 0.775 V UNBAL.

## Audio outputs

REC. OUTPUT X 1.....	0.775 V
ORIGINAL OUTPUT RCA x 2.....	0.775 V

## Mechanical

Mounting.....Tabletop or mounted in a 19" rack  
Dimensions (h x w x d)  
For table use, with feet.....99 X 430 X 325 mm  
For 19" rack use, with brackets.....89 X 478 X 350 mm  
Weight.....11.5 kg  
Color.....White

## Ordering Information

HCS-3600MBP2.....Economic Conference System Main Unit  
(256x32" LCD, 6P sockets)

## HCS-3600ME Conference Extension Main Unit



The capacity of HCS-3600M series CMU is 120 contribution units. If extra contribution units are needed, HCS-3600ME Conference Extension Main Unit(s) should be added. Both the capacity and the outlet connectors are identical to HCS-3600M series CMU. Each HCS-3600ME has an input interface used to connect HCS-3600M series CMU, and an output interface for another HCS-3600ME Conference Extension Main Unit. All cables are dedicated 6P cables.

### Functions

- Compliant to IEC 60914 and CE
- Cooperates with HCS-3600MA2/MB2/MAP2/MBP2 for system capacity extension
- Controls up to 120 contribution units

### Interconnections

- One 6P-DIN standard plug (input) for connection with system CMU
- One 6P-DIN standard socket (output) for connection with contribution unit or the next Conference Extension Main Unit
- 3 x outlet (6P-DIN) trunk-line cable connectors, each connector can accommodate 30 PCF, so each main unit can accommodate 180 PCF at most

### Technical Specifications

#### Electrical

Frequency response	40 Hz to 16 kHz
SNR	>80 dBA
Dynamic range	>85 dB
Isolation	>70 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	150 W

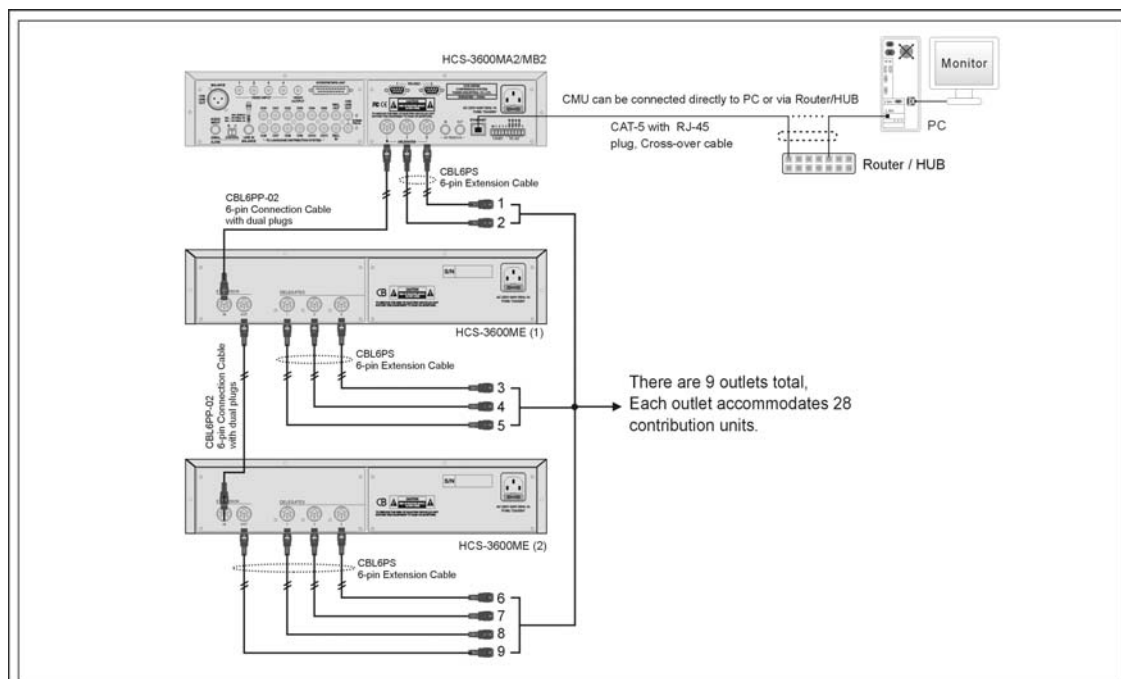
#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h x w x d)	
For table use, with feet	99 X 430 X 325 mm
For 19" rack use, with brackets	89 X 478 X 350 mm
Weight	11.5 kg
Color	White

### Ordering Information

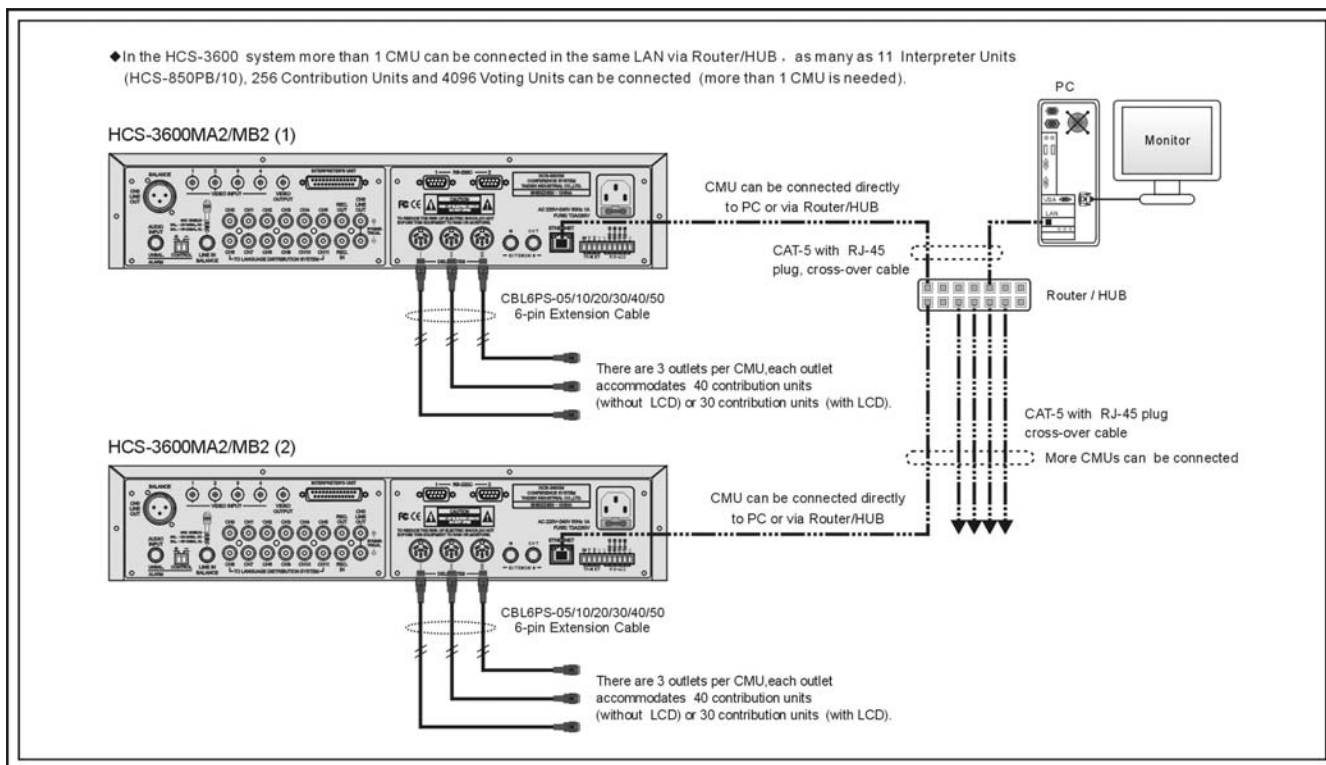
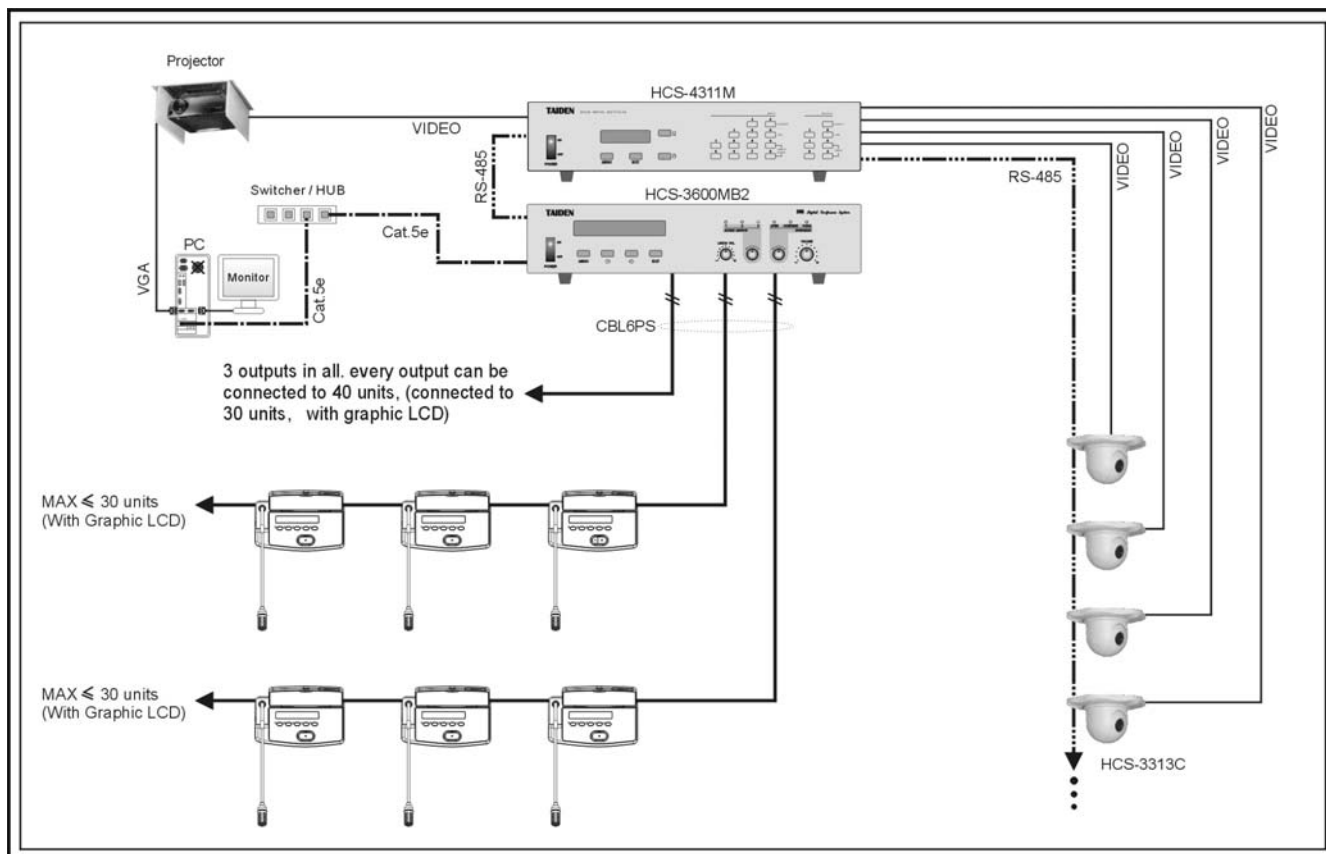
HCS-3600ME\_\_Economic Conference System Extension Main Unit  
(6P sockets)

### System Connection - Expansion Connection Between HCS-3600MA2/MB2 and HCS-3600ME





## System Connection



## HCS-3600 Series Application Software

HCS-3600 application software is comprehensive, reliable and user-friendly. But it is also an easy care software system which helps the operator to manage the conference efficiently from the very beginning of a meeting until the post-meeting work. With the PC installed HCS-3600 application software connected into the FDCS, operator can manage all aspects of the conference centrally. The operation turns out to be easy and efficient.

HCS-3600 application software is a modular software with various functional modules:

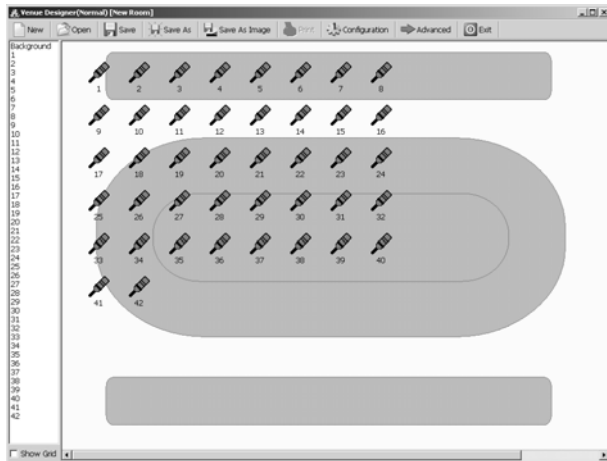
- Basic System Setup Management Module (HCS-4210TS/50)
- Professional Venue Design Module (HCS-4212TS/50)
- Microphone Management Module (HCS-4213TS/50)
- Voting Management Module (HCS-4214TS/50S)
- Video Control Module (HCS-4215TS/50)
- Synchronous Audio Recording Management Module (HCS-4219TS/50)
- Synchronous Video Recording Management Module (HCS-4220TS/50)
- Multi-user Conference Control Management Module (HCS-4221TS/50)
- Dual PC Server Hot Spare Module (HCS-4222TS/50)
- Agenda Control Module (HCS-4223TS/50)
- Speech Prompt Module (HCS-4224TS/50)
- Touch IC-Card Sign-in Management Module (HCS-4226TS/50)



## HCS-4210TS/50 Basic Software Module

Basic software module consists of an amount of facilities, e.g. venue design (normal edition), conference management, main unit configuration, contribution unit configuration, information display, system detection, system report and user management.

### Venue design facility



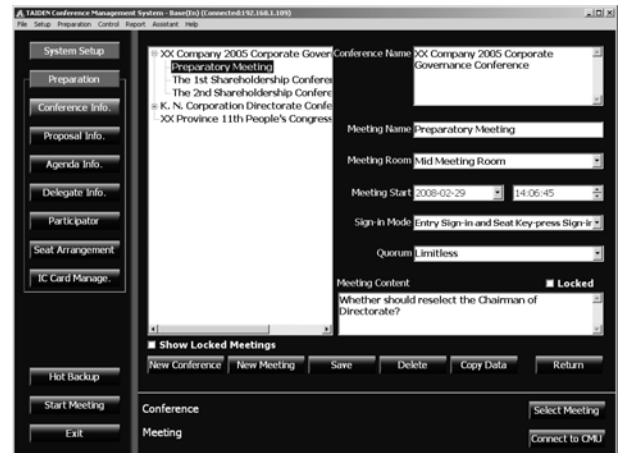
Venue design (normal edition)

### Functions

Converts the venue seating into an intuitive, graphical and controllable interface as a basis for further use, according to the actual layout of the venue.

- Self-designing the background picture and color, supporting pictures of any size
- Microphone number, amount of microphones per line, icon type - icon transparency optionally
- Freely drag and drop the microphone icon
- Reconfiguration of the initialized settings, available at any time
- Save/open files for file management
- Especially suitable for small-scale and medium-sized meeting room/hall. The professional edition of venue design module offers more facilities described in HCS-4212TS/20 Professional Venue Design Module.

### Conference information management



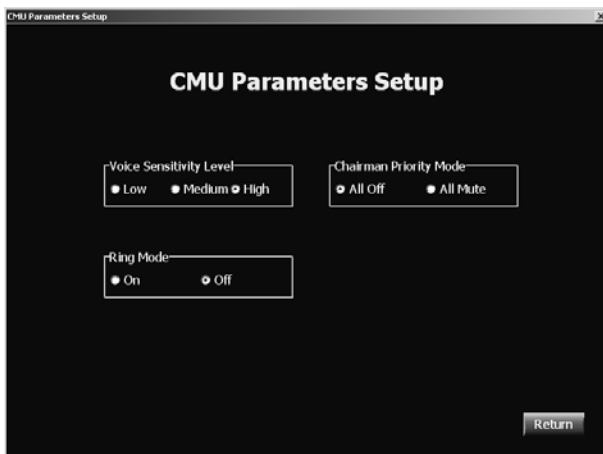
Conference Information

### Functions

Comprehensive conference information management facility, for clear and easy user management.

- Includes conference name and meeting information
- Each conference consists of several meetings
- Creation of a new meeting for appointed conference
- Meeting:
  - ♦ Meeting content: meeting name, meeting room name, meeting start time, sign in mode, quorum and conference content
  - ♦ Display of convoked meetings in distinct colors
  - ♦ Locking a convoked meeting for meeting data protection
- Freely switch between the meetings to manage

## Main unit configuration facility

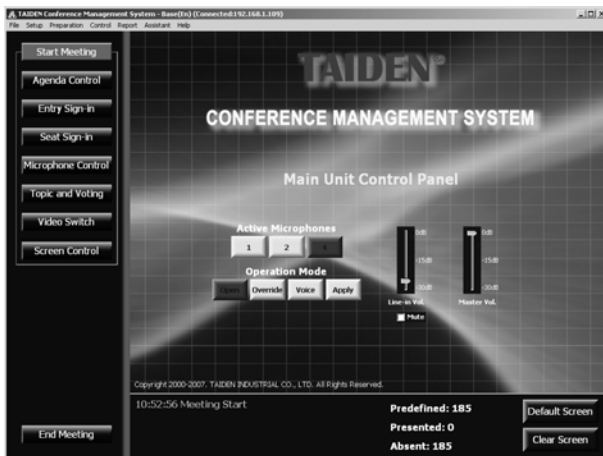


CMU parameters setup

## Contribution unit configuration facility



Contribution unit setup interface



Main unit control panel

## Functions

Setup and reconfigure internal parameters of the contribution unit by the administrator.

Parameters include:

- Contribution unit status (delegate/VIP)
- Easy reconfiguration of the internal settings
- Easy selection of any chairman unit to be *Executive* chairman unit

## Functions

Module provides **CMU parameters setup** and **CMU control panel** sub-modules.

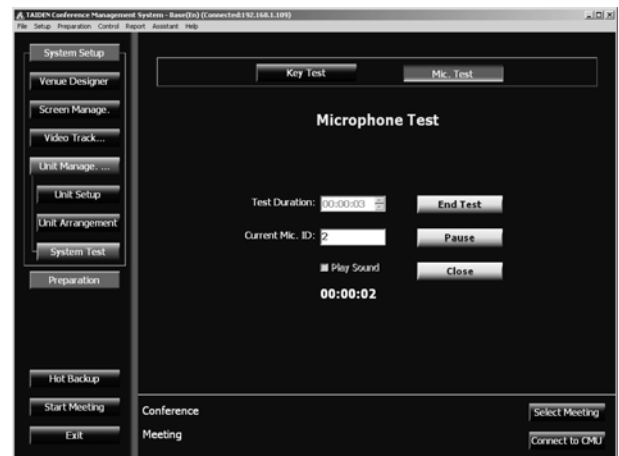
- **CMU parameters setup:**
  - ♦ *Voice sensitivity level:* set sensitivity level to open microphone in "Voice" mode
  - ♦ *Chairman priority mode:* enable *All off* or *All mute* operation when chairman presses priority button
    - *All off:* turn off all delegate microphones
    - *All mute:* temporarily mute all delegate microphones; the former state is restored once the button released
  - ♦ *Ring mode:* turn on/off all kinds of ring tones of conference units triggered when applying to speak or IC card insertion
- **CMU control panel:** synchronously display and adjust the status of the conference main unit, for flexible control of the CMU by the operator
  - ♦ Active Microphones (1/2/4)
  - ♦ Operation mode (OPEN/OVERRIDE/VOICE/APPLY)
  - ♦ Original floor channel volume of the contribution unit (dB)
  - ♦ Line-in volume (dB)
  - ♦ Line-in mute

## Information display



Screen management

## System detection

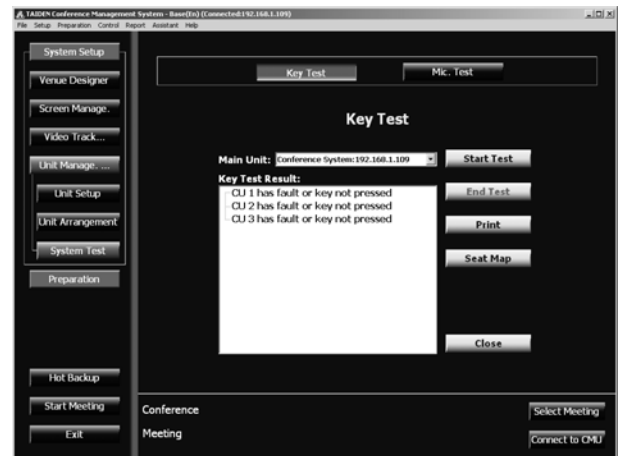


Microphone test interface

## Functions

Includes screen management

- **Screen management:** design of a screen and its related activated event
  - ◆ Set distinct screen projects for distinct conferences and languages
  - ◆ Predetermination of screen page contents: includes page color, page name, page size, etc
  - ◆ Editing screen page contents: includes add text, picture, delegate's photo, voting results, etc
  - ◆ Select the page to display when conference event starts. Each conference event corresponds to a particular screen page
  - ◆ Allocation of an *alias* for each screen for more convenience



Key test interface

## Functions

Online system test facility, including **microphone test** and **key test**.

- **Microphone test**, includes:
  - ◆ Time setting for testing a microphone, valid for all microphones
  - ◆ Facility to issue white noise for testing assistance
  - ◆ Auto-detection of system-connected microphones with ID display of current tested microphone
  - ◆ Sequential automatic test procedure: once time setting value reached, the tested unit is cleared and the sequencing unit is processed
- **Key test:** starts key test for all system-connected contribution unit
  - ◆ Main unit IP address display
  - ◆ Contribution units enter key detection state for key tests immediately on start of key test routine
  - ◆ Result display on software interface on routine completion
  - ◆ Supports printout

## Report system



Report system

## Ordering Information

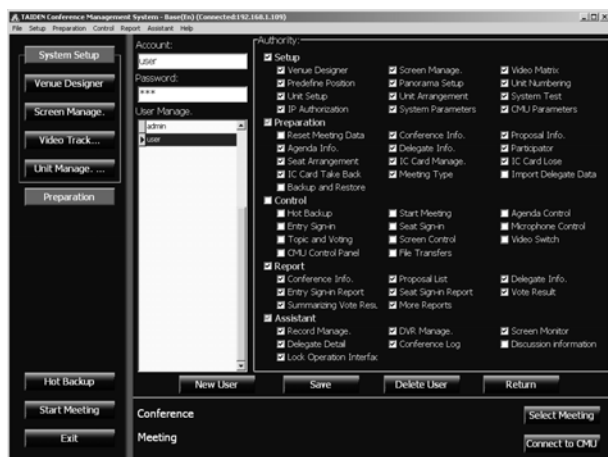
HCS-4210TS/50.....Basic Software Module

## Functions

Conference information output from the software's database, for backup or printout purposes. The conference information includes:

- Conference information
- Proposal list
- Delegate information
- Sign-in report
- Voting result
- Summarizing voting results
- More reports

## User management



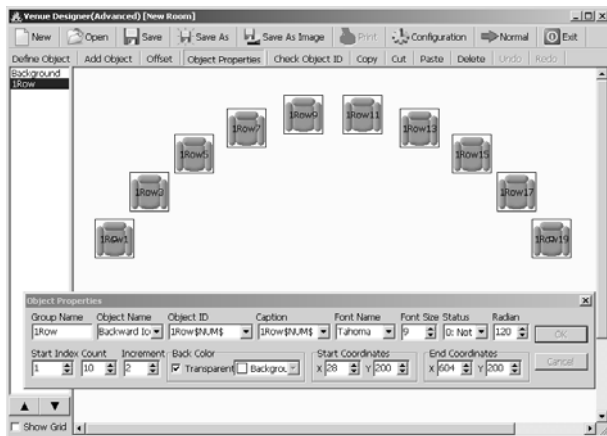
User management interface

## Functions

Create/delete a user, change user password and authorization

- Create a new user, and set his/her account, password, authority
- Change user's password and authorization
- Supports deleting a user

## HCS-4212TS/50 Professional Venue Design Module



Venue design (professional)

### Functions

In distinction from the normal edition of the Venue Design Module, the professional version has additional powerful functions to design manifold layouts of venues. The main difference is the availability of functional buttons for file operation (toolbar buttons) and object operation (buttons below toolbar buttons) in the toolbars. In addition, the functions are also available in the file right-click pop-up menu. Moreover, the *Object Properties* dialog box is floating on the window for fast changing the properties of current object.

- File operation:
  - ◆ Venue design supports file operation, including: new, open, save as, and print
  - ◆ Create a new conference file: set the background color, room size and other parameters, including:
    - Background
    - Line number
    - Amount per line
    - Seat icon
    - Seat direction
    - Transparent icon or not
    - Show as MIC. icon or not
    - Re-arrange seat position or not
  - ◆ The parameters above can be changed at any time through "Configuration" menu on the toolbar
  - ◆ Add seat/microphone icons line by line, 8 seats/mics per line as default value. The amount of seats/microphones per line can be modified. While the normal edition can add only one seat at one go, the professional venue design module can add groups with more than one seat/microphone per group.
  - ◆ Shifting facility for complete layout
- Define object:
  - ◆ Picture library with default (customized and/or recurrent) objects
  - ◆ Modifiable object information, e.g. object name, image path, distinguishable colors for displaying object images in different states (e.g. signed-in etc.)

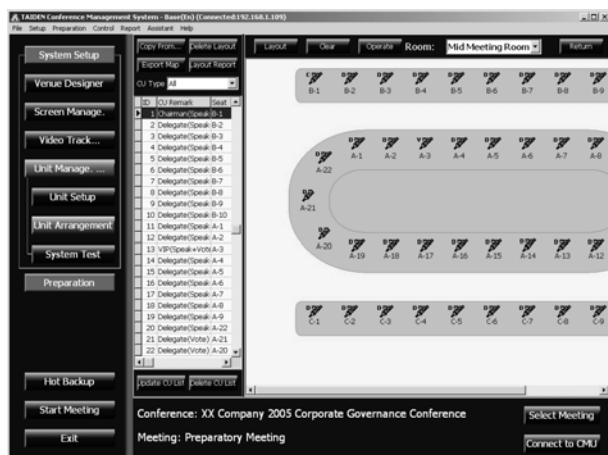
- Powerful "object attribute" function: object attribute can be set and changed, including:
  - ◆ Set group name and object name
  - ◆ Set unique ID and ID display mode for every object, supporting different fonts and sizes
  - ◆ Set starting object status
  - ◆ Set a radian for the object group and design seat layout according to true seating positions
  - ◆ Set start index of the object group
  - ◆ Change the amount of the units in an object group
  - ◆ Set numbering increment
  - ◆ Set initial background color and whether transparent or not
  - ◆ Set start and end coordinates of object group
- Object ID check facilities
- Support object copy, cut, paste and delete operation
- Object arrangement can be changed

### Ordering Information

HCS-4212TS/50.....Professional Venue Design Module



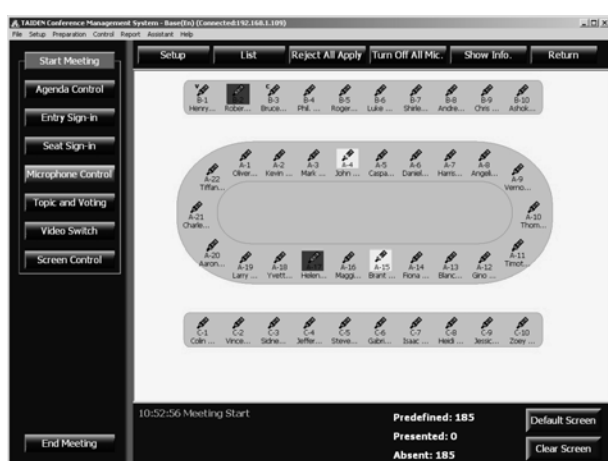
## HCS-4213TS/50 Microphone Management Module



Unit arrangement



Delegate information



Microphone control

### Functions

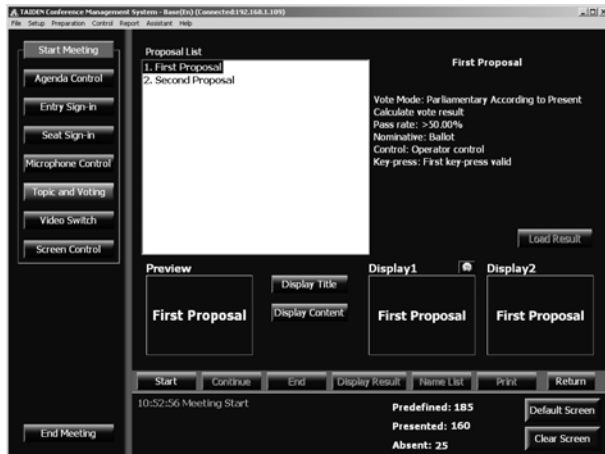
Seat arrangement, delegate management and microphone control sub-modules

- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the conference units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the conference units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function
- **Microphone control**: combined with venue design, seating arrangement, delegate management, conference management and microphone setup, for controlling and monitoring current microphone status, as well as automatic video tracking. Facility includes:
  - ◆ Microphone on/off control
  - ◆ Close all active microphone
  - ◆ Approve/deny delegates' speaking requests
  - ◆ Deny all speaking requests
  - ◆ Delegate speech timing
  - ◆ Record and save speaking
  - ◆ Detailed information available from the delegate database for online display purposes
  - ◆ If cooperating with an automatic video tracking system, camera presets can be made for each discussion unit to transmit speaker's picture simultaneously to a hall display

### Ordering Information

HCS-4213TS/50 .....Microphone Management Module

## HCS-4214TS/50S Voting Management Module



Topic and Voting



Display voting result



Delegate information

### Functions

Voting management, seat arrangement and delegate management sub modules.

#### ■ Voting management:

- ◆ Topics information management
  - Setup, save, add or delete topics file before the meeting
  - Open topics control interface and display topics content to large screen
  - Printout the topics list and information and distribute to delegates as meeting information
  - Multiple voting facilities available, suitable for various conferences, including:
    - ✧ Parliamentary: YES/NO/ABSTAIN
    - ✧ Questionnaire: 1/2/3/4/5
    - ✧ Audience response: --/-/0/+/-++
  - Control modes: chairman control/ operator control/time controlled voting
  - Calculation: predefined or in relation to the participants attending the meeting in person
  - Register mode: nominative/ballot
  - Validity mode: first key press valid/last key press valid
  - Pass rate: between 1% and 100%
- ◆ Display voting result to large screen
- ◆ Clear and vivid voting result display modes (numeric/bar/pie)
- ◆ Print or save voting result
- ◆ Sign-in before the voting to improve the security and validity of voting result

#### ■ Seat arrangement facility includes delegate seating and unit arrangement function modules

- ◆ Delegate seating is used to assign seats for the delegates, e.g.:
  - Assign a single seat for each delegate
  - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
  - Clear a single seat if required for a new assignment
- ◆ Unit arrangement: assign the conference units to the corresponding positions based on the true delegate seating, current cabling and layout:
  - Unit arrangement, assign the conference units to the true delegate seating
  - Delete unit, reassign the units
  - Locate seat position by menu operation
  - Operate the arranged units to check the arrangement

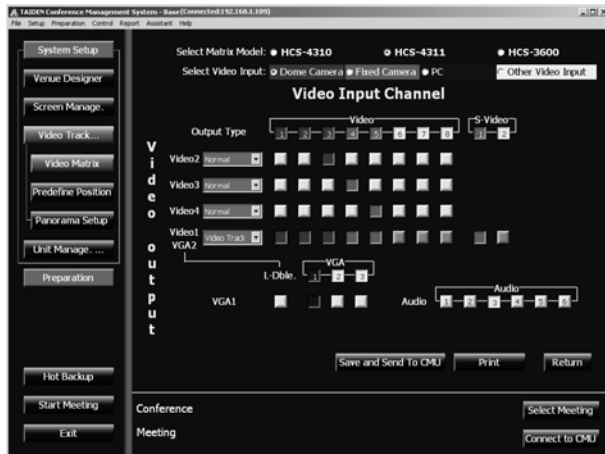
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

---

### Ordering Information

HCS-4214TS/50S.....Voting Management Module  
(No more than 49 units)

## HCS-4215TS/50 Video Control Module



Video matrix



Panorama control

### Functions

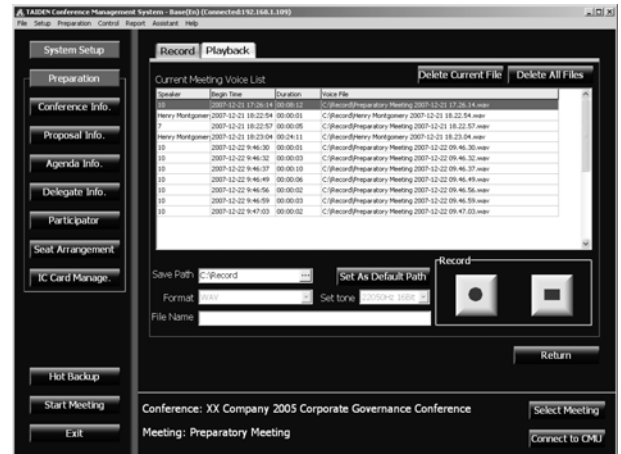
Carries out automatic video tracking when cooperating with camera and video switch unit.

- Setup video matrix: set input/output channels for computer, camera and other video apparatus according to the connections between video equipment and video switch unit. The configuration can be sent to the main unit for synchronization
- Video switch: switch among different input and output video signals according to the video matrix
- Camera preset: cooperating with microphone management module to set and adjust the camera preset for each seat/microphone and to transmit speaker's video picture simultaneously to a hall display
- Panorama control: preset the panorama of the conference venue

### Ordering Information

HCS-4215TS/50 ..... Video Control Module

## HCS-4219TS/50 Synchronous Recording Module



Voice record interface

### Functions

Records speakers' audio information:

- Integrated into **TAIDEN** conference management application software, easy to operate
- Automatic recording:
  - ◆ Begin/end automatic recording according to microphone on/off
  - ◆ Setup record audio quality
  - ◆ Once microphone enabled, speaking delegate's voice is recorded in audio file (WAV or MP3 format)
  - ◆ Saved audio file available for copying, playback, etc.
  - ◆ When using automatic recording function, the number of active microphones is limited to one
- If automatic audio recording is not activated, operator manually starts/stops recording. Record file name display
- Audio playback:
  - ◆ Integrated file management
  - ◆ Search facilities, search audio record file needed to playback quickly (by conference ID, speaker, begin time, continuous time, etc.)
  - ◆ "Playback All": recordings playback one by one
  - ◆ Recorded file playback, fast play, pause/stop etc.
  - ◆ General file format saving: saved file playback by conventional media player
  - ◆ Delete any recorded file or all recorded files

### Ordering Information

HCS-4219TS/50 ..... Synchronous Recording Module

## HCS-4220TS/50 Professional Digital Video & Audio Recorder Module



Preview interface



Setup channel parameters

### Functions

TAIDEN conference synchronous digital video & audio recorder integrates several techniques in the IT domain and realizes powerful video/audio compressing, video/audio recording and playback functions.

- Display of channel states, alarm states, connection status and DVR parameters (brightness, contrast, hue and saturation)
- Includes layout, preview, record, connect DCS, DVR control, capture, playback, setup system parameters, setup channel parameters and DVR channel list functions
  - ♦ **Layout:** setup layout of video preview sub screen – selection of 1, 4, 6, or 8 video preview sub screens
  - ♦ **Preview:** preview video/audio signal of each channel
  - ♦ **Record:** start/stop record for selected channel
  - ♦ **Connect DCS:** connect to DCS server and DCS backup server, ensuring an undisturbed recording process
  - ♦ **DVR control:** control DVR
  - ♦ **Capture:** capture a picture for selected sub screen
  - ♦ **Playback:**
    - Select channel number for playback – select anyone or all
    - Select file content for playback: panorama, video track, simultaneous interpretation and other
    - Select file type for playback: including all files, remote files, local video files and local pictures (local = on PC)
    - Search facility: search a video for playback by meeting ID, speaker name, speaking time, etc.
    - Play Control: fast play, pause/stop, etc.
- ♦ **Setup system parameters:**
  - Set display format (e.g. sampling rate) for audio and video
  - Set DVR parameters
- ♦ **Setup channel parameters:** set video and audio content for each channel, and record automatically according to conference status
  - Video content:
    - ✧ Video track: start record when microphone is turned on and stop record when microphone is turned off
    - ✧ Panorama: start record when conference begins and stop record when conference ends
    - ✧ Other: start/stop record manually by operator
    - ✧ Simultaneous interpretation: connect SI output channel of DCS to input channel of DVR, and select language for recording manually
  - Audio content
  - Stream type: video only or video & audio composite
    - ✧ Video only: record only video signal
    - ✧ Video & audio: record video and audio composite signal

### Ordering Information

HCS-4220TS/50.....Professional Digital Video &  
Audio Recorder Module

## HCS-4221TS/50 Multi-User Console Module



The primary window of multi-user console

### Functions

If more than one operator is involved, a multi-user console is available for controlling speaking and voting, apart the system application software. A maximum of 5 multi-user consoles can be connected at the same time.

Basic conference control module:

- Microphone control
- Sign-in management
- Voting management
- Connect Server
- System parameters setup and download venue files from the server

### Ordering Information

HCS-4221TS/50 .....Multi-User Console Module

## HCS-4222TS/50 Dual PC Server Hot Spare Module



Start to backup interface



Backuping interface

### Functions

HCS-3600 dual PC server hot-spare is a disaster protective structure. If the main operating computer breaks down during a conference, the backup computer immediately substitutes the main computer and continues conference management.

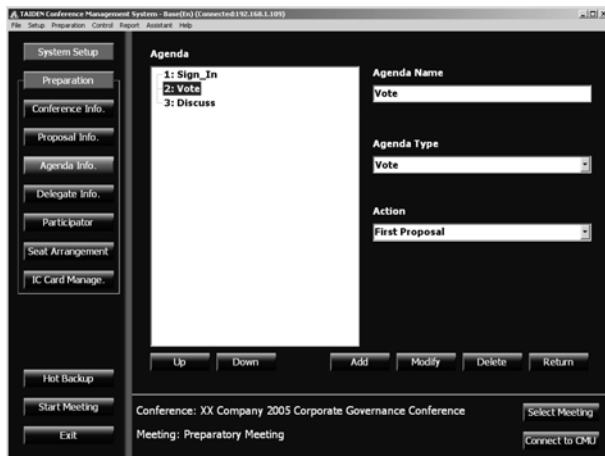
After connection to main operating computer, the backup console application first starts an automatic backup (incl. database and conference related information). If there is any change in the database, the backup console application will update backup automatically.

### Ordering Information

HCS-4222TS/50 .....Dual PC Server Hot Spare Module



## HCS-4223TS/50 Agenda Management Module



Agenda Information



Agenda control

### Functions

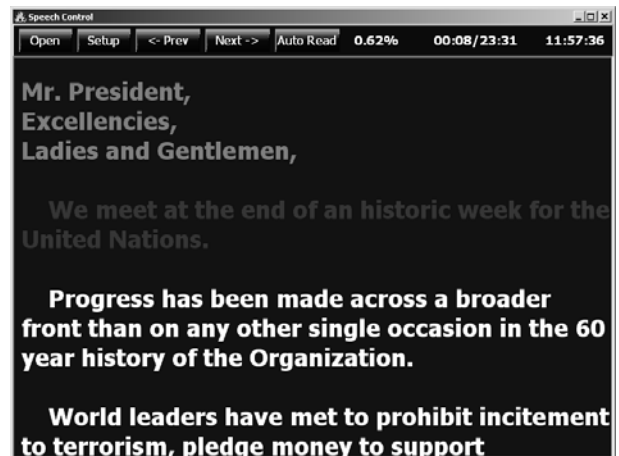
Agenda is a list of meeting activities in the order in which they are to be worked off. The agenda is prepared beforehand. It may include sign-in, voting and discussion. Agenda edit prepares all activities and their sequence to ensure convenience and a well arranged course of events. Agenda Management module consists of agenda information management and agenda control sub modules.

- **Agenda information management:** edit agenda content and sequence
  - ◆ Includes agenda name, agenda type and activity
  - ◆ Sequence of each activity can be adjusted - user can add, modify, delete an activity
- **Agenda control:** control the meeting process according to the pre-defined agenda content and sequence
  - ◆ Select an agenda from the agenda list and execute it
  - ◆ List the status of each agenda
  - ◆ Agenda can be edited, added, modified, or deleted during the meeting

### Ordering Information

HCS-4223TS/50 .....Agenda Management Module

## HCS-4224TS/50 Speech Prompt Module



### Functions

Speech Prompt Module is a displayed line-by-line reproduction of the speech to assist the speaker. The lecture unrolls smoothly and can be controlled manually or automatically.

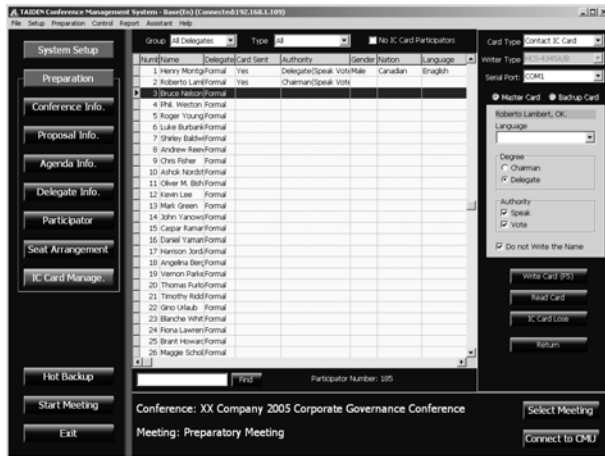
- Manual control: unrolling sentence by sentence, operator can unroll the lecture by "Previous (Sentence)" or "Next (Sentence)"
- Automatic control: automatically unroll the lecture character by character, the scrolling rate can be set

### Ordering Information

HCS-4224TS/50 .....Speech Prompt Module



## HCS-4226TS/50 Touch IC Card Sign-in Management Module



IC card distribution



Delegate information

- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

### Ordering Information

HCS-4226TS/50.....Touch IC Card Sign-in Management Module

### Functions

IC card distribution, IC card loss, IC card take back and delegate management sub modules

- **IC card distribution:**
  - ◆ The IC card contains conference number, participant's number, identity, rights, etc.
  - ◆ Card authentication restricted to one conference facility. New authentication subject to IC card rewriting
  - ◆ Write IC card before IC card distribution:
    - Select participant's language
    - Select participant's degree (chairman or delegate)
    - Set participant's rights (speak/vote)
- **IC card loss:** report card loss. Cards counted for lost cannot carry out conference sign-in
- **IC card take back:** when the conference is over, the cards used during the conference can be taken back, erased and rewritten for next use

## Large-Scale Voting System & Conference Sign-in System

<b>HCS-4368T Series 3-key Large-Scale Voting Units .....</b>	<b>7.2</b>
HCS-4368CT/FM_R/50 Digital Voting System Chairman Unit (flush-mounting, 3 voting keys, 256×32" LCD, waterproof, antistatic 12000 V, cover, red).....	7.2
HCS-4368CT/FM_S/50 Digital Voting System Chairman Unit(flush-mounting, 3 voting keys, 256×32" LCD, waterproof, antistatic 12000 V, cover, silver) .....	7.2
HCS-4368DT/FM_R/50 Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, 256×32" LCD, waterproof, antistatic 12000 V, cover, red).....	7.3
HCS-4368DT/FM_S/50 Digital Voting System Delegate Unit (flush-mounting, 3 voting keys, 256×32" LCD, waterproof, antistatic 12000 V, cover, silver) .....	7.3
<b>HCS-4100MC/50 Digital Congress System Main Unit (discussion, voting, 256×32" LCD) .....</b>	<b>7.4</b>
<b>Application Software for Large-Scale Voting System .....</b>	<b>7.7</b>
HCS-4212/50 Professional Venue Design Module .....	7.7
HCS-4214/50S Voting Management Module (including delegate management, parliamentary voting, multi voting).....	7.8
HCS-4221/50 Multi-user Conference Control Management Module .....	7.10
HCS-4222/50 Dual PC Server Hot Spare Module .....	7.10
HCS-4223/50 Agenda Control Module.....	7.11
HCS-4225/50 Dual System Main Unit Hot Spare Module.....	7.11
<b>Contactless Conference Sign-in System.....</b>	<b>7.12</b>
HCS-4393G Contactless Conference Sign-in Machine.....	7.12
HCS-3924 Contactless IC-card (100 × 65 mm).....	7.13
HCS-3924B Contactless IC-card (104 × 75 mm).....	7.13
<b>Conference Sign-in System with Touched IC-card .....</b>	<b>7.14</b>
HCS-4345A Complex IC-card Writer.....	7.14
HCS-4345B Touched IC-card Writer.....	7.14
HCS-4345C Contactless IC-card Writer.....	7.15
HCS-3922 Touched IC-card.....	7.14
HCS-3923 Complex IC-card.....	7.14
<b>HCS-4217/50 Conference Sign-in Module.....</b>	<b>7.16</b>

## HCS-4368CT/FM/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max. system capacity: 4096 voting units
- 3 voting keys
- Controls voting start, suspend, re-start and stop
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, excels IEC CISPR 24
- Max. system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, multifunction voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
- Launches parliamentary voting (YES/NO/ABSTAIN) session without PC
- Controls voting start, suspend, re-start and stop
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (system administrator can send messages to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting ..... Flush-mounting  
 Dimensions h x w x d (mm) ..... 60 x 197 x 86  
 Color ..... Silver/Red

### Ordering Information

HCS-4368CT/FM\_R/50 ..... Digital Voting System Chairman Unit  
 (flush-mounting, 3 voting keys,  
 256×32" LCD, waterproof, antistatic  
 12000 V, cover, red)

HCS-4368CT/FM\_S/50 ..... Digital Voting System Chairman Unit  
 (flush-mounting, 3 voting keys,  
 256×32" LCD, waterproof, antistatic  
 12000 V, cover, silver)

## HCS-4368DT/FM/50 Voting Unit



### Features

- Flush-mounting, stylish and ergonomic design
- Max. system capacity: 4096 voting units
- 3 voting keys
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Functions

- New digital design, compliant to many international standards
- Voting system is resistive to 12 kV static, excels IEC CISPR 24
- Max. system capacity: 4096 voting units
- 3 voting keys
- In combination with corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
    - Pass-rate setup, voting result calculated automatically
    - Voting result calculated according to predefined or present attendance
- Graphic 256x32 LCD with back-lighting for displaying:
  - ◆ Delegate signed-in and voting results, etc
  - ◆ Messages (system administrator can send messages to all or part of participants)
  - ◆ Multilingual (simplified/traditional Chinese and English, etc) menu
- Key-press sign-in
- Automatic detection
- Waterproof facility, and equipped with ferromagnetic cover to protect the unit from damage during the adjournment

### Interconnections

- 1.5 m cable with 6P-DIN standard plug
- 0.6 m cable with 6P-DIN standard socket

### Technical Specifications

#### Mechanical

Mounting ..... Flush-mounting  
 Dimensions h x w x d (mm) ..... 60 x 197 x 86  
 Color ..... Silver/Red

### Ordering Information

HCS-4368DT/FM\_R/50 ..... Digital Voting System Delegate Unit  
 (flush-mounting, 3 voting keys,  
 256×32" LCD, waterproof, antistatic  
 12000 V, cover, red)

HCS-4368DT/FM\_S/50 ..... Digital Voting System Delegate Unit  
 (flush-mounting, 3 voting keys,  
 256×32" LCD, waterproof, antistatic  
 12000 V, cover, silver)

## HCS-4100MC/50 Congress main unit



### Features

- Connectable to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Supporting 48 kHz and 32 kHz audio sampling rate
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Integrated USB interfaces for system upgrading and saving system parameters. Convenient for system maintenance
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Voting facilities without PC intervention
- Built-in multi-channel intercom facility
- Plug and play for all units
- Excellent immunity to RF interference from mobile phones and comparable devices
- System power controllable by central control system

The Congress Main Unit includes features for controlling delegate microphones, and conducting voting sessions, without an operator. In combination with a PC, the main unit brings greater sophistication to conference control. Users can access an extensive range of software modules, each with a specific function in controlling and monitoring a conference, greatly expanding the capacity to manage a conference. In the event of PC failure, the main unit will revert to its stand-alone operation mode, enabling the conference to proceed.

### Functions

- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- System power controllable by central control system
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate
- Gain and EQ (5 band) of each microphone adjustable separately, fitting the individual orator's voice to achieve perfect speech pickup any time

- Displays audio signal spectrum to determine howling frequency which can be suppressed by adjusting EQ parameters
- 2 audio line in or 1 audio line in + 1 microphone input: gain and EQ for each input adjustable separately, +24 V phantom power available at microphone input, a condenser microphone can be connected directly
- Unit offers connection facilities to HCS-8300 series multi channel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID allocation forever
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding users application spectrum (HCS-8300MI series audio input interface required)
- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/F are required:
  - ◆ 4096 discussion or voting units
  - ◆ Any quantity of channel selectors
- Automatic video tracking implementation when cooperating with cameras, video switcher unit; preset positions on PC
- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ Set-up of speaking time limitation (1~240 minutes)
  - ◆ Speak mode: OPEN/OVERRIDE/VOICE/APPLY/PTT
    - "OPEN" mode, microphone key with request-to-speak registration (AUTO)
    - "OVERRIDE" mode, microphone key control with override of the active microphones (FIFO)
    - "VOICE" mode, acoustic active sensitivity and automatic switch-off time can be adjusted continuously, built-in "flash-on" technology, immediate microphone activation on speaking
    - "APPLY" mode, delegate applies to speak by pressing apply key, delegate can speak only when operator or chairman approved his application
    - "PTT" mode, press microphone key to talk
  - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software modules, more functions can be implemented:
  - ◆ Centralized microphone management
  - ◆ Multifunction voting:
    - For/Against
    - Parliamentary: YES/NO/ABSTAIN
    - Multi choice: 1/2/3/4/5
    - Audience response: --/0/+/>
  - Rating:
    - ◆ satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
    - ◆ (Three keys voting: satisfied/basically satisfied/unsatisfied)
    - ◆ (Two keys voting: satisfied/unsatisfied)
    - ◆ Qualified (four/three/two keys voting)
    - ◆ Competent (four/three/two keys voting)

- ◆ Several sign-in modes: entrance sign-in/seat sign-in
- ◆ Depending on the purchased HCS-4100/50 software modules, user has access to additional conference control & management functions
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control, remote diagnosis and remote update
- Hot spare dual server structure: another congress main unit is set up as backup main unit and connected to the system, takes over automatically if the main congress main unit fails
- Multi-room configuration: congress main unit(s) can be used as extension main unit(s) to carry out multi-room configuration flexibly. Multiple main unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- Fully compatible with TAIDEN HCS-4100/20 Fully Digital Conference System: HCS-4100/20 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-4100/20 system (exclusive functions only available with HCS-4100/50 contribution units).
- Fully compatible with TAIDEN HCS-8300 Digital Congress System: HCS-8300 series conference units can be connected to the HCS-4100/50 system, and HCS-4100/50 series congress units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 contribution units).
- Built-in unit detection facilities: detect the unit's microphone, speaker, LEDs and voting keys prior to start of the meeting
- Automatic recovery facility, supporting "PnP" (plug and play)
- If the PC is broken down, congress main unit enters the stand-alone state automatically, carrying out basic conference control, ensuring the consistency of the conference

### Controls and Indicators

- Graphic 256x32" LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu
- Four buttons for configuration
- Power switch
- Standby switch with indicator
- Operation mode indicators
- LINE IN electric level adjust knob
- Congress unit floor audio channel master volume adjust knob

### Interconnections

- Multiple audio in/out interfaces:
  - ◆ One balanced XLR-type connector for microphone input: or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLR-type connector for audio line out
  - ◆ Two symmetrical RCA output interfaces for audio line out
- 2 x RS-232 port for connection to intelligent central control system and system diagnosis each
- 1 x RJ45 standard socket for connection to Ethernet interface (LAN)

- 1 x RJ45 standard socket (output) for connection with a congress extension main unit (EXTENSION)
- 2 x outlet (6P-DIN) trunk-line cable outlet
- Video switcher interface
- Emergency signal interface: for connection to public emergency system. Pauses the conference automatically if the system is switched on and sends alarm signals to congress units
- 2 x USB interfaces at front panel to upgrade system and to save system parameters

### Technical Specifications

#### Electrical

Frequency response	20 Hz to 20 kHz
SNR	>96 dBA
Dynamic range	>94 dB
Crosstalk	>85 dB
THD	<0.05%
Power supply	AC 110 V/220 V
Power consumption	200 W
DCS system supply	33 VDC, max 60 W per DCS socket
Total supply power	120 W
RS-232 connection	2 x 9-pole Sub-D female socket

#### Max. audio inputs

LINE IN 1	+10 dBu, BAL.
LINE IN 2	+10 dBu, UNBAL.

#### Max. audio outputs

LINE OUT 1	+20 dBu, BAL.
LINE OUT 2	+14 dBu, UNBAL.
GROUP OUT (1...6)	+20 dBu, BAL.

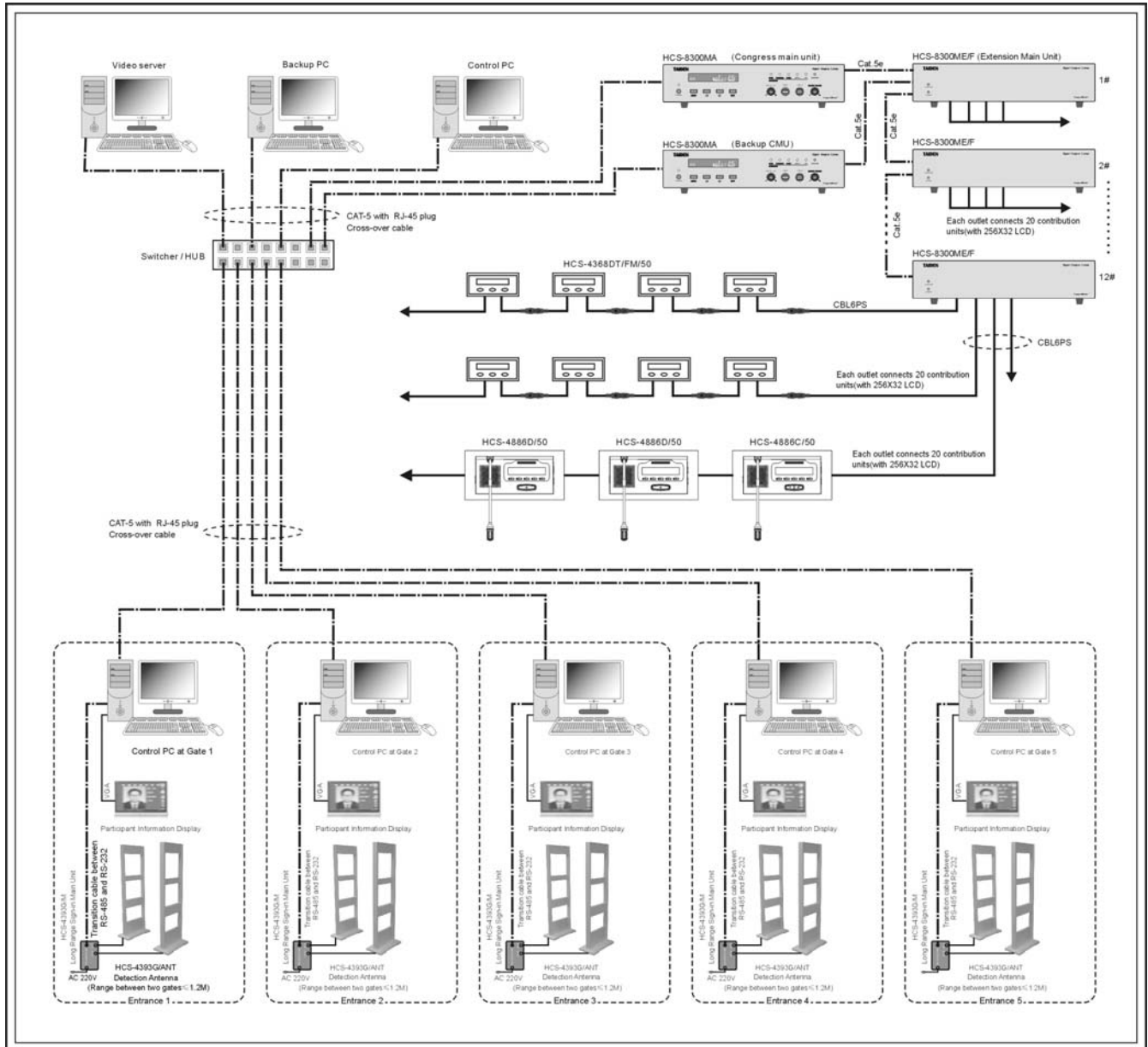
#### Mechanical

Mounting	Tabletop or mounted in a 19" rack
Dimensions (h x w x d)	
For table use, with feet	99 X 430 X 325 mm
For 19" rack use, with brackets	89 X 478 X 350 mm
Weight	7.8 kg
Color	White

### Ordering Information

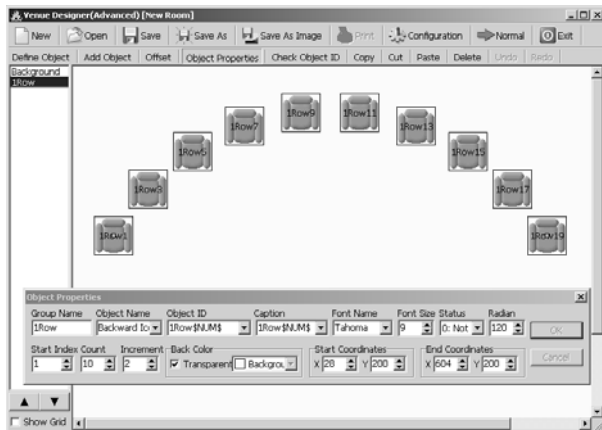
HCS-4100MC/50	Digital Congress System Main Unit (discussion, voting, 256x32" LCD)
---------------	--

## System Connection





## HCS-4212/50 Professional Venue Design Module



Venue design (professional)

### Functions

In distinction from the normal edition of the Venue Design Module, the professional version has additional powerful functions to design manifold layouts of venues. The main difference is the availability of functional buttons for file operation (toolbar buttons) and object operation (buttons below toolbar buttons) in the toolbars. In addition, the functions are also available in the file right-click pop-up menu. Moreover, the *Object Properties* dialog box is floating on the window for fast changing the properties of current object.

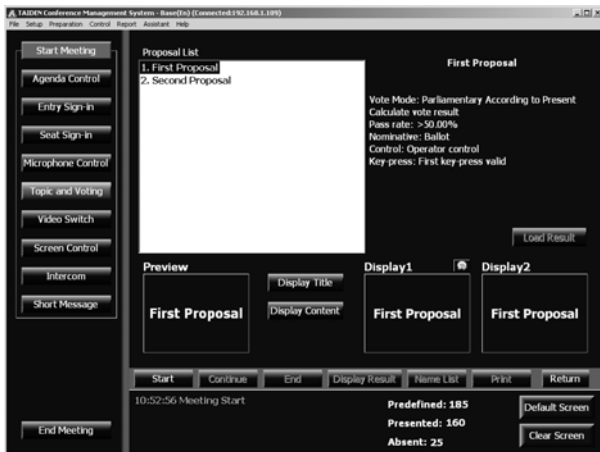
- File operation:
  - ♦ Venue design supports file operation, including: new, open, save as, and print
  - ♦ Create a new conference file: set the background color, room size and other parameters, including:
    - Background
    - Line number
    - Amount per line
    - Seat icon
    - Seat direction
    - Transparent icon or not
    - Show as MIC. icon or not
    - Re-arrange seat position or not
  - ♦ The parameters above can be changed at any time through "Configuration" menu on the toolbar
  - ♦ Add seat/microphone icons line by line, 8 seats/mics per line as default value. The amount of seats/microphones per line can be modified. While the normal edition can add only one seat at one go, the professional venue design module can add groups with more than one seat/microphone per group.
  - ♦ Shifting facility for complete layout
- Define object:
  - ♦ Picture library with default (customized and/or recurrent) objects
  - ♦ Modifiable object information, e.g. object name, image path, distinguishable colors for displaying object images in different states (e.g. signed-in etc.)

- Powerful "object attribute" function: object attribute can be set and changed, including:
  - ♦ Set group name and object name
  - ♦ Set unique ID and ID display mode for every object, supporting different fonts and sizes
  - ♦ Set starting object status
  - ♦ Set a radian for the object group and design seat layout according to true seating positions
  - ♦ Set start index of the object group
  - ♦ Change the amount of the units in an object group
  - ♦ Set numbering increment
  - ♦ Set initial background color and whether transparent or not
  - ♦ Set start and end coordinates of object group
- Object ID check facilities
- Support object copy, cut, paste and delete operation
- Object arrangement can be changed

### Ordering Information

HCS-4212/50.....Professional Venue Design Module

## HCS-4214/50S Voting Management Module



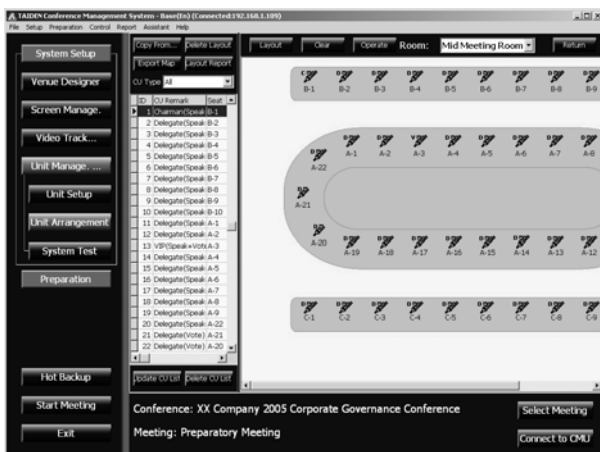
Topics and Voting



Delegate information



Display voting result



Unit arrangement

### Functions

Voting management, seat arrangement and delegate management sub modules.

#### ■ Voting management:

- ◆ Topics information management
  - Setup, save, add or delete topics file before the meeting
  - Open topics control interface and display topics content to large screen
  - Printout the topics list and information and distribute to delegates as meeting information
  - Multiple voting facilities available, suitable for various conferences, including:
    - ◇ For/Against
    - ◇ Parliamentary: YES/NO/ABSTAIN
    - ◇ Multi choice: 1/2/3/4/5
    - ◇ Audience response: --/0/+/-++
    - ◇ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
    - ◇ Rating:
      - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
      - Qualified (four/three/two keys voting)
      - Competent (four/three/two keys voting)

perfectly satisfied/satisfied/basically satisfied/unsatisfied

(Three keys voting:

satisfied/basically satisfied/unsatisfied)

(Two keys voting: satisfied/unsatisfied)

➢ Qualified (four/three/two keys voting)

➢ Competent (four/three/two keys voting)

■ Control modes: chairman control/ operator control/time controlled voting

■ Calculation: predefined or in relation to the participants attending the meeting in person

■ Register mode: nominative/ballot

■ Validity mode: first key press valid/last key press valid

■ Pass rate: between 1% and 100%

◆ Display voting result to large screen

◆ Clear and vivid voting result display modes (numeric/bar/pie)

◆ Print or save voting result

◆ Sign-in before the voting to improve the security and validity of voting result

- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the conference units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the conference units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

---

## Ordering Information

HCS-4214/50S.....Voting Management Module

## HCS-4221/50 Multi-User Console Module



The primary window of multi-user console

### Functions

If more than one operator is involved, a multi-user console is available for controlling speaking and voting, apart the system application software. A maximum of 5 multi-user consoles can be connected at the same time.

Basic conference control module:

- Microphone control
- Sign-in management
- Voting management
- Connect Server
- System parameters setup and download venue files from the server

### Ordering Information

HCS-4221/50.....Multi-User Console Module

## HCS-4222/50 Dual PC Server Hot Spare Module



Start to backup interface



Backuper interface

### Functions

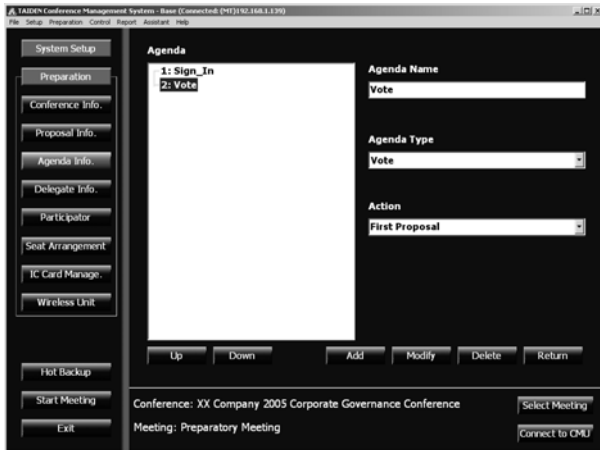
HCS-4100/50 dual PC server hot-spares is a disaster protective structure. If the main operating computer breaks down during a conference, the backup computer immediately substitutes the main computer and continues conference management.

After connection to main operating computer, the backup console application first starts an automatic backup (incl. database and conference related information). If there is any change in the database, the backup console application will update backup automatically.

### Ordering Information

HCS-4222/50.....Dual PC Server Hot Spare Module

## HCS-4223/50 Agenda Management Module



Agenda Information



Agenda control

### Functions

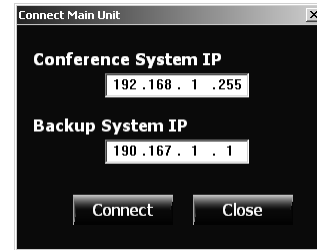
Agenda is a list of meeting activities in the order in which they are to be worked off. The agenda is prepared beforehand. It may include sign-in, voting and discussion. Agenda edit prepares all activities and their sequence to ensure convenience and a well arranged course of events. Agenda Management module consists of agenda information management and agenda control sub modules.

- **Agenda information management:** edit agenda content and sequence
  - ◆ Includes agenda name, agenda type and activity
  - ◆ Sequence of each activity can be adjusted - user can add, modify, delete an activity
- **Agenda control:** control the meeting process according to the pre-defined agenda content and sequence
  - ◆ Select an agenda from the agenda list and execute it
  - ◆ List the status of each agenda
  - ◆ Agenda can be edited, added, modified, or deleted during the meeting

### Ordering Information

HCS-4223/50.....Agenda Management Module

## HCS-4225/50 Dual Conference Main Unit Hot Spare Module



Connect to CMU

### Functions

HCS-4100 dual main unit hot spare is a disaster protective structure. Besides the main unit, user can set another CMU as backup CMU and connect it to the system. If the main unit breaks down during the conference, the backup main unit substitutes the main unit and system software will connect to backup CMU automatically, ensuring consistency of the conference.

### Ordering Information

HCS-4225/50.....Dual Conference Main Unit Hot Spare Module

## HCS-4393G Conference Sign-in Machine



### Features

- Contactless IC-card sign-in machine
- Compatible with the sign-in software module HCS-4217/50
- Sensitive range:  $\geq 1.2$  m
- Response rate:  $< 0.1$  s

The long-distance conference sign-in machine is based on the world's currently most advanced high sensitivity contactless IC-card technology, featuring a long detection distance over 1.2 meters as its main benefit. The participant only needs to carry the card with him/her. Sign-in occurs automatically when passing the registration gate in turn, no need to present the card for status identification. Significantly improved sign-in speed (about 1000 persons per 15 minutes possible). When the participant passes through the gate, related information is displayed immediately on the monitor, including name, picture, as well as respective team, seat information etc. Sign-in cooperating with TAIDEN high speed large-scale voting system can provide a high-speed large-scale conference voting system solution.

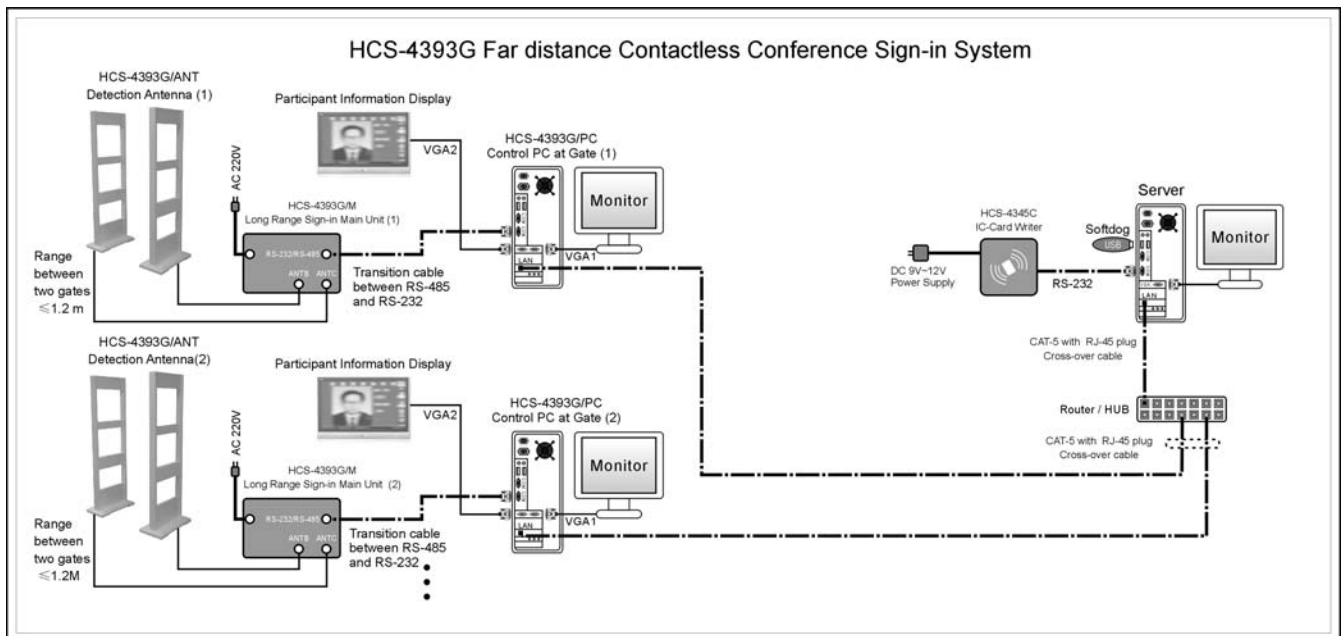
### System Composition

- HCS-4393G/ANT Detection antenna/gate
- HCS-4393G/M Communication host

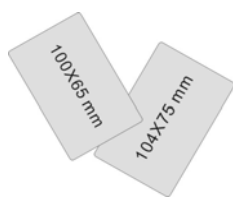
### Ordering Information

HCS-4393G.....Contactless Conference Sign-in Machine

### System Connection



## HCS-3924 Contactless IC-card



---

### Features

- Long distance contactless IC-card

---

### Ordering Information

HCS-3924 ..... Contactless IC-card (100 × 65 mm)

HCS-3924B ..... Contactless IC-card (104 × 75 mm)



## HCS-4345A Complex IC-card Writer



### Features

- Write device for complex IC-card, integrating the touched and contactless IC-card
- PC connection via serial port (COM), baudrate: 9600 bps
- Smart design
- Compatible with voting system

### Technical Specifications

#### Interconnections

- RS-232 port for connection to computer
- Power supply socket

#### Mechanical

Mounting.....Tabletop  
 Dimensions h x w x d (mm).....100 x 150 x 118  
 Color.....White  
 Weight.....0.6 kg

### Ordering Information

HCS-4345A.....Complex IC-card Writer

## HCS-4345B Touched IC-card Writer



### Features

- Write device for the touched IC-card
- PC connection via serial port (COM), baudrate: 9600 bps
- Smart design
- Compatible with voting system

### Technical Specifications

#### Interconnections

- RS-232 port for connection to computer
- Power supply socket

#### Mechanical

Mounting.....Tabletop  
 Dimensions h x w x d (mm).....100 x 150 x 118  
 Color.....White  
 Weight.....0.6 kg

### Ordering Information

HCS-4345B.....Touched IC-card Writer

## HCS-3923 Complex IC-card



### Features

- Complex IC-card

### Ordering Information

HCS-3923.....Complex IC-card

## HCS-3922 Touched IC-card



### Features

- Touched IC-card

### Ordering Information

HCS-3922.....Touched IC-card

## HCS-4345C Contactless IC-card Writer



### Technical Specifications

#### Interconnections

- RS-232 port for connection to computer
- Power supply socket

#### Mechanical

Mounting.....Tabletop  
 Dimensions h x w x d (mm).....36 x 125 x 100  
 Color.....Blue  
 Weight.....0.15 kg

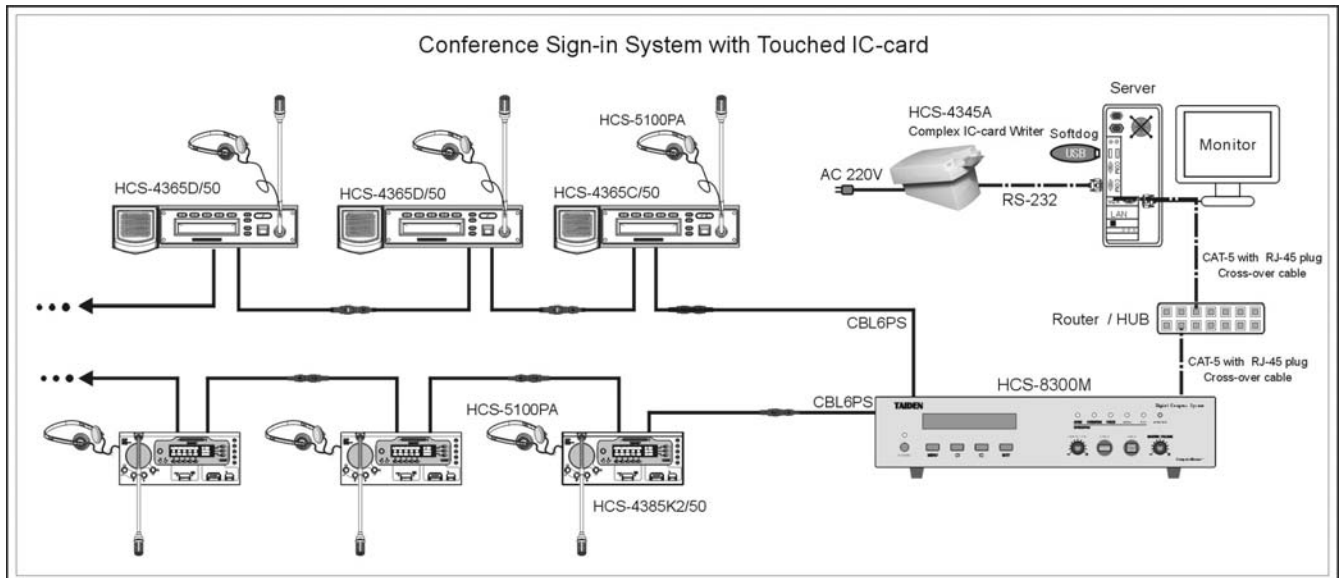
### Features

- Write device for the long distance contactless IC-card
- PC connection via serial port (COM), baudrate: 9600 bps
- Smart design
- Compatible with voting system

### Ordering Information

HCS-4345C.....Contactless IC-card Writer

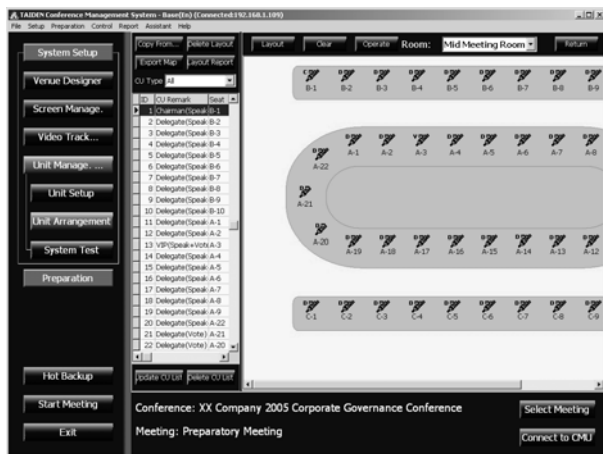
## System Connection



## HCS-4217/50 Conference Sign-in Management Module



Entrance sign-in system interface



Unit arrangement



Delegate information

### Functions

Conference sign-in, seat arrangement and delegate management sub-modules

- **Conference sign-in** module consists of complex IC-card and contactless IC-card distribution and sign-in, IC card loss, IC card take back and sign-in server management. More facilities can be achieved in cooperation with the contactless IC-card sign-in server.
  - ♦ IC card distribution:
    - The IC card contains conference number, participant's number, identity, rights, etc.
    - Card authentication restricted to one conference facility. New authentication subject to IC card rewriting
    - Sign-in with backup card if master card is lost
  - ♦ IC card loss: report card loss. Cards counted for lost cannot carry out conference sign-in
  - ♦ IC card take back: when the conference is over, the cards used during the conference can be taken back, erased and rewritten for next use
  - ♦ Contactless IC-card sign-in:
    - Entrance access control - delegate control right at conference start
    - Delegate sign-in speed-up and simplification
    - Client/Server structure of IC-card sign-in machine and sign-in server, for system safety and reliability
  - ♦ *Conference sign-in management*: based on the venue design and delegate arrangement. Operator monitors a) venue setup, b) presence of participants and delegates, c) controls start/stop of sign-in by simply controlling open / close of sign-in server
  - ♦ Supports manual sign-in if participator's normal sign-in fails
  - ♦ Supports delegate absence management: absence is reported if delegate cannot attend the meeting
  - ♦ Supports displaying sign-in result to large screen, and supports multi display mode:
    - Seat map: indicate current sign-in status
    - Full screen digital display
  - ♦ *Sign-in report*: create conference sign-in report based on the actual situation, and printout if needed. An amount of statistical data can be created simultaneously

- **Seat arrangement** facility includes delegate seating and unit arrangement function modules
  - ◆ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
  - ◆ Unit arrangement: assign the conference units to the corresponding positions based on the true delegate seating, current cabling and layout:
    - Unit arrangement, assign the conference units to the true delegate seating
    - Delete unit, reassign the units
    - Locate seat position by menu operation
    - Operate the arranged units to check the arrangement
- **Delegate management** includes two sub-modules: delegate information and participants
  - ◆ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ◆ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

---

## Ordering Information

HCS-4217/50.....Conference Sign-in Module

## Wireless Voting System

<b>HCS-4390N/03 Series Wireless Voting Units</b>		<b>8.2</b>
HCS-4390N/03	Wireless Voting Unit (3 voting keys)	8.2
HCS-4390NK/03	Wireless Voting Unit (3 voting keys, IC-Card)	8.3
<b>HCS-4390N/10 Series Wireless Voting Units</b>		<b>8.4</b>
HCS-4390N/10	Wireless Voting Unit (10 voting keys)	8.4
HCS-4390NK/10	Wireless Voting Unit (10 voting keys, IC-Card)	8.5
<b>HCS-4391N Wireless Transceiver</b>		<b>8.6</b>
<b>Application Software for Wireless Voting System</b>		<b>8.8</b>
HCS-4214/50S	Voting Management Module (including delegate management, parliamentary voting, multi voting)	8.8
HCS-4221/50	Multi-user Conference Control Management Module	8.9
HCS-4222/50	Dual PC Server Hot Spare Module	8.10
HCS-4223/50	Agenda Control Module	8.10

## HCS-4390N/03 Wireless Voting Unit



### Technical Specifications

#### Mechanical

Dimensions (h x w x d).....29 × 183 × 51 mm

Weight.....0.2 kg

Color.....Gray

### Ordering Information

HCS-4390N/03.....Wireless Voting Unit (3 voting keys)

### Features

- Portable, stylish and ergonomic design
- Wireless digital communication, adopting multilevel error correction and encrypted coding for high confidentiality and low error rate
- Voting unit will upload data on its time slot, this communication type is faster than roll polling. It takes about 1 second for 100 voting units uploading data
- When powered on, voting unit will search cell broadcast and join in the eligible cell automatically
- RF transceiving range: 100 m (frequency optional)
- Screen backlight can be turned on/off by software
- Max. system capacity: 3000 wireless voting units
- 3 voting keys
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1~N
  - ◆ Audience response: 0/25/50/75/100
  - ◆ Score: 0~100
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Multiple proposal (maximum 10) voting function
- Large LCD for displaying voting and sign-in information, easy to use
- Screen backlight can be turned on/off by software
- Key-press sign-in
- Battery type (Dry battery / Ni-MH rechargeable battery) can be configured by operator through software
- Two alkaline batteries (AA battery) for continuous using not less than 120 hours

## HCS-4390NK/03 Wireless Voting Unit with IC-Card Reader



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) .....29 × 183 × 51 mm  
Weight .....0.2 kg  
Color .....Gray

### Ordering Information

HCS-4390NK/03.....Wireless Voting Unit (3 voting keys, IC-Card)

### Features

- Portable, stylish and ergonomic design
- Wireless digital communication, adopting multilevel error correction and encrypted coding for high confidentiality and low error rate
- Voting unit will upload data on its time slot, this communication type is faster than roll polling. It takes about 1 second for 100 voting units uploading data
- When powered on, voting unit will search cell broadcast and join in the eligible cell automatically
- RF transceiving range: 100 m (frequency optional)
- Screen backlight can be turned on/off by software
- Max. system capacity: 3000 wireless voting units
- 3 voting keys
- Built-in IC-card reader
- Multifunction voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1~N
  - ◆ Audience response: 0/25/50/75/100
  - ◆ Score: 0~100
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting:  
perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting:  
satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Multiple proposal (maximum 10) voting function
- Large LCD for displaying voting and sign-in information, easy to use
- Screen backlight can be turned on/off by software
- Key-press sign-in
- Battery type (Dry battery / Ni-MH rechargeable battery) can be configured by operator through software
- Two alkaline batteries (AA battery) for continuous using not less than 120 hours



## HCS-4390N/10 Wireless Voting Unit



### Technical Specifications

#### Mechanical

Dimensions (h x w x d).....29 × 183 × 51 mm

Weight.....0.2 kg

Color.....Gray

### Ordering Information

HCS-4390N/10.....Wireless Voting Unit (10 voting keys)

### Features

- Portable, stylish and ergonomic design
- Wireless digital communication, adopting multilevel error correction and encrypted coding for high confidentiality and low error rate
- Voting unit will upload data on its time slot, this communication type is faster than roll polling. It takes about 1 second for 100 voting units uploading data
- When powered on, voting unit will search cell broadcast and join in the eligible cell automatically
- RF transceiving range: 100 m (frequency optional)
- Screen backlight can be turned on/off by software
- Max. system capacity: 3000 wireless voting units
- 10 voting keys (0~9), “←” (confirm) key, “C” (cancel) key
- Multifunction voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1~N
  - ◆ Audience response: 0/25/50/75/100
  - ◆ Score: 0~100
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting: satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Multiple proposal (maximum 10) voting function
- Large LCD for displaying voting and sign-in information, easy to use
- Screen backlight can be turned on/off by software
- Key-press sign-in
- Battery type (Dry battery / Ni-MH rechargeable battery) can be configured by operator through software
- Two alkaline batteries (AA battery) for continuous using not less than 120 hours

## HCS-4390NK/10 Wireless Voting Unit with IC-Card Reader



### Technical Specifications

#### Mechanical

Dimensions (h x w x d) .....29 × 183 × 51 mm

Weight .....0.2 kg

Color .....Gray

### Ordering Information

HCS-4390NK/10.....Wireless Voting Unit (10 voting keys, IC-Card)

### Features

- Portable, stylish and ergonomic design
- Wireless digital communication, adopting multilevel error correction and encrypted coding for high confidentiality and low error rate
- Voting unit will upload data on its time slot, this communication type is faster than roll polling. It takes about 1 second for 100 voting units uploading data
- When powered on, voting unit will search cell broadcast and join in the eligible cell automatically
- RF transceiving range: 100 m (frequency optional)
- Screen backlight can be turned on/off by software
- Max. system capacity: 3000 wireless voting units
- 10 voting keys (0~9), “←” (confirm) key, “C” (cancel) key
- Built-in IC-card reader
- Multifunction voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1~N
  - ◆ Audience response: 0/25/50/75/100
  - ◆ Score: 0~100
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting:  
perfectly satisfied/satisfied/basically satisfied/unsatisfied)  
(Three keys voting:  
satisfied/basically satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)
    - Qualified (four/three/two keys voting)
    - Competent (four/three/two keys voting)
- Multiple proposal (maximum 10) voting function
- Large LCD for displaying voting and sign-in information, easy to use
- Screen backlight can be turned on/off by software
- Key-press sign-in
- Battery type (Dry battery / Ni-MH rechargeable battery) can be configured by operator through software
- Two alkaline batteries (AA battery) for continuous using not less than 120 hours

## HCS-4391N Wireless Transceiver



### Features

- TCP/IP communication protocol in PC control
- Wireless two-way transmitting and receiving facility
- RF transceiving range: 100 m (frequency optional)
- Maximum system capacity: 6 Wireless Voting System Main Unit and 3000 wireless voting units

The Wireless Transceiver features wireless voting by connecting voting units wirelessly. 3000 wireless voting units can be connected when using 6 Wireless Transceivers.

Effective transceiver range: 100 m.

### Functions

- Full digital design, compliant to IEC 60914
- Maximum capacity of each Wireless Transceiver: 500 wireless voting units
- Maximum system capacity: 6 Wireless Transceivers and 3000 wireless voting units
- Wireless two-way transmitting and receiving facility
- RF transceiving range: 100 m (frequency optional)
- Voting system resistivity to static: 8 kV, conforms to IEC CISPR 24
- Multiform voting in combination with the corresponding software modules:
  - ◆ For/Against
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Multi choice: 1~N
  - ◆ Audience response: 0/25/50/75/100
  - ◆ Score: 0~100
  - ◆ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
  - ◆ Rating:
    - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
    - (Three keys voting: satisfied/basically satisfied/unsatisfied)
    - (Two keys voting: satisfied/unsatisfied)
  - Qualified (four/three/two keys voting)
  - Competent (four/three/two keys voting)
- Multiple proposal (maximum 10) voting function

- Adopting TCP/IP network protocol to communicate with PC, voting system can implement remote control, remote diagnosis and remote update
- Built-in dual-port network switch and multiple Wireless Transceivers can be concatenated

### Controls and Indicators

- Graphic LCD with back-lighting, displaying system configuration menu of Wireless Transceiver
- Four buttons for configuration
- Four wireless reception indicators (red)
- Four communication indicators (red)
- Four power switches with indicators (green)

### Interconnections

- Two RS-232 ports for connection to intelligent Central Control System and system diagnosis each
- Two RJ45 ports for connection to PC or the next Wireless Transceiver
- Power supply adapter interface

### Technical Specifications

#### Electrical

Power supply.....DC 9 V ~ 24 V  
 Max. power consumption.....4 W  
 Wireless radiated power.....9 dBm±1.5 dBm  
 Wireless reception sensitivity.....-99 dBm±2 dBm  
 RS-232 connection.....2 x nine-pole Sub-D female socket

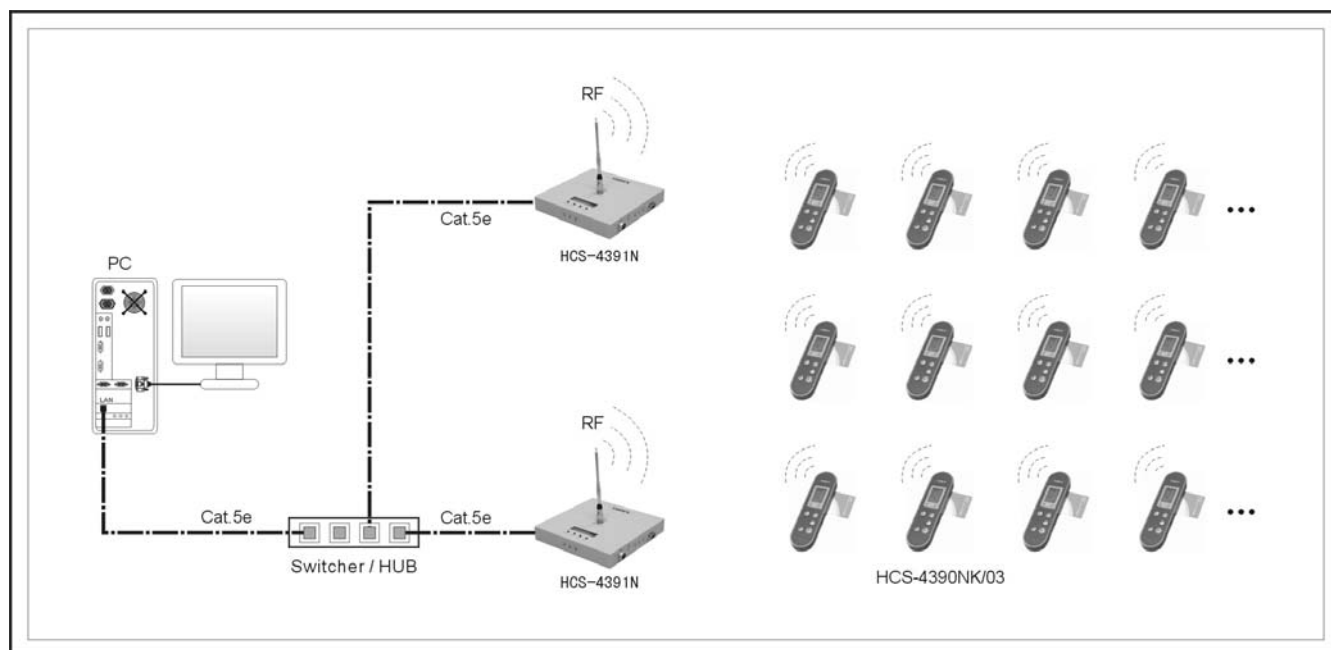
#### Mechanical

Dimensions (h x w x d).....33 × 200 × 200 mm  
 Adjustable length of antenna.....150 ~ 450 mm  
 Weight.....1.1 kg  
 Color.....White

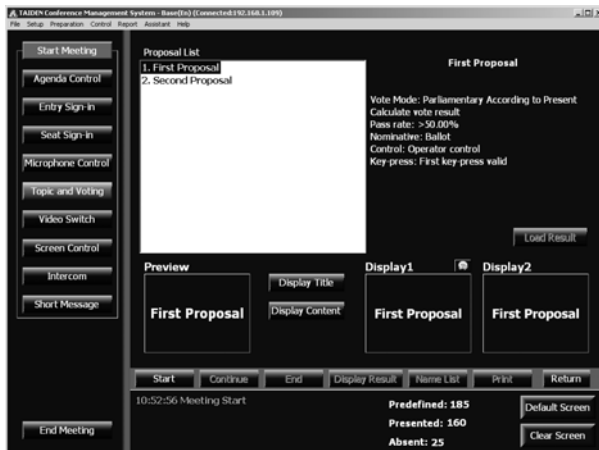
### Ordering Information

HCS-4391N.....Wireless Transceiver

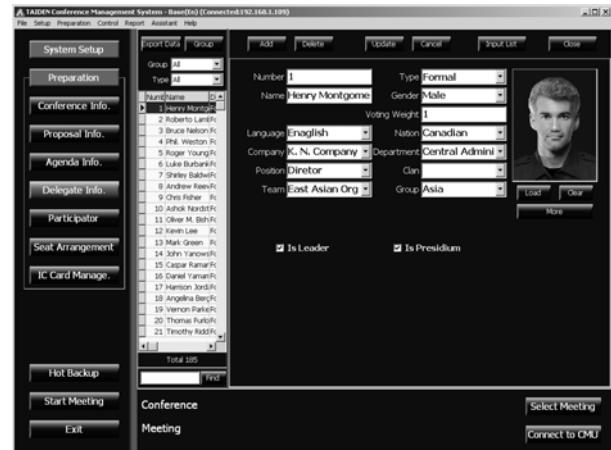
## System Connection



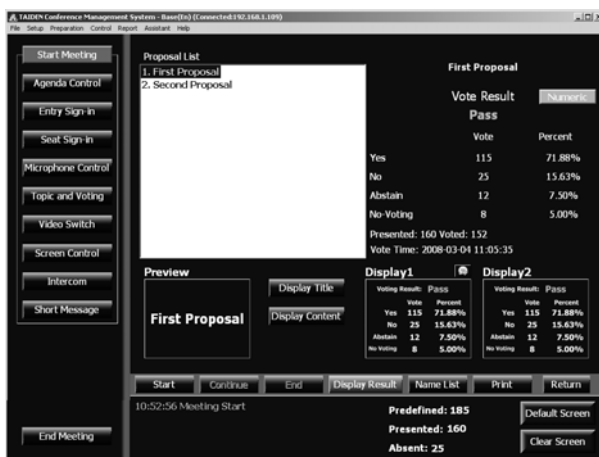
## HCS-4214/50S Voting Management Module



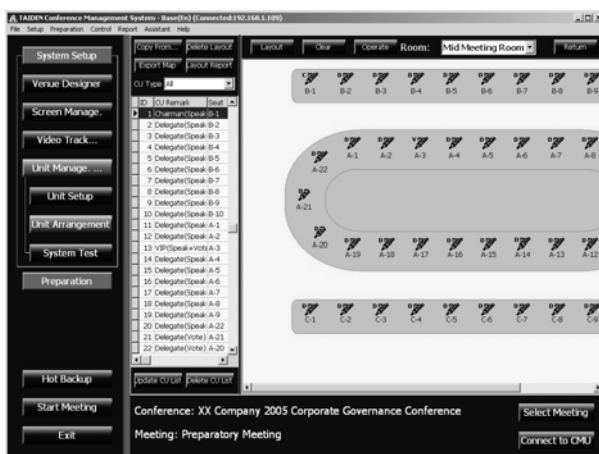
Topics and Voting



Delegate information



Display voting result



Unit arrangement

### Functions

Voting management, seat arrangement and delegate management sub modules.

#### ■ Voting management:

- ◆ Topics information management
  - Setup, save, add or delete topics file before the meeting
  - Open topics control interface and display topics content to large screen
  - Printout the topics list and information and distribute to delegates as meeting information
  - Multiple voting facilities available, suitable for various conferences, including:
    - ✧ For/Against
    - ✧ Parliamentary: YES/NO/ABSTAIN
    - ✧ Multi choice: 1/2/3/4/5
    - ✧ Audience response: --/0/+/>++
    - ✧ Parliamentary (NPPV): YES/NO/ABSTAIN/NPPV
    - ✧ Rating:
      - satisfied (Four keys voting: perfectly satisfied/satisfied/basically satisfied/unsatisfied)
      - (Three keys voting: satisfied/basically satisfied/unsatisfied)
      - (Two keys voting: satisfied/unsatisfied)
      - Qualified (four/three/two keys voting)
      - Competent (four/three/two keys voting)

- Calculation: predefined or in relation to the participants attending the meeting in person
- Register mode: nominative/ballot
- Validity mode: first key press valid/last key press valid
- Pass rate: between 1% and 100%

- ◆ Display voting result to large screen
- ◆ Clear and vivid voting result display modes (numeric/bar/pie)
- ◆ Print or save voting result
- ◆ Sign-in before the voting to improve the security and validity of voting result

- **Seat arrangement** facility includes delegate seating module
  - ♦ Delegate seating is used to assign seats for the delegates, e.g.:
    - Assign a single seat for each delegate
    - Section seating, automatic seat assignment for a group of delegates, supports new assignment – in parts or entirely
    - Clear a single seat if required for a new assignment
- **Delegate management** includes two sub-modules: delegate information and participants
  - ♦ Delegate information: create and manage the delegate's database
    - Edit delegate information: number, type, name, voting weight, leader (yes or no), presidium (yes or no) etc. Supports individual picture in the database
    - Customer-specific options for above items
    - Supports customized delegate grouping
    - Fast search facility
    - Database updatable
  - ♦ Participants: select the delegates to participate in the conference from the database
    - List delegate information by group or by delegate type
    - Group adding function

---

### Ordering Information

HCS-4214/50S.....Voting Management Module

## HCS-4221/50 Multi-User Console Module



The primary window of multi-user console

---

### Functions

If more than one operator is involved, a multi-user console is available for controlling speaking and voting, apart the system application software. A maximum of 5 multi-user consoles can be connected at the same time.

Basic conference control module:

- Microphone control
- Sign-in management
- Voting management
- Connect Server
- System parameters setup and download venue files from the server

---

### Ordering Information

HCS-4221/50.....Multi-User Console Module

## HCS-4222/50 Dual PC Server Hot Spare Module



Start to backup interface



Backuper interface

### Functions

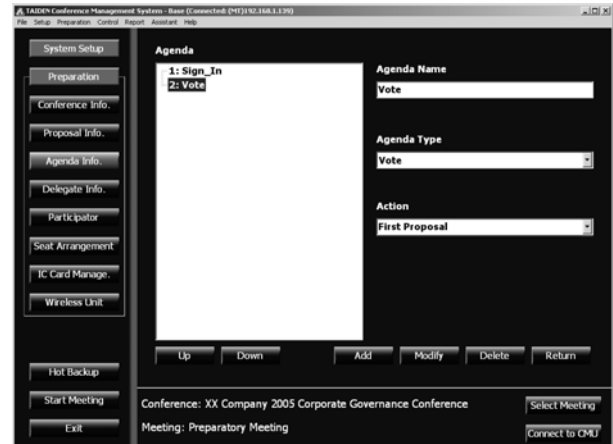
HCS-4100/50 dual PC server hot-spare is a disaster protective structure. If the main operating computer breaks down during a conference, the backup computer immediately substitutes the main computer and continues conference management.

After connection to main operating computer, the backup console application first starts an automatic backup (incl. database and conference related information). If there is any change in the database, the backup console application will update backup automatically.

### Ordering Information

HCS-4222/50.....Dual PC Server Hot Spare Module

## HCS-4223/50 Agenda Management Module



Agenda Information



Agenda control

### Functions

Agenda is a list of meeting activities in the order in which they are to be worked off. The agenda is prepared beforehand. It may include sign-in and voting. Agenda edit prepares all activities and their sequence to ensure convenience and a well arranged course of events. Agenda Management module consists of agenda information management and agenda control sub modules.

- **Agenda information management:** edit agenda content and sequence
  - ◆ Includes agenda name, agenda type and activity
  - ◆ Sequence of each activity can be adjusted - user can add, modify, delete an activity
- **Agenda control:** control the meeting process according to the pre-defined agenda content and sequence
  - ◆ Select an agenda from the agenda list and execute it
  - ◆ List the status of each agenda
  - ◆ Agenda can be edited, added, modified, or deleted during the meeting

### Ordering Information

HCS-4223/50.....Agenda Management Module



## Video Series

<b>Video Tracking System .....</b>	<b>9.2</b>
HCS-4311M Professional Mixed Matrix for Conference .....	9.2
TMX-0804HTK 8×4 High Definition Video Tracking Matrix Switcher .....	9.5
TMX-0808SDI 8×8 High Definition Digital Video Tracking Matrix Switcher (SD/HD/3G) .....	9.7
HCS-3313C High Quality Speed Dome Camera (ceiling) .....	9.9
HCS-3311A Speed Dome Camera Control Keypad .....	9.9
HCS-4215/50 Video Control Module (used with HCS-4100/50 series) .....	9.10
HCS-4215TS/50 Video Control Module (used with HCS-3600 series) .....	9.10
<b>HCS-4130M Series Professional Audio &amp; Video Recorders for Conference .....</b>	<b>9.11</b>
HCS-4130M/02 Professional Audio & Video Recorder for Conference (2 CHs, 4CIF, 300 GB hard disk) .....	9.11
HCS-4130M/04 Professional Audio & Video Recorder for Conference (4 CHs, 4CIF, 300 GB hard disk) .....	9.13
HCS-4130M/08 Professional Audio & Video Recorder for Conference (8 CHs, 4CIF, 300 GB hard disk) .....	9.15
<b>Professional Video Recording Module for Conference .....</b>	<b>9.18</b>
HCS-4220/50 Synchronous Video Recording Management Module (used with HCS-4100/50 series) .....	9.18
HCS-4220TS/50 Synchronous Video Recording Management Module (used with HCS-3600 series) .....	9.18

## HCS-4311M

### Professional Mixed Matrix for Conference



#### Features

- **Unique frozen image function:** any useless pictures will not be displayed (e.g. pictures caught by the camera's quick movement), thereby perfect automatic camera tracking can be realized
- **OSD functions:** delegate's name and other information can be displayed at the prearranged place
- **Built-in double liner:** converts normal video signal into high resolution VGA output signal, supporting 800x600 to 1280x1024 video resolutions with adjustable refresh rate. Luminance, contrast and chroma can also be adjusted
- **Adjustable brightness, contrast ratio and saturation**
- **Fully loaded bandwidth: 250 MHz (-3dB)**
- **Scene save and recall function**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **2U high, full rack width**

HCS-4311M is a professional mixed matrix specifically designed for conference application. It consists of one 8X4 video matrix, one 4X1 VGA matrix and one 6X1 stereo audio matrix. Its video signal double lines enables composite video and S-video signals to be converted into VGA signal. It also features frozen image and OSD functions, making perfect automatic video tracking available.

HCS-4311M supports RS-422 and RS-485 interfaces, configured with built-in professional camera control protocols to control TAIDEN HCS-3313C and other professional cameras, such as SONY, PELCO, as well as Panasonic cameras.

It can also be connected to TAIDEN conference system or TAIDEN Central Control System via a TAINET interface. Equipped with a RS-232 interface, HCS-4311M can also be controlled by computers, Central Control System from other brands or other control devices.

#### Controls and Indicators

- Graphic 256×32 LCD with back-lighting to display status and configuration menu
- Four buttons for configuration
- Power switch with indicator
- S-Video input channel selectors with indicators (2 inputs)
- VGA video input channel selectors with indicators (3 inputs)
- Composite video and audio input channel selectors with indicators (8 inputs)
- VGA video output channel selectors with indicators (2 outputs)
- Video signal output channel selectors with indicators (4 outputs)
- Audio signal output channel selector with indicator

#### Interconnections

- **Signal Inputs:**
  - ◆ 8 channels of composite video input via BNC connectors
  - ◆ 2 channels of S-video input via 4-PIN mini-DIN connectors
  - ◆ 3 channels of VGA input via female 15-pin HDF
  - ◆ 6 channels of stereo audio input via RCA interfaces
- **Signal outputs:**
  - ◆ 4 channels of composite video output via BNC connector
  - ◆ 2 channels of VGA output via female 15-pin HDF (VGA2 is fixed to output composite video and S-video double-line signal, while VGA1 can be chosen to output any of VGA input signals or VGA2 signal)
  - ◆ 1 channel of stereo audio output via XLR connectors
- One RS-232 control port with connection to computers, Central Control System and other control devices
- One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3313C, SONY, PELCO and Panasonic can be controlled
- One TAINET control interface for connection with Taiden Central Control System and Taiden Conference System
- Ethernet interface

---

## Technical Specifications

### Electrical

#### Video

Input:

8 Video (composite video signal) 1 Vpp/75 Ohm, BNC connectors  
 2 YC (S-VIDEO signal) Y=1 Vpp/75 Ohm, C=0.3 Vpp/75 Ohm,  
 4-PIN mini-DIN connectors  
 3 VGA signal 15-pin HDF

Output:

4 Video (composite video signal) 1 Vpp/75 Ohm, BNC connectors  
 2 VGA signal 15-pin HDF  
 Double-line Output Mode SVGA (800\*600),  
 XGA (1024\*768),  
 SXGA (1280\*1024)  
 Double-line Output Signal refresh rate 60 Hz, 75 Hz or 85 Hz  
 Bandwidth (-3 dB) 250 MHz

#### Audio

Input 6 stereo audio, UNBAL, RCA interfaces  
 Output 1 stereo audio, BAL, XLR interfaces  
 Frequency response 20 Hz~20 kHz -1dB  
 SNR >91 dB (0.775 Vrms/1 kHz output standard)  
 Crosstalk -80 dB  
 Input impedance  $\geq 10\text{ k}\Omega$   
 Output impedance 50  $\Omega$   
 Sensitivity 0 dB  
 Max. input level +17 dBm

#### Interface

TAINET 1 TAINET 4-pin interface  
 TO COMPUTER RS-232C, DB9F  
 RS-422/485 control port baud rate: 9600 bps  
 ETHERNET 1 RJ45 (RS-485) network interface  
 POWER AC 220 V 50 Hz/110V 60 Hz, FUSE 1 A/250 V

### Mechanical

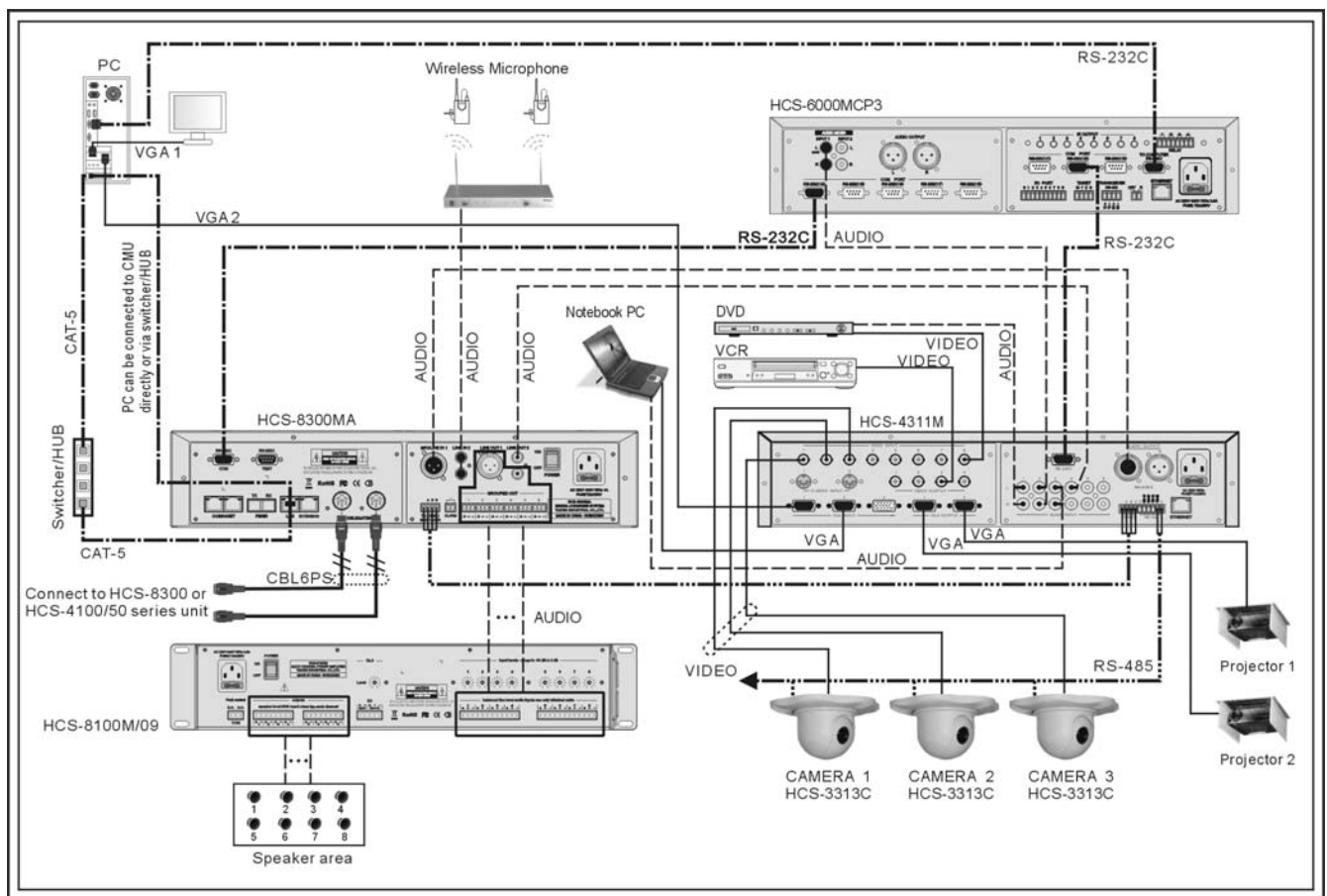
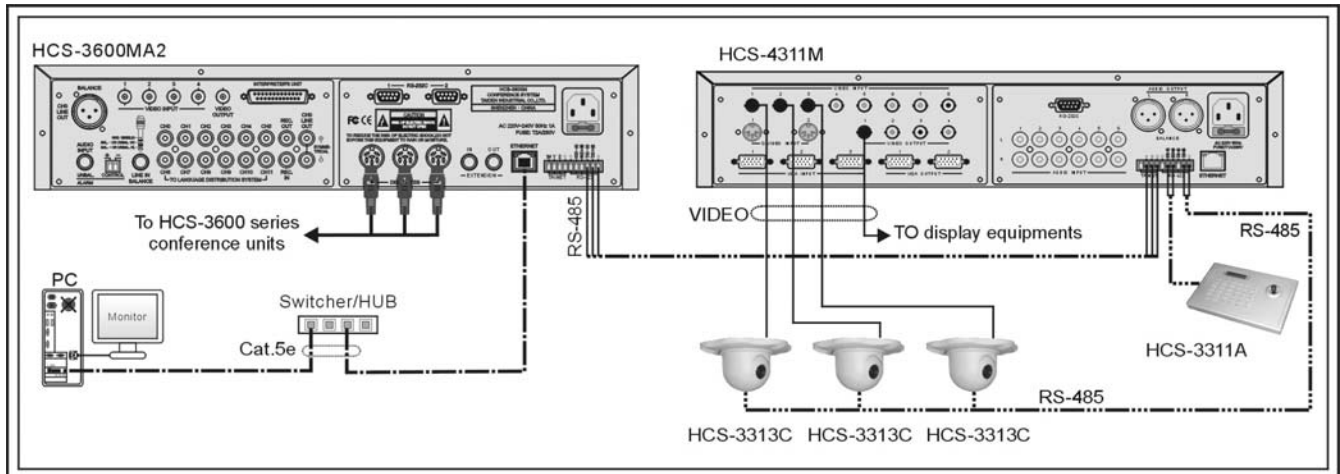
Temperature 0 °C to 40 °C  
 Humidity 10% ~ 90% RH  
 Mounting Tabletop or mounted in a 19" rack  
 Dimensions (h x w x d) 100 x 430 x 370 mm  
 Weight 7.6 kg  
 Color White

---

## Ordering Information

HCS-4311M Professional Mixed Matrix for Conference

## System Connection



# TMX-0804HTK

## 8x4 High Definition Video Tracking Matrix Switcher



## Features

- Routing: 8x4 HD Video Tracking Matrix Switcher
- Video interface: BNCx3 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- RS-232 control, supporting RS-232 protocols
- One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3313C, SONY, PELCO and Panasonic can be controlled
- One RS-232 control port for connection with Taiden Conference System
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 8 × 3 BNC female

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 4 × 3 BNC female  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... ± 5 mV with no offset at input  
Switching type ..... RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Control

Video track off:

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Video track on:

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 19200, to conference main unit  
COM2.....NC  
RJ45.....Baudrate: 9600, 1 = TX+, 2 = TX-, 3 = RX+, 6 = RX-,  
RS422/RS485 to dome camera

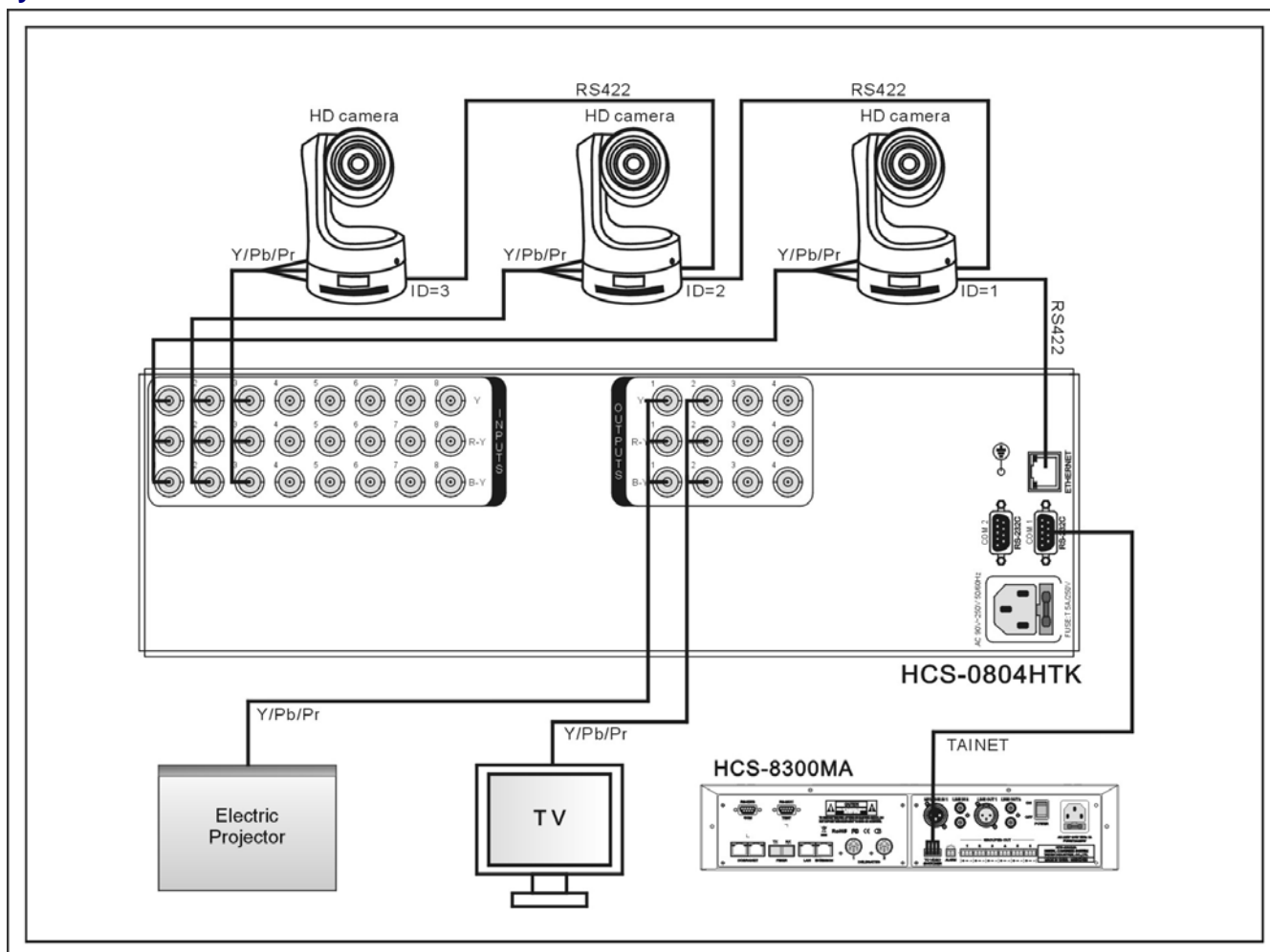
## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

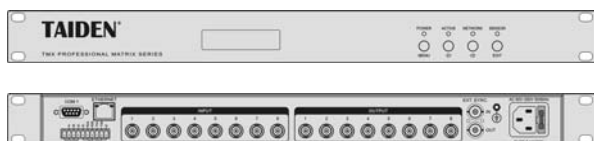
TMX-0804HTK.....8×4 High Definition Video Tracking Matrix  
Switcher, 450 M, Video on BNC Connectors

## System Connection



# TMX-0808SDI

## 8x8 High Definition Digital Video Tracking Matrix Switcher



### Features

- Routing: 8x8 High Definition Digital Video Tracking Matrix Switcher
- Video interface: BNCx1 female
- Data rates : 143 Mbps~2.97 Gbps
- Compatible with SMPTE 259 M, SMPTE 292 M, SMPTE 344 M, SMPTE 424 M and DVB-ASI (270 Mbps)
- Input equalization and clock recovery, output pre-emphasis
- If input has no signal, the input and output will automatically shutdown to reduce current consumption
- RS-232 control, supporting RS-232 protocols
- One RS-422/485 control port with built-in professional camera control protocols, a variety of professional cameras like TAIDEN HCS-3313C, SONY, PELCO and Panasonic can be controlled
- One RS-232 control port for connection with Taiden Conference System
- One RJ45 interface fro TCP/IP connection
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Date rates.....143 Mbps ~ 2.97 Gbps  
 Date types.....8 bit or 10 bit  
 Compatible standards.....SMPTE 259 M, SMPTE 292 M,  
 SMPTE 344 M, SMPTE 424M,  
 DVB-ASI (270 Mbps)

#### Video input

Connectors.....8 × BNC female  
 Input level.....0.7 V ~ 1.2 Vp-p  
 Input cable equalization.....Typical equalization cable length  
 (Belden 1694A standard cable)  
 100 m@2.97 Gbps  
 200 m@1.485 Gbps  
 400 m@270 Mbps  
 Nominal level.....0.8 Vp-p  
 Impedance.....75 Ohm

#### Video output

Connectors.....8 × BNC female  
 Nominal level.....0.8 V ± 7%  
 Output level.....0.5 V ~ 1.6 Vp-p  
 Impedance.....75 Ohm  
 Return loss.....>15 dB@5 MHz to 1.5 GHz  
 DC offset.....± 100 mV with no offset at input  
 Jitter.....20~30 ps@HD/3G rate  
 40~60 ps@SD rate  
 Rise and fall time (20~80%).....SD: 600 ps  
 HD/3G: 100 ps

#### Control

Video track off:  
 COM (RS-232).....RS-232, 9 pin female D connector  
 COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 RJ45.....TCP/IP  
 RS422/RS485.....Invalidation

Video track on:  
 COM1/RJ45.....Invalidation  
 TAINET baudrate and protocol.....Baudrate: 19200,  
 to conference main unit  
 RS422/RS485.....Baudrate: 9600, to dome camera

#### General specs

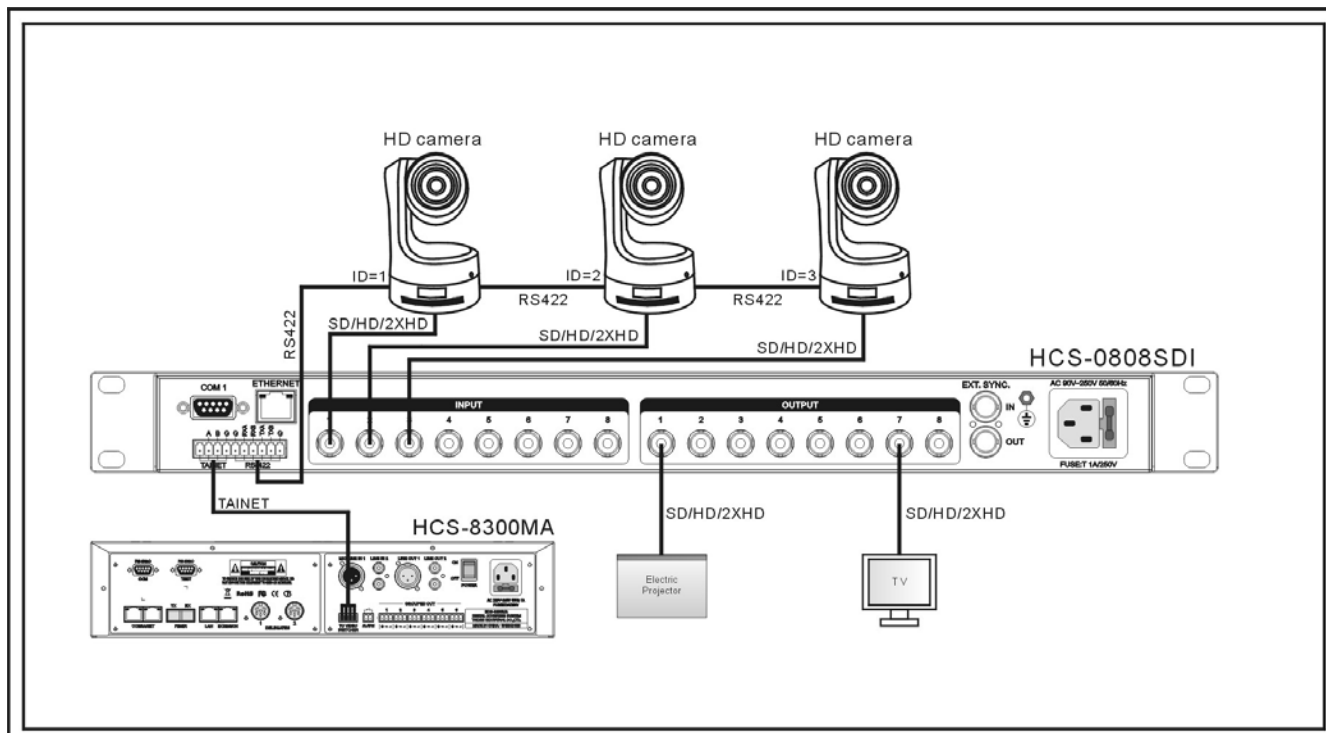
Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....43 × 483 × 208  
 (1U high, full rack width)  
 Weight.....2.7 kg  
 Mean time between failures.....30,000 hours

#### Ordering Information

TMX-0808SDI.....8x8 High Definition Digital Video Tracking  
 Matrix Switcher (SD/HD/3G)



## System Connection



## HCS-3313C High Speed Dome Camera



### Features

- Built-in super backlighting equalizer, super low illumination colour camera
- Built-in high-speed dome and decoder
- Built-in direct-drive motor, smoothly rotating even at a low speed
- 64 predefined positions and automatic scan monitoring
- Colorful output signal in PAL mode
- Horizontal 360° continuous rotation, Vertical 100° rotation
- Mounting: ceiling-mounting

### Technical Specifications

#### Electrical

Power supply.....DC 12±3 V  
 Power consumption.....5 W  
 Resolution.....480 lines  
 Optical zooming.....22 x (4 mm-64 mm)  
 Electrical zooming.....10 x  
 Lowest illumination.....0.5 Lux  
 SNR.....≥50 dB (AGC off)  
 Horizontal angle.....360°  
 Vertical angle.....100°, with 180° automatic reversal  
 Horizontal highest rotary speed.....260°/s  
 Vertical highest rotary speed.....100°/s  
 Predefined position.....64

#### Mechanical

Installation.....Ceiling-mounting  
 Weight.....1.1 kg  
 Color.....White

### Ordering Information

HCS-3313C.....High Quality Speed Dome Camera (ceiling)

## HCS-3311A Camera Control Keypad



### Features

- Cooperating with Video Switcher Unit to control 16 cameras directly
- Built-in LCD
- Camera No. and speed parameter visible
- Directly control camera's action
  - ◆ Up, down, left, right
  - ◆ Zoom in/out
- Directly switch the image among multiple cameras

### Technical Specifications

#### Electrical

Power supply.....DC 9~12 V  
 Power consumption.....1 W  
 Communication protocol.....RS-485

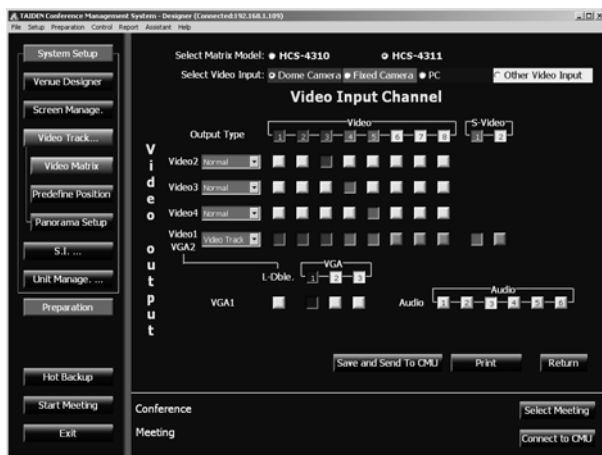
#### Mechanical

Dimensions (h x w x d).....60 X 175 X 263 mm  
 Weight.....0.6 kg

### Ordering Information

HCS-3311A.....Speed Dome Camera Control Keypad

## HCS-4215/50 Video Control Module



Video matrix



Camera control

### Ordering Information

HCS-4215/50.....Video Control Module  
(used with HCS-4100/50 series)

HCS-4215TS/50.....Video Control Module  
(used with HCS-3600 series)

### Functions

Carries out automatic video tracking when cooperating with camera and video switch unit.

- Setup video matrix: set input/output channels for computer, camera and other video apparatus according to the connections between video equipment and video switch unit. The configuration can be sent to the main unit for synchronization
- Video switch: switch among different input and output video signals according to the video matrix
- Camera control: adjust the camera preset for each seat/microphone and preset the panorama of the conference venue
- Cooperating with microphone management module to set and adjust the camera preset for each seat/microphone and to transmit speaker's video picture simultaneously to a hall display

## **HCS-4130M/02**

### **Professional audio & video recorder for conference**



#### **Features**

- Cooperating with TAIDEN conference system, synchronously records conference video & audio information
- Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
- Index and sort facility of video & audio recorded file (by conference name, speaker, begin time, end time, etc.)
- Synchronous 2 channels video & audio recording
- Recorded file playback, fast play, pause/stop, etc.
- Supports audio/video files editing on playback
- Supports dynamic image capture
- Audio/video files saved on hard disk for download to local PC
- Audio/video files saved on hard disk in HCS-4130M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
- During AV recording, all channels can be monitored with earphones
- Network monitoring facility
- Hardware requirements: Pentium 4 2.0 G or faster, RAM 1G or higher
- Software requirements: Windows 2000/XP/Vista

HCS-4130M/02 is a professional video/audio recorder for conference system. Using embedded processor and embedded operation system, integrating several techniques in IT domain, including video/audio compressing and decompressing, mass disk storage, TCP/IP control, etc., realizing powerful video/audio compressing functions, video/audio recording and playback, and network transferring.

#### **Controls and Indicators**

- Power switch with indicator
- Status indicators for each channel:
  - ◆ "green" for recording;
  - ◆ "red" for network transferring;
  - ◆ "Orange" for recording & network transferring
- Ten number/letter buttons for inputting numbers or letters
- Four direction buttons and "Enter" button for configuration and playback control
- Lights control button
- AUX devices control button
- Six status indicators for recorder
  - ◆ "READY":
  - ◆ "STATUS":
  - ◆ "ALARM":
  - ◆ "MODEM":
  - ◆ "HDD":
  - ◆ "LINK":
  - ◆ "Tx/Rx":
- Ten multiplex buttons for operation
  - ◆ "MENU/WIPER":
  - ◆ "ESC":
  - ◆ "EDIT/IRIS+":
  - ◆ "A/FOCUS+":
  - ◆ "ZOOM+":
  - ◆ "PLAY/AUTO":
  - ◆ "REC/SHOT":
  - ◆ "PTZ/IRIS-":
  - ◆ "PREV/FOCUS-":
  - ◆ "MAIN/AUX/ZOOM-":

#### **Interconnections**

- Signal Inputs:
  - ◆ 2 channels of video input via BNC connectors
  - ◆ 2 channels of audio input via BNC connectors
  - ◆ 1 channel of LINE IN input via BNC connector
- Signal outputs:
  - ◆ 1 channel of AUX video output via BNC connector
  - ◆ 1 channel of AUX audio output via BNC connector
  - ◆ 1 channel of video output via BNC connector
  - ◆ 1 channel of audio output via BNC connector
  - ◆ 1 channel of VGA output via female 15-pin HDF
- One RS-232 control port with connection to computer, modem and other device
- External SATA interface with connection to SATA hard disk
- Ethernet interface
- RS-485 control port
- Keyboard interface with connection to RS-485 keyboard or cascade connection



## HCS-4130M/04

### Professional audio & video recorder for conference



#### Features

- Cooperating with TAIDEN conference system, synchronously records conference video & audio information
- Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
- Index and sort facility of video & audio recorded file (by conference name, speaker, begin time, end time, etc.)
- Synchronous 4 channels video & audio recording
- Recorded file playback, fast play, pause/stop, etc.
- Supports audio/video files editing on playback
- Supports dynamic image capture
- Audio/video files saved on hard disk for download to local PC
- Audio/video files saved on hard disk in HCS-4130M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
- During AV recording, all channels can be monitored with earphones
- Network monitoring facility
- Hardware requirements: Pentium 4 2.0 G or faster, RAM 1G or higher
- Software requirements: Windows 2000/XP/Vista

HCS-4130M/04 is a professional video/audio recorder for conference system. Using embedded processor and embedded operation system, integrating several techniques in IT domain, including video/audio compressing and decompressing, mass disk storage, TCP/IP control, etc., realizing powerful video/audio compressing functions, video/audio recording and playback, and network transferring.

#### Controls and Indicators

- Power switch with indicator
- Status indicators for each channel:
  - ♦ "green" for recording;
  - ♦ "red" for network transferring;
  - ♦ "Orange" for recording & network transferring
- Ten number/letter buttons for inputting numbers or letters
- Four direction buttons and "Enter" button for configuration and playback control
- Lights control button
- AUX devices control button
- Six status indicators for recorder
  - ♦ "READY":
  - ♦ "STATUS":
  - ♦ "ALARM":
  - ♦ "MODEM":
  - ♦ "HDD":
  - ♦ "LINK":
  - ♦ "Tx/Rx":
- Ten multiplex buttons for operation
  - ♦ "MENU/WIPER":
  - ♦ "ESC":
  - ♦ "EDIT/IRIS+":
  - ♦ "A/FOCUS+":
  - ♦ "ZOOM+":
  - ♦ "PLAY/AUTO":
  - ♦ "REC/SHOT":
  - ♦ "PTZ/IRIS-":
  - ♦ "PREV/FOCUS-":
  - ♦ "MAIN/AUX/ZOOM-":

#### Interconnections

- Signal Inputs:
  - ♦ 4 channels of video input via BNC connectors
  - ♦ 4 channels of audio input via BNC connectors
  - ♦ 1 channel of LINE IN input via BNC connector
- Signal outputs:
  - ♦ 1 channel of AUX video output via BNC connector
  - ♦ 1 channel of AUX audio output via BNC connector
  - ♦ 1 channel of video output via BNC connector
  - ♦ 1 channel of audio output via BNC connector
  - ♦ 1 channel of VGA output via female 15-pin HDF
- One RS-232 control port with connection to computer, modem and other device
- External SATA interface with connection to SATA hard disk
- Ethernet interface
- RS-485 control port
- Keyboard interface with connection to RS-485 keyboard or cascade connection

---

## Technical Specifications

### Electrical

Video compression.....H.264  
Hard disk capacity.....300 GB  
Preview resolution.....PAL: 704\*576 / NTSC: 704\*480  
Playback resolution.....QCIF/CIF/2CIF/DCIF/4CIF  
Video input.....1 Vpp/75 Ohm, BNC connectors  
Video output.....1 Vpp/75 Ohm, BNC connector  
Audio input.....2 Vpp/1 kOhm, BNC connectors  
Audio output.....Linear electrical level/1 kOhm, BNC connector  
Audio compression.....OggVorbis  
Communication interfaces.....RJ45 10M/100M self-adaptive Ethernet  
interface, RS232 port and RS485 port  
Keyboard interface.....1 port  
USB interface.....USB1.1, supports USB flash memory, USB  
HDD, USB CD-R/W, USB DVD or USB mouse  
VGA interface resolution.....800×600@60 Hz,  
800×600@75 Hz,  
1024×768@60 Hz  
Power supply.....90~135VAC or 180~265VAC, 47~63 Hz  
Power consumption (excl. hard disk).....20~50 W

### Mechanical

Temperature.....-10 °C to 55 °C  
Humidity.....10% ~ 90% RH  
Mounting.....Tabletop or mounted in a 19" rack

---

## Ordering Information

HCS-4130M/04.....Professional Audio & Video Recorder for  
Conference (4 CHs, 4CIF, 300 GB hard disk)



## **HCS-4130M/08**

### **Professional audio & video recorder for conference**



#### **Features**

- Cooperating with TAIDEN conference system, synchronously records conference video & audio information
- Automatically records speaking delegate(s) and the panorama of the venue - saves data as digital files
- Index and sort facility of video & audio recorded file (by conference name, speaker, begin time, end time, etc.)
- Synchronous 8 channels video & audio recording
- Recorded file playback, fast play, pause/stop, etc.
- Supports audio/video files editing on playback
- Supports dynamic image capture
- Audio/video files saved on hard disk for download to local PC
- Audio/video files saved on hard disk in HCS-4130M - start/stop recording by client application control. Recorded files do not get lost even if client powers off item
- During AV recording, all channels can be monitored with earphones
- Network monitoring facility
- Hardware requirements: Pentium 4 2.0 G or faster, RAM 1G or higher
- Software requirements: Windows 2000/XP/Vista

HCS-4130M/08 is a professional video/audio recorder for conference system. Using embedded processor and embedded operation system, integrating several techniques in IT domain, including video/audio compressing and decompressing, mass disk storage, TCP/IP control, etc., realizing powerful video/audio compressing functions, video/audio recording and playback, and network transferring.

#### **Controls and Indicators**

- Power switch with indicator
- Status indicators for each channel:
  - ♦ "green" for recording;
  - ♦ "red" for network transferring;
  - ♦ "Orange" for recording & network transferring
- Ten number/letter buttons for inputting numbers or letters
- Four direction buttons and "Enter" button for configuration and playback control
- Lights control button
- AUX devices control button
- Six status indicators for recorder
  - ♦ "READY":
  - ♦ "STATUS":
  - ♦ "ALARM":
  - ♦ "MODEM":
  - ♦ "HDD":
  - ♦ "LINK":
  - ♦ "Tx/Rx":
- Ten multiplex buttons for operation
  - ♦ "MENU/WIPER":
  - ♦ "ESC":
  - ♦ "EDIT/IRIS+":
  - ♦ "A/FOCUS+":
  - ♦ "ZOOM+":
  - ♦ "PLAY/AUTO":
  - ♦ "REC/SHOT":
  - ♦ "PTZ/IRIS-":
  - ♦ "PREV/FOCUS-":
  - ♦ "MAIN/AUX/ZOOM-":

#### **Interconnections**

- Signal Inputs:
  - ♦ 8 channels of video input via BNC connectors
  - ♦ 8 channels of audio input via BNC connectors
  - ♦ 1 channel of LINE IN input via BNC connector
- Signal outputs:
  - ♦ 1 channel of AUX video output via BNC connector
  - ♦ 1 channel of AUX audio output via BNC connector
  - ♦ 1 channel of video output via BNC connector
  - ♦ 1 channel of audio output via BNC connector
  - ♦ 1 channel of VGA output via female 15-pin HDF
- One RS-232 control port with connection to computer, modem and other device
- External SATA interface with connection to SATA hard disk
- Ethernet interface
- RS-485 control port
- Keyboard interface with connection to RS-485 keyboard or cascade connection

## Technical Specifications

## Electrical

Video compression	H.264
Hard disk capacity	300 GB
Preview resolution	PAL: 704*576 / NTSC: 704*480
Playback resolution	QCIF/CIF/2CIF/DCIF/4CIF
Video input	1 Vpp/75 Ohm, BNC connectors
Video output	1 Vpp/75 Ohm, BNC connector
Audio input	2 Vpp/1 kOhm, BNC connectors
Audio output	Linear electrical level/1 kOhm, BNC connector
Audio compression	OggVorbis
Communication interfaces	RJ45 10M/100M self-adaptive Ethernet interface, RS232 port and RS485 port
Keyboard interface	1 port
USB interface	USB1.1, supports USB flash memory, USB HDD, USB CD-R/W, USB DVD or USB mouse
VGA interface resolution	800×600@60 Hz, 800×600@75 Hz, 1024×768@60 Hz
Power supply	90~135VAC or 180~265VAC, 47~63 Hz
Power consumption (excl. hard disk)	20~50 W

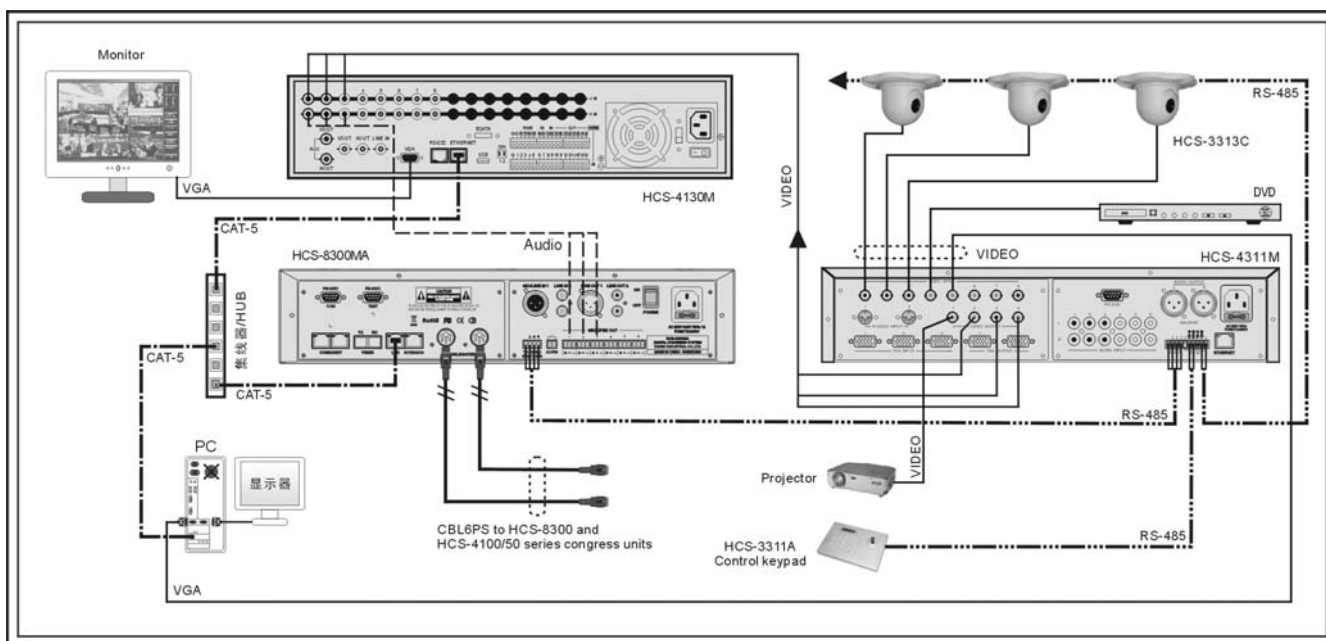
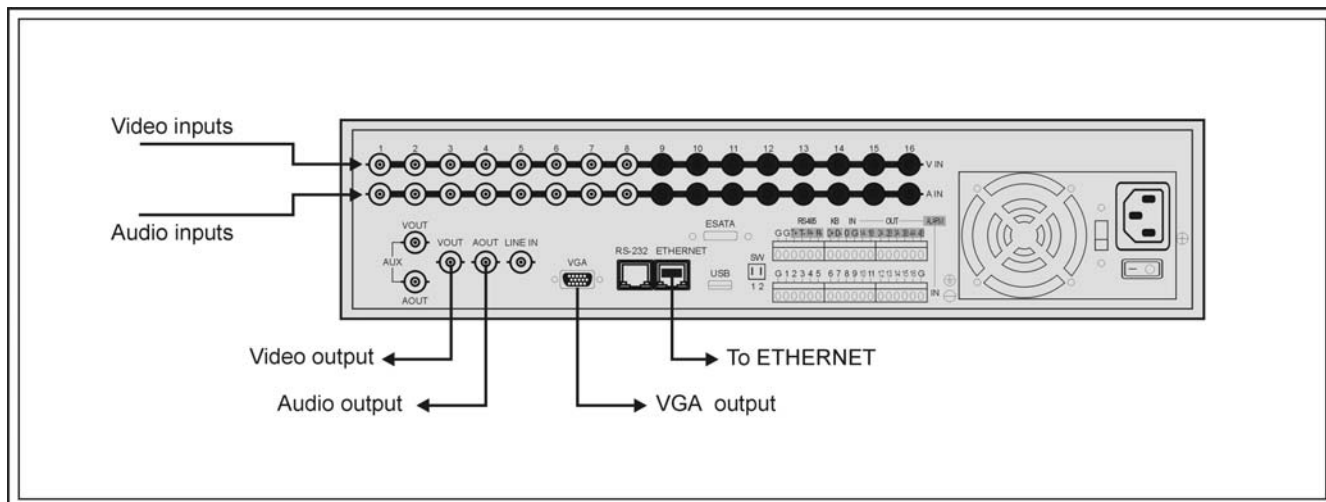
## Mechanical

Temperature.....-10 °C to 55 °C  
Humidity.....10% ~ 90% RH  
Mounting.....Tabletop or mounted in a 19" rack

## Ordering Information

HCS-4130M/08.....Professional Audio & Video Recorder for  
Conference (8 CHs, 4CIF, 300 GB hard disk)

## System Connection



## HCS-4220/50 Professional Digital Video & Audio Recorder Module



Preview interface



Setup channel parameters

### Functions

TAIDEN conference synchronous digital video & audio recorder integrates several techniques in the IT domain and realizes powerful video/audio compressing, video/audio recording and playback functions.

- Display of channel states, alarm states, connection status and DVR parameters (brightness, contrast, hue and saturation)

- Includes layout, preview, record, connect DCS, DVR control, capture, playback, setup system parameters, setup channel parameters and DVR channel list functions
  - ◆ **Layout:** setup layout of video preview sub screen – selection of 1, 4, 6, or 8 video preview sub screens
  - ◆ **Preview:** preview video/audio signal of each channel
  - ◆ **Record:** start/stop record for selected channel
  - ◆ **Connect DCS:** connect to DCS server and DCS backup server, ensuring an undisturbed recording process
  - ◆ **DVR control:** control DVR
  - ◆ **Capture:** capture a picture for selected sub screen
  - ◆ **Playback:**
    - Select channel number for playback – select anyone or all
    - Select file content for playback: panorama, video track, simultaneous interpretation and other
    - Select file type for playback: including all files, remote files, local video files and local pictures (local = on PC)
    - Search facility: search a video for playback by meeting ID, speaker name, speaking time, etc.
    - Play Control: fast play, pause/stop, etc.
  - ◆ **Setup system parameters:**
    - Set display format (e.g. sampling rate) for audio and video
    - Set DVR parameters
  - ◆ **Setup channel parameters:** set video and audio content for each channel, and record automatically according to conference status
    - Video content:
      - ◇ Video track: start record when microphone is turned on and stop record when microphone is turned off
      - ◇ Panorama: start record when conference begins and stop record when conference ends
      - ◇ Other: start/stop record manually by operator
      - ◇ Simultaneous interpretation: connect SI output channel of DCS to input channel of DVR, and select language for recording manually
    - Audio content
    - Stream type: video only or video & audio composite
      - ◇ Video only: record only video signal
      - ◇ Video & audio: record video and audio composite signal

### Ordering Information

HCS-4220/50.....Synchronous Video Recording Management  
Module (used with HCS-4100/50 series)

HCS-4220TS/50.....Synchronous Video Recording Management  
Module (used with HCS-3600 series)

## HCS-6100 Intelligent Central Control System

<b>HCS-6000MCP3 Intelligent Central Control System Main Unit (can store camera predefined positions)</b>	<b>10.3</b>
<b>HCS-6107 Series Widescreen Touchpanels</b>	<b>10.4</b>
HCS-6107F-B 7" Flush-mounting Widescreen Touchpanel (wired Ethernet, black)	10.4
HCS-6107F-G 7" Flush-mounting Widescreen Touchpanel (wired Ethernet, gray)	10.4
HCS-6107TP- B 7" Widescreen Touchpanel (wireless one-way, black)	10.5
HCS-6107TP- G 7" Widescreen Touchpanel (wireless one-way, gray)	10.5
HCS-6107TPX-B 7" Widescreen Touchpanel (wireless two-way, wired Ethernet, black)	10.6
HCS-6107TPX-G 7" Widescreen Touchpanel (wireless two-way, wired Ethernet, gray)	10.6
HCS-6107BKT-B Portable Base Plate (black)	10.7
HCS-6107BKT-G Portable Base Plate (gray)	10.7
<b>HCS-6110 Series Widescreen Touchpanels</b>	<b>10.8</b>
HCS-6110TP- B 10.2" Widescreen Touchpanel (wired Ethernet, black)	10.8
HCS-6110TP- G 10.2" Widescreen Touchpanel (wired Ethernet, gray)	10.8
HCS-6110TPX-B 10.2" Widescreen Touchpanel (wireless two-way, wired Ethernet, black)	10.9
HCS-6110TPX-G 10.2" Widescreen Touchpanel (wireless two-way, wired Ethernet, gray)	10.9
<b>HCS-6112 Series Widescreen Touchpanels</b>	<b>10.10</b>
HCS-6112TP- B 12.1" Widescreen Touchpanel (wired Ethernet, black)	10.10
HCS-6112TP- G 12.1" Widescreen Touchpanel (wired Ethernet, gray)	10.10
HCS-6112TPX-B 12.1" Widescreen Touchpanel (wireless two-way, wired Ethernet, black)	10.11
HCS-6112TPX-G 12.1" Widescreen Touchpanel (wireless two-way, wired Ethernet, gray)	10.11
<b>HCS-6115 Series Widescreen Touchpanels</b>	<b>10.12</b>
HCS-6115TP- B 15.4" Widescreen Touchpanel (wired Ethernet, black)	10.12
HCS-6115TP- G 15.4" Widescreen Touchpanel wired Ethernet, gray)	10.12
HCS-6115TPX-B 15.4" Widescreen Touchpanel (wireless two-way, wired Ethernet, black)	10.13
HCS-6115TPX-G 15.4" Widescreen Touchpanel (wireless two-way, wired Ethernet, gray)	10.13
<b>HCS-6000SW Series Wall-mounted Keypads</b>	<b>10.14</b>
HCS-6000SW/02 Wall-mounted Keypad (2 buttons, TAINET control bus, white)	10.14
HCS-6000SW/04 Wall-mounted Keypad (4 buttons, TAINET control bus, white)	10.14
HCS-6000SW/08 Wall-mounted Keypad (8 buttons, TAINET control bus, white)	10.14
HCS-6000SW/12 Wall-mounted Keypad (12 buttons, TAINET control bus, white)	10.14
<b>HCS-6000PM 8 CHs Power-Supply Controller (240 V, 20 A/CH)</b>	<b>10.14</b>
<b>HCS-6000LM 4 CHs High-Power Lights Controller</b>	<b>10.15</b>
<b>HCS-6000LMF 4 CHs Fluorescent Dimmer</b>	<b>10.15</b>
<b>Wireless RF Transceivers</b>	<b>10.16</b>
HCS-6100RF One-way Wireless RF Transceiver (2.4 GHz)	10.16
HCS-6100RFX Two-way Wireless RF Transceiver (2.4 GHz)	10.16
HCS-6100RF/ROUTER Wireless RF Router (2.4 GHz)	10.16
<b>HCS-0108COM 8-series Distributor</b>	<b>10.16</b>

<b>Accessories.....</b>	<b>10.18</b>
HCS-6107BAT-B Rechargeable Lithium-ion Battery (black).....	10.18
HCS-6107BAT-G Rechargeable Lithium-ion Battery (gray).....	10.18
HCS-6110BAT External Rechargeable Lithium-ion Battery.....	10.18
CBL2PL-01 IR Transmission Stick (with a 1.2 m long cable).....	10.19
CBL3PL-01 IR Transmission Stick (with a 1.2 m long cable).....	10.19
HCS-ADP15V Power Adapter (DC 15 V, 2.2 A).....	10.19

## HCS-6000MCP3 Intelligent Central Control System Main Unit



### Features

- Open programmable control platform, user-friendly operation interface
- Exclusive dynamic configurable RS232C/485 ports, supporting all kinds of control protocols, seamlessly integrated with Digital Conference System, constitute perfect intelligent conference solutions
- Built-in TAIDEN digital conference control protocol, to implement microphone control, voting control and voting results display easily
- Can store normal/high definition camera predefined positions
- Built-in IR learning, no learning apparatus needed, easy to use
- Audio mixer with volume control (2 CHs stereo inputs with independent volume control, 1CH stereo output)

### Functions

- Open programmable control platform, user-friendly operation interface
- Exclusive dynamic configurable RS232C/485 ports, supporting all kinds of control protocols, seamlessly integrated with Digital Conference System, constitute perfect intelligent conference solutions
- Built-in TAIDEN digital conference control protocol, to implement microphone control, voting control and voting results display easily
- Can store normal/high definition camera predefined positions
- Built-in IR learning, no learning apparatus needed, easy to use
- Audio mixer with volume control (2 CHs stereo inputs with independent volume control, 1 CH stereo output)
- 8 IR output ports used for remote control of the VCR, DVD, CD, MD and projectors
- 8 digital I/O control ports and 4 low relay control ports for controlling currently connected devices such as projector lift (up/down), curtains (open/close), projector (pitching), lightings (on/off), and so on
- 8 RS-232C ports can control video matrix or plasma display
- Front panel LCD, LED display function and real time display
- Bilingual (Chinese/English) software for system configuration
- User-defined scene save and recall facilities

- RS-232C port connected to PC for setting up, supervisory controlling and uploading programs
- 1 RJ-45 port, used as Ethernet interface for "PC Control System" or wired touchpanel to implement all the control functions remotely
- Cooperates with wireless two-way touchpanel and wireless receiver to implement remote wireless control of all functions
- Compact structure, can be mounted in 19-inch cabinet
- Max output current by TAINET: 1800 mA, 24 V

### Technical Specifications

#### Electrical

##### Audio

Audio gain	0 dB
Frequency range	20 Hz~20 kHz +0/-0.5dB (1 kHz reference)
SNR	≥92 dBA
Crosstalk attenuation	≥80 dB
THD	≤0.01% (1 kHz)
Input impedance	≥10 kΩ
Output impedance	≤10 Ω
Max. input level	7 Vrms
Max. output level	7 Vrms

##### Interfaces

TAINET	1 TAINET 4-pin interface
TO COMPUTER	RS-232C, DB9F
IR OUTPUT	8 IR transmission ports
I/O PORT	8 programmable digital I/O ports
RELAY	4 low relays (0.3 A/125 V-AC, 1 A/30 V-DC)
COM PORT (RS-232C)	8 DB9 serial ports, RS-232 (1) ~ (3) are one-way ports, RS-232 (4) ~ (8) are two-way ports, max. baud rate 115,200 bps
ETHERNET	1 RJ45 (RS-485) network interface
POWER	America, Japan: AC 110 V~120 V 60 Hz (FUSE 5 A/250 V) Asia, Europe: AC 220 V~240 V 50 Hz (FUSE 2 A/250 V)

#### Mechanical

Temperature	0 °C to 45 °C
Humidity	10% ~ 90% RH
Mounting	Tabletop or mounted in a 19" rack
Dimensions (h x w x d)	100 x 430 x 370 mm
Weight	7.5 kg
Color	White

### Ordering Information

HCS-6000MCP3	Intelligent Central Control System Main Unit (can store camera predefined positions)
--------------	---



## HCS-6107F 7" Flush-mounting Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 800×480 pixel resolution, 18-bit color
- 300 cd/m<sup>2</sup> brightness, 500:1 contrast ratio and left/right 70° wide viewing angles
- Latest graphic user interface
- Supports wired Ethernet control
- Supports SD card (up to 4 GB)
- 6 programmable touch buttons
- Composite video interface - supports various video formats, PIP (picture in picture) function
- Built-in speaker
- Flush-mounting
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....7 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

##### Power adapter

Input.....110 V ~ 240 V, 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

##### Current

Normal working current.....350 mA ~ 400 mA  
 Standby current.....100 mA ~ 120 mA  
 Power-off current.....1 mA ~ 1.5 mA

##### RS-232 port parameters

Baudrate.....115200 bps

##### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Flush-mounting  
 Dimensions (h x w x d).....60 x 204 x 148 mm  
 Weight.....1.26 kg  
 Color.....Black/Gray

### Ordering Information

HCS-6107F-B.....7" Flush-mounting Widescreen Touchpanel  
 (wired Ethernet, black)  
 HCS-6107F-G.....7" Flush-mounting Widescreen Touchpanel  
 (wired Ethernet, gray)

## HCS-6107TP 7" Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 800×480 pixel resolution, 18-bit color
- 300 cd/m<sup>2</sup> brightness, 500:1 contrast ratio and left/right 70° wide viewing angles
- Latest graphic user interface
- Supports wireless one-way control (2.4 GHz)
- Supports SD card (up to 4 GB)
- 6 programmable touch buttons
- Composite video interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Movable base, with built-in Lithium-Ion battery for more than 8 hours of continuous operation
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....7 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

###### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

###### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....11.1 V  
 Capacity.....1530 mAh  
 Charging current.....1000 mA~1200 mA  
 Charging time.....Approx 2 hours  
 Continuous working duration.....Approx 6 hours (the screen is continuously on and the setting of luminance is 100%)

Normal working duration...Approx 7 days (related to the settings of power management and luminance)

Standby time.....Approx 80 days

###### Current

Normal working current.....350 mA ~ 400 mA  
 Standby current.....100 mA ~ 120 mA  
 Power-off current.....1 mA ~ 1.5 mA

#### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

#### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Tabletop or portable  
 Dimensions (h x w x d).....35 x 204 x 148 mm  
 Weight.....0.72 kg (incl. battery, excl. portable base plate)  
 1.41 kg (incl. battery and portable base plate)  
 Color.....Black/Gray

### Ordering Information

HCS-6107TP-B.....7" Widescreen Touchpanel  
 (wireless one-way, black)  
 HCS-6107TP-G.....7" Widescreen Touchpanel  
 (wireless one-way, gray)

## HCS-6107TPX 7" Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 800×480 pixel resolution, 18-bit color
- 300 cd/m<sup>2</sup> brightness, 500:1 contrast ratio and left/right 70° wide viewing angles
- Latest graphic user interface
- Supports wireless two-way control (2.4 GHz)
- Supports wired Ethernet control
- Supports SD card (up to 4 GB)
- 6 programmable touch buttons
- Composite video interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Movable base, with built-in Lithium-Ion battery for more than 8 hours of continuous operation
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....7 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

###### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

###### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....11.1 V  
 Capacity.....1530 mAh  
 Charging current.....1000 mA~1200 mA  
 Charging time.....Approx 2 hours  
 Continuous working duration.....Approx 6 hours (the screen is continuously on and the setting of luminance is 100%)

Normal working duration...Approx 7 days (related to the settings of power management and luminance)

Standby time.....Approx 80 days

###### Current

Normal working current.....350 mA ~ 400 mA  
 Standby current.....100 mA ~ 120 mA  
 Power-off current.....1 mA ~ 1.5 mA

#### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

#### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Tabletop or portable  
 Dimensions (h x w x d).....35 x 204 x 148 mm  
 Weight.....0.72 kg (incl. battery, excl. portable base plate)  
 1.41 kg (incl. battery and portable base plate)  
 Color.....Black/Gray

### Ordering Information

HCS-6107TPX-B.....7" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, black)  
 HCS-6107TPX-G.....7" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, gray)

## HCS-6107BKT Portable Base Plate




---

### Features

- Used for HCS-6107TP/TPX only
- Video interface: Composite video input interface
- RJ45 network interface: Ethernet interface
- Power interface: 15 V ~ 24 V DC input, used for charging HCS-6107BAT or feeding power to HCS-6107TP/TPX
- Power button

---

### Ordering Information

HCS-6107BKT-B.....Portable Base Plate (black)

HCS-6107BKT-G.....Portable Base Plate (gray)

## HCS-6110TP 10.2" Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 800×480 pixel resolution, 18-bit color
- 400 cd/m<sup>2</sup> brightness, 400:1 contrast ratio and left/right 60° wide viewing angles
- Latest graphic user interface
- Supports wired Ethernet control
- Mini-USB port and type A USB port
- Supports SD card (up to 4 GB)
- 8 programmable touch buttons
- AV interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Portable battery pack (separate purchase)
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....10.2 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

##### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

##### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....16 V/19 V  
 Capacity.....48.8 Wh  
 Charging current.....Approx 1300 mA  
 Charging time.....3.5~4 hours

##### Current

Normal working current.....Approx 800 mA  
 Standby current.....100 mA ~ 120 mA  
 Power-off current.....1 mA ~ 1.5 mA

#### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

#### RS-232 port parameters

Baudrate.....115200 bps

#### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Tabletop  
 Dimensions (h x w x d).....87 x 270 x 216 mm  
 Weight.....2.34 kg  
 Color.....Black/Gray

### Ordering Information

HCS-6110TP-B.....10.2" Widescreen Touchpanel  
 (wired Ethernet, black)  
 HCS-6110TP-G.....10.2" Widescreen Touchpanel  
 (wired Ethernet, gray)

## HCS-6110TPX 10.2" Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 800×480 pixel resolution, 18-bit color
- 400 cd/m<sup>2</sup> brightness, 400:1 contrast ratio and left/right 60° wide viewing angles
- Latest graphic user interface
- Supports wireless two-way control (2.4 GHz)
- Supports wired Ethernet control
- Mini-USB port and type A USB port
- Supports SD card (up to 4 GB)
- 8 programmable touch buttons
- AV interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Built-in speaker
- Portable battery pack (separate purchase)
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....10.2 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

###### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

###### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....16 V/19 V  
 Capacity.....48.8 Wh  
 Charging current.....Approx 1300mA  
 Charging time .....3.5~4 hours

###### Current

Normal working current.....Approx 800 mA  
 Standby current.....100 mA ~ 120 mA  
 Power-off current.....1 mA ~ 1.5 mA

#### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

#### RS-232 port parameters

Baudrate.....115200 bps

#### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Tabletop  
 Dimensions (h x w x d).....87 x 270 x 216 mm  
 Weight.....2.34 kg  
 Color.....Black/Gray

### Ordering Information

HCS-6110TPX-B.....10.2" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, black)  
 HCS-6110TPX-G.....10.2" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, gray)

## HCS-6112TP

### 12.1" Widescreen Touchpanel



#### Features

- 16:9 widescreen color display
- 1280×800 pixel resolution
- High brightness, high contrast ratio and wide viewing angles
- Latest graphic user interface
- Supports wired Ethernet control
- Mini-USB port and type A USB port
- Supports SD card (up to 4 GB)
- 10 programmable touch buttons
- AV interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Built-in speaker
- Portable battery pack (separate purchase)
- Optional color: black and gray

#### Technical Specifications

##### Electrical

###### LCD

Type.....True color TFT LCD  
 Dimension.....12.1 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

###### Power

###### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

###### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....16 V/19 V  
 Capacity.....48.8 Wh  
 Charging current.....Approx 1300mA  
 Charging time.....3.5~4 hours

###### Current

Normal working current.....Approx 820 mA~ 870 mA  
 Standby current.....Approx 350 mA  
 Power-off current.....1 mA ~ 1.5 mA

##### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

##### RS-232 port parameters

Baudrate.....115200 bps

##### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

##### Mechanical

Installation.....Tabletop  
 Dimensions (h x w x d).....103 x 317 x 302 mm  
 Weight.....3.87 kg  
 Color.....Black/Gray

#### Ordering Information

HCS-6112TP-B.....12.1" Widescreen Touchpanel  
 (wired Ethernet, black)  
 HCS-6112TP-G.....12.1" Widescreen Touchpanel  
 (wired Ethernet, gray)



## HCS-6112TPX 12.1" Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 1280×800 pixel resolution
- High brightness, high contrast ratio and wide viewing angles
- Latest graphic user interface
- Supports wireless two-way control (2.4 GHz)
- Supports wired Ethernet control
- Mini-USB port and type A USB port
- Supports SD card (up to 4 GB)
- 10 programmable touch buttons
- AV interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Built-in speaker
- Portable battery pack (separate purchase)
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....12.1 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

##### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

##### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....16 V/19 V  
 Capacity.....48.8 Wh  
 Charging current.....Approx 1300mA  
 Charging time.....3.5~4 hours

##### Current

Normal working current.....Approx 820 mA~ 870 mA  
 Standby current.....Approx 350 mA  
 Power-off current.....1 mA ~ 1.5 mA

##### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

##### RS-232 port parameters

Baudrate.....115200 bps

##### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Tabletop  
 Dimensions (h x w x d).....103 x 317 x 302 mm  
 Weight.....3.87 kg  
 Color.....Black/Gray

### Ordering Information

HCS-6112TPX-B.....12.1" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, black)  
 HCS-6112TPX-G.....12.1" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, gray)

## HCS-6115TP

### 15.4" Widescreen Touchpanels



#### Features

- 16:9 widescreen color display
- 1280×800 pixel resolution
- High brightness, high contrast ratio and wide viewing angles
- Latest graphic user interface
- Supports wired Ethernet control
- Mini-USB port and type A USB port
- Supports SD card (up to 4 GB)
- 10 programmable touch buttons
- AV interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Built-in speaker
- Portable battery pack (separate purchase)
- Optional color: black and gray

#### Technical Specifications

##### Electrical

###### LCD

Type.....True color TFT LCD  
 Dimension.....15.4 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

###### Power

###### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

###### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....16 V/19 V  
 Capacity.....48.8 Wh  
 Charging current.....Approx 1300mA  
 Charging time.....3.5~4 hours

###### Current

Normal working current.....Approx 970 mA~ 1020 mA  
 Standby current.....Approx 380 mA  
 Power-off current.....1 mA ~ 1.5 mA

##### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

##### RS-232 port parameters

Baudrate.....115200 bps

##### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

##### Mechanical

Installation.....Tabletop  
 Dimensions (h x w x d).....108 x 403 x 307 mm  
 Weight.....4.61 kg  
 Color.....Black/Gray

#### Ordering Information

HCS-6115TP-B.....15.4" Widescreen Touchpanel  
 (wired Ethernet, black)  
 HCS-6115TP-G.....15.4" Widescreen Touchpanel  
 (wired Ethernet, gray)

## HCS-6115TPX 15.4" Widescreen Touchpanel



### Features

- 16:9 widescreen color display
- 1280×800 pixel resolution
- High brightness, high contrast ratio and wide viewing angles
- Latest graphic user interface
- Supports wireless two-way control (2.4 GHz)
- Supports wired Ethernet control
- Mini-USB port and type A USB port
- Supports SD card (up to 4 GB)
- 10 programmable touch buttons
- AV interface - supports various video formats, PIP (picture in picture) function Built-in speaker
- Built-in speaker
- Portable battery pack (separate purchase)
- Optional color: black and gray

### Technical Specifications

#### Electrical

##### LCD

Type.....True color TFT LCD  
 Dimension.....15.4 inches  
 Display color.....2<sup>18</sup> (18 bit)  
 Standard.....PAL/NTSC

##### Power

##### Power adapter

Input.....110 V ~ 240 V 50 Hz ~ 60 Hz AC  
 Output.....Voltage: DC+15 V; max. current: 2.2 A;  
 output interface: Ø 5.5 mm plug

##### Battery

Spec.....Rechargeable Lithium-Ion battery  
 Voltage.....16 V/19 V  
 Capacity.....48.8 Wh  
 Charging current.....Approx 1300mA  
 Charging time.....3.5~4 hours

##### Current

Normal working current.....Approx 970 mA ~ 1020 mA  
 Standby current.....Approx 380 mA  
 Power-off current.....1 mA ~ 1.5 mA

##### Wireless transmission parameters

Working frequency.....2.4 GHz  
 Effective range.....> 25 meters

##### RS-232 port parameters

Baudrate.....115200 bps

##### Other parameters

Memory.....64 MB SDRAM, 64 MB Flash  
 Digital button.....≤4000  
 Analog button.....≤1000  
 ID range of RF.....0 ~ 7  
 Button ID number.....0001 ~ 4000

#### Mechanical

Installation.....Tabletop  
 Dimensions (h x w x d).....108 x 403 x 307 mm  
 Weight.....4.61 kg  
 Color.....Black/Gray

### Ordering Information

HCS-6115TPX-B.....15.4" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, black)  
 HCS-6115TPX-G.....15.4" Widescreen Touchpanel  
 (wireless two-way, wired Ethernet, gray)

## HCS-6000SW Wall-mounted Keypads



HCS-6000SW/02



HCS-6000SW/04



HCS-6000SW/08



HCS-6000SW/12

### Features

- Communication method: TAINET Control BUS
- ID select: via ID setup rotary switches (HI/LO)
- Button number: 2/4/8/12 respectively
- Command programming: user-defined command code by programming software
- Connection port: TAINET BUS
- Power consumption: max. 30 mA 24 V DC, supplied by TAINET
- Dimensions (h x w x d): 119×86×11 mm
- Color: White

### Ordering Information

HCS-6000SW/02 .....Wall-mounted Keypad  
(2 buttons, TAINET control bus, white)

HCS-6000SW/04 .....Wall-mounted Keypad  
(4 buttons, TAINET control bus, white)

HCS-6000SW/08 .....Wall-mounted Keypad  
(8 buttons, TAINET control bus, white)

HCS-6000SW/12 .....Wall-mounted Keypad  
(12 buttons, TAINET control bus, white)

## HCS-6000PM 8 CHs Power Controller



### Features

- 8 independent power switch controls
- Load capacity: 240 V, 20 A for each channel
- ID select: via ID setup rotary switches (HI/LO)
- Power consumption: max. 300 mA 24 V DC supplied by TAINET
- Control method: independent network protocol control
- Single or multiple line switch
- Compatible with HCS-6000MCP3 intelligent central control system main unit
- Dimensions (h x w x d): 320×221×66 mm
- Weight: 2.7 kg

### Ordering Information

HCS-6000PM.....8 CHs Power-Supply Controller (240 V, 20 A/CH)

## **HCS-6000LM 4 CHs Lighting Controller**



### **Features**

- 4 controllable lighting interfaces
- Power consumption: 220 V, 50 Hz / 110 V, 60 Hz
- Load capacity: power (single line)  $\leq 1500$  W  
power (total)  $\leq 5000$  W
- ID select: via ID setup rotary switches (HI/LO)
- Control method: independent network protocol control
- Single or multiple line controllable adjustment
- Compatible with HCS-6000MCP3 intelligent central control system main unit
- Dimensions (h x w x d): 320×221×66 mm
- Weight: 2.5 kg

### **Ordering Information**

HCS-6000LM ..... 4 CHs High-Power Lights Controller

## **HCS-6000LMF 4CH Fluorescent Dimmer**



### **Features**

- 4 channels of 4-wire 0-10 Volt fluorescent dimming
- Switch load types including: incandescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode, fluorescent, motors and etc
- Supports 120 V to 240 Volt 50/60 Hz
- Also allows switching of lighting and exhaust fans
- ID select: via ID setup rotary switches (HI/LO)
- Control method: independent network protocol control
- Single or multiple line controllable adjustment
- Override input
- Maximum per channel: 30 A @ 120 V to 240 V AC, 50/60 Hz
- Compatible with HCS-6000MCP3 intelligent central control system main unit
- Dimensions (h x w x d): 320×221×66 mm
- Weight: 2.5 kg

### **Ordering Information**

HCS-6000LMF ..... 4 CHs Fluorescent Dimmer

## HCS-6100RF Wireless RF Transceiver



### Features

- 25 m wireless RF (2.4 GHz) range, easy to use
- One-way wireless transceiver (HCS-6100RF)
- Two-way wireless transceiver (HCS-6100RFX)
- Dimensions (h x w x d): 83×50×50 mm

### Ordering Information

HCS-6100RF.....One-way Wireless RF Transceiver (2.4 GHz)

HCS-6100RFX.....Two-way Wireless RF Transceiver (2.4 GHz)

## HCS-0108COM 8-series Distributor



### Features

- 1 channel of RS-232 input for communication with main unit
- 1 channel of daisy chained output
- 8 channels of programmable RS-232/RS-485 (COM1~COM8) outputs (available baud rates: 50~115200 bit/s)
- The number of distributors can be extended up to 4 via daisy chain, extending the corresponding number of COM up to 32
- 1U high, full rack width

### Ordering Information

HCS-0108COM.....8-series Distributor

## HCS-6100RF/ROUTER Wireless RF Router



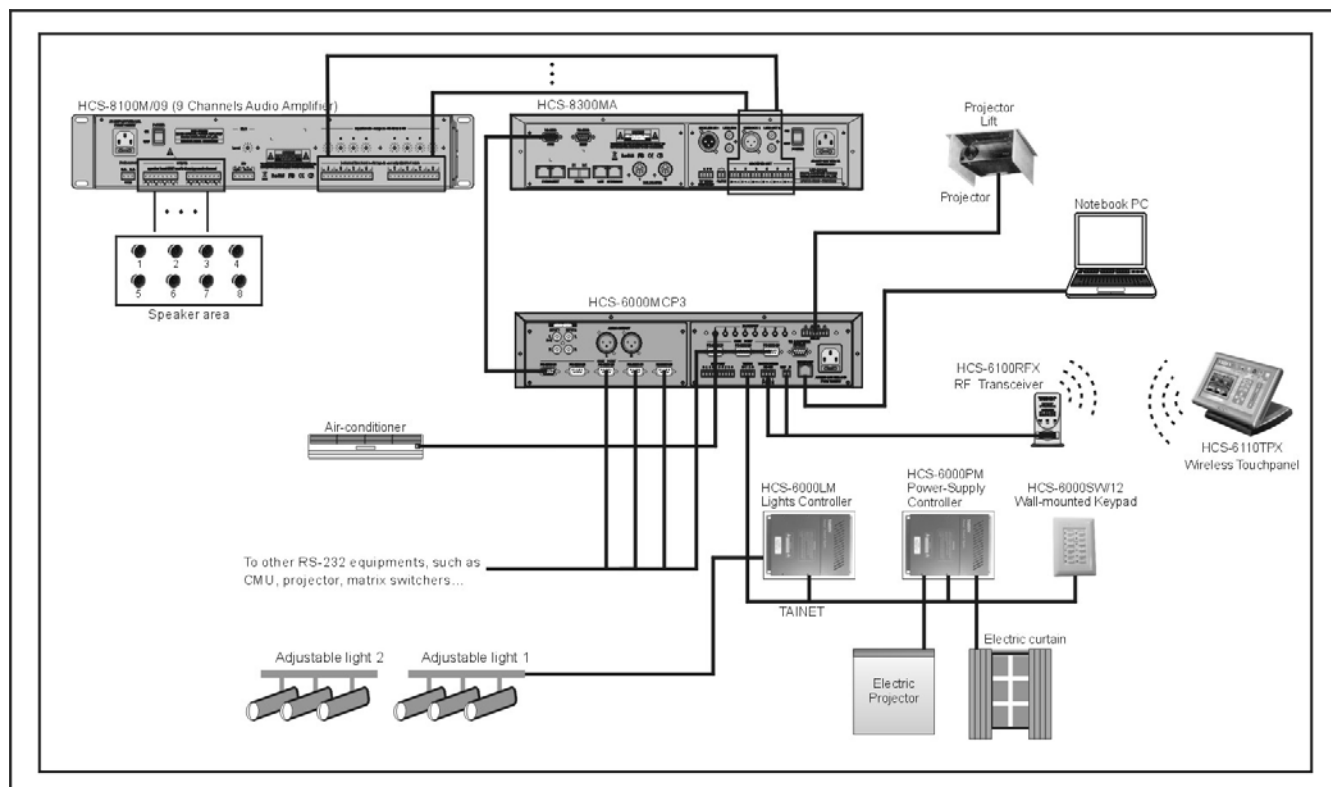
### Features

- 25 m wireless RF (2.4 GHz) range, easy to use
- Dimensions (h x w x d): 83×50×50 mm

### Ordering Information

HCS-6100RF/ROUTER.....Wireless RF Router (2.4 GHz)

## System Connection





## HCS-6107BAT Rechargeable Lithium-ion Batteries



### Features

- Voltage: 11.1 V
- Capacity: 2400 mAh
- Charging current: 1000 mA~1200 mA
- Charging time: 2.5~3 hours
- Continuous working duration: approx 6 hours (the screen is continuously on)
- Normal working duration: approx 7 days (related to the settings of power management and luminance)
- Standby time: approx 80 days
- For HCS-6107TP/TPX series touchpanels
- Weight: 0.2 kg
- Optional color: black and gray

### Ordering Information

HCS-6107BAT-B.....Rechargeable Lithium-ion Battery (black)  
HCS-6107BAT-G.....Rechargeable Lithium-ion Battery (gray)

## HCS-6110BAT External Rechargeable Lithium-ion Battery



### Features

- Portable battery pack
- Voltage: 16 V/19 V
- Capacity: 48.8 Wh
- Charging current: approx 1300mA
- Charging time: 3.5~4 hours
- Working duration: depending on the touchpanel type
- For 10", 12" and 15" touchpanels
- Weight: 0.42 kg
- Color: black

### Ordering Information

HCS-6110BAT.....External Rechargeable Lithium-ion Battery

## **CBL2PL-01 IR Transmission Stick**



### **Features**

- Matches central control system main unit to achieve IR remote controlling for projector, DVD, PA, air condition, etc.
- With 1.2-meter-long cable
- Plug: Ø 3.5 mm plug

### **Ordering Information**

CBL2PL-01.....IR Transmission Stick (with a 1.2 m long cable)

## **CBL3PL-01 IR Transmission Stick**



### **Features**

- Matches central control system main unit to achieve IR remote controlling for projector, DVD, PA, air condition, etc.
- With 1.2-meter-long cable
- Plug: Ø 3.5 mm plug

### **Ordering Information**

CBL3PL-01.....IR Transmission Stick (with a 1.2 m long cable)

## **HCS-ADP15V Power Adapter**



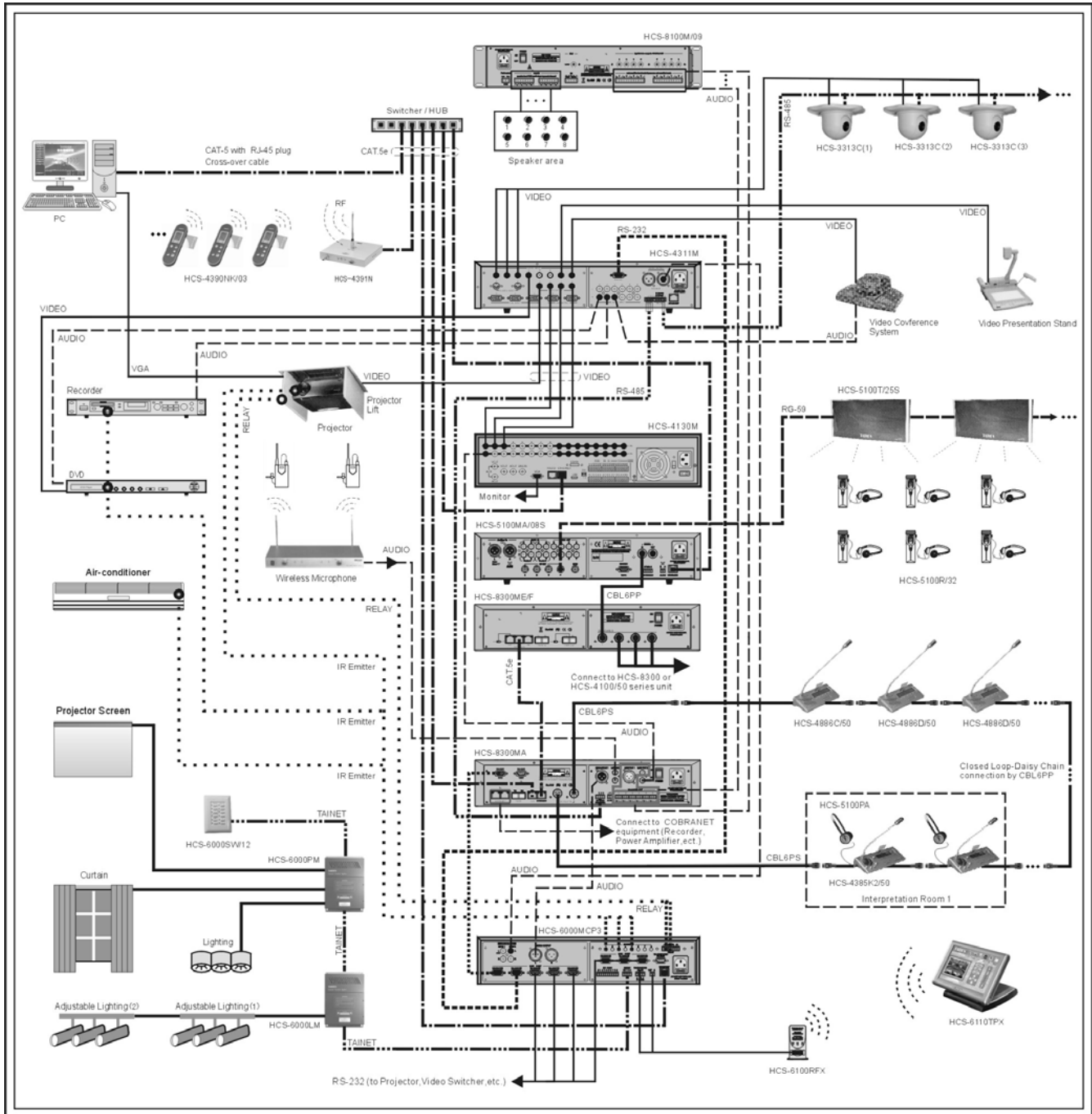
### **Features**

- Mains voltage: AC 100~240 V, 50/60 Hz
- Output: DC 15 V, 2.2 A
- Connector: UL, CE or VDE type, according to the territory of selling
- Cable length: 3 m
- Dimensions (h x w x d): 28×95×45 mm
- Weight: 0.3 kg
- Color: black

### **Ordering Information**

HCS-ADP15V.....Power Adapter (DC 15 V, 2.2 A)

## Intelligent Conference System — Digital Conference System & Central Control System



The system configuration above mentioned is a perfect intelligent conference solution, as it integrates seamlessly **TAIDEN** Conference System and Central Control System. Digital Conference System and Central Control System are key parts of this system.

### Digital Conference System is composed of the following parts:

- |  |   |                             |
|--|---|-----------------------------|
| 1. Voting System                                 | 2. Conference Discussion System                       | 3. Video Tracking System    |
| 4. IC-card Sign-in System                        | 5. Simultaneous Interpretation System                 | 6. Videoconferencing System |
| 7. Digital Infrared Language Distribution System | 8. Professional Audio & Video Recorder for Conference |                             |

### Central Control System is composed of the following parts:

- |   |                                       |
|---|---------------------------------------|
| 1. Digital Conference Manage and Control Center | 2. Wireless Touchpanel Control System |
| 3. Power-Supply Controller                      | 4. High-Power Lights Controller       |

Multiform functions can be realized with the system configuration above mentioned, including: conference discussion, voting, video tracking, simultaneous interpretation, videoconferencing and IC-card sign-in. Central Control System executes central control functions to currently connected devices, such as power supplies (on/off), lightings (on/off), projector lift (up/down), curtains (open/close), projector (pitching), volume (up/down), etc. Diverse multimedia devices can be controlled via infrared, e.g. DVD, MD, media matrix, projector, etc. Connection to LAN or internet, executing commands via remote control.

**TAIDEN Digital Conference System seamlessly integrated with Central Control System, bring multiform unique functions:**

1. Microphones of conference units can be controlled by wireless touchpanel remotely
2. Cameras can be remote controlled

## TMX Series Matrix Switchers

<b>Ultra Wideband RGBHV Matrix Switchers</b>	<b>11.6</b>
<b>TMX-08xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers</b>	<b>11.6</b>
TMX-0802RGB 8×2 RGBHV Matrix Switcher, 450 M, BNC Connectors	11.6
TMX-0802RGB-A 8×2 RGBHV & Audio Matrix Switcher, 450 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.7
TMX-0804RGB 8×4 RGBHV Matrix Switcher, 450 M, BNC Connectors	11.9
TMX-0804RGB-A 8×4 RGBHV & Audio Matrix Switcher, 450 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.10
TMX-0808RGB 8×8 RGBHV Matrix Switcher, 450 M, BNC Connectors	11.12
TMX-0808RGB-A 8×8 RGBHV & Audio Matrix Switcher, 450 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.13
<b>TMX-08xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers System Connection</b>	<b>11.15</b>
<b>TMX-16xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers</b>	<b>11.16</b>
TMX-1604RGB 16×4 RGBHV Matrix Switcher, 425 M, BNC Connectors	11.16
TMX-1604RGB-A 16×4 RGBHV & Audio Matrix Switcher, 425 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.17
TMX-1608RGB 16×8 RGBHV Matrix Switcher, 425 M, BNC Connectors	11.19
TMX-1608RGB-A 16×8 RGBHV & Audio Matrix Switcher, 425 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.20
TMX-1616RGB 16×16 RGBHV Matrix Switcher, 425 M, BNC Connectors	11.22
TMX-1616RGB-A 16×16 RGBHV & Audio Matrix Switcher, 425 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.23
<b>TMX-16xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers System Connection</b>	<b>11.25</b>
<b>TMX-32xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers</b>	<b>11.26</b>
TMX-3208RGB 32×8 RGBHV Matrix Switcher, 500 M, BNC Connectors	11.26
TMX-3208RGB-A 32×8 RGBHV & Audio Matrix Switcher, 500 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.27
TMX-3216RGB 32×16 RGBHV Matrix Switcher, 500 M, BNC Connectors	11.29
TMX-3216RGB-A 32×16 RGBHV & Audio Matrix Switcher, 500 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.30
TMX-3232RGB 32×32 RGBHV Matrix Switcher, 500 M, BNC Connectors	11.32
TMX-3232RGB-A 32×32 RGBHV & Audio Matrix Switcher, 500 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.33
<b>TMX-32xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers System Connection</b>	<b>11.35</b>
<b>TMX-64xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers</b>	<b>11.36</b>
TMX-6464RGB 64×64 RGBHV Matrix Switcher, 450 M, BNC Connectors	11.36
TMX-6464RGB-A 64×64 RGBHV & Audio Matrix Switcher, 450 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.38
<b>TMX-128xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers</b>	<b>11.40</b>
TMX-128128RGB 128×128 RGBHV Matrix Switcher, 450 M, BNC Connectors	11.40
TMX-128128RGB-A 128×128 RGBHV & Audio Matrix Switcher, 450 M, Video on BNC Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors	11.42

<b>Ultra Wideband VGA Matrix Switchers</b> .....	<b>11.44</b>
<b>TMX-08xxVGA Series Ultra Wideband VGA Matrix Switchers</b> .....	<b>11.44</b>
TMX-0802VGA      8×2 VGA Matrix Switcher, 450 M, 15HDF Connectors.....	11.44
TMX-0804VGA      8×4 VGA Matrix Switcher, 450 M, 15HDF Connectors.....	11.45
TMX-0808VGA      8×8 VGA Matrix Switcher, 450 M, 15HDF Connectors.....	11.46
<b>TMX-08xxVGA Series Ultra Wideband VGA Matrix Switchers System Connection</b> .....	<b>11.47</b>
<b>TMX-08xxVGA-A Series Ultra Wideband VGA Matrix Switchers</b> .....	<b>11.48</b>
TMX-0802VGA-A      8×2 VGA & Audio Matrix Switcher, 450 M, Video on 15HDF Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.48
TMX-0804VGA-A      8×4 VGA & Audio Matrix Switcher, 450 M, Video on 15HDF Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.50
TMX-0808VGA-A      8×8 VGA & Audio Matrix Switcher, 450 M, Video on 15HDF Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.52
<b>TMX-16xxVGA/VGA-A Series Ultra Wideband VGA Matrix Switchers</b> .....	<b>11.54</b>
TMX-1608VGA      16×8 VGA Matrix Switcher, 425 M, 15HDF Connectors.....	11.54
TMX-1608VGA-A      16×8 VGA & Audio Matrix Switcher, 425 M, Video on 15HDF Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.55
TMX-1616VGA      16×16 VGA Matrix Switcher, 425 M, 15HDF Connectors.....	11.57
TMX-1616VGA-A      16×16 VGA & Audio Matrix Switcher, 425 M, Video on 15HDF Connectors; Balanced audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.58
<b>TMX-16xxVGA/VGA-A Series Ultra Wideband VGA Matrix Switchers System Connection</b> .....	<b>11.60</b>
<b>Composite Video &amp; Audio Matrix Switchers</b> .....	<b>11.61</b>
<b>TMX-0404A/080xA Series Stereo Audio Matrix Switchers</b> .....	<b>11.61</b>
TMX-0404A      4×4 Stereo Audio Matrix Switcher, Audio stereo on RCA Connectors.....	11.61
TMX-0804A      8×4 Stereo Audio Matrix Switcher, Audio stereo on RCA Connectors.....	11.61
TMX-0808A      8×8 Stereo Audio Matrix Switcher, Audio stereo on RCA Connectors.....	11.62
<b>TMX-0401MA    4×1 VGA &amp; Video &amp; Audio Mixed Switcher</b> .....	<b>11.63</b>
<b>TMX-08xxV Series Composite Video Matrix Switchers</b> .....	<b>11.64</b>
TMX-0804V      8×4 Composite Video Matrix Switcher, BNC Connectors.....	11.64
TMX-0808V      8×8 Composite Video Matrix Switcher, BNC Connectors.....	11.65
<b>TMX-08xxAV Series Composite Video Matrix Switchers</b> .....	<b>11.66</b>
TMX-0802AV      8×2 Composite Video & Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.66
TMX-0804AV      8×4 Composite Video & Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.67
TMX-0808AV      8×8 Composite Video & Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.68
<b>TMX-16xxV Series Composite Video Matrix Switchers</b> .....	<b>11.69</b>
TMX-1604V      16×4 Composite Video Matrix Switcher, BNC Connectors.....	11.69
TMX-1608V      16×8 Composite Video Matrix Switcher, BNC Connectors.....	11.70
TMX-1616V      16×16 Composite Video Matrix Switcher, BNC Connectors.....	11.71

<b>TMX-16xxAV Series Composite Video Matrix Switchers</b> .....	<b>11.72</b>
TMX-1604AV      16×4 Composite Video & Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.72
TMX-1608AV      16×8 Composite Video & Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.73
TMX-1616AV      16×16 Composite Video & Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.74
<b>Composite Video&amp; Audio Matrix Switchers System Connection</b> .....	<b>11.75</b>
<b>TMX-08xxAV-B/16xxAV-B Series Composite Video &amp; Balanced/Unbalanced Stereo Audio Matrix Switchers</b> .....	<b>11.76</b>
TMX-0804AV-B      8×4 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.76
TMX-0808AV-B      8×8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.77
TMX-1608AV-B      16×8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.78
TMX-1616AV-B      16×16 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.79
<b>TMX-32xxV Series Composite Video Matrix Switchers</b> .....	<b>11.80</b>
TMX-3208V      32×8 Composite Video Matrix Switcher, BNC Connectors.....	11.80
TMX-3216V      32×16 Composite Video Matrix Switcher, BNC Connectors.....	11.81
TMX-3232V      32×32 Composite Video Matrix Switcher, BNC Connectors.....	11.82
<b>TMX-32xxAV-B Series Composite Video &amp; Balanced/Unbalanced Stereo Audio Matrix Switchers</b> .....	<b>11.83</b>
TMX-3208AV-B      32×8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.83
TMX-3216AV-B      32×16 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.84
TMX-3232AV-B      32×32 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors; Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.85
<b>Composite Video &amp; Balanced/Unbalanced Stereo Audio Matrix Switchers System Connection</b> .....	<b>11.86</b>
<b>VGA/Video/Composite Video &amp; Audio Distribution Amplifiers</b> .....	<b>11.87</b>
<b>TMX-01xxVGA Series VGA Distribution Amplifiers</b> .....	<b>11.87</b>
TMX-0104VGA      1×4 VGA Distribution Amplifier, 300 M, 15HDF Connectors.....	11.87
TMX-0108VGA      1×8 VGA Distribution Amplifier, 300 M, 15HDF Connectors.....	11.87
TMX-0116VGA      1×16 VGA Distribution Amplifier, 300 M, 15HDF Connectors.....	11.88
<b>VGA Distribution Amplifiers System Connection</b> .....	<b>11.88</b>
<b>TMX-01xxV Series Video Distribution Amplifiers</b> .....	<b>11.89</b>
TMX-0108V      1×8 Video Distribution Amplifier, 125 M, BNC Connectors.....	11.89
TMX-0116V      1×16 Video Distribution Amplifier, 125 M, BNC Connectors.....	11.90
TMX-0132V      1×32 Video Distribution Amplifier, 125 M, BNC Connectors.....	11.90
<b>TMX-01xxAV Series Composite Video&amp; Audio Distribution Amplifiers</b> .....	<b>11.91</b>
TMX-0104AV      1×4 Composite Video& Audio Distribution Amplifier, 125 M, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.91



TMX-0108AV	1×8 Composite Video& Audio Distribution Amplifier, 125 M, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.91
TMX-0116AV	1×16 Composite Video& Audio Distribution Amplifier, 125 M, Video on BNC Connectors, Audio stereo on RCA Connectors.....	11.92
<b>Composite Video&amp; Audio Distribution Amplifiers System Connection .....</b>		<b>11.92</b>
<b>HCS-4112M/29 Broadcast Standard Audio Distributor</b>		
<b>(1 XLR-F inputs, 29 XLR-M outputs, adjustable gain isolated output).....</b>		<b>11.93</b>
<b>Component Video Matrix Switchers .....</b>		<b>11.95</b>
<b>TMX-08xxHD/HD-A Series Component Video Matrix Switchers .....</b>		<b>11.95</b>
TMX-0804HD	8×4 Component Video Matrix Switcher, BNC Connectors.....	11.95
TMX-0804HD-A	8×4 Component Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.96
TMX-0808HD	8×8 Component Video Matrix Switcher, BNC Connectors.....	11.98
TMX-0808HD-A	8×8 Component Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.99
<b>TMX-16xxHD/HD-A Series Component Video Matrix Switchers .....</b>		<b>11.101</b>
TMX-1608HD	16×8 Component Video Matrix Switcher, BNC Connectors.....	11.101
TMX-1608HD-A	16×8 Component Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.102
TMX-1616HD	16×16 Component Video Matrix Switcher, BNC Connectors.....	11.104
TMX-1616HD-A	16×16 Component Video & Balanced/Unbalanced Stereo Audio Matrix Switcher, Video on BNC Connectors, Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.105
<b>Component Video Matrix Switchers System Connection .....</b>		<b>11.107</b>
<b>DVI &amp; HDMI Series Products .....</b>		<b>11.108</b>
<b>TMX-xx01DVI-A Series DVI Switchers .....</b>		<b>11.108</b>
TMX-0201DVI-A	2×1 DVI & Audio Switcher, 2.25 Gbps, Video on DVI-I Connectors, Audio stereo on 3.5 mm Phone jack (L+R) inputs and 3.5 mm Phone jack (L+R)/5 pin 3.81 mm Phoenix output.....	11.108
TMX-0401DVI-A	4×1 DVI & Audio Switcher, 2.25 Gbps, Video on DVI-I Connectors, Audio stereo on 3.5 mm Phone jacks (L+R).....	11.109
<b>DVI Switchers System Connection .....</b>		<b>11.110</b>
<b>TMX-02xxDVI/DVI-A Series DVI Matrix Switchers .....</b>		<b>11.111</b>
TMX-0202DVI	2×2 DVI Matrix Switcher, 1.65 Gbps, DVI-I Connector.....	11.111
TMX-0202DVI-A	2×2 DVI & Audio Matrix Switcher, 1.65 Gbps, Video on DVI-I Connectors, Audio stereo on 3.5 mm Phone jacks (L+R).....	11.112
TMX-0204DVI	2×4 DVI Matrix Switcher, 1.65 Gbps, DVI-I Connector.....	11.113
TMX-0204DVI-A	2×4 DVI & Audio Matrix Switcher, 1.65 Gbps, Video on DVI-I Connectors, Audio stereo on 3.5 mm Phone jacks (L+R).....	11.114
<b>TMX-08xxDVI/DVI-A Series DVI Matrix Switchers .....</b>		<b>11.115</b>
TMX-0804DVI	8×4 DVI Matrix Switcher, 2.25 Gbps, DVI-I Connector.....	11.115
TMX-0804DVI-A	8×4 DVI & Audio Matrix Switcher, 2.25 Gbps, Video on DVI-I Connectors, Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.116
TMX-0808DVI	8×8 DVI Matrix Switcher, 2.25 Gbps, DVI-I Connector.....	11.117

TMX-0808DVI-A	8×8 DVI & Audio Matrix Switcher, 2.25 Gbps, Video on DVI-I Connectors, Audio stereo on 5 pin 3.81 mm Phoenix Connectors.....	11.118
<b>DVI Matrix Switchers System Connection.....</b>		<b>11.119</b>
<b>TMX-xx01HDMI Series HDMI Switchers.....</b>		<b>11.120</b>
TMX-0201HDMI	2×1 HDMI Switcher, 2.25 Gbps, HDMI 1.3-compliant.....	11.120
TMX-0401HDMI	4×1 HDMI Switcher, 2.25 Gbps, HDMI 1.3-compliant.....	11.121
TMX-0801HDMI	8×1 HDMI Switcher, 2.25 Gbps, HDMI 1.3-compliant.....	11.122
<b>HDMI Switchers System Connection.....</b>		<b>11.123</b>
<b>TMX-01xxDVI Series DVI Distribution Amplifiers.....</b>		<b>11.124</b>
TMX-0102DVI	1×2 DVI Distribution Amplifier, 2.25 Gbps.....	11.124
TMX-0104DVI	1×4 DVI Distribution Amplifier, 2.25 Gbps.....	11.124
<b>DVI Distribution Amplifiers System Connection.....</b>		<b>11.125</b>
<b>Converters &amp; Interfaces.....</b>		<b>11.126</b>
TMX-DVI-EQ	DVI Cable Equalizer.....	11.126
TMX-HDMI-EQ	HDMI Cable Equalizer.....	11.127
TMX-TP-R	VGA & Audio over Twisted Pair Receiver.....	11.128
TMX-TP-T	VGA & Audio over Twisted Pair Transmitter.....	11.129
TMX-TP-R/T	VGA & Audio over Twisted Pair Receiver with Relay Output.....	11.131
TMX-VGA2RGB	VGA to RGBHV Converter.....	11.133
TMX-VIDEO2VGA	VIDEO to VGA Converter.....	11.134
CBL-VGA2RGB-01	1 m VGA to RGB Converting Cable.....	11.135
CBL-VGA2RGB-02	2 m VGA to RGB Converting Cable.....	11.135
CBL-VGA2RGB-05	5 m VGA to RGB Converting Cable.....	11.135

## TMX-0802RGB

### 8×2 RGBHV Ultra Wideband Matrix Switcher



#### Features

- Routing: 8 × 2 RGBHV ultra wideband matrix switcher
- Video interface: BNC × 5 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

#### Technical Specifications

##### Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz ≤ ± 0.1 dB; 0 ~ 100 MHz ≤ ± 0.8 dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

##### Video input

Connectors	8 × 5 BNC female
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

##### Video output

Connectors	2 × 5 BNC female
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	± 5 mV with no offset at input
Switching type	RGB simultaneity

##### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

##### Control

COM (RS-232)	RS-232, 9 pin female D connector
COM1	Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
COM2	Variable baudrate, data: 8 bits, stop: 1 bit, no parity
Interface	9-pin female D connector, 2 = TX, 3 = RX, 5 = GND
Ethernet	RJ-45 female connector, CAT-5 only cross-pair
Ethernet protocol	TCP/IP
Ethernet speed	10 M/100 M, full-duplex or half-duplex with autodetect
PC control	Matrix switcher

##### General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h × w × d (mm)	132 × 478 × 310 (3U high, full rack width)
Weight	4.8 kg
Mean time between failures	30,000 hours

##### Ordering Information

TMX-0802RGB	8×2 RGBHV Matrix Switcher, 450 M, BNC Connectors
-------------	---



- Routing: 8x2 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNCx5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Gain .....	0 dB
Bandwidth .....	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel .....	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma .....	< -80 dB @ 1 kHz, fully loaded
Differential phase error .....	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error .....	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay .....	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed .....	25 ns
Signal type .....	RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

Connectors ..... 8 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

Connectors ..... 2 × 5 BNC female  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... ± 5 mV with no offset at input  
Switching type ..... RGB simultaneity

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 2 stereo, balanced/unbalanced  
Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 2 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....5.0 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0802RGB-A.....8×2 RGBHV & Audio Matrix Switcher, 450 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix Connectors

## TMX-0804RGB

### 8x4 RGBHV Ultra Wideband Matrix Switcher



## Features

- Routing: 8x4 RGBHV ultra wideband matrix switcher
- Video interface: BNCx5 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 8 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors.....4 × 5 BNC female

Nominal level.....0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels.....Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance.....75 Ohm

Return loss.....-30 dB @ 5 MHz

DC offset.....± 5 mV with no offset at input

Switching type.....RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....5.1 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0804RGB.....8×4 RGBHV Matrix Switcher,  
450 M. BNC Connectors



- Routing: 8x4 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNCx5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns



## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 4 stereo, balanced/unbalanced  
Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 4 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....5.3 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0804RGB-A.....8×4 RGBHV & Audio Matrix Switcher, 450 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix Connectors

## TMX-0808RGB

### 8×8 RGBHV Ultra Wideband Matrix Switcher



#### Features

- Routing: 8×8 RGBHV ultra wideband matrix switcher
- Video interface: BNC×5 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

#### Technical Specifications

##### Video

Gain ..... 0 dB

Bandwidth ..... 450 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB

Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz

Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded

Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm

Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm

Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm

Typical switching speed ..... 25 ns

Signal type ..... RGBHV, RGBs, RGsB, RsGsBs,  
HDTV, component video, S-video  
and composite video

##### Video input

Connectors ..... 8 × 5 BNC female

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

##### Video output

Connectors ..... 8 × 5 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset .....  $\pm 5$  mV with no offset at input

Switching type ..... RGB simultaneity

##### Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal

Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p

Input impedance ..... 510 Ohm

Output impedance ..... 75 Ohm

Max input voltage ..... 5.0 Vp-p

Max. propagation delay ..... 20 ns

##### Control

COM (RS-232) ..... RS-232, 9 pin female D connector

COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND

Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol ..... TCP/IP

Ethernet speed ..... 10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control ..... Matrix switcher

##### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz

Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity ..... Storage and operating: 10% to 90%

Dimensions h × w × d (mm) ..... 132 × 478 × 310  
(3U high, full rack width)

Weight ..... 5.6 kg

Mean time between failures ..... 30,000 hours

#### Ordering Information

TMX-0808RGB ..... 8×8 RGBHV Matrix Switcher,  
450 M, BNC Connectors

# TMX-0808RGB-A

## 8x8 RGBHV & Audio Ultra Wideband Matrix Switcher



## Features

- Routing: 8x8 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNCx5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	RGBHV, RGBs, RGSb, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 8 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 8 × 5 BNC female  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... ± 5 mV with no offset at input  
Switching type ..... RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced  
Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

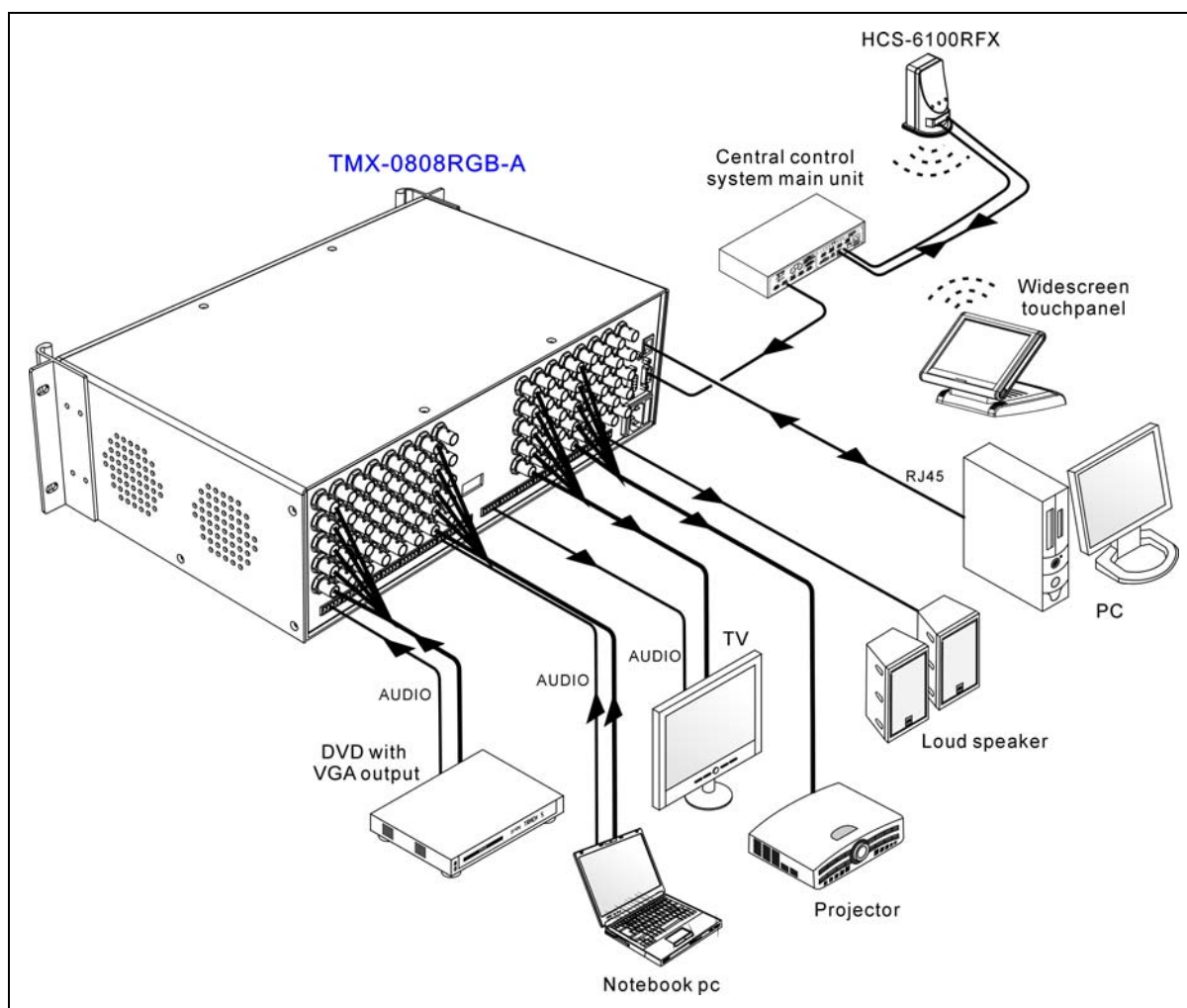
## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....5.3 kg  
Mean time between failures.....30,000 hours

## Ordering Information

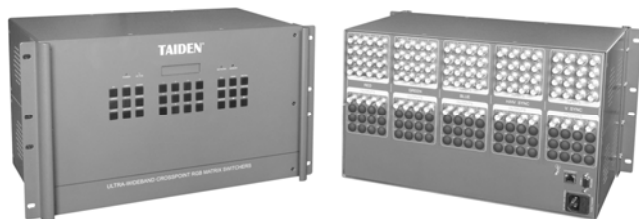
TMX-0808RGB-A.....8×8 RGBHV & Audio Matrix Switcher, 450 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix  
Connectors

**TMX-08xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers System Connection**



## TMX-1604RGB

### 16×4 RGBHV Ultra Wideband Matrix Switcher



#### Features

- Routing: 16 × 4 RGBHV ultra wideband matrix switcher
- Video interface: BNC × 5 female
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

#### Technical Specifications

##### Video

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

##### Video input

Connectors	16 × 5 BNC female
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

##### Video output

Connectors	4 × 5 BNC female
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	$\pm 5$ mV with no offset at input
Switching type	RGB simultaneity

##### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

##### Control

COM (RS-232)	RS-232, 9 pin female D connector
COM1	Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
Interface	9-pin female D connector, 2 = TX, 3 = RX, 5 = GND
Ethernet	RJ-45 female connector, CAT-5 only cross-pair
Ethernet protocol	TCP/IP
Ethernet speed	10 M/100 M, full-duplex or half-duplex with autodetect
PC control	Matrix switcher

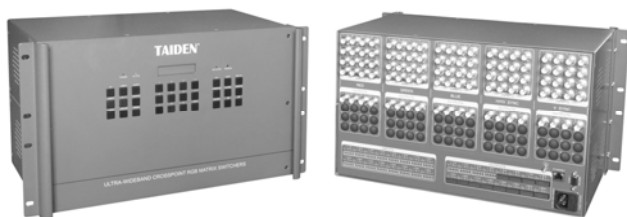
##### General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h × w × d (mm)	264 × 478 × 310 (6U high, full rack width)
Weight	9.1 kg
Mean time between failures	30,000 hours

#### Ordering Information

TMX-1604RGB	16×4 RGBHV Matrix Switcher, 425 M, BNC Connectors
-------------	--

## TMX-1604RGB-A 16×4 RGBHV & Audio Ultra Wideband Matrix Switcher



### Features

- Routing: 16×4 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNC×5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
Bandwidth ..... 425 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB  
Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz  
Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm  
Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm  
Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm  
Typical switching speed ..... 50 ns  
Signal type ..... RGBHV, RGBs, RGsB, RsGsBs,  
HDTV, component video, S-video  
and composite video

#### Video input

Connectors ..... 16 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 4 × 5 BNC female  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input  
Switching type ..... RGB simultaneity

#### Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal  
Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p  
Input impedance ..... 510 Ohm  
Output impedance ..... 75 Ohm  
Max input voltage ..... 5.0 Vp-p  
Max. propagation delay ..... 20 ns



## Audio

Signal type.....Input: 16 stereo, balanced/unbalanced;  
output: 4 stereo, balanced/unbalanced  
Connectors.....Input: 16 × 5 pin 3.81 mm Phoenix;  
output: 4 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....264 × 478 × 310  
(6U high, full rack width)  
Weight.....9.3 kg  
Mean time between failures.....30,000 hours

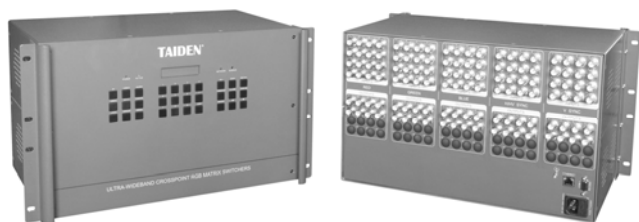
---

## Ordering Information

TMX-1604RGB-A.....16×4 RGBHV & Audio Matrix Switcher,  
425 M, Video on BNC Connectors;  
Balanced audio stereo on 5 pin 3.81  
mm Phoenix Connectors

## TMX-1608RGB

### 16×8 RGBHV Ultra Wideband Matrix Switcher



#### Features

- Routing: 16 × 8 RGBHV ultra wideband matrix switcher
- Video interface: BNC × 5 female
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

#### Technical Specifications

##### Video

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB; 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

##### Video input

Connectors	16 × 5 BNC female
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

##### Video output

Connectors	8 × 5 BNC female
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	$\pm 5$ mV with no offset at input
Switching type	RGB simultaneity

##### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

##### Control

COM (RS-232)	RS-232, 9 pin female D connector
COM1	Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
Interface	9-pin female D connector, 2 = TX, 3 = RX, 5 = GND
Ethernet	RJ-45 female connector, CAT-5 only cross-pair
Ethernet protocol	TCP/IP
Ethernet speed	10 M/100 M, full-duplex or half-duplex with autodetect
PC control	Matrix switcher

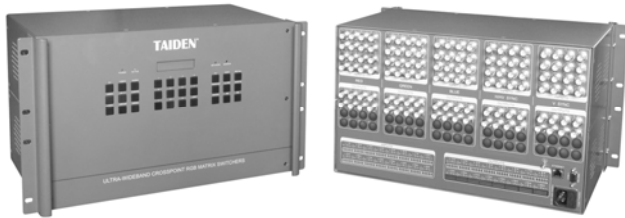
##### General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h × w × d (mm)	264 × 478 × 310 (6U high, full rack width)
Weight	9.6 kg
Mean time between failures	30,000 hours

#### Ordering Information

TMX-1608RGB	16×8 RGBHV Matrix Switcher, 425 M, BNC Connectors
-------------	--

# TMX-1608RGB-A 16×8 RGBHV & Audio Ultra Wideband Matrix Switcher



## Features

- Routing: 16×8 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNC×5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

## Technical Specifications

### Video

Gain ..... 0 dB  
Bandwidth ..... 425 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB  
Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz  
Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm  
Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm  
Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm  
Typical switching speed ..... 50 ns  
Signal type ..... RGBHV, RGBs, RGsB, RsGsBs,  
HDTV, component video, S-video  
and composite video

### Video input

Connectors ..... 16 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

### Video output

Connectors ..... 8 × 5 BNC female  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input  
Switching type ..... RGB simultaneity

### Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal  
Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p  
Input impedance ..... 510 Ohm  
Output impedance ..... 75 Ohm  
Max input voltage ..... 5.0 Vp-p  
Max. propagation delay ..... 20 ns

## Audio

Signal type.....Input: 16 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced  
Connectors.....Input: 16 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

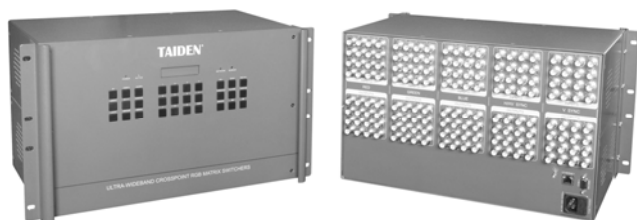
## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....264 × 478 × 310  
(6U high, full rack width)  
Weight.....9.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-1608RGB-A\_\_\_16×8 RGBHV & Audio Matrix Switcher, 425 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix Connectors

# TMX-1616RGB 16x16 RGBHV Ultra Wideband Matrix Switcher



## Features

- Routing: 16 × 16 RGBHV ultra wideband matrix switcher
- Video interface: BNC × 5 female
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB; 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors .....16 × 5 BNC female

Min./max. levels.....Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level.....0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance.....75 Ohm

Return loss .....-30 dB @ 5 MHz

Max. DC offset .....1.5 V

## Video output

Connectors .....16 × 5 BNC female  
Nominal level.....0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels.....Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....± 5 mV with no offset at input  
Switching type .....RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Control

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

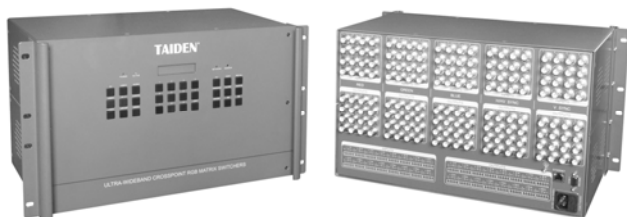
## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....264 x 478 x 310  
(6U high, full rack width)  
Weight.....10.6 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-1616RGB.....16×16 RGBHV Matrix Switcher,  
425 M. BNC Connectors

## TMX-1616RGB-A 16×16 RGBHV & Audio Ultra Wideband Matrix Switcher



### Features

- Routing: 16×16 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNC×5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

### Technical Specifications

#### Video

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB; 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

#### Video input

Connectors	16 × 5 BNC female
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

#### Video output

Connectors	16 × 5 BNC female
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	$\pm 5$ mV with no offset at input
Switching type	RGB simultaneity

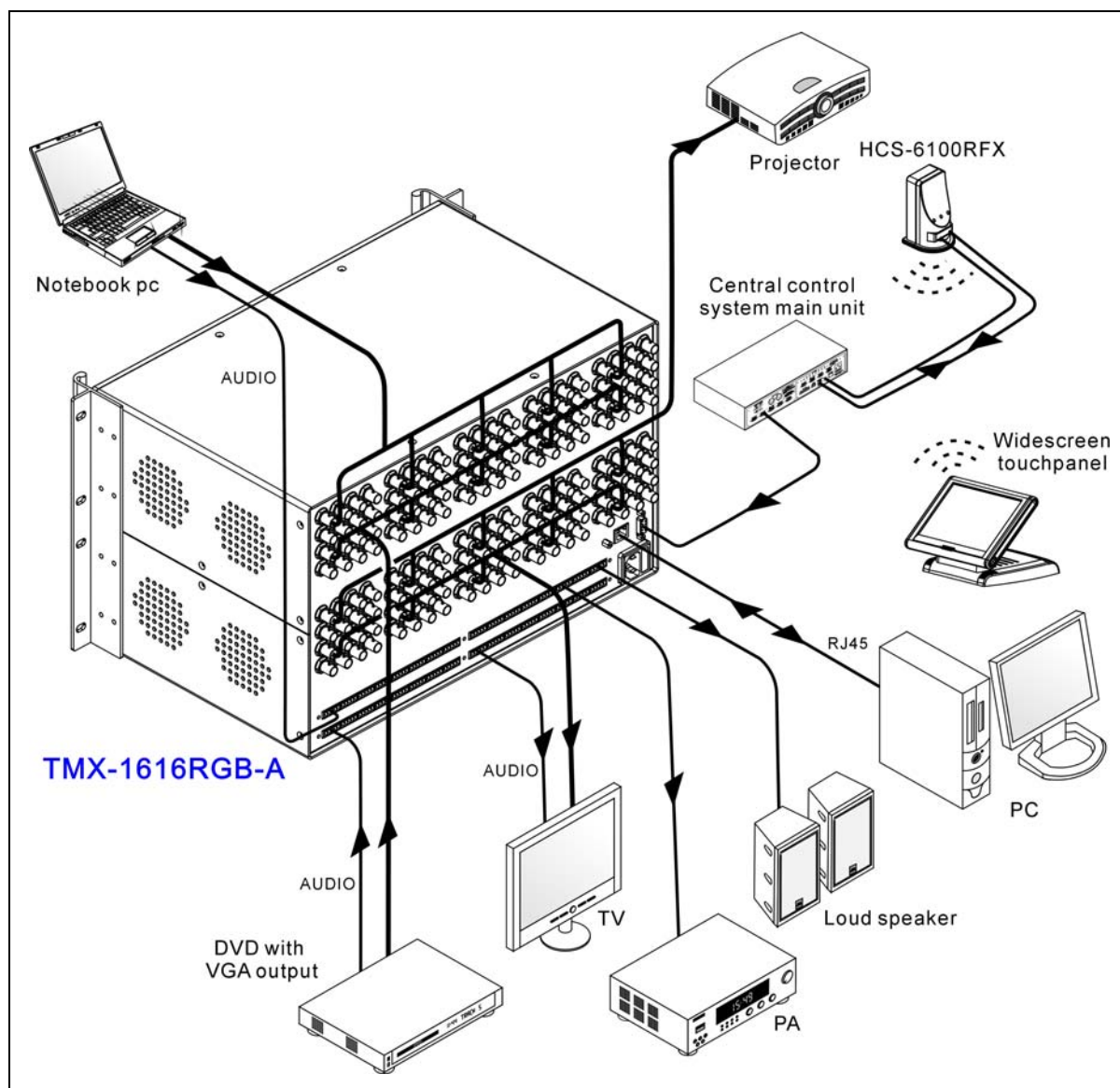
#### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

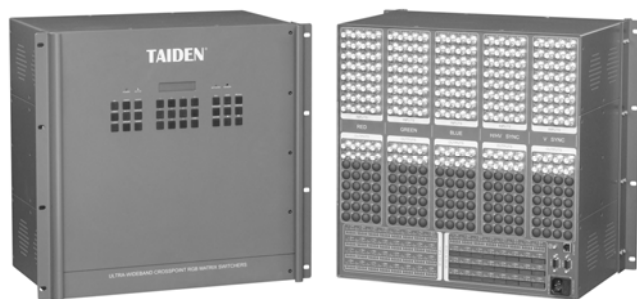




**TMX-16xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers System Connection**







- Routing: 32x8 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNCx5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 500 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 10U high, full rack width

## Audio

Signal type.....Input: 32 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced  
Connectors.....Input: 32 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General specs

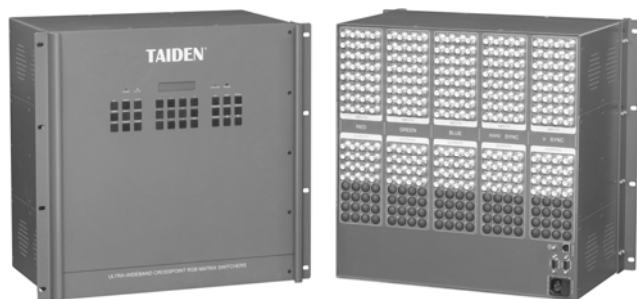
Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....440 × 478 × 310  
(10U high, full rack width)  
Weight.....14.2 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-3208RGB-A\_\_\_32×8 RGBHV & Audio Matrix Switcher, 500 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix Connectors

# TMX-3216RGB

## 32x16 RGBHV Ultra Wideband Matrix Switcher



## Features

- Routing: 32 x 16 RGBHV ultra wideband matrix switcher
- Video interface: BNC x 5 female
- Fully loaded video bandwidth: 500 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control , easy to switch manually
- Front keyboard lockup and protection function
- Scene save and recall function
- 10U high. full rack width

## Technical Specifications

## Video

Gain	.....	0 dB
Bandwidth	.....	500 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB, 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	.....	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of luma and chroma	.....	< -80 dB @ 1 kHz, fully loaded
Differential phase error	.....	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	.....	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	.....	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	.....	100 ns
Signal type	.....	RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 32 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 16 × 5 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset ..... ± 5 mV with no offset at input

Switching type ..... RGB simultaneity

## Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

## Control

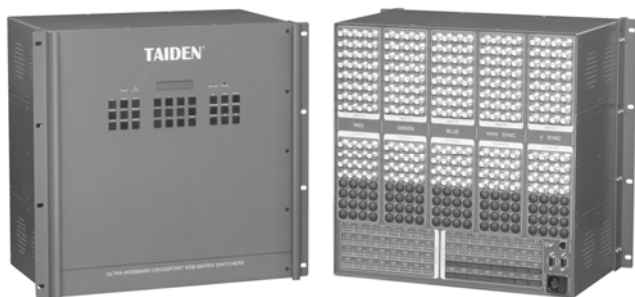
COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

## General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h x w x d (mm)	440 x 478 x 310 (10U high, full rack width)
Weight	15 kg
Mean time between failures	30,000 hours

## Ordering Information

TMX-3216RGB.....32×16 RGBHV Matrix Switcher,  
500 M. BNC Connectors



- Routing: 32x16 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNCx5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 500 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 10U high, full rack width



## Audio

Signal type.....Input: 32 stereo, balanced/unbalanced;  
output: 16 stereo, balanced/unbalanced  
Connectors.....Input: 32 × 5 pin 3.81 mm Phoenix;  
output: 16 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

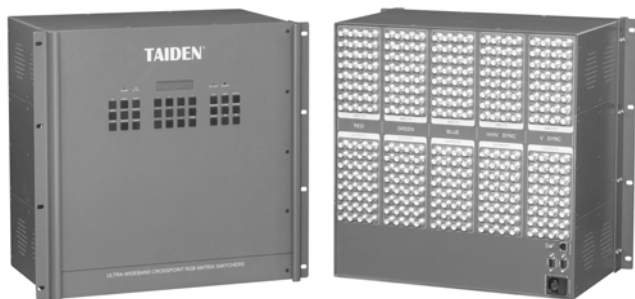
Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....440 × 478 × 310  
(10U high, full rack width)  
Weight.....15.2 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-3216RGB-A...32×16 RGBHV & Audio Matrix Switcher, 500 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix Connectors



# TMX-3232RGB 32x32 RGBHV Ultra Wideband Matrix Switcher



## Features

- Routing: 32 x 32 RGBHV ultra wideband matrix switcher
- Video interface: BNC x 5 female
- Fully loaded video bandwidth: 500 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control , easy to switch manually
- Front keyboard lockup and protection function
- Scene save and recall function
- 10U high. full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	500 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	100 ns
Signal type	RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 32 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors .....32 × 5 BNC female  
Nominal level.....0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels.....Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....± 5 mV with no offset at input  
Switching type .....RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Control

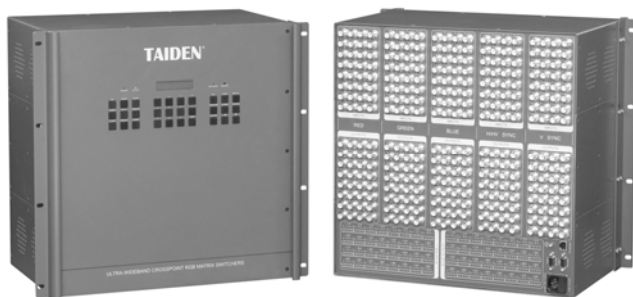
COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....440 x 478 x 310  
(10U high, full rack width)  
Weight.....17 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-3232RGB.....32x32 RGBHV Matrix Switcher,  
500 M. BNC Connectors



- Routing: 32x32 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNCx5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 500 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 10U high, full rack width

### Audio

Signal type.....Input: 32 stereo, balanced/unbalanced;  
output: 32 stereo, balanced/unbalanced  
Connectors.....Input: 32 × 5 pin 3.81 mm Phoenix;  
output: 32 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

### Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

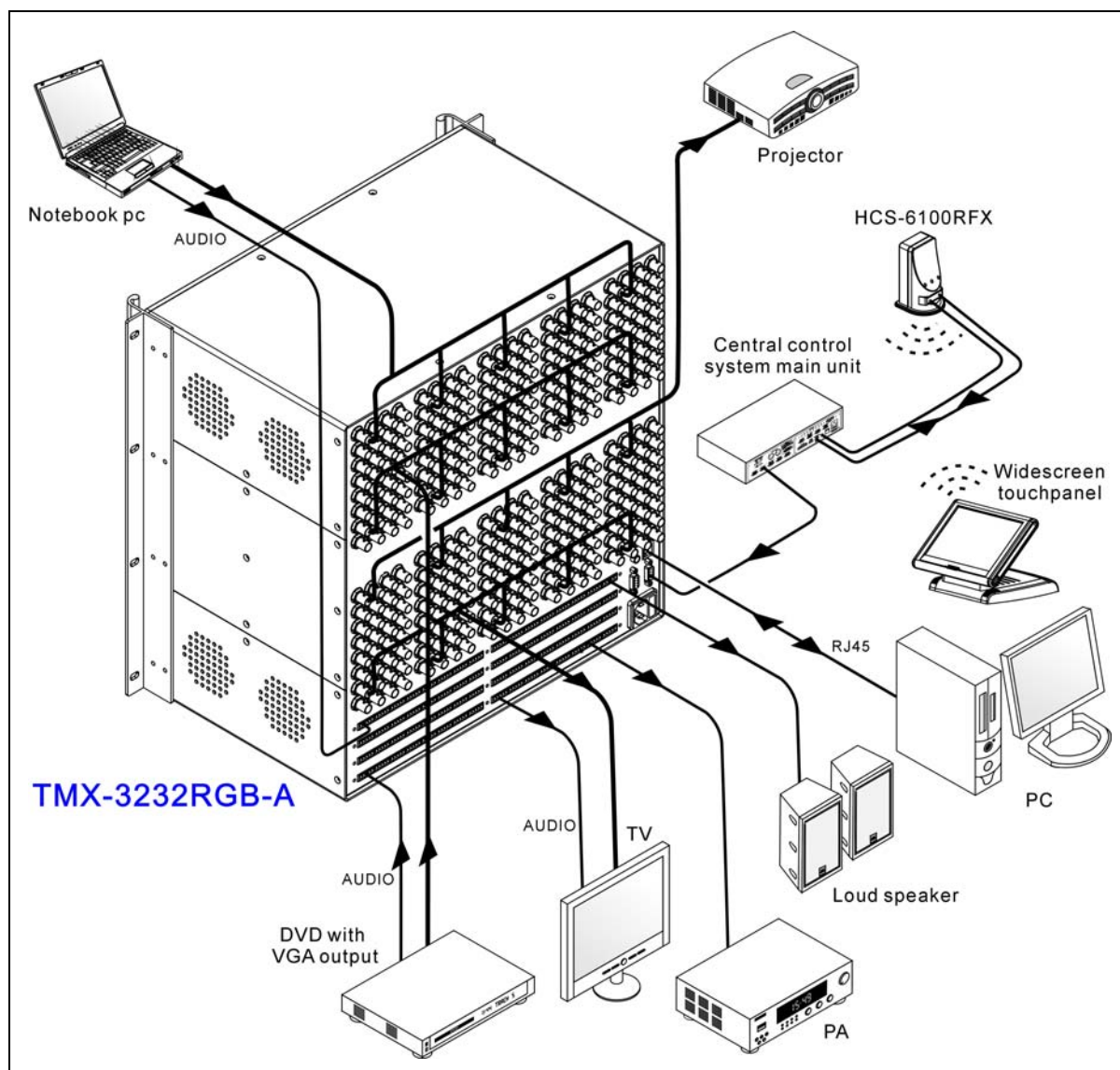
### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....440 × 478 × 310  
(10U high, full rack width)  
Weight.....17.2 kg  
Mean time between failures.....30,000 hours

### Ordering Information

TMX-3232RGB-A...32×32 RGBHV & Audio Matrix Switcher, 500 M,  
Video on BNC Connectors; Balanced audio  
stereo on 5 pin 3.81 mm Phoenix  
Connectors

**TMX-32xxRGB/RGB-A Series Ultra Wideband RGBHV Matrix Switchers System Connection**





- Routing: 64 x 64 RGBHV ultra wideband matrix switcher
- Video interface: BNC x 5 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- Individual enclosures: 6U x 5 high, full rack width

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

### Control

COM (RS-232).....RS-232, 9 pin female D connector  
 COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol.....TCP/IP  
 Ethernet speed.....10 M/100 M, full-duplex or  
 half-duplex with autotdetect  
 PC control.....Matrix switcher

### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....1320 × 478 × 310  
 (6U× 5 high, full rack width)  
 Weight.....10.6 × 5 kg  
 Mean time between failures.....30,000 hours

---

### Ordering Information

TMX-6464RGB.....64×64 RGBHV Matrix Switcher,  
 450 M, BNC Connectors



## TMX-6464RGB-A 64×64 RGBHV & Audio Ultra Wideband Matrix Switcher



### Features

- Routing: 64×64 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNC×5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- Individual enclosures: 6U × 6 high, full rack width

### Technical Specifications

#### Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	100 ns
Signal type	RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

#### Video input

Connectors	64 × 5 BNC female
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V



## Video output

Connectors ..... 64 × 5 BNC female  
 Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
 component video and S-video, and for  
 composite video; 0.3 Vp-p for R-Y and  
 B-Y of component video and C of S-video  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input  
 Switching type ..... RGB simultaneity

## Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal  
 Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p  
 Input impedance ..... 510 Ohm  
 Output impedance ..... 75 Ohm  
 Max input voltage ..... 5.0 Vp-p  
 Max. propagation delay ..... 20 ns

## Audio

Signal type ..... Input: 64 stereo, balanced/unbalanced;  
 output: 64 stereo, balanced/unbalanced  
 Connectors ..... Input: 64 × 5 pin 3.81 mm Phoenix;  
 output: 64 × 5 pin 3.81 mm Phoenix  
 Gain ..... Unbalanced output: 0 dB, balanced output: +6 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ, (balanced or unbalanced)  
 Max. input/output levels ..... +20.2 dBu (balanced or unbalanced)  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autotdetect  
 PC control ..... Matrix switcher

## General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 1584 × 478 × 310  
 (6U× 6 high, full rack width)  
 Weight ..... 11 × 6 kg  
 Mean time between failures ..... 30,000 hours

## Ordering Information

TMX-6464RGB-A... 64×64 RGBHV & Audio Matrix Switcher, 450 M,  
 Video on BNC Connectors; Balanced audio  
 stereo on 5 pin 3.81 mm Phoenix Connectors

# TMX-128128RGB 128x128 RGBHV Ultra Wideband Matrix Switcher



## Features

- Routing: 128 × 128 RGBHV ultra wideband matrix switcher
- Video interface: BNC × 5 female
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- Individual enclosures: 10U × 5 high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	100 ns
Signal type	RGBHV, RGBs, RGSb, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 128 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 128 × 5 BNC female  
 Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
 component video and S-video, and for  
 composite video; 0.3 Vp-p for R-Y and  
 B-Y of component video and C of S-video  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input  
 Switching type ..... RGB simultaneity

## Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal  
 Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p  
 Input impedance ..... 510 Ohm  
 Output impedance ..... 75 Ohm  
 Max input voltage ..... 5.0 Vp-p  
 Max. propagation delay ..... 20 ns

## Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autodetect  
 PC control ..... Matrix switcher

## General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 2200 × 478 × 310  
 (10U× 5 high, full rack width)  
 Weight ..... 16.5 × 5 kg  
 Mean time between failures ..... 30,000 hours

---

## Ordering Information

TMX-128128RGB ..... 128×128 RGBHV Matrix Switcher,  
 450 M, BNC Connectors

# TMX-128128RGB-A 128x128 RGBHV & Audio Ultra Wideband Matrix Switcher



## Features

- Routing: 128×128 RGBHV & audio ultra wideband matrix switcher
- Video interface: BNC×5 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 100 ns
- Typical propagation delay: 1.3 ns
- Compatible with RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- The latest RGB switch chip is used
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- Individual enclosures: 10U × 6 high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	100 ns
Signal type	RGBHV, RGBs, RGSb, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 128 × 5 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

### Video output

Connectors ..... 128 × 5 BNC female  
 Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
 component video and S-video, and for  
 composite video; 0.3 Vp-p for R-Y and  
 B-Y of component video and C of S-video  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input  
 Switching type ..... RGB simultaneity

### Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal  
 Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p  
 Input impedance ..... 510 Ohm  
 Output impedance ..... 75 Ohm  
 Max input voltage ..... 5.0 Vp-p  
 Max. propagation delay ..... 20 ns

### Audio

Signal type ..... Input: 128 stereo, balanced/unbalanced;  
 output: 128 stereo, balanced/unbalanced  
 Connectors ..... Input: 128 × 5 pin 3.81 mm Phoenix;  
 output: 128 × 5 pin 3.81 mm Phoenix  
 Gain ..... Unbalanced output: 0 dB, balanced output: +6 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ, (balanced or unbalanced)  
 Max. input/output levels ..... +20.2 dBu (balanced or unbalanced)  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

### Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autotdetect  
 PC control ..... Matrix switcher

### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 2640 × 478 × 310  
 (10U× 6 high, full rack width)  
 Weight ..... 17.5 × 6 kg  
 Mean time between failures ..... 30,000 hours

### Ordering Information

TMX-128128RGB-A ..... 128×128 RGBHV & Audio Matrix Switcher,  
 450 M, Video on BNC Connectors;  
 Balanced audio stereo on 5 pin 3.81 mm  
 Phoenix Connectors

## TMX-0802VGA

### 8x2 VGA Ultra Wideband Matrix Switcher



#### Features

- Routing: 8 × 2 VGA ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Scene save and recall function
- 1U high, full rack width

#### Technical Specifications

##### Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB; 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

##### Video input

Connectors	8 × 15-pin HDF connectors
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

##### Video output

Connectors	2 × 15 pin-HDF connectors
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	$\pm 5$ mV with no offset at input
Switching type	RGB simultaneity

##### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

##### Control

COM (RS-232)	RS-232, 9 pin female D connector
COM1	Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
COM2	Variable baudrate, data: 8 bits, stop: 1 bit, no parity
Interface	9-pin female D connector, 2 = TX, 3 = RX, 5 = GND
Ethernet	RJ-45 female connector, CAT-5 only cross-pair
Ethernet protocol	TCP/IP
Ethernet speed	10 M/100 M, full-duplex or half-duplex with autodetect
PC control	Matrix switcher

##### General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h × w × d (mm)	43 × 483 × 208 (1U high, full rack width)
Weight	2.9 kg
Mean time between failures	30,000 hours

#### Ordering Information

TMX-0802VGA	8x2 VGA Matrix Switcher, 450 M, 15HDF Connectors
-------------	---

## TMX-0804VGA

### 8x4 VGA Ultra Wideband Matrix Switcher



#### Features

- Routing: 8 × 4 VGA ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Scene save and recall function
- 1U high, full rack width

#### Technical Specifications

##### Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB; 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

##### Video input

Connectors	8 × 15-pin HDF connectors
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

##### Video output

Connectors	4 × 15 pin-HDF connectors
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	$\pm 5$ mV with no offset at input
Switching type	RGB simultaneity

##### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

##### Control

COM (RS-232)	RS-232, 9 pin female D connector
COM1	Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
COM2	Variable baudrate, data: 8 bits, stop: 1 bit, no parity
Interface	9-pin female D connector, 2 = TX, 3 = RX, 5 = GND
Ethernet	RJ-45 female connector, CAT-5 only cross-pair
Ethernet protocol	TCP/IP
Ethernet speed	10 M/100 M, full-duplex or half-duplex with autodetect
PC control	Matrix switcher

##### General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h × w × d (mm)	43 × 483 × 208 (1U high, full rack width)
Weight	2.9 kg
Mean time between failures	30,000 hours

#### Ordering Information

TMX-0804VGA	8x4 VGA Matrix Switcher, 450 M, 15HDF Connectors
-------------	---



## TMX-0808VGA 8×8 VGA Ultra Wideband Matrix Switcher



### Features

- Routing: 8 × 8 VGA ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB; 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

#### Video input

Connectors	8 × 15-pin HDF connectors
Min./max. levels	Analog: 0.5 V to 2.0 Vp-p with no offset
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
Max. DC offset	1.5 V

#### Video output

Connectors	8 × 15 pin-HDF connectors
Nominal level	0.7 Vp-p for RGB; 1.0 Vp-p for Y of component video and S-video, and for composite video; 0.3 Vp-p for R-Y and B-Y of component video and C of S-video
Min./max. levels	Analog signal: 0 V to 2.0 Vp-p (follows input)
Impedance	75 Ohm
Return loss	-30 dB @ 5 MHz
DC offset	$\pm 5$ mV with no offset at input
Switching type	RGB simultaneity

#### Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

#### Control

COM (RS-232)	RS-232, 9 pin female D connector
COM1	Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity
COM2	Variable baudrate, data: 8 bits, stop: 1 bit, no parity
Interface	9-pin female D connector, 2 = TX, 3 = RX, 5 = GND
Ethernet	RJ-45 female connector, CAT-5 only cross-pair
Ethernet protocol	TCP/IP
Ethernet speed	10 M/100 M, full-duplex or half-duplex with autodetect
PC control	Matrix switcher

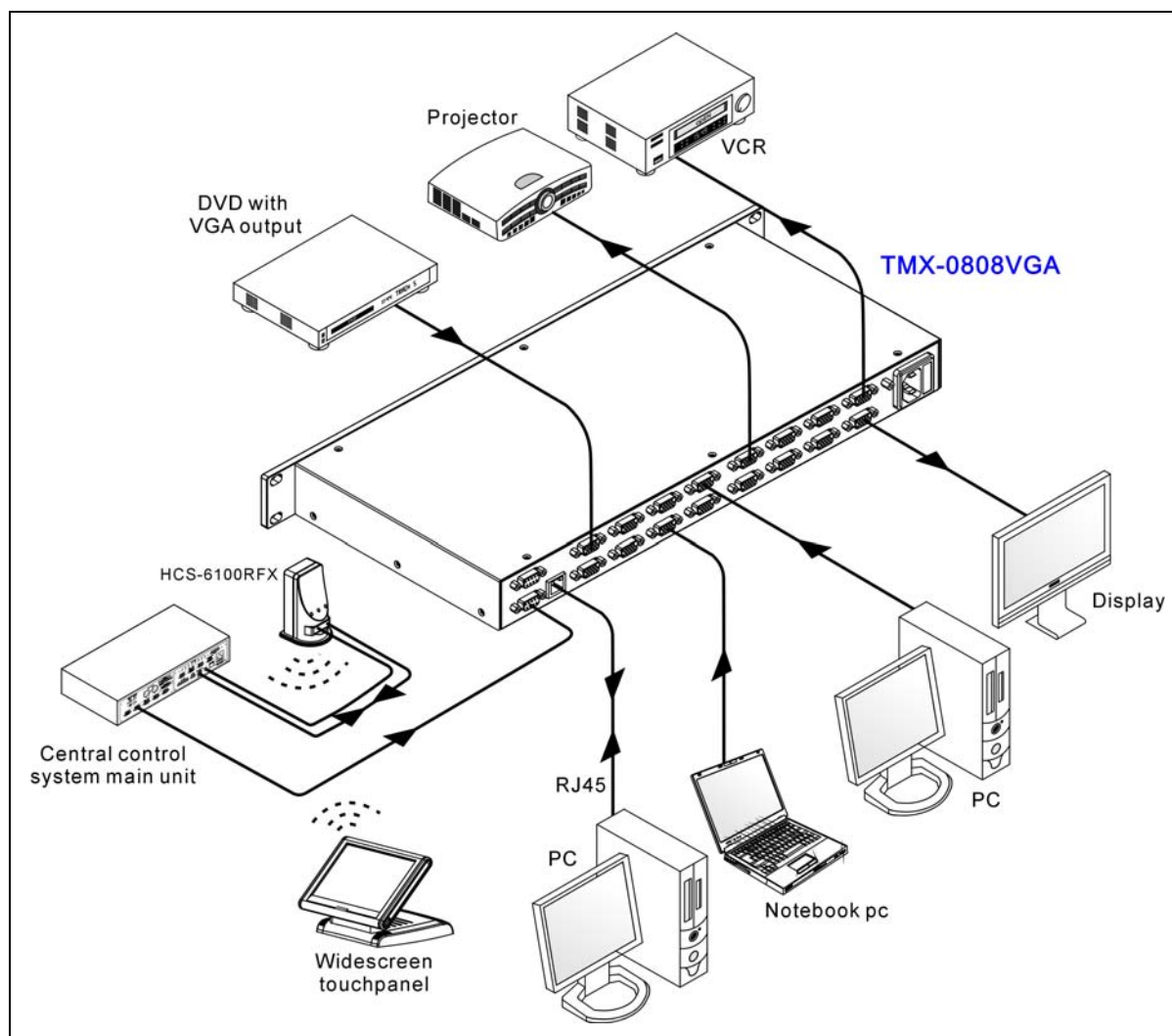
#### General specs

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h × w × d (mm)	43 × 483 × 208 (1U high, full rack width)
Weight	2.9 kg
Mean time between failures	30,000 hours

### Ordering Information

TMX-0808VGA	8×8 VGA Matrix Switcher, 450 M, 15HDF Connectors
-------------	---

## TMX-08xxVGA Series Ultra Wideband VGA Matrix Switchers System Connection



## TMX-0802VGA-A 8×2 VGA & Audio Ultra Wideband Matrix Switcher



### Features

- Routing: 8 × 2 VGA & audio ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
Bandwidth ..... 450 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB  
Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz  
Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm  
Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm  
Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm  
Typical switching speed ..... 25 ns  
Signal type ..... VGA~UXGA RGBHV, RGBs, RGsB,  
RsGsBs, HDTV, component video,  
S-video and composite video

#### Video input

Connectors ..... 8 × 15-pin HDF connectors  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 2 × 15 pin-HDF connectors  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input  
Switching type ..... RGB simultaneity

#### Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal  
Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p  
Input impedance ..... 510 Ohm  
Output impedance ..... 75 Ohm  
Max input voltage ..... 5.0 Vp-p  
Max. propagation delay ..... 20 ns

## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 2 stereo, balanced/unbalanced  
Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 2 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0802VGA-A.....8×2 VGA & Audio Matrix Switcher, 450 M,  
Video on 15HDF Connectors; Balanced  
audio stereo on 5 pin 3.81 mm Phoenix  
Connectors

# TMX-0804VGA-A

## 8x4 VGA & Audio Ultra Wideband Matrix Switcher



## Features

- Routing: 8 x 4 VGA & audio ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 8 × 15-pin HDF connectors  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 4 × 15 pin-HDF connectors

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset ..... ± 5 mV with no offset at input

Switching type ..... RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

### Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 4 stereo, balanced/unbalanced  
Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 4 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

### Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.8 kg  
Mean time between failures.....30,000 hours

### Ordering Information

TMX-0804VGA-A.....8×4 VGA & Audio Matrix Switcher, 450 M,  
Video on 15HDF Connectors; Balanced  
audio stereo on 5 pin 3.81 mm Phoenix  
Connectors

- Routing: 8 × 8 VGA & audio ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

Connectors ..... 8 × 15-pin HDF connectors

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

Connectors ..... 8 × 15 pin-HDF connectors

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset ..... ± 5 mV with no offset at input

Switching type ..... RGB simultaneity

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns



## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced  
Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0808VGA-A.....8×8 VGA & Audio Matrix Switcher, 450 M,  
Video on 15HDF Connectors; Balanced  
audio stereo on 5 pin 3.81 mm Phoenix  
Connectors

## TMX-1608VGA 16x8 VGA Ultra Wideband Matrix Switcher



## Features

- Routing: 16 x 8 VGA ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control , easy to switch manually
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGSB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors \_\_\_\_\_ 16 × 15-pin HDF connectors  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

## Video output

Connectors.....8 × 15 pin-HDF connectors  
Nominal level.....0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels.....Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance.....75 Ohm  
Return loss.....-30 dB @ 5 MHz  
DC offset.....± 5 mV with no offset at input  
Switching type.....RGB simultaneity

## Sync

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....4.7 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-1608VGA.....16x8 VGA Matrix Switcher, 425 M,  
15HDF Connectors



- Routing: 16 x 8 VGA & audio ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGSb, RsGsBs, HDTV, component video, S-video and composite video

Connectors ..... 16 × 15-pin HDF connectors

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

Connectors ..... 8 × 15 pin-HDF connectors  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... ± 5 mV with no offset at input  
Switching type ..... RGB simultaneity

Input level.....	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level.....	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance.....	510 Ohm
Output impedance.....	75 Ohm
Max input voltage.....	5.0 Vp-p
Max. propagation delay.....	20 ns

**Audio**

Signal type.....Input: 16 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced

Connectors.....Input: 16 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix

Gain.....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response.....20 Hz to 22 kHz, ±0.05 dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels.....+20.2 dBu (balanced or unbalanced)

Gain error.....±0.1 dB @ 20 Hz to 22 kHz

**Control**

COM (RS-232).....RS-232, 9 pin female D connector

COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND

Ethernet.....RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol.....TCP/IP

Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control.....Matrix switcher

**General specs**

Power supply.....100 V AC to 240 V AC, 50/60 Hz

Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity.....Storage and operating: 10% to 90%

Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)

Weight.....4.9 kg

Mean time between failures.....30,000 hours

**Ordering Information**

TMX-1608VGA-A.....16×8 VGA & Audio Matrix Switcher, 425 M,  
Video on 15HDF Connectors; Balanced  
audio stereo on 5 pin 3.81 mm Phoenix  
Connectors

## TMX-1616VGA

### 16×16 VGA Ultra Wideband Matrix Switcher



#### Features

- Routing: 16 × 16 VGA ultra wideband matrix switcher
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Supporting VGA~UXGA video signal
- Input synchronization signal detection function
- Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Scene save and recall function
- 3U high, full rack width

#### Technical Specifications

##### Video

Gain ..... 0 dB

Bandwidth ..... 425 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB

Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz

Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded

Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm

Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm

Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm

Typical switching speed ..... 50 ns

Signal type ..... VGA~UXGA RGBHV, RGBs, RGsB,  
RsGsBs, HDTV, component video,  
S-video and composite video

##### Video input

Connectors ..... 16 × 15-pin HDF connectors

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

##### Video output

Connectors ..... 16 × 15 pin-HDF connectors

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset .....  $\pm 5$  mV with no offset at input

Switching type ..... RGB simultaneity

##### Sync

Input level ..... 1.1 V to 5.0 Vp-p, 4.0 Vp-p normal

Output level ..... AGC to TTL: 4.5 V to 5.0 Vp-p

Input impedance ..... 510 Ohm

Output impedance ..... 75 Ohm

Max input voltage ..... 5.0 Vp-p

Max. propagation delay ..... 20 ns

##### Control

COM (RS-232) ..... RS-232, 9 pin female D connector

COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND

Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol ..... TCP/IP

Ethernet speed ..... 10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control ..... Matrix switcher

##### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz

Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity ..... Storage and operating: 10% to 90%

Dimensions h × w × d (mm) ..... 132 × 478 × 310  
(3U high, full rack width)

Weight ..... 4.8 kg

Mean time between failures ..... 30,000 hours

#### Ordering Information

TMX-1616VGA ..... 16×16 VGA Matrix Switcher, 425 M,  
15HDF Connectors

## TMX-1616VGA-A 16x16 VGA & Audio Ultra Wideband Matrix Switcher



## Features

- **Routing: 16 x 16 VGA & audio ultra wideband matrix switcher**
- **Video interface: 15-pin HDF connectors**
- **Audio interface: 5 pin 3.81 mm Phoenix**
- **Fully loaded video bandwidth: 425 MHz**
- **Typical switching speed: 50 ns**
- **Typical propagation delay: 5 ns**
- **Supporting balanced/unbalanced stereo audio**
- **Audio bandwidth: 20 Hz to 22 kHz**
- **Supporting VGA~UXGA video signal**
- **Input synchronization signal detection function**
- **Gain compensation and synchronization signal AGC to guarantee faster switching with no blinking and glitch**
- **Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **3U high, full rack width**

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	425 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\pm 0.1$ dB; 0 ~ 100 MHz $\pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 16 × 15-pin HDF connectors  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 16 × 15 pin-HDF connectors

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset ..... ± 5 mV with no offset at input

Switching type ..... RGB simultaneity

## Sync

Input level	1.1 V to 5.0 Vp-p, 4.0 Vp-p normal
Output level	AGC to TTL: 4.5 V to 5.0 Vp-p
Input impedance	510 Ohm
Output impedance	75 Ohm
Max input voltage	5.0 Vp-p
Max. propagation delay	20 ns

### Audio

Signal type.....Input: 16 stereo, balanced/unbalanced;  
output: 16 stereo, balanced/unbalanced  
Connectors.....Input: 16 × 5 pin 3.81 mm Phoenix;  
output: 16 × 5 pin 3.81 mm Phoenix  
Gain.....Unbalanced output: 0 dB, balanced output: +6 dB  
Frequency response.....20 Hz to 22 kHz, ±0.05 dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 kΩ, (balanced or unbalanced)  
Max. input/output levels.....+20.2 dBu (balanced or unbalanced)  
Gain error.....±0.1 dB @ 20 Hz to 22 kHz

### Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....5.0 kg  
Mean time between failures.....30,000 hours

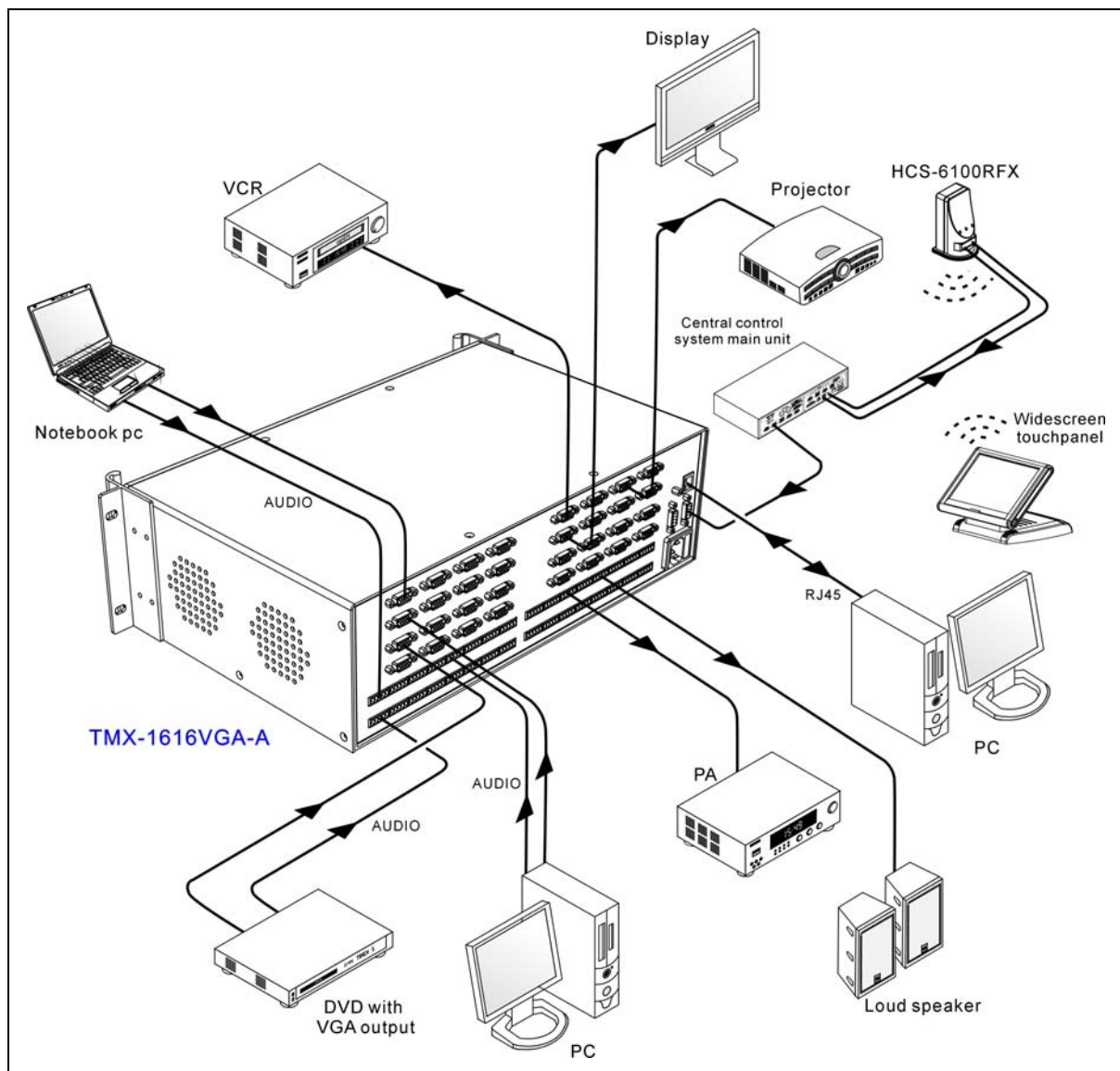
---

### Ordering Information

TMX-1616VGA-A.....16×16 VGA & Audio Matrix Switcher, 425 M,  
Video on 15HDF Connectors; Balanced  
audio stereo on 5 pin 3.81 mm Phoenix  
Connectors



## TMX-16xxVGA/VGA-A Series Ultra Wideband VGA Matrix Switchers System Connection



# TMX-0404A

## 4x4 Stereo Audio Matrix Switcher



## Features

- **Routing:** 4 x 4 stereo audio matrix switcher
- **Audio interface:** female RCA (L+R) connectors
- **Supporting stereo audio**
- **Audio bandwidth:** 20 Hz to 22 kHz
- **1U high, full rack width**

## Technical Specifications

## Audio

Signal type.....Input: 4 stereo; output: 4 stereo  
Connectors.....Input: 4 pairs of female RCA connectors;  
output: 4 pairs of female RCA connectors  
Gain.....0 dB  
Frequency response.....20 Hz to 22 kHz,  $\pm 0.05$  dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 k $\Omega$   
Max. input/output levels.....+20.2 dBu  
Gain error..... $\pm 0.1$  dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control.....Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.7 kg

## Ordering Information

TMX-0404A.....4x4 Stereo Audio Matrix Switcher,  
Audio stereo on RCA Connectors

# TMX-0804A

## 8x4 Stereo Audio Matrix Switcher



## Features

- **Routing:** 8 x 4 stereo audio matrix switcher
- **Audio interface:** female RCA (L+R) connectors
- **Supporting stereo audio**
- **Audio bandwidth:** 20 Hz to 22 kHz
- **1U high, full rack width**

## Technical Specifications

## Audio

Signal type.....Input: 8 stereo; output: 4 stereo  
Connectors.....Input: 8 pairs of female RCA connectors;  
output: 4 pairs of female RCA connectors  
Gain.....0 dB  
Frequency response.....20 Hz to 22 kHz,  $\pm 0.05$  dB  
THD+Noise.....0.03% @ 1 kHz at normal level  
S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk.....>80 dB @ 1 kHz, fully loaded  
Stereo channel separation.....>80 dB @ 1 kHz  
CMRR.....>75 dB @ 20 Hz to 20 kHz  
Impedance.....Input: >10 k $\Omega$   
Max. input/output levels.....+20.2 dBu  
Gain error..... $\pm 0.1$  dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control.....Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.7 kg

## Ordering Information

TMX-0804A.....8×4 Stereo Audio Matrix Switcher,  
Audio stereo on RCA Connectors

TMX-0808A ..... 8x8 Stereo Audio Matrix Switcher,  
Audio stereo on RCA Connectors

- Routing: 8 × 8 stereo audio matrix switcher
- Audio interface: female RCA (L+R) connectors
- Supporting stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- 1U high, full rack width
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function

Signal type\_\_\_\_\_Input: 8 stereo; output: 8 stereo  
Connectors\_\_\_\_\_Input: 8 pairs of female RCA connectors;  
output: 8 pairs of female RCA connectors  
Gain\_\_\_\_\_0 dB  
Frequency response\_\_\_\_\_20 Hz to 22 kHz,  $\pm 0.05$  dB  
THD+Noise\_\_\_\_\_0.03% @ 1 kHz at normal level  
S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
Crosstalk\_\_\_\_\_>80 dB @ 1 kHz, fully loaded  
Stereo channel separation\_\_\_\_\_>80 dB @ 1 kHz  
CMRR\_\_\_\_\_>75 dB @ 20 Hz to 20 kHz  
Impedance\_\_\_\_\_Input: >10 k $\Omega$   
Max. input/output levels\_\_\_\_\_+20.2 dBu  
Gain error\_\_\_\_\_ $\pm 0.1$  dB @ 20 Hz to 22 kHz

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control.....Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.7 kg

## TMX-0401MA

### 4x1 Mixed Switcher



## Features

- Routing: 4 × 1 mixed switcher
- 4 × 1 VGA (15 HDF), 350 MHz (Full loaded, -3 dB)
- 4 × 1 VIDEO (RCA), 100 MHz (Full loaded, -3 dB), VGA~UXGA
- LINE 1 (1 of 4), LINE 2 and LINE 3 stereo audio signals are mixed (balanced outputs, XLR)
- Volume of LINE 1 and mixed audio output can be controlled
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Gain compensation and synchronization signal AGC guarantee faster switching and no blinking
- RS-232 control interface, supporting RS-232 protocol
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

## Technical Specifications

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control.....Matrix switcher

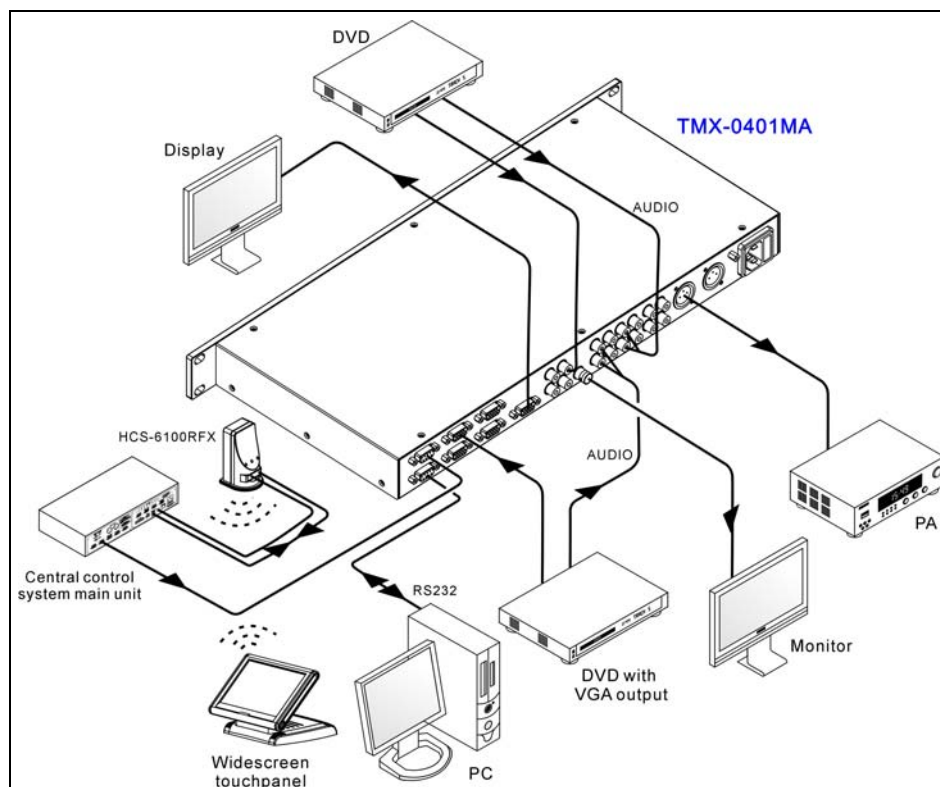
## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....43 × 483 × 208  
(1U high, full rack width)  
Weight.....2.7 kg

## Ordering Information

TMX-0401MA 4×1 VGA & Video & Audio Mixed Switcher

## System Connection





- Routing: 8 x 4 Composite Video Matrix Switcher
- Video interface: female BNC
- Fully loaded video bandwidth: 50 MHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- RS-232 control interface, supporting RS-232 protocol
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 5 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	Composite video

Connectors \_\_\_\_\_ 8 female BNC  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

Connectors \_\_\_\_\_ 4 female BNC  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Min./max. levels \_\_\_\_\_ Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
DC offset \_\_\_\_\_  $\pm 5$  mV with no offset at input

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control.....Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.5 kg  
Mean time between failures.....30,000 hours

TMX-0804V.....8×4 Composite Video Matrix  
Switcher. BNC Connectors



- **Routing: 8 x 8 Composite Video Matrix Switcher**
- **Video interface: female BNC**
- **Fully loaded video bandwidth:50 MHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **RS-232 control interface, supporting RS-232 protocol**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Scene save and recall function**
- **1U high, full rack width**

Gain .....	0 dB
Bandwidth .....	50 MHz (-3dB), fully loaded
Crosstalk of channel .....	-53 dB @ 5 MHz
Crosstalk of lum and chroma .....	< -80 dB @ 1 kHz, fully loaded
Differential phase error .....	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error .....	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay .....	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed .....	50 ns
Signal type .....	Composite video

Connectors \_\_\_\_\_ 8 female BNC  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

Connectors \_\_\_\_\_ 8 female BNC  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Min./max. levels \_\_\_\_\_ Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
DC offset \_\_\_\_\_  $\pm 5$  mV with no offset at input

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control..... Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.6 kg  
Mean time between failures.....30,000 hours

TMX-0808V.....8x8 Composite Video Matrix  
Switcher. BNC Connectors



## TMX-0802AV 8x2 AV Matrix Switcher



### Features

- Routing: 8 × 2 AV Matrix Switcher
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 50 MHz
- Supporting stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
 Bandwidth ..... 50 MHz (-3dB), fully loaded  
 Crosstalk of channel ..... -53 dB @ 5 MHz  
 Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
 Differential phase error ..... Max. 0.1 degree, @ RL = 150 Ohm  
 Differential gain error ..... Max. 0.1%, @ RL = 150 Ohm  
 Typical propagation delay ..... 80 ns @ 2 Vp-p, RL = 150 Ohm  
 Typical switching speed ..... 50 ns  
 Signal type ..... Composite video

#### Video input

Connectors ..... 8 female BNC  
 Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
 Nominal level ..... 1.0 Vp-p  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 2 female BNC  
 Nominal level ..... 1.0 Vp-p  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input

#### Audio

Signal type ..... Input: 8 stereo, unbalanced;  
 output: 2 stereo, unbalanced  
 Connectors ..... Input: 8 pairs of female RCA connectors;  
 output: 2 pairs of female RCA connectors  
 Gain ..... 0 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N ..... >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ  
 Max. input/output levels ..... +20.2 dBu  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

#### Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autodetect  
 PC control ..... Matrix switcher

#### General spec

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 132 × 478 × 310  
 (3U high, full rack width)  
 Weight ..... 4 kg  
 Mean time between failures ..... 30,000 hours

### Ordering Information

TMX-0802AV ..... 8x2 Composite Video & Audio Matrix Switcher,  
 Video on BNC Connectors, Audio stereo on  
 RCA Connectors



## TMX-0804AV 8x4 AV Matrix Switcher



### Features

- Routing: 8 × 4 AV Matrix Switcher
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 50 MHz
- Supporting stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
 Bandwidth ..... 50 MHz (-3dB), fully loaded  
 Crosstalk of channel ..... -53 dB @ 5 MHz  
 Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
 Differential phase error ..... Max. 0.1 degree, @ RL = 150 Ohm  
 Differential gain error ..... Max. 0.1%, @ RL = 150 Ohm  
 Typical propagation delay ..... 80 ns @ 2 Vp-p, RL = 150 Ohm  
 Typical switching speed ..... 50 ns  
 Signal type ..... Composite video

#### Video input

Connectors ..... 8 female BNC  
 Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
 Nominal level ..... 1.0 Vp-p  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 4 female BNC  
 Nominal level ..... 1.0 Vp-p  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input

#### Audio

Signal type ..... Input: 8 stereo, unbalanced;  
 output: 4 stereo, unbalanced  
 Connectors ..... Input: 8 pairs of female RCA connectors;  
 output: 4 pairs of female RCA connectors  
 Gain ..... 0 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N ..... >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ  
 Max. input/output levels ..... +20.2 dBu  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

#### Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autotdetect  
 PC control ..... Matrix switcher

#### General spec

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 132 × 478 × 310  
 (3U high, full rack width)  
 Weight ..... 4.2 kg  
 Mean time between failures ..... 30,000 hours

### Ordering Information

TMX-0804AV ..... 8x4 Composite Video & Audio Matrix Switcher,  
 Video on BNC Connectors, Audio stereo on  
 RCA Connectors

## TMX-0808AV

### 8x8 AV Matrix Switcher



## Features

- **Routing: 8 x 8 AV Matrix Switcher**
- **Video interface: female BNC**
- **Audio interface: female RCA (L+R) connectors**
- **Fully loaded video bandwidth: 50 MHz**
- **Supporting stereo audio**
- **Audio bandwidth: 20 Hz to 22 kHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control, easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **3U high, full rack width**

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 5 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	Composite video

## Video input

Connectors \_\_\_\_\_ 8 female BNC  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

## Video output

Connectors .....8 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Audio

Signal type.....Input: 8 stereo, unbalanced;  
output: 8 stereo, unbalanced

Connectors.....Input: 8 pairs of female RCA connectors;  
output: 8 pairs of female RCA connectors

Gain.....0 dB

Frequency response.....20 Hz to 22 kHz,  $\pm 0.05$  dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 k $\Omega$

Max. input/output levels.....+20.2 dBu

Gain error..... $\pm 0.1$  dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....4.3 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0808AV ..... 8x8 Composite Video & Audio Matrix Switcher,  
Video on BNC Connectors, Audio stereo on  
RCA Connectors



- **Routing: 16 x 4 Composite Video Matrix Switcher**
- **Video interface: female BNC**
- **Fully loaded video bandwidth:50 MHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **RS-232 control interface, supporting RS-232 protocol**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Scene save and recall function**
- **1U high, full rack width**

Gain .....	0 dB
Bandwidth .....	50 MHz (-3dB), fully loaded
Crosstalk of channel .....	-53 dB @ 5 MHz
Crosstalk of lum and chroma .....	< -80 dB @ 1 kHz, fully loaded
Differential phase error .....	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error .....	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay .....	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed .....	50 ns
Signal type .....	Composite video

Connectors .....16 female BNC  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

Connectors \_\_\_\_\_ 4 female BNC  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Min./max. levels \_\_\_\_\_ Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
DC offset \_\_\_\_\_  $\pm 5$  mV with no offset at input

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control..... Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.7 kg  
Mean time between failures.....30,000 hours

TMX-1604V.....16x4 Composite Video Matrix  
Switcher. BNC Connectors



- **Routing: 16 x 8 Composite Video Matrix Switcher**
- **Video interface: female BNC**
- **Fully loaded video bandwidth:50 MHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **RS-232 control interface, supporting RS-232 protocol**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Scene save and recall function**
- **1U high, full rack width**

Gain .....	0 dB
Bandwidth .....	50 MHz (-3dB), fully loaded
Crosstalk of channel .....	-53 dB @ 5 MHz
Crosstalk of lum and chroma .....	< -80 dB @ 1 kHz, fully loaded
Differential phase error .....	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error .....	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay .....	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed .....	50 ns
Signal type .....	Composite video

Connectors .....16 female BNC  
Min./max. levels .....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

Connectors .....8 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels .....Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....± 5 mV with no offset at input

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control.....Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.8 kg  
Mean time between failures.....30,000 hours

TMX-1608V ..... 16x8 Composite Video Matrix  
Switcher, BNC Connectors

## TMX-1616V

### 16x16 Composite Video Matrix Switcher



## Features

- **Routing: 16 x 16 Composite Video Matrix Switcher**
- **Video interface: female BNC**
- **Fully loaded video bandwidth:50 MHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **RS-232 control interface, supporting RS-232 protocol**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Scene save and recall function**
- **1U high, full rack width**

## Technical Specifications

## Video

Gain .....	0 dB
Bandwidth .....	50 MHz (-3dB), fully loaded
Crosstalk of channel .....	-53 dB @ 5 MHz
Crosstalk of lum and chroma .....	< -80 dB @ 1 kHz, fully loaded
Differential phase error .....	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error .....	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay .....	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed .....	50 ns
Signal type .....	Composite video

## Video input

Connectors .....16 female BNC  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

## Video output

Connectors \_\_\_\_\_ 16 female BNC  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Min./max. levels \_\_\_\_\_ Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
DC offset \_\_\_\_\_  $\pm 5$  mV with no offset at input

## Control

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
PC control..... Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-1616V.....16×16 Composite Video Matrix  
Switcher, BNC Connectors

## TMX-1604AV

### 16x4 AV Matrix Switcher



## Features

- **Routing: 16 × 4 AV Matrix Switcher**
- **Video interface: female BNC**
- **Audio interface: female RCA (L+R) connectors**
- **Fully loaded video bandwidth: 50 MHz**
- **Supporting stereo audio**
- **Audio bandwidth: 20 Hz to 22 kHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control, easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **3U high, full rack width**

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 5 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	Composite video

## Video input

Connectors .....16 female BNC  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

## Video output

Connectors ..... 4 female BNC  
Nominal level ..... 1.0 Vp-p  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Audio

Signal type.....Input: 16 stereo, unbalanced;  
output: 4 stereo, unbalanced

Connectors.....Input: 16 pairs of female RCA connectors;  
output: 4 pairs of female RCA connectors

Gain.....0 dB

Frequency response.....20 Hz to 22 kHz,  $\pm 0.05$  dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 k $\Omega$

Max. input/output levels.....+20.2 dBu

Gain error..... $\pm 0.1$  dB @ 20 Hz to 22 kHz

## Control

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....4.4 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-1604AV ..... 16×4 Composite Video & Audio Matrix Switcher,  
Video on BNC Connectors, Audio stereo on  
RCA Connectors



## TMX-1608AV 16×8 AV Matrix Switcher



### Features

- Routing: 16 × 8 AV Matrix Switcher
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 50 MHz
- Supporting stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
 Bandwidth ..... 50 MHz (-3dB), fully loaded  
 Crosstalk of channel ..... -53 dB @ 5 MHz  
 Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
 Differential phase error ..... Max. 0.1 degree, @ RL = 150 Ohm  
 Differential gain error ..... Max. 0.1%, @ RL = 150 Ohm  
 Typical propagation delay ..... 80 ns @ 2 Vp-p, RL = 150 Ohm  
 Typical switching speed ..... 50 ns  
 Signal type ..... Composite video

#### Video input

Connectors ..... 16 female BNC  
 Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
 Nominal level ..... 1.0 Vp-p  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 8 female BNC  
 Nominal level ..... 1.0 Vp-p  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input

#### Audio

Signal type ..... Input: 16 stereo, unbalanced;  
 output: 8 stereo, unbalanced  
 Connectors ..... Input: 16 pairs of female RCA connectors;  
 output: 8 pairs of female RCA connectors  
 Gain ..... 0 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N ..... >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ  
 Max. input/output levels ..... +20.2 dBu  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

#### Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autodetect  
 PC control ..... Matrix switcher

#### General spec

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 132 × 478 × 310  
 (3U high, full rack width)  
 Weight ..... 4.5 kg  
 Mean time between failures ..... 30,000 hours

### Ordering Information

TMX-1608AV ..... 16×8 Composite Video & Audio Matrix Switcher,  
 Video on BNC Connectors, Audio stereo on  
 RCA Connectors



## TMX-1616AV 16×16 AV Matrix Switcher



### Features

- Routing: 16 × 16 AV Matrix Switcher
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 50 MHz
- Supporting stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
 Bandwidth ..... 50 MHz (-3dB), fully loaded  
 Crosstalk of channel ..... -53 dB @ 5 MHz  
 Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
 Differential phase error ..... Max. 0.1 degree, @ RL = 150 Ohm  
 Differential gain error ..... Max. 0.1%, @ RL = 150 Ohm  
 Typical propagation delay ..... 80 ns @ 2 Vp-p, RL = 150 Ohm  
 Typical switching speed ..... 50 ns  
 Signal type ..... Composite video

#### Video input

Connectors ..... 16 female BNC  
 Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
 Nominal level ..... 1.0 Vp-p  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 16 female BNC  
 Nominal level ..... 1.0 Vp-p  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input

#### Audio

Signal type ..... Input: 16 stereo, unbalanced;  
 output: 16 stereo, unbalanced  
 Connectors ..... Input: 16 pairs of female RCA connectors;  
 output: 16 pairs of female RCA connectors  
 Gain ..... 0 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N ..... >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ  
 Max. input/output levels ..... +20.2 dBu  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

#### Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autodetect  
 PC control ..... Matrix switcher

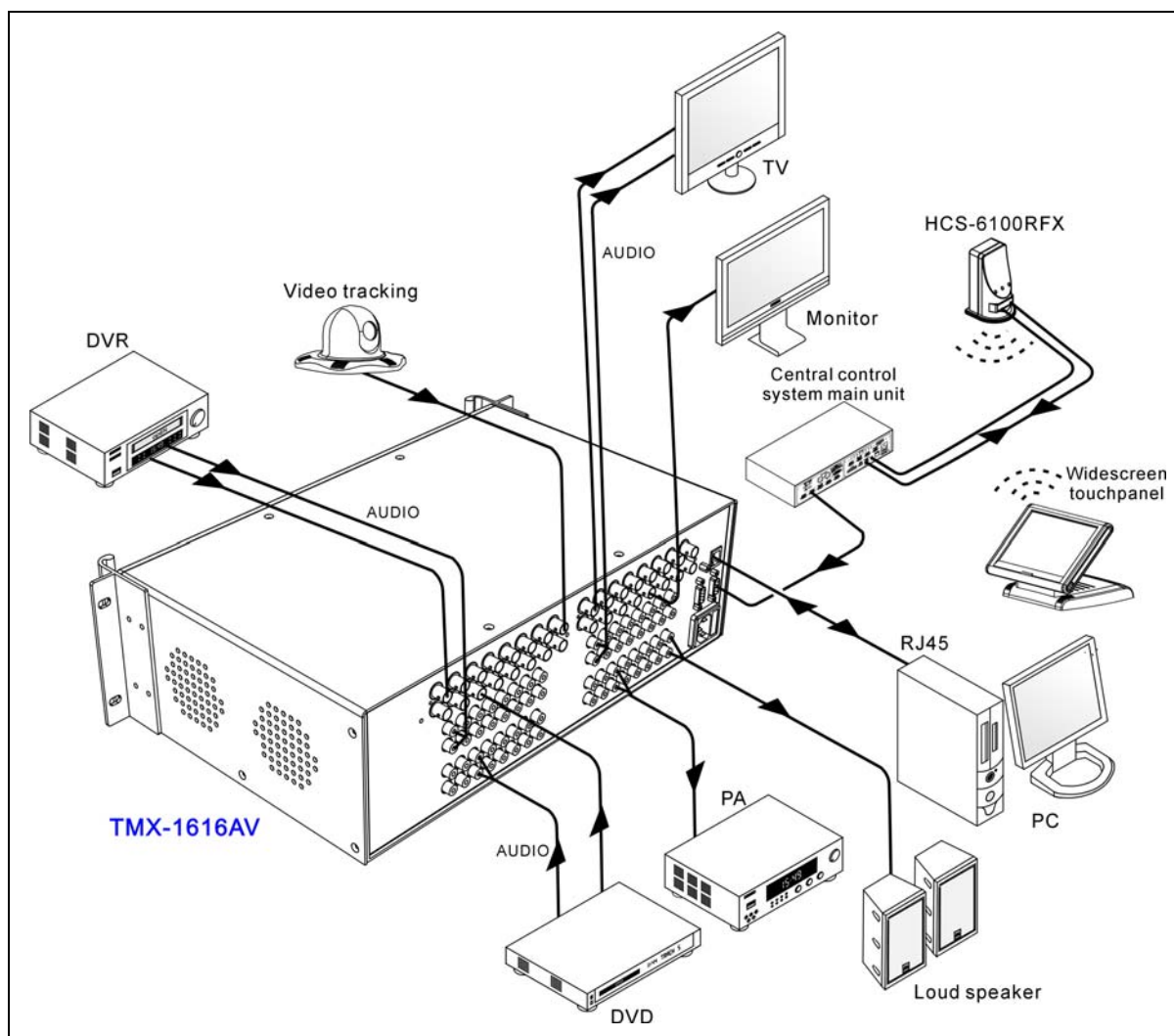
#### General spec

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to +50 °C;  
 storage: -20 °C to +70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 132 × 478 × 310  
 (3U high, full rack width)  
 Weight ..... 4.6 kg  
 Mean time between failures ..... 30,000 hours

### Ordering Information

TMX-1616AV ..... 16×16 Composite Video & Audio Matrix Switcher,  
 Video on BNC Connectors, Audio stereo on  
 RCA Connectors

## Composite Video &amp; Audio Matrix Switchers System Connection



# TMX-0804AV-B 8x4 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher



## Features

- Routing: 8x4 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 50 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain.....0 dB  
Bandwidth.....50 MHz (-3dB), fully loaded  
Crosstalk of channel.....-53 dB @ 5 MHz  
Crosstalk of lum and chroma.....< -80 dB @ 1 kHz, fully loaded  
Differential phase error.....Max. 0.1 degree, @ RL = 150 Ohm  
Differential gain error.....Max. 0.1%, @ RL = 150 Ohm  
Typical propagation delay.....80 ns @ 2 Vp-p, RL = 150 Ohm  
Typical switching speed.....50 ns  
Signal type.....Composite video

## Video input

Connectors \_\_\_\_\_ 8 female BNC  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

## Video output

Connectors ..... 4 female BNC  
Nominal level ..... 1.0 Vp-p  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 4 stereo, balanced/unbalanced

Connectors.....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 4 × 5 pin 3.81 mm Phoenix

Gain.....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response.....20 Hz to 22 kHz, ±0.05 dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels.....+20.2 dBu (balanced or unbalanced)

Gain error.....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....4.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0804AV-B\_...8x4 Composite Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors; Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors

# TMX-0808AV-B 8x8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher



## Features

- Routing: 8x8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 50 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 5 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	80 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	50 ns
Signal type	Composite video

## Video input

Connectors \_\_\_\_\_ 8 female BNC  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 1.0 Vp-p  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

## Video output

Connectors .....8 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Audio

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced

Connectors .....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix

Gain .....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response .....20 Hz to 22 kHz, ±0.05 dB

THD+Noise .....0.03% @ 1 kHz at normal level

S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk .....>80 dB @ 1 kHz, fully loaded

Stereo channel separation .....>80 dB @ 1 kHz

CMRR .....>75 dB @ 20 Hz to 20 kHz

Impedance .....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels .....+20.2 dBu (balanced or unbalanced)

Gain error .....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....4.8 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0808AV-B\_8x8 Composite Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors; Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors

## TMX-1608AV-B 16×8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher



### Features

- Routing: 16×8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 50 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

### Technical Specifications

#### Video

Gain ..... 0 dB  
 Bandwidth ..... 50 MHz (-3dB), fully loaded  
 Crosstalk of channel ..... -53 dB @ 5 MHz  
 Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded  
 Differential phase error ..... Max. 0.1 degree, @ RL = 150 Ohm  
 Differential gain error ..... Max. 0.1%, @ RL = 150 Ohm  
 Typical propagation delay ..... 80 ns @ 2 Vp-p, RL = 150 Ohm  
 Typical switching speed ..... 50 ns  
 Signal type ..... Composite video

#### Video input

Connectors ..... 16 female BNC  
 Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
 Nominal level ..... 1.0 Vp-p  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 Max. DC offset ..... 1.5 V

#### Video output

Connectors ..... 8 female BNC  
 Nominal level ..... 1.0 Vp-p  
 Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
 Impedance ..... 75 Ohm  
 Return loss ..... -30 dB @ 5 MHz  
 DC offset ..... ± 5 mV with no offset at input

#### Audio

Signal type ..... Input: 16 stereo, balanced/unbalanced;  
 output: 8 stereo, balanced/unbalanced  
 Connectors ..... Input: 16 × 5 pin 3.81 mm Phoenix;  
 output: 8 × 5 pin 3.81 mm Phoenix  
 Gain ..... Unbalanced output: 0 dB, balanced output: +6 dB  
 Frequency response ..... 20 Hz to 22 kHz, ±0.05 dB  
 THD+Noise ..... 0.03% @ 1 kHz at normal level  
 S/N ..... >110 dB, balanced, at maximum output (20.2 dBu), unweighted  
 Crosstalk ..... >80 dB @ 1 kHz, fully loaded  
 Stereo channel separation ..... >80 dB @ 1 kHz  
 CMRR ..... >75 dB @ 20 Hz to 20 kHz  
 Impedance ..... Input: >10 kΩ, (balanced or unbalanced)  
 Max. input/output levels ..... +20.2 dBu (balanced or unbalanced)  
 Gain error ..... ±0.1 dB @ 20 Hz to 22 kHz

#### Control

COM (RS-232) ..... RS-232, 9 pin female D connector  
 COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol ..... TCP/IP  
 Ethernet speed ..... 10 M/100 M, full-duplex or  
 half-duplex with autotdetect  
 PC control ..... Matrix switcher

#### General spec

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
 Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 132 × 478 × 310  
 (3U high, full rack width)  
 Weight ..... 4.9 kg  
 Mean time between failures ..... 30,000 hours

### Ordering Information

TMX-1608AV-B ..... 16×8 Composite Video & Balanced/Unbalanced  
 Stereo Audio Matrix Switcher, Video on BNC  
 Connectors; Audio stereo on 5 pin 3.81 mm  
 Phoenix Connectors



- Routing: 16x16 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 50 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

Connectors ..... 16 female BNC  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 1.0 Vp-p  
Impedance ..... 75 Ohm

TMX-1616AV-B...16×16 Composite Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors; Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors

# TMX-3208V

## 32x8 Composite Video Matrix Switcher



## Features

- Routing: 32 x 8 Composite Video Matrix Switcher
- Video interface: female BNC
- Fully loaded video bandwidth: 500 MHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	500 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

## Video input

Connectors .....32 female BNC  
Min./max. levels.....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level.....1.0 Vp-p  
Impedance.....75 Ohm  
Return loss.....-30 dB @ 5 MHz  
Max. DC offset.....1.5 V

## Video output

Connectors .....8 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Control

COM (RS-232).....RS-232, 9 pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control.....Matrix switcher

## General spec

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....132 x 478 x 310  
(3U high, full rack width)  
Weight.....5.0 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-3208V ..... 32x8 Composite Video Matrix  
Switcher. BNC Connectors



## TMX-3216V

### 32x16 Composite Video Matrix Switcher



## Features

- Routing: 32 x 16 Composite Video Matrix Switcher
- Video interface: female BNC
- Fully loaded video bandwidth:500 MHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high. full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	500 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

## Video input

Connectors .....32 female BNC  
Min./max. levels.....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level.....1.0 Vp-p  
Impedance.....75 Ohm  
Return loss.....-30 dB @ 5 MHz  
Max. DC offset.....1.5 V

## Video output

Connectors .....16 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Control

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

## General spec

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h x w x d (mm)	132 x 478 x 310 (3U high, full rack width)
Weight	5.2 kg
Mean time between failures	30,000 hours

## Ordering Information

TMX-3216V ..... 32×16 Composite Video Matrix  
Switcher, BNC Connectors

## TMX-3232V

### 32x32 Composite Video Matrix Switcher



## Features

- Routing: 32 x 32 Composite Video Matrix Switcher
- Video interface: female BNC
- Fully loaded video bandwidth: 500 MHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	500 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

## Video input

Connectors .....32 female BNC  
Min./max. levels .....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

## Video output

Connectors .....32 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

## Control

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

## General spec

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h x w x d (mm)	132 x 478 x 310 (3U high, full rack width)
Weight	5.5 kg
Mean time between failures	30,000 hours

## Ordering Information

TMX-3232V ..... 32x32 Composite Video Matrix  
Switcher, BNC Connectors

- Routing: 32x8 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 500 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

Connectors .....32 female BNC  
Min./max. levels .....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

Connectors ..... 8 female BNC  
Nominal level ..... 1.0 Vp-p  
Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

Signal type.....Input: 32 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced

Connectors.....Input: 32 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix

Gain.....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response.....20 Hz to 22 kHz, ±0.05 dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels.....+20.2 dBu (balanced or unbalanced)

Gain error.....±0.1 dB @ 20 Hz to 22 kHz

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz

Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity.....Storage and operating: 10% to 90%

Dimensions h x w x d (mm).....264 x 478 x 310  
(6U high, full rack width)

Weight.....7.5 kg

Mean time between failures.....30,000 hours

TMX-3208AV-B\_...32x8 Composite Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors; Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors

- Routing: 32x16 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 500 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 V <sub>p-p</sub> , RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

Connectors .....32 female BNC  
Min./max. levels .....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

Connectors .....16 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....  $\pm 5$  mV with no offset at input

Signal type.....Input: 32 stereo, balanced/unbalanced;  
output: 16 stereo, balanced/unbalanced

Connectors.....Input: 32 × 5 pin 3.81 mm Phoenix;  
output: 16 × 5 pin 3.81 mm Phoenix

Gain.....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response.....20 Hz to 22 kHz, ±0.05 dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels.....+20.2 dBu (balanced or unbalanced)

Gain error.....±0.1 dB @ 20 Hz to 22 kHz

COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

Power supply	100 V AC to 240 V AC, 50/60 Hz
Temperature	Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C
Humidity	Storage and operating: 10% to 90%
Dimensions h x w x d (mm)	264 x 478 x 310 (6U high, full rack width)
Weight	7.7 kg
Mean time between failures	30,000 hours

TMX-3216AV-B...32x16 Composite Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors; Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors



- Routing: 32x32 Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switcher
- Video interface: female BNC
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 500 MHz
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

Gain	0 dB
Bandwidth	50 MHz (-3dB), fully loaded
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.1 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.1%, @ RL = 150 Ohm
Typical propagation delay	1.3 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	100 ns
Signal type	Composite video

Connectors .....32 female BNC  
Min./max. levels .....Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level .....1.0 Vp-p  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
Max. DC offset .....1.5 V

Connectors .....32 female BNC  
Nominal level .....1.0 Vp-p  
Min./max. levels..... Analog signal: 0 V to 2.0 Vp-p (follows input)  
Impedance .....75 Ohm  
Return loss .....-30 dB @ 5 MHz  
DC offset .....± 5 mV with no offset at input

Signal type.....Input: 32 stereo, balanced/unbalanced;  
output: 32 stereo, balanced/unbalanced

Connectors.....Input: 32 × 5 pin 3.81 mm Phoenix;  
output: 32 × 5 pin 3.81 mm Phoenix

Gain.....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response.....20 Hz to 22 kHz, ±0.05 dB

THD+Noise.....0.03% @ 1 kHz at normal level

S/N>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk.....>80 dB @ 1 kHz, fully loaded

Stereo channel separation.....>80 dB @ 1 kHz

CMRR.....>75 dB @ 20 Hz to 20 kHz

Impedance.....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels.....+20.2 dBu (balanced or unbalanced)

Gain error.....±0.1 dB @ 20 Hz to 22 kHz

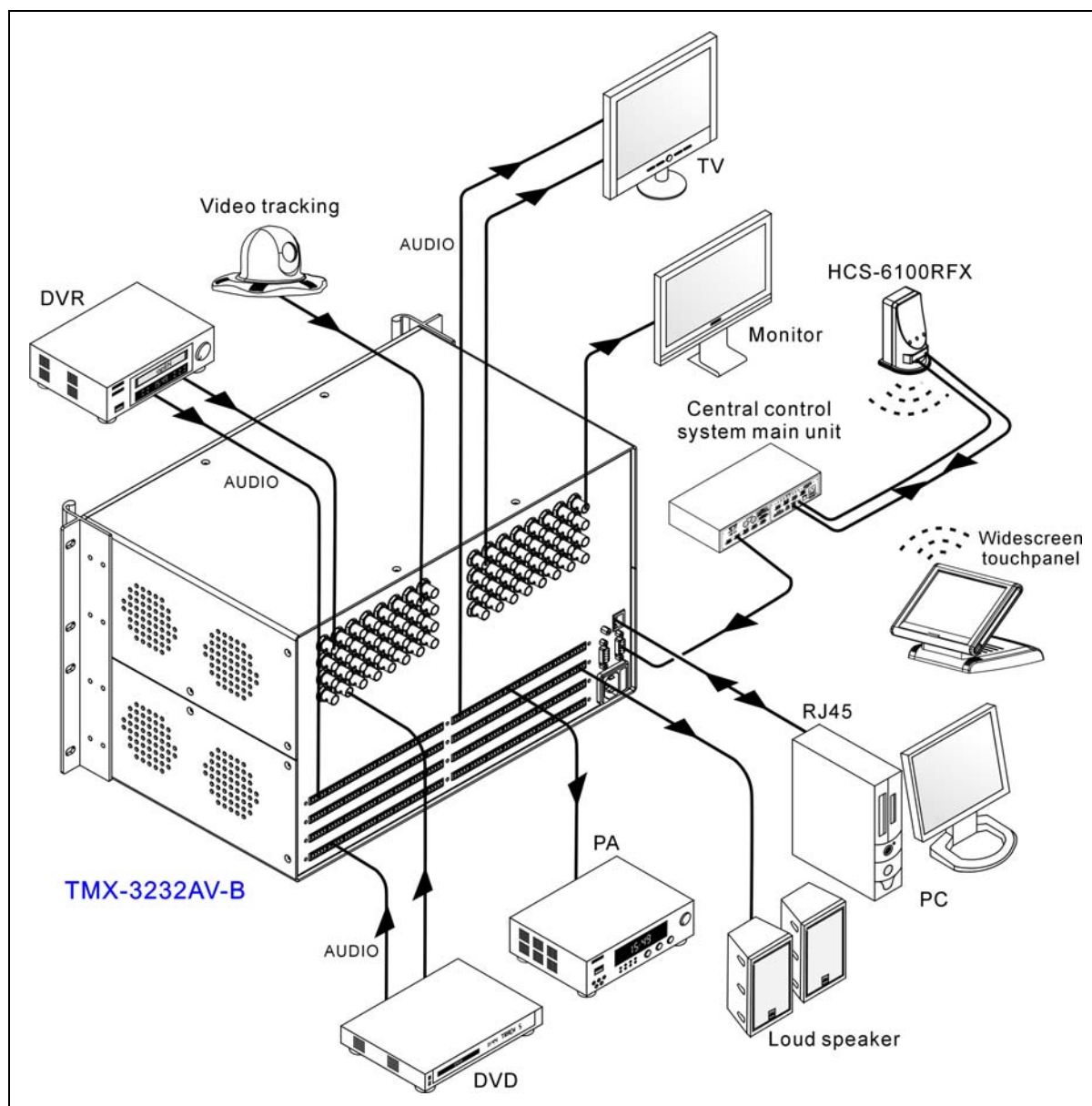
COM (RS-232)..... RS-232, 9 pin female D connector  
COM1..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol..... TCP/IP  
Ethernet speed..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect  
PC control..... Matrix switcher

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....264 x 478 x 310  
(6U high, full rack width)  
Weight.....8.0 kg  
Mean time between failures.....30,000 hours

TMX-3232AV-B...32x32 Composite Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors; Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors



## Composite Video & Balanced/Unbalanced Stereo Audio Matrix Switchers System Connection



## TMX-0104VGA 1×4 VGA Distribution Amplifier



### Features

- Routing: 1 × 4 VGA Distribution Amplifier
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 300 MHz
- Supporting VGA~UXGA video signal
- Guarantees image signal lossless transmission, clear with no shadow

### Technical Specifications

#### Video

Bandwidth.....300 MHz (-3dB), fully loaded  
 Pixel resolution.....Up to 1600×1200 @ 60 Hz  
 Signal type.....VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video  
 Connectors.....Input: 1 × 15-pin HDF connector, output: 4 × 15 pin-HDF connectors

#### General specs

Power supply.....12 V DC to 24 V DC  
 Temperature.....Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....40 × 150 × 100  
 Weight.....0.4 kg

### Ordering Information

TMX-0104VGA.....1×4 VGA Distribution Amplifier,  
 300 M, 15HDF Connectors

## TMX-0108VGA 1×8 VGA Distribution Amplifier



### Features

- Routing: 1 × 8 VGA Distribution Amplifier
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 300 MHz
- Supporting VGA~UXGA video signal
- Guarantees image signal lossless transmission, clear with no shadow
- 1U high, full rack width

### Technical Specifications

#### Video

Bandwidth.....300 MHz (-3dB), fully loaded  
 Pixel resolution.....Up to 1600×1200 @ 60 Hz  
 Signal type.....VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video  
 Connectors.....Input: 1 × 15-pin HDF connector, output: 8 × 15 pin-HDF connectors

#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....43 × 483 × 208  
 (1U high, full rack width)  
 Weight.....2.7 kg

### Ordering Information

TMX-0108VGA.....1×8 VGA Distribution Amplifier,  
 300 M, 15HDF Connectors



## TMX-0116VGA 1×16 VGA Distribution Amplifier



### Features

- Routing: 1 × 16 VGA Distribution Amplifier
- Video interface: 15-pin HDF connectors
- Fully loaded video bandwidth: 300 MHz
- Supporting VGA~UXGA video signal
- Guarantees image signal lossless transmission, clear with no shadow
- 1U high, full rack width

### Technical Specifications

#### Video

Bandwidth.....300 MHz (-3dB), fully loaded  
 Pixel resolution.....Up to 1600×1200 @ 60 Hz  
 Signal type.....VGA~UXGA RGBHV, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video  
 Connectors.....Input: 1 × 15-pin HDF connector, output: 16 × 15 pin-HDF connectors

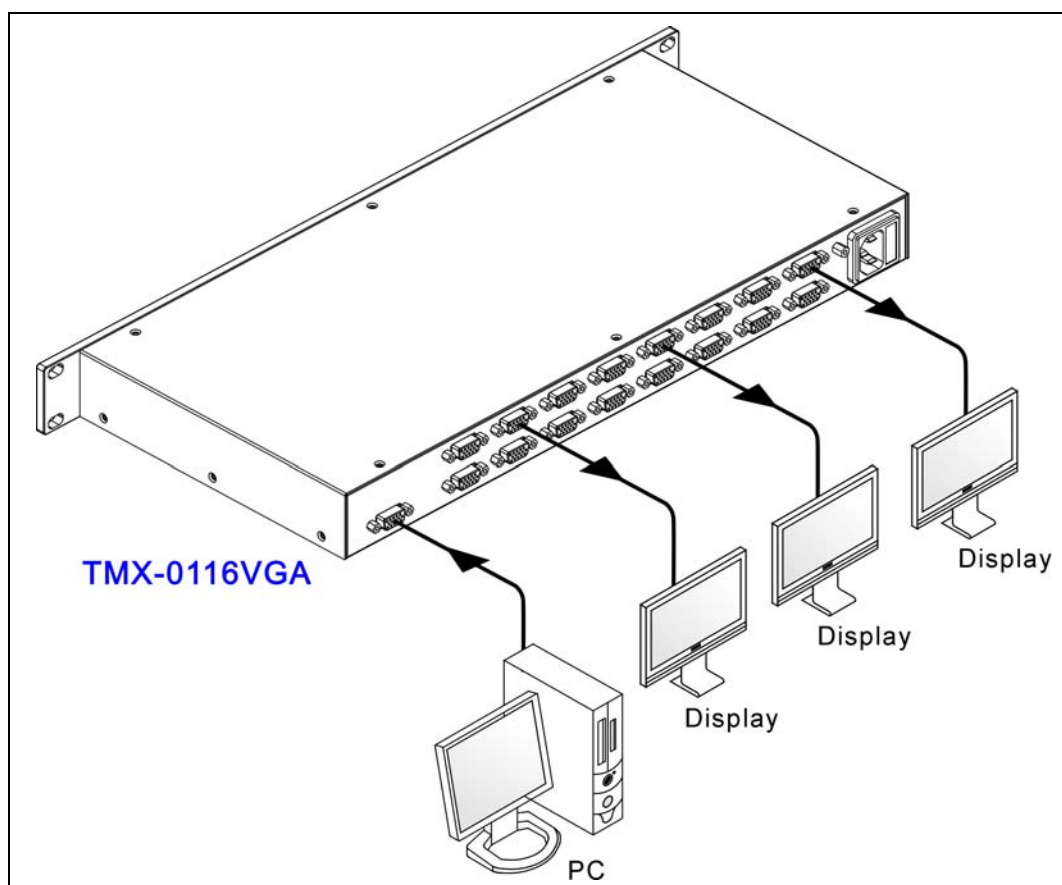
#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C; storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....43 × 483 × 208 (1U high, full rack width)  
 Weight.....2.7 kg

### Ordering Information

TMX-0116VGA.....1×16 VGA Distribution Amplifier, 300 M, 15HDF Connectors

### VGA Distribution Amplifiers System Connection



## TMX-0108V

### 1x8 Video Distribution Amplifier



## Features

- **Routing: 1x8 Video Distribution Amplifier**
- **Video interface: female BNC**
- **Fully loaded video bandwidth: 125 MHz**
- **Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC**
- **Guarantees image signal lossless transmission, clear with no shadow**

## Technical Specifications

## Video

Bandwidth.....125 MHz (-3dB), fully loaded  
Input/output impedance.....75 Ohm  
Signal type.....Composite video  
Connectors.....Input: 1 female BNC,  
output: 8 female BNC

## General specs

Power supply.....12 V DC to 24 V DC  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....40 x 150 x 100  
Weight.....0.4 kg

## Ordering Information

TMX-0108V.....1×8 Video Distribution Amplifier,  
125 M, BNC Connectors

## TMX-0116V 1×16 Video Distribution Amplifier



### Features

- Routing: 1×16 Video Distribution Amplifier
- Video interface: female BNC
- Fully loaded video bandwidth: 125 MHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Guarantees image signal lossless transmission, clear with no shadow
- 1U high, full rack width

### Technical Specifications

#### Video

Bandwidth.....125 MHz (-3dB), fully loaded  
 Input/output impedance.....75 Ohm  
 Signal type.....Composite video  
 Connectors.....Input: 1 female BNC,  
 output: 16 female BNC

#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....43 × 483 × 208  
 (1U high, full rack width)  
 Weight.....2.7 kg

### Ordering Information

TMX-0116V.....1×16 Video Distribution Amplifier,  
 125 M, BNC Connectors

## TMX-0132V 1×32 Video Distribution Amplifier



### Features

- Routing: 1×32 Video Distribution Amplifier
- Video interface: female BNC
- Fully loaded video bandwidth: 125 MHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Guarantees image signal lossless transmission, clear with no shadow
- 1U high, full rack width

### Technical Specifications

#### Video

Bandwidth.....125 MHz (-3dB), fully loaded  
 Input/output impedance.....75 Ohm  
 Signal type.....Composite video  
 Connectors.....Input: 1 female BNC,  
 output: 32 female BNC

#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....43 × 483 × 208  
 (1U high, full rack width)  
 Weight.....2.7 kg

### Ordering Information

TMX-0132V.....1×32 Video Distribution Amplifier,  
 125 M, BNC Connectors

## TMX-0104AV 1x4 AV Distribution Amplifier



### Features

- Routing: 1x4 AV Distribution Amplifier
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 125 MHz
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Guarantees image signal lossless transmission, clear with no shadow

### Technical Specifications

#### Video

Bandwidth.....125 MHz (-3dB), fully loaded  
 Input/output impedance.....75 Ohm  
 Signal type.....Composite video  
 Connectors.....Input: 1 female BNC, output: 4 female BNC

#### Audio

Signal type.....Input: 1 stereo; output: 4 stereo  
 Connectors.....Input: 1 pair of female RCA connectors;  
 output: 4 pairs of female RCA connectors

#### General specs

Power supply.....12 V DC to 24 V DC  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....40 × 150 × 100  
 Weight.....0.4 kg

### Ordering Information

TMX-0104AV...1x4 Composite Video& Audio Distribution Amplifier,  
 125 M, Video on BNC Connectors, Audio stereo  
 on RCA Connectors

## TMX-0108AV 1x8 AV Distribution Amplifier



### Features

- Routing: 1x8 AV Distribution Amplifier
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 125 MHz
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Guarantees image signal lossless transmission, clear with no shadow
- 3U high, full rack width

### Technical Specifications

#### Video

Bandwidth.....125 MHz (-3dB), fully loaded  
 Input/output impedance.....75 Ohm  
 Signal type.....Composite video  
 Connectors.....Input: 1 female BNC, output: 8 female BNC

#### Audio

Signal type.....Input: 1 stereo; output: 8 stereo  
 Connectors.....Input: 1 pair of female RCA connectors;  
 output: 8 pairs of female RCA connectors

#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....132 × 478 × 310  
 (3U high, full rack width)  
 Weight.....3.9 kg

### Ordering Information

TMX-0108AV...1x8 Composite Video& Audio Distribution Amplifier,  
 125 M, Video on BNC Connectors, Audio stereo  
 on RCA Connectors Amplifier

## TMX-0116AV 1×16 AV Distribution Amplifier



### Features

- Routing: 1×16 AV Distribution Amplifier
- Video interface: female BNC
- Audio interface: female RCA (L+R) connectors
- Fully loaded video bandwidth: 125 MHz
- Audio bandwidth: 20 Hz to 22 kHz
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Guarantees image signal lossless transmission, clear with no shadow
- 3U high, full rack width

### Technical Specifications

#### Video

Bandwidth.....125 MHz (-3dB), fully loaded  
 Input/output impedance.....75 Ohm  
 Signal type.....Composite video  
 Connectors.....Input: 1 female BNC, output: 16 female BNC

#### Audio

Signal type.....Input: 1 stereo; output: 16 stereo  
 Connectors.....Input: 1 pair of female RCA connectors;  
 output: 16 pairs of female RCA connectors

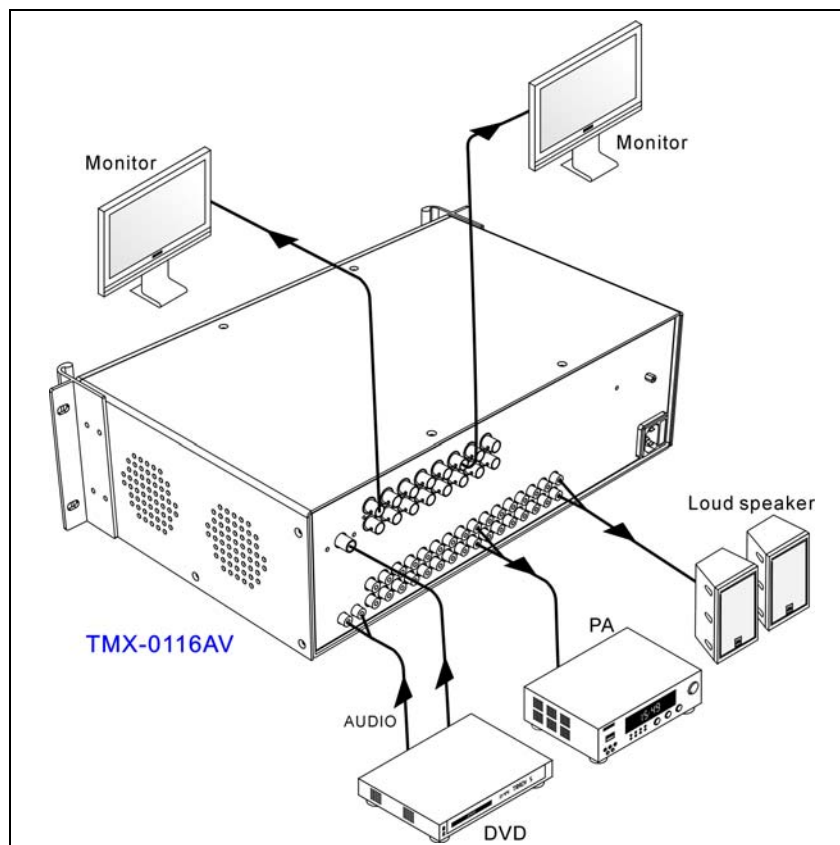
#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....132 × 478 × 310  
 (3U high, full rack width)  
 Weight.....4.0 kg

### Ordering Information

TMX-0116AV...1×16 Composite Video& Audio Distribution Amplifier,  
 125 M, Video on BNC Connectors, Audio stereo on  
 RCA Connectors

### Composite Video& Audio Distribution Amplifiers System Connection



## HCS-4112M/29

### 1×29 Broadcast Quality Audio Distributor



#### Features

- Routing: 1×29 Broadcast Quality Audio Distributor
- Audio interface: 3 core XLR balanced
- 1 input channel, 29 adjustable gain output channels (with audio monitor)
- Audio monitoring facility
- Each output with a built-in independent earth isolated set (adopt 29 isolated transformers), making it completely isolated from interference between input and output signals, and eliminate the interference from power supply system and earth wire

HCS-4112M/29 is a professional audio distributor with excellent capability. Each output is equipped with a gain adjust knob and a built-in independent earth isolated set. This broadcast standard audio distributor with earthing isolation feature is mainly used for high quality multi-way audio distribution.

#### Controls and Indicators

- Power indicator
- 5 signal indicators
- 29 gain control knobs of audio outputs
- Monitor volume control knob

#### Interconnections

- 1 female XLR connector for audio input to connect balanced audio signal
- 1 male XLR connector for connection with the audio input of the next HCS-4112M/29
- 29 male XLR connectors for distributing the audio signal of the conference proceedings and the interpretation from interpreters to recording devices
- 1 female XLR connector for monitoring audio input
- Ø 3.5 mm jack for stereo monitor earphone

#### Technical Specifications

##### Electrical

Gain ..... -∞ ~ +10 dB / adjustable  
 Frequency response ..... 20 Hz to 20 kHz (+0/-1 dB)  
 SNR ..... >106 dB  
 THD ..... <0.02%  
 Power supply ..... 100 V AC to 240 V AC, 50/60 Hz,  
 fixed power cable

##### Audio Input

Connectors ..... 1 female XLR balanced  
 Max. input ..... +6 dBV

##### Audio output

Connectors ..... 29 male XLR balanced  
 Max. output ..... +16 dBV

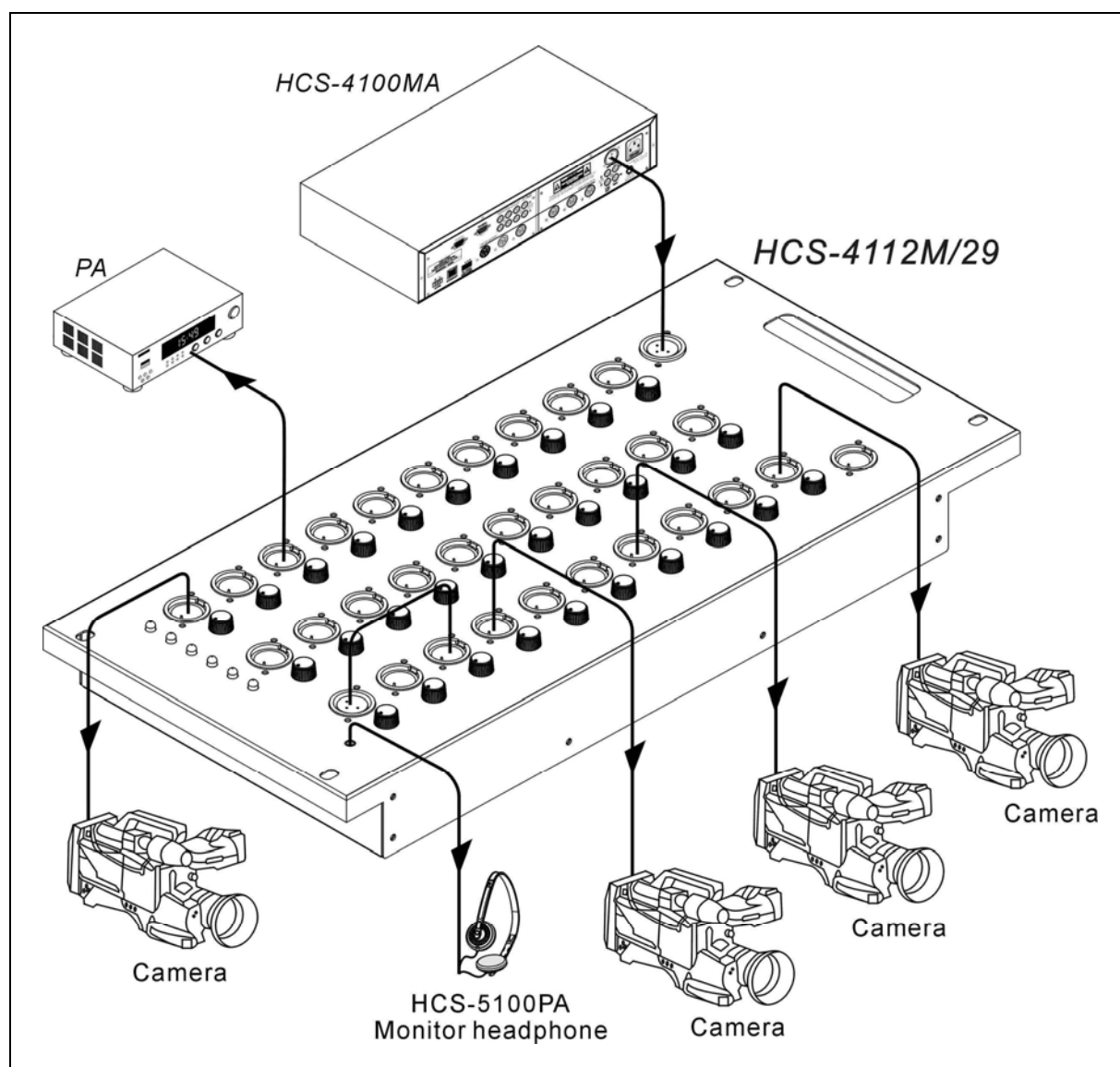
##### General specs

Temperature ..... Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity ..... Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm) ..... 70 × 483 × 222  
 Weight ..... 2.8 kg

#### Ordering Information

HCS-4112M/29 ..... Broadcast Standard Audio Distributor  
 (1 XLR-F inputs, 29 XLR-M outputs,  
 adjustable gain isolated output)

**System Connection**







- **Routing: 8x4 component video matrix switcher**
- **Video interface: BNCx3 female**
- **Fully loaded video bandwidth: 450 MHz**
- **Typical switching speed: 25 ns**
- **Typical propagation delay: 5 ns**
- **Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video**
- **The latest RGB switch chip is used**
- **Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols**
- **Power-off protection for scene status**
- **LCD to display real-time operation**
- **Front panel button control , easy to switch manually**
- **Front panel keyboard lockup and protection function**
- **Scene save and recall function**
- **3U high, full rack width**



- Routing: 8x4 component video & balanced/unbalanced stereo audio matrix switcher
- Video interface: BNCx3 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- The latest RGB switch chip is used
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

Gain .....	0 dB
Bandwidth .....	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel .....	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma .....	< -80 dB @ 1 kHz, fully loaded
Differential phase error .....	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error .....	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay .....	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed .....	25 ns
Signal type .....	RGB, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

Connectors \_\_\_\_\_ 8 × 3 BNC female  
Min./max. levels \_\_\_\_\_ Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level \_\_\_\_\_ 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
\_\_\_\_\_ component video and S-video, and for  
\_\_\_\_\_ composite video; 0.3 Vp-p for R-Y and  
\_\_\_\_\_ B-Y of component video and C of S-video  
Impedance \_\_\_\_\_ 75 Ohm  
Return loss \_\_\_\_\_ -30 dB @ 5 MHz  
Max. DC offset \_\_\_\_\_ 1.5 V

Connectors ..... 4 × 3 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset ..... ± 5 mV with no offset at input

Switching type ..... RGB simultaneity

Signal type.....Input: 8 stereo, balanced/unbalanced;  
output: 4 stereo, balanced/unbalanced

Connectors .....Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 4 × 5 pin 3.81 mm Phoenix

Gain .....Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response .....20 Hz to 22 kHz, ±0.05 dB

THD+Noise .....0.03% @ 1 kHz at normal level

S/N >110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk .....>80 dB @ 1 kHz, fully loaded

Stereo channel separation .....>80 dB @ 1 kHz

CMRR .....>75 dB @ 20 Hz to 20 kHz

Impedance .....Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels .....+20.2 dBu (balanced or unbalanced)

Gain error .....±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9-pin female D connector  
 COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
 Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol.....TCP/IP  
 Ethernet speed.....10 M/100 M, full-duplex or  
 half-duplex with autodetect  
 PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....132 × 478 × 310  
 (3U high, full rack width)  
 Weight.....4.8 kg  
 Mean time between failures.....30,000 hours

---

## Ordering Information

TMX-0804HD-A.....8×4 Component Video & Balanced/Unbalanced  
 Stereo Audio Matrix Switcher, Video on BNC  
 Connectors, Audio stereo on 5 pin 3.81 mm  
 Phoenix Connectors



# TMX-0808HD-A

## 8x8 Component Video & Balanced/Unbalanced Stereo Audio Matrix Switcher



## Features

- Routing: 8x8 component video & balanced/unbalanced stereo audio matrix switcher
- Video interface: BNCx3 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 450 MHz
- Typical switching speed: 25 ns
- Typical propagation delay: 5 ns
- Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- The latest RGB switch chip is used
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Gain	0 dB
Bandwidth	450 MHz (-3dB), fully loaded; 0 ~ 10 MHz $\leq \pm 0.1$ dB 0 ~ 100 MHz $\leq \pm 0.8$ dB
Crosstalk of channel	-53 dB @ 10 MHz, -45 dB @ 30 MHz, -37 dB @ 100 MHz
Crosstalk of lum and chroma	< -80 dB @ 1 kHz, fully loaded
Differential phase error	Max. 0.05 degree, @ RL = 150 Ohm
Differential gain error	Max. 0.05%, @ RL = 150 Ohm
Typical propagation delay	5 ns @ 2 Vp-p, RL = 150 Ohm
Typical switching speed	25 ns
Signal type	RGB, RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video

## Video input

Connectors ..... 8 × 3 BNC female  
Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset  
Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
Max. DC offset ..... 1.5 V

## Video output

Connectors ..... 8 × 3 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset ..... ± 5 mV with no offset at input

Switching type ..... RGB simultaneity

## Audio

Signal type\_\_\_\_\_Input: 8 stereo, balanced/unbalanced;  
output: 8 stereo, balanced/unbalanced

Connectors \_\_\_\_\_Input: 8 × 5 pin 3.81 mm Phoenix;  
output: 8 × 5 pin 3.81 mm Phoenix

Gain \_\_\_\_\_Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response \_\_\_\_\_20 Hz to 22 kHz, ±0.05 dB

THD+Noise \_\_\_\_\_0.03% @ 1 kHz at normal level

S/N.>110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk \_\_\_\_\_>80 dB @ 1 kHz, fully loaded

Stereo channel separation \_\_\_\_\_>80 dB @ 1 kHz

CMRR \_\_\_\_\_>75 dB @ 20 Hz to 20 kHz

Impedance \_\_\_\_\_Input: >10 kΩ, (balanced or unbalanced)

Max. input/output levels \_\_\_\_\_+20.2 dBu (balanced or unbalanced)

Gain error \_\_\_\_\_±0.1 dB @ 20 Hz to 22 kHz

## Control

COM (RS-232).....RS-232, 9-pin female D connector  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....5.4 kg  
Mean time between failures.....30,000 hours

## Ordering Information

TMX-0808HD-A-\_\_\_\_ 8x8 Component Video & Balanced/Unbalanced  
Stereo Audio Matrix Switcher, Video on BNC  
Connectors, Audio stereo on 5 pin 3.81 mm  
Phoenix Connectors

## TMX-1608HD

### 16×8 Component Video Matrix Switcher



#### Features

- Routing: 16×8 component video matrix switcher
- Video interface: BNC×3 female
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

#### Technical Specifications

##### Video

Gain ..... 0 dB

Bandwidth ..... 425 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB

Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz

Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded

Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm

Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm

Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm

Typical switching speed ..... 50 ns

Signal type ..... RGB, RGBs, RGsB, RsGsBs, HDTV,  
component video, S-video and  
composite video

##### Video input

Connectors ..... 16 × 3 BNC female

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

##### Video output

Connectors ..... 8 × 3 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset .....  $\pm 5$  mV with no offset at input

Switching type ..... RGB simultaneity

##### Control

COM (RS-232) ..... RS-232, 9-pin female D connector

COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND

Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol ..... TCP/IP

Ethernet speed ..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect

PC control ..... Matrix switcher

##### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz

Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity ..... Storage and operating: 10% to 90%

Dimensions h × w × d (mm) ..... 264 × 478 × 310  
(6U high, full rack width)

Weight ..... 9.0 kg

Mean time between failures ..... 30,000 hours

#### Ordering Information

TMX-1608HD ..... 16×8 Component Video Matrix  
Switcher, BNC Connectors





- Routing: 16×8 component video & balanced/unbalanced stereo audio matrix switcher
- Video interface: BNC×3 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- The latest RGB switch chip is used
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high. full rack width

## Control

COM (RS-232).....RS-232, 9-pin female D connector  
 COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
 Interface.....9-pin female D connector, 2 = TX, 3 = RX, 5 = GND  
 Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
 Ethernet protocol.....TCP/IP  
 Ethernet speed.....10 M/100 M, full-duplex or  
 half-duplex with autodetect  
 PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
 Temperature.....Operating: 0 °C to + 50 °C;  
 storage: -20 °C to + 70 °C  
 Humidity.....Storage and operating: 10% to 90%  
 Dimensions h × w × d (mm).....264 × 478 × 310  
 (6U high, full rack width)  
 Weight.....9.0 kg  
 Mean time between failures.....30,000 hours

---

## Ordering Information

TMX-1608HD-A...16×8 Component Video & Balanced/Unbalanced  
 Stereo Audio Matrix Switcher, Video on BNC  
 Connectors, Audio stereo on 5 pin 3.81 mm  
 Phoenix Connectors

## TMX-1616HD

### 16×16 Component Video Matrix Switcher



#### Features

- Routing: 16×16 component video matrix switcher
- Video interface: BNC×3 female
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- The latest RGB switch chip is used
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

#### Technical Specifications

##### Video

Gain ..... 0 dB

Bandwidth ..... 425 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB

Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz

Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded

Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm

Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm

Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm

Typical switching speed ..... 50 ns

Signal type ..... RGB, RGBs, RGsB, RsGsBs, HDTV,  
component video, S-video and  
composite video

##### Video input

Connectors ..... 16 × 3 BNC female

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

##### Video output

Connectors ..... 16 × 3 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset .....  $\pm 5$  mV with no offset at input

Switching type ..... RGB simultaneity

##### Control

COM (RS-232) ..... RS-232, 9-pin female D connector

COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND

Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol ..... TCP/IP

Ethernet speed ..... 10 M/100 M, full-duplex or  
half-duplex with autotdetect

PC control ..... Matrix switcher

##### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz

Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity ..... Storage and operating: 10% to 90%

Dimensions h × w × d (mm) ..... 264 × 478 × 310  
(6U high, full rack width)

Weight ..... 10.0 kg

Mean time between failures ..... 30,000 hours

#### Ordering Information

TMX-1616HD ..... 16×16 Component Video Matrix  
Switcher, BNC Connectors

# TMX-1616HD-A 16×16 Component Video & Balanced/Unbalanced Stereo Audio Matrix Switcher



## Features

- Routing: 16×16 component video & balanced/unbalanced stereo audio matrix switcher
- Video interface: BNC×3 female
- Audio interface: 5 pin 3.81 mm Phoenix
- Fully loaded video bandwidth: 425 MHz
- Typical switching speed: 50 ns
- Typical propagation delay: 5 ns
- Compatible with RGBs, RGsB, RsGsBs, HDTV, component video, S-video and composite video
- Supporting balanced/unbalanced stereo audio
- Audio bandwidth: 20 Hz to 22 kHz
- The latest RGB switch chip is used
- Ethernet interface and RS-232 control, supporting TCP/IP and RS-232 protocols
- Power-off protection for scene status
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Front panel keyboard lockup and protection function
- Scene save and recall function
- 6U high, full rack width

## Technical Specifications

### Video

Gain ..... 0 dB

Bandwidth ..... 425 MHz (-3dB), fully loaded;  
0 ~ 10 MHz  $\leq \pm 0.1$  dB;  
0 ~ 100 MHz  $\leq \pm 0.8$  dB

Crosstalk of channel ..... -53 dB @ 10 MHz,  
-45 dB @ 30 MHz,  
-37 dB @ 100 MHz

Crosstalk of lum and chroma ..... < -80 dB @ 1 kHz, fully loaded

Differential phase error ..... Max. 0.05 degree, @ RL = 150 Ohm

Differential gain error ..... Max. 0.05%, @ RL = 150 Ohm

Typical propagation delay ..... 5 ns @ 2 Vp-p, RL = 150 Ohm

Typical switching speed ..... 50 ns

Signal type ..... RGB, RGBs, RGsB, RsGsBs, HDTV,  
component video, S-video and  
composite video

### Video input

Connectors ..... 16 × 3 BNC female

Min./max. levels ..... Analog: 0.5 V to 2.0 Vp-p with no offset

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

Max. DC offset ..... 1.5 V

### Video output

Connectors ..... 16 × 3 BNC female

Nominal level ..... 0.7 Vp-p for RGB; 1.0 Vp-p for Y of  
component video and S-video, and for  
composite video; 0.3 Vp-p for R-Y and  
B-Y of component video and C of S-video

Min./max. levels ..... Analog signal: 0 V to 2.0 Vp-p (follows input)

Impedance ..... 75 Ohm

Return loss ..... -30 dB @ 5 MHz

DC offset .....  $\pm 5$  mV with no offset at input

Switching type ..... RGB simultaneity

### Audio

Signal type ..... Input: 16 stereo, balanced/unbalanced;  
output: 16 stereo, balanced/unbalanced

Connectors ..... Input: 16 × 5 pin 3.81 mm Phoenix;  
output: 16 × 5 pin 3.81 mm Phoenix

Gain ..... Unbalanced output: 0 dB, balanced output: +6 dB

Frequency response ..... 20 Hz to 22 kHz,  $\pm 0.05$  dB

THD+Noise ..... 0.03% @ 1 kHz at normal level

S/N ..... >110 dB, balanced, at maximum output (20.2 dBu), unweighted

Crosstalk ..... >80 dB @ 1 kHz, fully loaded

Stereo channel separation ..... >80 dB @ 1 kHz

CMRR ..... >75 dB @ 20 Hz to 20 kHz

Impedance ..... Input: >10 k $\Omega$  (balanced or unbalanced)

Max. input/output levels ..... +20.2 dBu (balanced or unbalanced)

Gain error .....  $\pm 0.1$  dB @ 20 Hz to 22 kHz

### Control

COM (RS-232) ..... RS-232, 9-pin female D connector

COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

Interface ..... 9-pin female D connector, 2 = TX, 3 = RX, 5 = GND

Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair

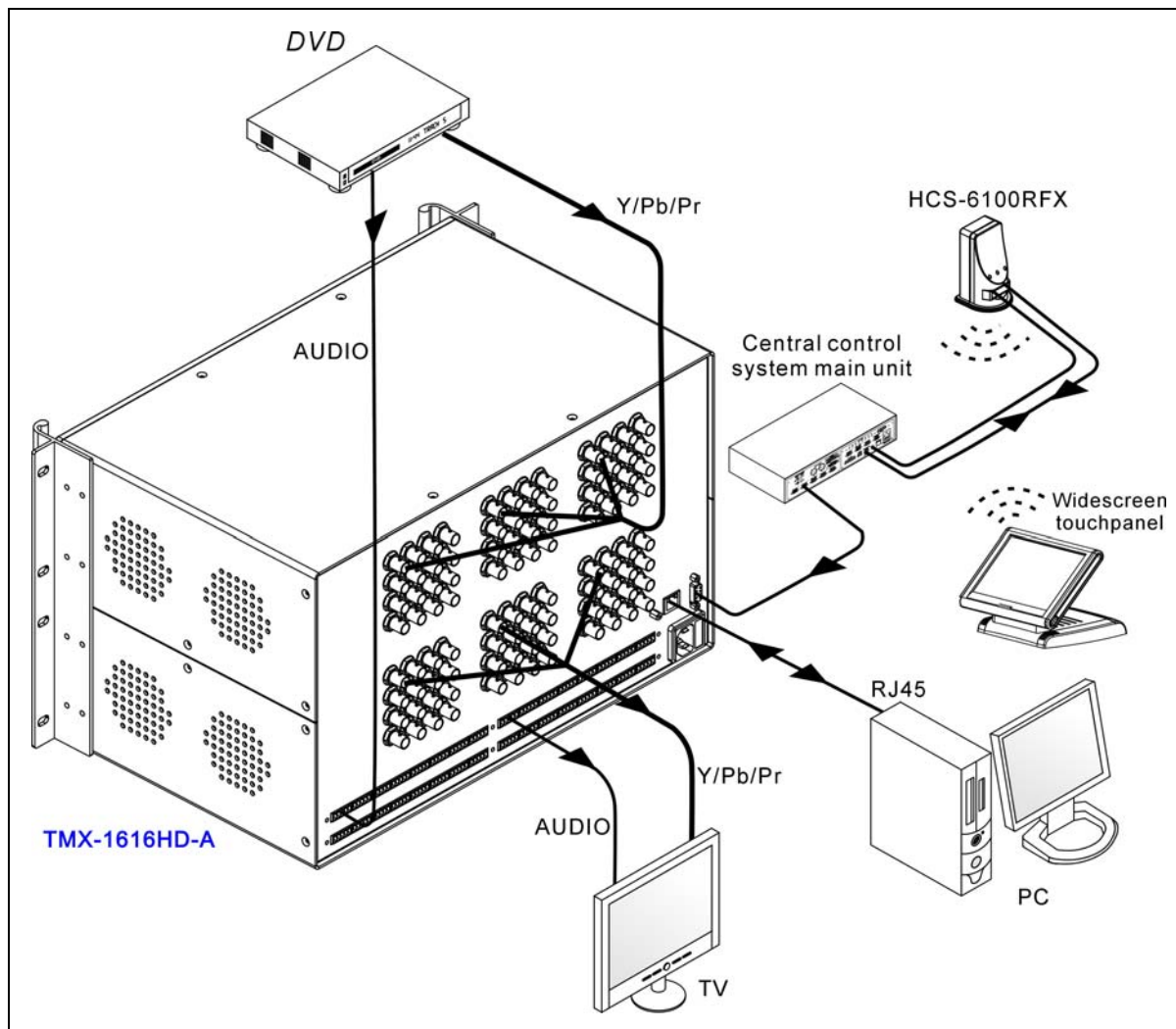
Ethernet protocol ..... TCP/IP

Ethernet speed ..... 10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control ..... Matrix switcher



## Component Video Matrix Switchers System Connection



## TMX-0201DVI-A 2×1 DVI & Audio Switcher



### Features

- Routing: 2 × 1 DVI & audio switcher
- Video interface: DVI-I connectors
- Audio input interface: 3.5 mm Phone jack (L+R)  
Audio output interface: 3.5 mm Phone jack (L+R) (unbalanced) and 5 pin 3.81 mm Phoenix (balanced)
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Supporting video, DDC and stereo audio switching
- Audio bandwidth: 20 Hz to 22 kHz
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- Automatic switching when one input and one output are operated
- LED indicators for source and sink presence

### Technical Specifications

#### Video

Max. data rate.....2.25 Gbps  
Resolution.....Up to HDTV (1080 p) or 1920×1200 @ 60 Hz

#### Video input

Signal type.....TMDS  
Connectors.....2 × DVI-I connector  
Equalization.....6 dB, 12 dB

#### Video output

Signal type.....TMDS  
Connector.....1 × DVI-I connector  
Pre-emphasize.....0 dB, 2 dB, 4 dB, 6 dB

#### Audio input

Signal type.....2 stereo, unbalanced  
Connectors.....2 × 3.5 mm Phone jack

#### Audio output

Signal type.....1 stereo, balanced/unbalanced  
Connectors.....1 × 3.5 mm Phone jack (unbalanced)  
.....1 × 5 pin 3.81 mm Phoenix (balanced)

#### Control

COM (RS-232).....3.5 mm TRS jack, R = TX, T = RX, S = GND  
Connecting to central control.....Baudrate: 9600, data: 8 bits,  
stop: 1 bit, no parity  
Connecting to PC software.....Baudrate: 38400, data: 8 bits,  
stop: 1 bit, no parity  
PC control.....Matrix switcher

#### General specs

Power supply.....12 V DC to 24 V DC  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....40 × 150 × 100  
Weight.....0.4 kg

### Ordering Information

TMX-0201DVI-A.....2×1 DVI & Audio Switcher, 2.25 Gbps, Video  
on DVI-I Connectors, Audio stereo on 3.5  
mm Phone jack (L+R) inputs and 3.5 mm  
Phone jack (L+R)/5 pin 3.81 mm Phoenix  
output



## TMX-0401DVI-A 4×1 DVI & Audio Switcher



### Features

- Routing: 4 × 1 DVI & audio switcher
- Video interface: DVI-I connectors
- Audio interface: 3.5 mm Phone jack (L+R)
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Supporting video, DDC and stereo audio switching
- Audio bandwidth: 20 Hz to 22 kHz
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- Automatic switching when one input and one output are operated
- LED indicators for source and sink presence
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Max. data rate.....2.25 Gbps  
Resolution.....Up to HDTV (1080 p) or 1920×1200 @ 60 Hz

#### Video input

Signal type.....TMDS  
Connectors.....4 × DVI-I connector  
Equalization.....6 dB, 12 dB

#### Video output

Signal type.....TMDS  
Connectors.....1 × DVI-I connector  
Pre-emphasize.....0 dB, 2 dB, 4 dB, 6 dB

#### Audio input

Signal type.....4 stereo, unbalanced  
Connectors.....4 × 3.5 mm Phone jack

#### Audio output

Signal type.....1 stereo, unbalanced  
Connectors.....1 × 3.5 mm Phone jack

### Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
PC control.....Matrix switcher

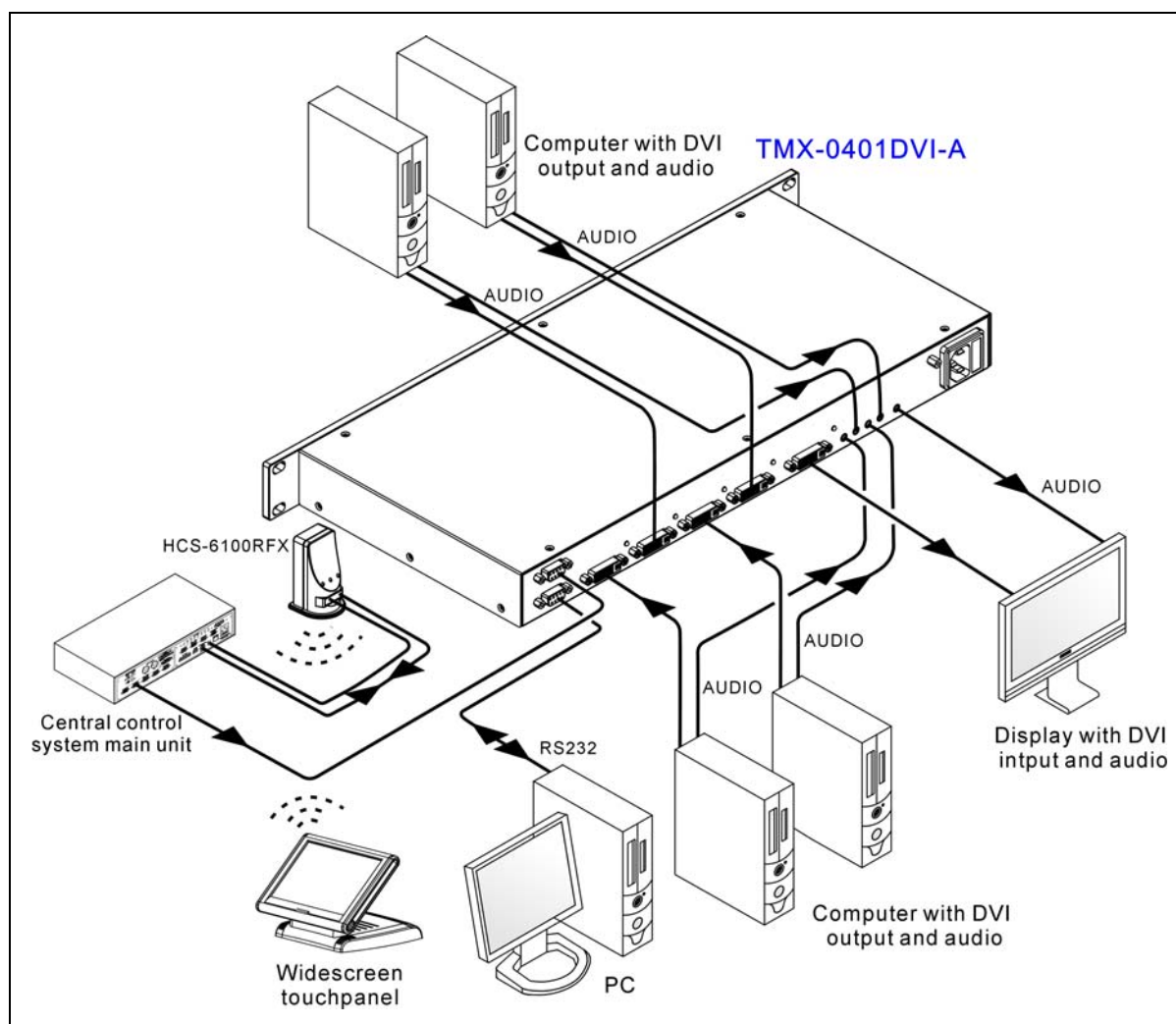
### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....43 × 483 × 208  
(1U high, full rack width)  
Weight.....2.7 kg

### Ordering Information

TMX-0401DVI-A.....4×1 DVI & Audio Switcher, 2.25 Gbps,  
Video on DVI-I Connectors, Audio stereo on 3.5 mm Phone jacks  
(L+R)

## DVI Switchers System Connection



## TMX-0202DVI 2x2 DVI Matrix Switcher



### Features

- Routing: 2 × 2 DVI matrix switcher
- Video interface: DVI-I connectors
- Max. data rates: 1.65 Gbps
- Supporting all resolutions from 480p to 1080p and UXGA (1600×1200)
- Supporting video and DDC switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LED indicators for source and sink presence
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Max. data rate.....1.65 Gbps  
Resolution.....Up to HDTV (1080 p) or 1600×1200 @ 60 Hz

#### Video input

Signal type.....TMDS  
Connectors.....2 × DVI-I connector  
Equalization.....Automatic, max. 40 dB

#### Video output

Signal type.....TMDS  
Connectors.....2 × DVI-I connector  
Pre-emphasize.....Automatic

#### Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
PC control.....Matrix switcher

### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....43 × 483 × 208  
(1U high, full rack width)  
Weight.....2.7 kg

### Ordering Information

TMX-0202DVI.....2x2 DVI Matrix Switcher, 1.65 Gbps,  
DVI-I Connector

## TMX-0202DVI-A 2x2 DVI & Audio Matrix Switcher



### Features

- Routing: 2 × 2 DVI & audio matrix switcher
- Video interface: DVI-I connectors
- Audio interface: 3.5 mm Phone jack (L+R)
- Max. data rates: 1.65 Gbps
- Supporting all resolutions from 480p to 1080p and UXGA (1600×1200)
- Supporting video, DDC and stereo audio switching
- Audio bandwidth: 20 Hz to 22 kHz
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LED indicators for source and sink presence
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Max. data rate.....1.65 Gbps  
Resolution.....Up to HDTV (1080p) or 1600×1200 @ 60 Hz

#### Video input

Signal type.....TMDS  
Connectors.....2 × DVI-I connector  
Equalization.....Automatic, max. 40 dB

#### Video output

Signal type.....TMDS  
Connectors.....2 × DVI-I connector  
Pre-emphasize.....Automatic

#### Audio input

Signal type.....2 stereo, unbalanced  
Connectors.....2 × 3.5 mm Phone jack

#### Audio output

Signal type.....2 stereo, unbalanced  
Connectors.....2 × 3.5 mm Phone jack

### Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
PC control.....Matrix switcher

### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....43 × 483 × 208  
(1U high, full rack width)  
Weight.....2.7 kg

### Ordering Information

TMX-0202DVI-A.....2x2 DVI & Audio Matrix Switcher, 1.65 Gbps,  
Video on DVI-I Connectors, Audio  
stereo on 3.5 mm Phone jacks (L+R)

## TMX-0204DVI 2x4 DVI Matrix Switcher



### Features

- Routing: 2 × 4 DVI matrix switcher
- Video interface: DVI-I connectors
- Max. data rates: 1.65 Gbps
- Supporting all resolutions from 480p to 1080p and UXGA (1600×1200)
- Supporting video and DDC switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LED indicators for source and sink presence
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Max. data rate.....1.65 Gbps

Resolution.....Up to HDTV (1080p) or 1600×1200 @ 60 Hz

#### Video input

Signal type.....TMDS

Connectors.....2 × DVI-I connector

Equalization.....Automatic, max. 40 dB

#### Video output

Signal type.....TMDS

Connectors.....4 × DVI-I connector

Pre-emphasize.....Automatic

#### Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND

COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity

PC control.....Matrix switcher

### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz

Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C

Humidity.....Storage and operating: 10% to 90%

Dimensions h × w × d (mm).....43 × 483 × 208  
(1U high, full rack width)

Weight.....2.7 kg

### Ordering Information

TMX-0204DVI.....2x4 DVI Matrix Switcher, 1.65 Gbps,  
DVI-I Connector

## TMX-0204DVI-A 2x4 DVI & Audio Matrix Switcher



### Features

- Routing: 2 × 4 DVI & audio matrix switcher
- Video interface: DVI-I connectors
- Audio interface: 3.5 mm Phone jack (L+R)
- Max. data rates: 1.65 Gbps
- Supporting all resolutions from 480p to 1080p and UXGA (1600×1200)
- Supporting video, DDC and stereo audio switching
- Audio bandwidth: 20 Hz to 22 kHz
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LED indicator for source and sink presence
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

### Technical Specifications

#### Video

Max. data rate ..... 1.65 Gbps  
Resolution ..... Up to HDTV (1080p) or 1600×1200 @ 60 Hz

#### Video input

Signal type ..... TMDS  
Connectors ..... 2 × DVI-I connector  
Equalization ..... Automatic, max. 40 dB

#### Video output

Signal type ..... TMDS  
Connectors ..... 4 × DVI-I connector  
Pre-emphasize ..... Automatic

#### Audio input

Signal type ..... 2 stereo, unbalanced  
Connectors ..... 2 × 3.5 mm Phone jack

#### Audio output

Signal type ..... 4 stereo, unbalanced  
Connectors ..... 4 × 3.5 mm Phone jack

### Control

COM (RS-232) ..... 9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND  
COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
PC control ..... Matrix switcher

### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 43 × 483 × 208  
(1U high, full rack width)  
Weight ..... 2.7 kg

### Ordering Information

TMX-0204DVI-A ..... 2x4 DVI & Audio Matrix Switcher, 1.65 Gbps,  
Video on DVI-I Connectors, Audio stereo on  
3.5 mm Phone jacks (L+R)

# TMX-0804DVI

## 8x4 DVI Matrix Switcher



## Features

- Routing: 8 x 4 DVI matrix switcher
- Video interface: DVI-I connectors
- Max. data rates: 2.25 Gbps
- Supporting all resolutions from 480p to 1080p and WUXGA (1920x1200)
- Supporting video and DDC switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- Each output interface can supply up to +5 V DC/200 mA
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 3U high, full rack width

## Technical Specifications

## Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

## Video input

Signal type.....TMDS  
Connectors.....8 × DVI-I connector  
Equalization.....Automatic, max. 12 dB

## Video output

Signal type.....TMDS  
Connectors.....4 × DVI-I connector  
Pre-emphasize.....0 dB, 6 dB

## Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND

COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Ethernet.....RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol.....TCP/IP

Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.4 kg

## Ordering Information

TMX-0804DVI.....8×4 DVI Matrix Switcher, 2.25  
Gbps, DVI-I Connector



## TMX-0804DVI-A 8x4 DVI & Audio Matrix Switcher



### Features

- Routing: 8 × 4 DVI & audio matrix switcher
- Video interface: DVI-I connectors
- Audio interface: 5 pin 3.81 mm Phoenix
- Max. data rates: 2.25 Gbps
- Supports all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Supporting video, DDC and balanced/unbalanced stereo audio switching
- Audio bandwidth: 20 Hz to 22 kHz
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- Each output interface can supply up to +5 V DC/200 mA
- 3U high, full rack width

### Technical Specifications

#### Video

Max. data rate.....2.25 Gbps  
Resolution.....Up to HDTV (1080p) or 1920×1200 @ 60 Hz

#### Video input

Signal type.....TMDS  
Connectors.....8 × DVI-I connector  
Equalization.....Automatic, max. 12 dB

#### Video output

Signal type.....TMDS  
Connectors.....4 × DVI-I connector  
Pre-emphasize.....0 dB, 6 dB

#### Audio input

Signal type.....8 stereo, balanced/unbalanced  
Connectors.....8 × 5 pin 3.81 mm Phoenix

#### Audio output

Signal type.....4 stereo, balanced/unbalanced  
Connectors.....4 × 5 pin 3.81 mm Phoenix

#### Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND  
COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Ethernet.....RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol.....TCP/IP  
Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control.....Matrix switcher

#### General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.5 kg

### Ordering Information

TMX-0804DVI-A.....8x4 DVI & Audio Matrix Switcher, 2.25 Gbps,  
Video on DVI-I Connectors, Audio stereo on  
5 pin 3.81 mm Phoenix Connectors

# TMX-0808DVI

## 8x8 DVI Matrix Switcher



## Features

- Routing: 8 x 8 DVI matrix switcher
- Video interface: DVI-I connectors
- Max. data rates: 2.25 Gbps
- Supporting all resolutions from 480p to 1080p and WUXGA (1920x1200)
- Supporting video and DDC switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- Each output interface can supply up to +5 V DC/200 mA
- 3U high, full rack width

## Technical Specifications

## Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

## Video input

Signal type.....TMDS  
Connectors.....8 × DVI-I connector  
Equalization.....Automatic, max. 12 dB

## Video output

Signal type.....TMDS  
Connectors.....8 × DVI-I connector  
Pre-emphasize.....0 dB, 6 dB

## Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND

COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Ethernet.....RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol.....TCP/IP

Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control.....Matrix switcher

## General specs

Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....132 × 478 × 310  
(3U high, full rack width)  
Weight.....4.5 kg

## Ordering Information

TMX-0808DVI.....8x8 DVI Matrix Switcher, 2.25  
Gbps, DVI-I Connector

## TMX-0808DVI-A 8x8 DVI & Audio Matrix Switcher



### Features

- Routing: 8 × 8 DVI & audio matrix switcher
- Video interface: DVI-I connectors
- Audio interface: 5 pin 3.81 mm Phoenix
- Max. data rates: 2.25 Gbps
- Supporting all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Supporting video, DDC and balanced/unbalanced stereo audio switching
- Audio bandwidth: 20 Hz to 22 kHz
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- Each output interface can supply up to +5 V DC/200 mA
- 3U high, full rack width

### Technical Specifications

#### Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

#### Video input

Signal type ..... TMDS  
Connectors ..... 8 × DVI-I connector  
Equalization ..... Automatic, max. 12 dB

#### Video output

Signal type ..... TMDS  
Connectors ..... 8 × DVI-I connector  
Pre-emphasize ..... 0 dB, 6 dB

#### Audio input

Signal type ..... 8 stereo, balanced/unbalanced  
Connectors ..... 8 × 5 pin 3.81 mm Phoenix

#### Audio output

Signal type ..... 8 stereo, balanced/unbalanced  
Connectors ..... 8 × 5 pin 3.81 mm Phoenix

#### Control

COM (RS-232) ..... 9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND  
COM1 ..... Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity  
COM2 ..... Variable baudrate, data: 8 bits, stop: 1 bit, no parity  
Ethernet ..... RJ-45 female connector, CAT-5 only cross-pair  
Ethernet protocol ..... TCP/IP  
Ethernet speed ..... 10 M/100 M, full-duplex or  
half-duplex with autodetect  
PC control ..... Matrix switcher

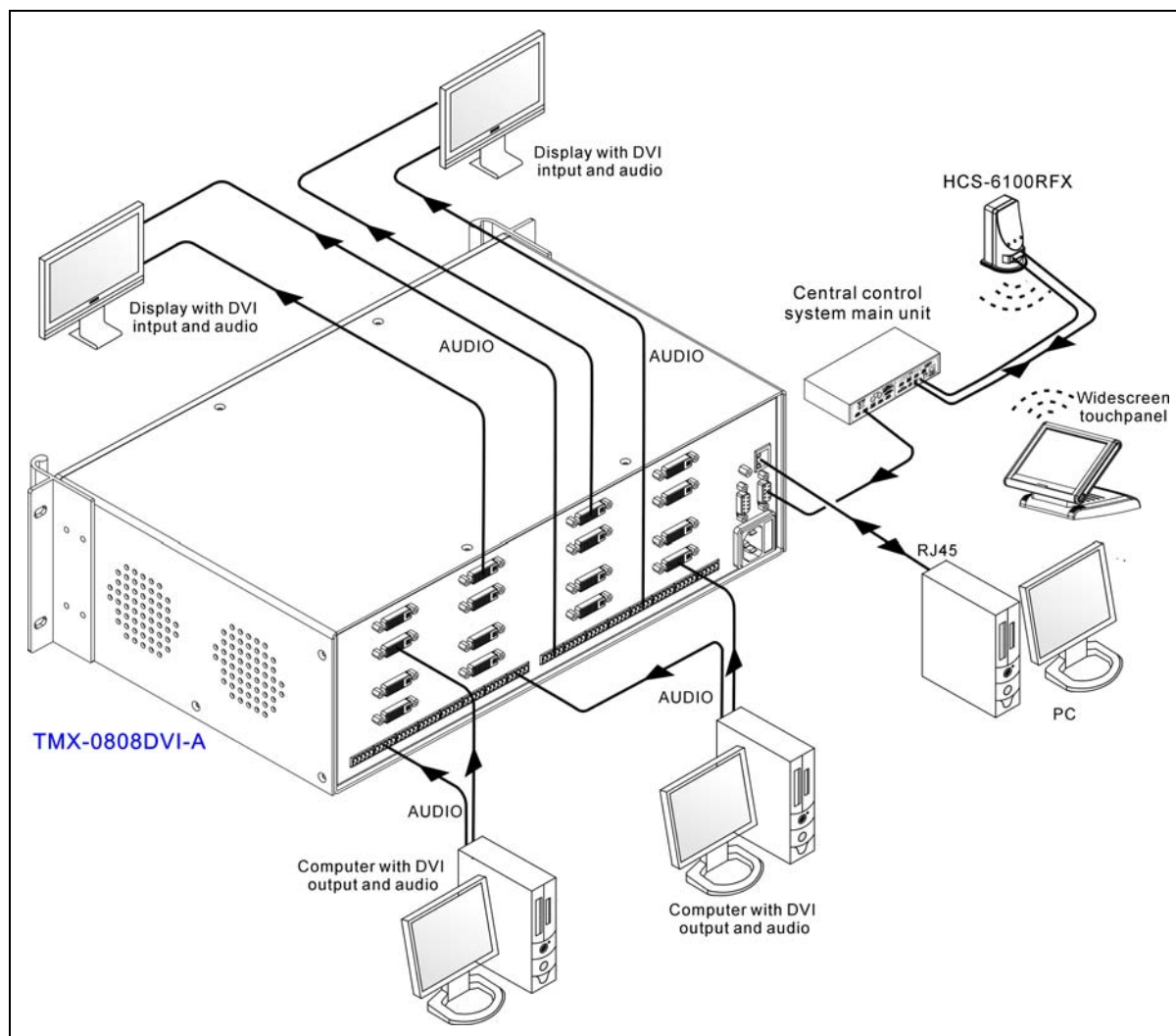
#### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 132 × 478 × 310  
(3U high, full rack width)  
Weight ..... 4.6 kg

### Ordering Information

TMX-0808DVI-A ..... 8x8 DVI & Audio Matrix Switcher, 2.25 Gbps,  
Video on DVI-I Connectors, Audio stereo on  
5 pin 3.81 mm Phoenix Connectors

## DVI Matrix Switchers System Connection



# TMX-0201HDMI

## 2x1 HDMI Switcher



## General specs

Power supply ..... 12 V DC to 24 V DC  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....40 × 150 × 100  
Weight.....0.35 kg

## Ordering Information

TMX-0201HDMI.....2x1 HDMI Switcher, 2.25 Gbps,  
HDMI 1.3-compliant

## Features

- Routing: 2 x 1 HDMI switcher
- Signal interface: HDMI type A connectors, HDMI 1.3 compliant
- Compatible with HDCP
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920x1200)
- Supporting video, DDC and digital stereo audio switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- Top panel button control , easy to switch manually
- Automatic switching when one input and one output are operated
- LED indicators for source and sink presence

## Technical Specifications

## Video

Max. data rate.....2.25 Gbps  
Resolution.....Up to HDTV (1080p) or 1920×1200 @ 60 Hz

## Input

Signal type.....TMDS  
Connectors.....2 × female HDMI type A connector  
Equalization.....6 dB, 12 dB

## Output

Signal type.....TMDS  
Connectors.....1 × female HDMI type A connector  
Pre-emphasize.....0 dB, 2 dB, 4 dB, 6 dB

## Control

COM (RS-232).....3.5 mm TRS jack, R = TX, T = RX, S = GND  
Connecting to central control.....Baudrate: 9600, data: 8 bits,  
stop: 1 bit, no parity  
Connecting to PC software.....Baudrate: 38400, data: 8 bits,  
stop: 1 bit, no parity  
PC control.....Matrix switcher

## TMX-0401HDMI 4x1 HDMI Switcher



### General specs

Power supply..... 12 V DC to 24 V DC  
Temperature..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm)..... 40 × 150 × 100  
Weight..... 0.38 kg

### Ordering Information

TMX-0401HDMI..... 4x1 HDMI Switcher, 2.25 Gbps,  
HDMI 1.3-compliant

### Features

- Routing: 4 × 1 HDMI switcher
- Signal interface: HDMI type A connectors, HDMI 1.3 compliant
- Compatible with HDCP
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Supporting video, DDC and digital stereo audio switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- Top panel button control , easy to switch manually
- Automatic switching when one input and one output are operated
- LED indicators for source and sink presence

### Technical Specifications

#### Video

Max. data rate..... 2.25 Gbps  
Resolution..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

#### Input

Signal type..... TMDS  
Connectors..... 4 × female HDMI type A connector  
Equalization..... 6 dB, 12 dB

#### Output

Signal type..... TMDS  
Connectors..... 1 × female HDMI type A connector  
Pre-emphasize..... 0 dB, 2 dB, 4 dB, 6 dB

#### Control

COM (RS-232)..... 3.5 mm TRS jack, R = TX, T = RX, S = GND  
Connecting to central control..... Baudrate: 9600, data: 8 bits,  
stop: 1 bit, no parity  
Connecting to PC software..... Baudrate: 38400, data: 8 bits,  
stop: 1 bit, no parity  
PC control..... Matrix switcher

# TMX-0801HDMI

## 8x1 HDMI Switcher



## Features

- Routing: 8 x 1 HDMI switcher
- Signal interface: HDMI type A connectors, HDMI 1.3 compliant
- Compatible with HDCP
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920x1200)
- Supporting video, DDC and digital stereo audio switching
- Input equalization adjustment for long cables
- Output pre-emphasize adjustment
- Automatic switching when one input and one output are operated
- LED indicators for source and sink presence
- LCD to display real-time operation
- Front panel button control , easy to switch manually
- Scene save and recall function
- 1U high, full rack width

## Technical Specifications

## Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

## Input

Signal type.....TMDS  
Connectors.....8 × female HDMI type A connector  
Equalization.....6 dB, 12 dB

## Output

Signal type.....TMDS  
Connectors.....1 × female HDMI type A connector  
Pre-emphasize.....0 dB, 2 dB, 4 dB, 6 dB

## Control

COM (RS-232).....9-pin female D connectors,  
2 = TX, 3 = RX, 5 = GND

COM1.....Baudrate: 9600, data: 8 bits, stop: 1 bit, no parity

COM2.....Variable baudrate, data: 8 bits, stop: 1 bit, no parity

Ethernet.....RJ-45 female connector, CAT-5 only cross-pair

Ethernet protocol.....TCP/IP

Ethernet speed.....10 M/100 M, full-duplex or  
half-duplex with autodetect

PC control.....Matrix switcher

## General specs

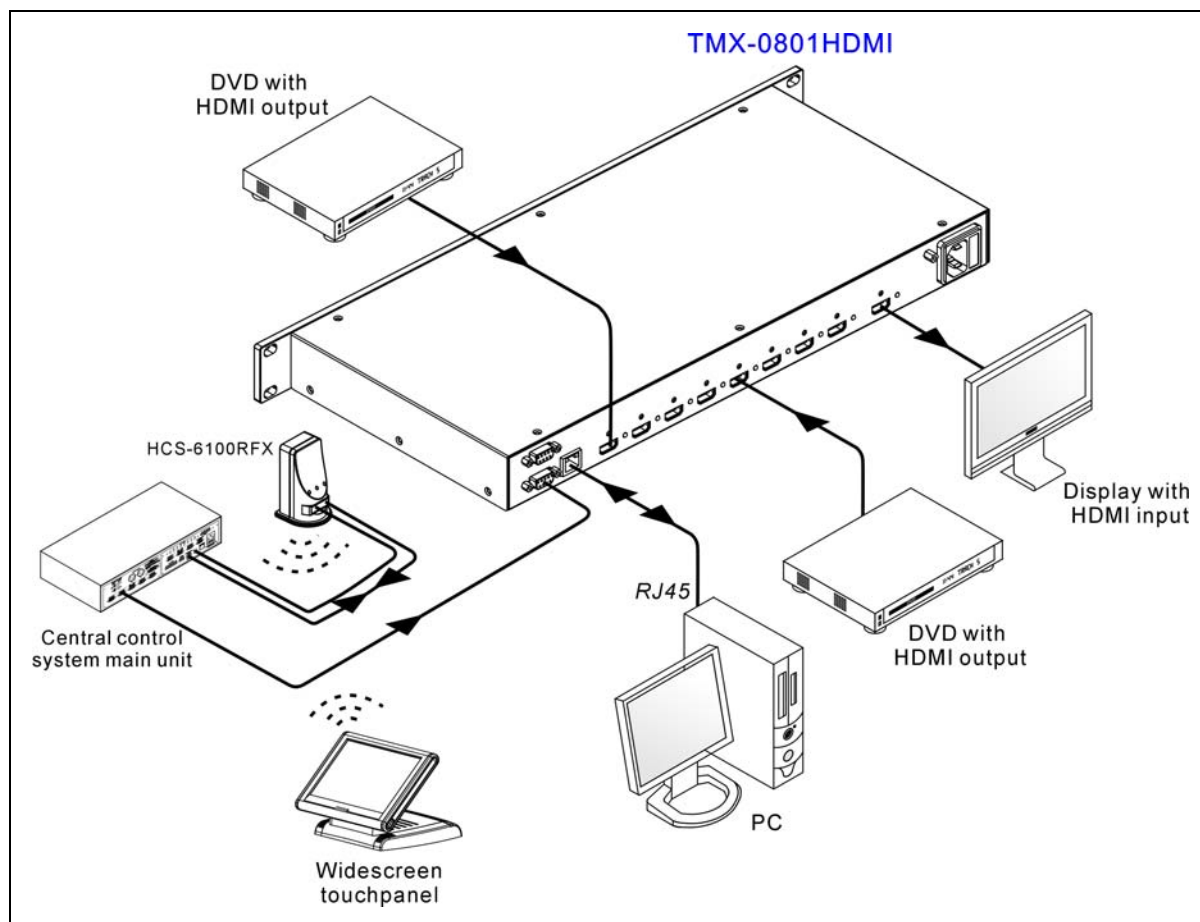
Power supply.....100 V AC to 240 V AC, 50/60 Hz  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h x w x d (mm).....43 x 483 x 208  
(1U high, full rack width)  
Weight.....2.7 kg

## Ordering Information

TMX-0801HDMI.....8×1 HDMI Switcher, 2.25 Gbps,  
HDMI 1.3-compliant



## HDMI Switchers System Connection



## TMX-0102DVI 1×2 DVI Distribution Amplifier



### Features

- Routing: 1 × 2 DVI distribution amplifier
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Automatic input equalization
- Automatic pre-emphasized output

### Technical Specifications

#### Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

#### Video input

Signal type ..... single link TMDS  
Connectors ..... 1 × DVI-I connector

#### Video output

Signal type ..... single link TMDS  
Connectors ..... 2 × DVI-I connector

#### General specs

Power supply ..... 12 V DC to 24 V DC  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 40 × 150 × 100  
Weight ..... 0.5 kg

### Ordering Information

TMX-0102DVI ..... 1×2 DVI Distribution Amplifier, 2.25 Gbps

## TMX-0104DVI 1×4 DVI Distribution Amplifier



### Features

- Routing: 1 × 4 DVI distribution amplifier
- Supporting 250 Mbps to 2.25 Gbps data rates
- Supporting all resolutions from 480p to 1080p and WUXGA (1920×1200)
- Automatic input equalization
- Automatic pre-emphasized output
- LED indicators for source and sink presence
- 1U high, full rack width

### Technical Specifications

#### Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p) or 1920×1200 @ 60 Hz

#### Video input

Signal type ..... single link TMDS  
Connectors ..... 1 × DVI-I connector

#### Video output

Signal type ..... single link TMDS  
Connectors ..... 4 × DVI-I connector

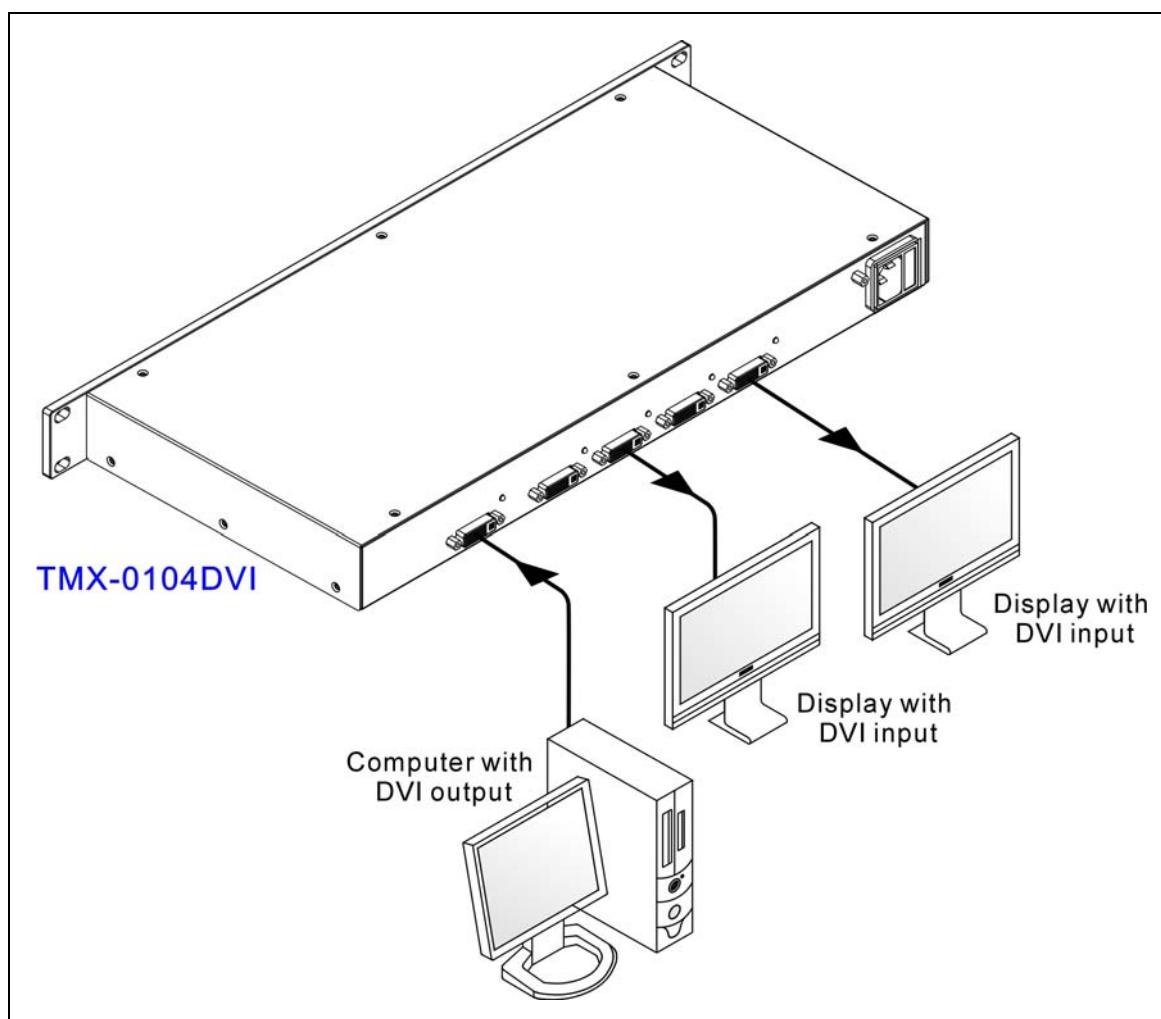
#### General specs

Power supply ..... 100 V AC to 240 V AC, 50/60 Hz  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 43 × 483 × 208  
(1U high, full rack width)  
Weight ..... 2.7 kg

### Ordering Information

TMX-0104DVI ..... 1×4 DVI Distribution Amplifier, 2.25 Gbps

## DVI Distribution Amplifiers System Connection



## TMX-DVI-EQ DVI Cable Equalizer



### Features

- Extends single link DVI signals over long cable
- Supporting resolutions up to 1080p HDTV and WUXGA
- Max. distance: 60 m
- Supporting DDC transmission
- Automatic input equalization and pre-emphasized output

### Technical Specifications

#### Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p)

#### Video input

Signal type ..... TMDS  
Connectors ..... 2 × DVI-I connector  
Equalization ..... Automatic for up to -40 dB of cable loss

#### Video output

Signal type ..... TMDS  
Connectors ..... 2 × DVI-I connector

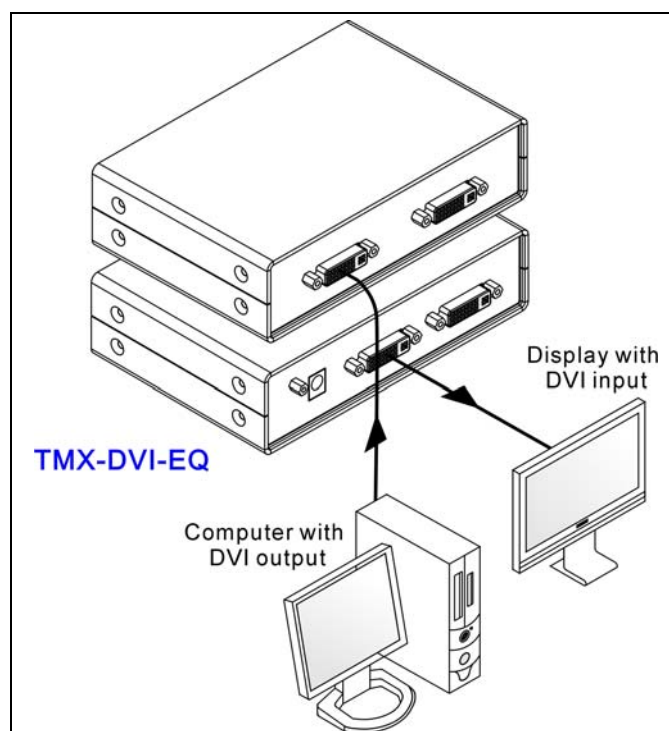
#### General specs

Power supply ..... 12 V DC to 24 V DC  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 40 × 150 × 100  
Weight ..... 0.5 kg

### Ordering Information

TMX-DVI-EQ ..... DVI Cable Equalizer

### System Connection



## TMX-HDMI-EQ HDMI Cable Equalizer



### Features

- For transmission of HDMI signals over long cable connections
- Supporting resolutions up to 1080p HDTV and WUXGA
- Max. distance: 60 m
- Supports DDC and CEC transmission
- Automatic input equalization and pre-emphasized output

### Technical Specifications

#### Video

Max. data rate ..... 2.25 Gbps  
Resolution ..... Up to HDTV (1080p)

#### Video input

Signal type ..... TMDS  
Connectors ..... 2 × female HDMI type A connector  
Nominal level ..... 1.0 Vp-p (for TMDS)  
5 Vp-p (TTL, for DDC)  
Resolution ..... Up to HDTV (1080p)  
Input cable length ..... 60 m  
Equalization ..... Automatic for up to -40 dB of cable loss

#### Video output

Signal type ..... TMDS  
Connectors ..... 2 × female HDMI type A connector

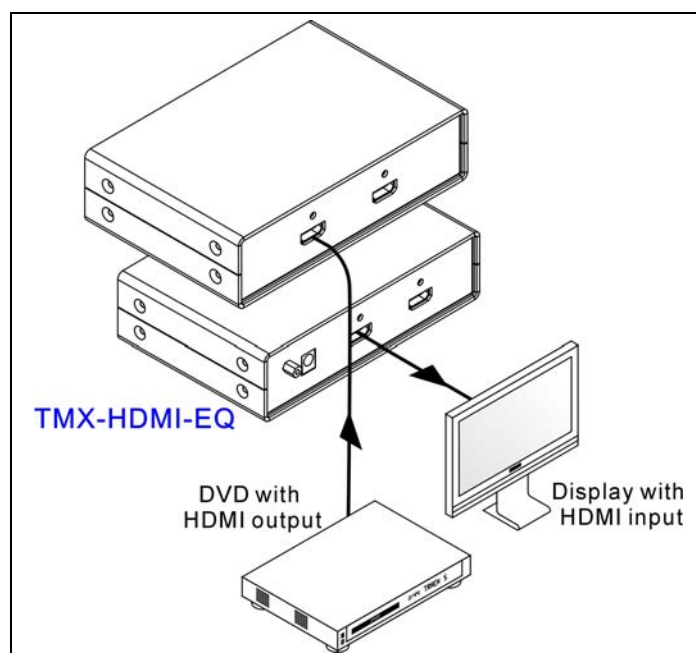
#### General specs

Power supply ..... 12 V DC to 24 V DC  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 40 × 150 × 100  
Weight ..... 0.4 kg

### Ordering Information

TMX-HDMI-EQ ..... HDMI Cable Equalizer

### System Connection



## TMX-TP-R VGA & Audio over Twisted Pair Receiver



### Features

- Input connector: 1 female RJ-45 connector
- Video output connector: 1 VGA 15-pin HDF connector
- Audio output connector: 1 Ø 3.5 mm mini jack
- Independent EQ and Gain adjustment
- LED indicator for VGA input signal presence

### Technical Specifications

#### Video

Gain ..... 0 dB

#### Video input

Signal type ..... 1 analog RsGsBs  
Connector ..... 1 × female RJ-45 connector

#### Video output

Signal type ..... 1 analog RGBHV  
Connector ..... 1 × VGA 15-pin HDF connector  
Nominal level ..... RGB: 0.7 Vp-p  
Min./max. levels ..... 0.7 V ~ 1.2 Vp-p  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... <±20 mV with input at 0 offset

#### Sync

Output type ..... RGBHV  
Output level ..... 4.5 V to 5.0 Vp-p  
Output impedance ..... 75 Ohm  
Polarity ..... Positive or negative (follows input)

#### Audio

Gain ..... 0 dB  
Frequency response ..... 20 Hz to 20 kHz, ±0.05 dB  
THD+Noise ..... 0.15% @ 1 kHz at normal level  
S/N ..... >70 dB at maximum output (unweighted)

#### Audio input

Signal type ..... 1 set of proprietary analog signal  
Connector ..... 1 × female RJ-45 connector

#### Audio output

Signal type ..... 1 channel audio (L+R), unbalanced  
Connector ..... 1 × Ø 3.5 mm mini jack  
Impedance ..... <10 Ohm (unbalanced)  
Gain error ..... ± 0.5 dB

#### General specs

Power supply ..... 12 V DC to 24 V DC  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 40 × 150 × 100  
Weight ..... 0.38 kg

### Ordering Information

TMX-TP-R ..... VGA & Audio over Twisted Pair Receiver

## TMX-TP-T VGA & Audio over Twisted Pair Transmitter



## General specs

Power supply.....12 V DC to 24 V DC  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....40 × 150 × 100  
Weight.....0.4 kg

## Ordering Information

TMX-TP-T.....VGA &amp; Audio over Twisted Pair Transmitter

## Features

- Video input connector: 1 VGA 15-pin HDF connector
- Audio input connector: 1 Ø 3.5 mm mini jack
- Output connector: 1 female RJ-45 connector
- Buffered VGA 15-pin HDF local monitor output
- LED indicator for VGA input signal presence

## Technical Specifications

## Video

Gain \_\_\_\_\_ 6 dB

## Video input

Signal type.....1 analog RGB  
Connector.....1 × VGA 15-pin HDF connector  
Nominal level.....RGB: 0.7 Vp-p  
Min./max. level.....0.3 V ~ 1.5 Vp-p  
Impedance.....75 Ohm  
Return loss.....-30 dB @ 5 MHz  
DC offset.....±20 mV

## Video output

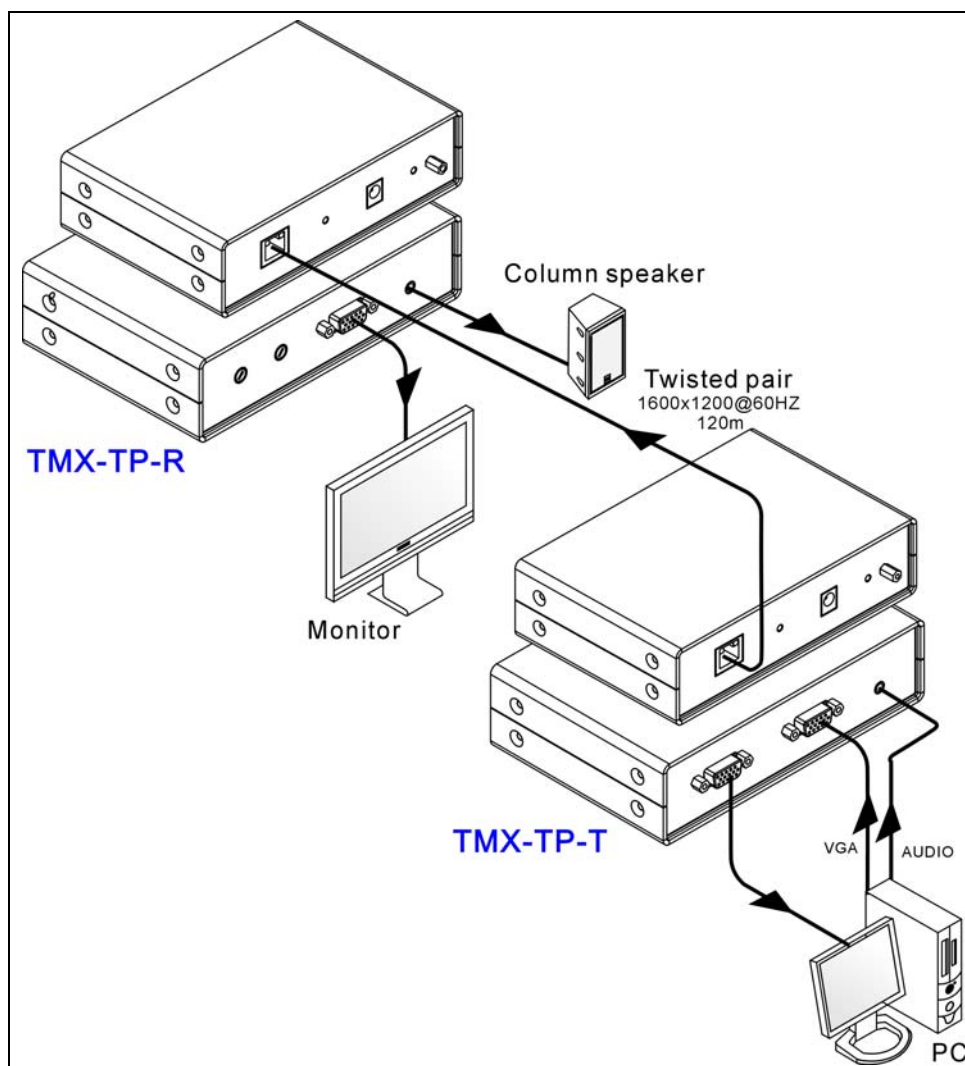
Signal type ..... 1 analog RsGsBs  
Connectors ..... 1 × female RJ-45 connector  
Nominal level ..... 1.4 Vp-p @ input 0.7 Vp-p  
Min./max. level ..... 0.7 V ~ 1.6 Vp-p  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... ±20 mV with input at 0 offset

## Sync

Input type \_\_\_\_\_ RGBHV  
Output type \_\_\_\_\_ RsGsBs  
Input level \_\_\_\_\_ 3.5 V to 5.5 Vp-p  
Output level \_\_\_\_\_ 4.0 V to 5.0 Vp-p  
Input impedance \_\_\_\_\_ 510 Ohm  
Output impedance \_\_\_\_\_ 75 Ohm  
Polarity \_\_\_\_\_ Positive or negative (follows input)



**TMX-TP-R and TMX-TP-T System Connection**



## TMX-TP-R/T

### VGA & Audio over Twisted Pair Receiver with Relay Output



#### Features

- Input connector: 1 female RJ-45 connector
- Buffered UTP output to next node
- Video output connector: 1 VGA 15-pin HDF connector
- Audio output connector: 1 Ø 3.5 mm mini jack
- Independent EQ and Gain adjustment
- LED indicator for VGA input signal presence

#### Technical Specifications

##### Video

Gain ..... 6 dB

##### Video input

Signal type ..... 1 analog RsGsBs  
Connector ..... 1 × female RJ-45 connector

##### Video output

Signal type ..... 1 analog RGBHV  
Connector ..... 1 VGA 15-pin HDF  
Nominal level ..... RGB: 0.7 Vp-p  
Min./max. level ..... 0.7 V ~ 1.2 Vp-p  
Impedance ..... 75 Ohm  
Return loss ..... -30 dB @ 5 MHz  
DC offset ..... ±20 mV with input at 0 offset

##### Sync

Output type ..... RGBHV  
Output level ..... 4.5 V to 5.0 Vp-p  
Output impedance ..... 75 Ohm  
Polarity ..... Positive or negative (follows input)

##### Audio

Gain ..... 0 dB  
Frequency response ..... 20 Hz to 20 kHz, ±0.05 dB  
THD+Noise ..... 0.15% @ 1 kHz at normal level  
S/N ..... >70 dB at maximum output (unweighted)

##### Audio input

Signal type ..... 1 proprietary analog signal  
Connector ..... 1 × female RJ-45 connector

##### Audio output

Signal type ..... 1 channel audio (L+R), unbalanced  
Connector ..... 1 Ø 3.5 mm mini jack  
Impedance ..... <10 Ohm (unbalanced)  
Gain error ..... ± 0.5 dB

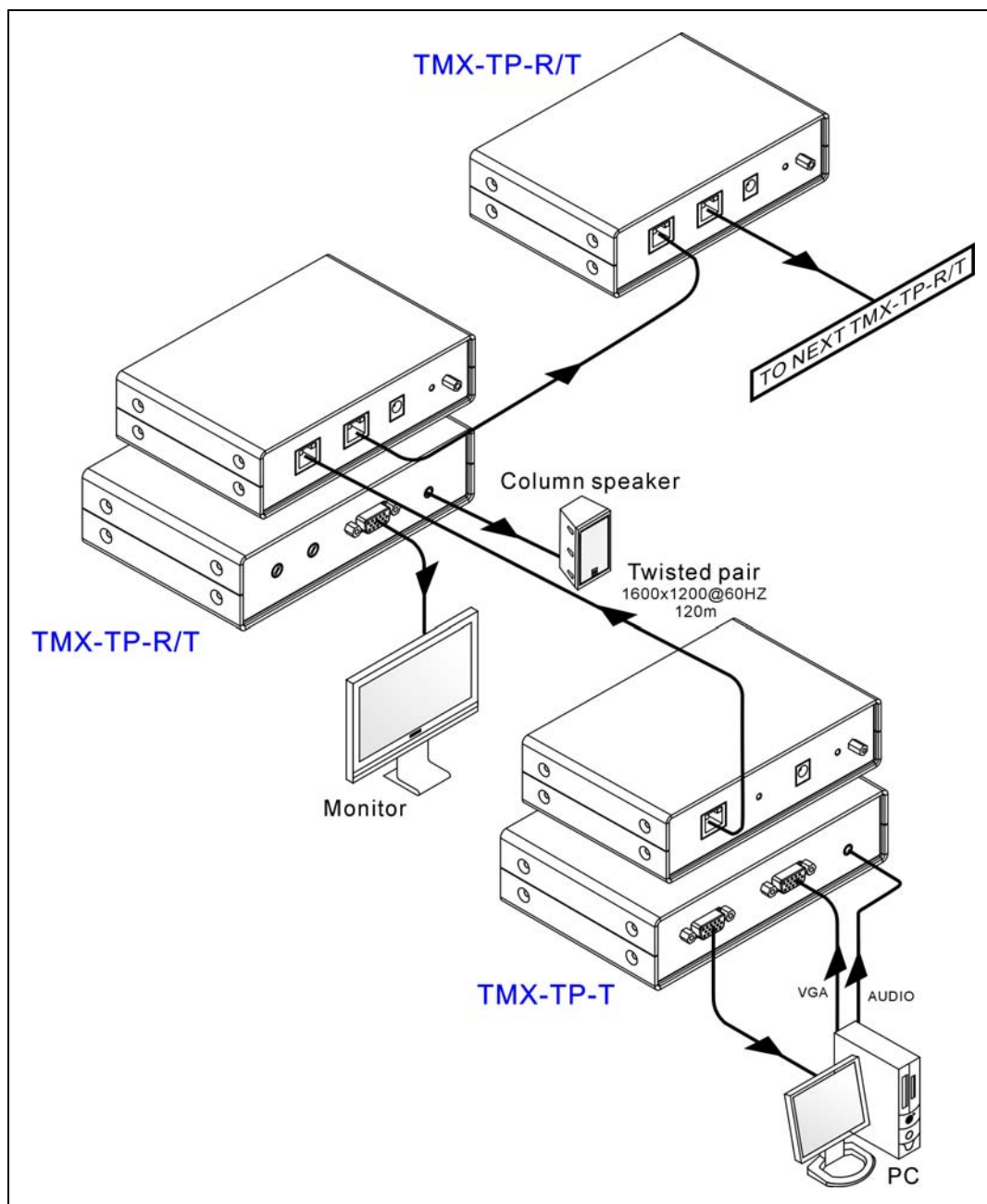
##### General specs

Power supply ..... 12 V DC to 24 V DC  
Temperature ..... Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity ..... Storage and operating: 10% to 90%  
Dimensions h × w × d (mm) ..... 40 × 150 × 100  
Weight ..... 0.39 kg

#### Ordering Information

TMX-TP-R/T ..... VGA & Audio over Twisted Pair  
Receiver with Relay Output

## System Connection



## TMX-VGA2RGB VGA to RGBHV Converter



### Features

- Supporting all resolutions from 480p to 1080p and UXGA at 60 Hz
- Buffered VGA 15-pin HDF local monitor output

### Technical Specifications

#### Video input

Signal type.....1 analog VGA  
Connector.....1 × VGA 15-pin HDF connector  
Nominal level.....0.4 V ~ 0.7 Vp-p

#### Video output

Signal type.....1 analog RGBHV  
Connector.....1 × VGA 15-pin HDF connector;  
5 × female BNC  
Nominal level.....RGB: 0.7 Vp-p  
Resolution.....The same as input

#### Sync

Output level .....TTL (4.5 Vp-p ~ 5.0 Vp-p)

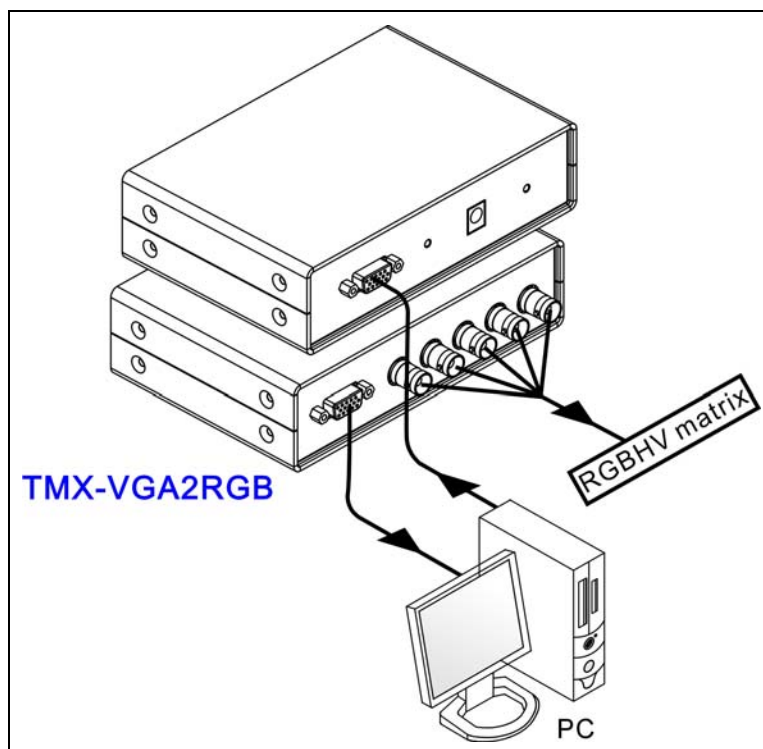
#### General specs

Power supply.....12 V DC to 24 V DC  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....40 × 150 × 100  
Weight.....0.4 kg

### Ordering Information

TMX-VGA2RGB.....VGA to RGBHV Converter

### System Connection



## TMX-VIDEO2VGA VIDEO to VGA Converter



### Features

- Input: 1 S-video, 1 composite video and 1 set of component video
- Output: 1 RGBHV and 1 VGA
- Supporting NTSC 3.58, NTSC 4.43, PAL, SECAM and other NTSC
- Supporting all resolutions from 800×600 to 1280×1024 at 60 Hz, adjustable
- Top panel button control , easy to switch manually

### Technical Specifications

#### Video input

Signal type.....1 set of component video (Y, Pb, Pr);  
1 S-video; 1 composite video  
Connectors.....RCA+S-Video 4-pin mini DIN  
Nominal level.....0.4 V ~ 1.5 Vp-p with input at 0 offset

#### Video output

Signal type.....1 RGBHV and 1 VGA  
Connector.....1 × VGA 15-pin HDF connector;  
5 × female BNC  
Nominal level.....RGB: 0.7 Vp-p  
Resolution.....Adjustable

#### Sync

Output level .....TTL (4.5 Vp-p ~ 5.0 Vp-p)

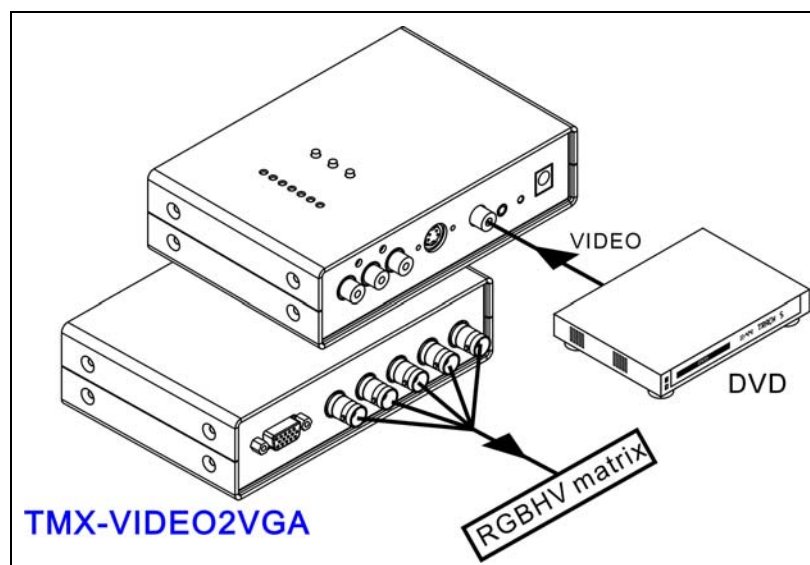
#### General specs

Power supply.....12 V DC to 24 V DC  
Temperature.....Operating: 0 °C to + 50 °C;  
storage: -20 °C to + 70 °C  
Humidity.....Storage and operating: 10% to 90%  
Dimensions h × w × d (mm).....40 × 150 × 100  
Weight.....0.44 kg

### Ordering Information

TMX-VIDEO2VGA.....VIDEO to VGA Converter

### System Connection



## CBL-VGA2RGB VGA to RGB Converting Cable



---

### Features

- VGA to RGB converting cable
- Optional length: 1 m, 2 m and 5 m

---

### Ordering Information

CBL-VGA2RGB-01.....1 m VGA to RGB Converting Cable

CBL-VGA2RGB-02.....2 m VGA to RGB Converting Cable

CBL-VGA2RGB-05.....5 m VGA to RGB Converting Cable

## Gooseneck Microphones

<b>HCS-1857C Series Cardioid Condenser Gooseneck Microphone .....</b>	<b>12.2</b>
HCS-1857C13                      Cardioid Condenser Gooseneck Microphone .....	12.2
HCS-1857C15                      Cardioid Condenser Gooseneck Microphone .....	12.2
HCS-1857C18                      Cardioid Condenser Gooseneck Microphone .....	12.2
HCS-1857C21                      Cardioid Condenser Gooseneck Microphone .....	12.3
HCS-1857C24                      Cardioid Condenser Gooseneck Microphone .....	12.3
<b>HCS-1857A Series Tabletop Microphone Stand .....</b>	<b>12.4</b>
HCS-1857A                      Tabletop Microphone Stand (3-pin XLRM-type socket output, with 6-metre cable) .....	12.4
HCS-1857AN                      Tabletop Microphone Stand (3-pin XLRM-type socket output, with 6-metre cable, with non-lock button) .....	12.5
HCS-1857AS                      Tabletop Microphone Stand (3-pin XLRM-type socket output, with 6-metre cable, with self-lock button) .....	12.6
<b>HCS-1857B Series Tabletop Microphone Stand .....</b>	<b>12.7</b>
HCS-1857B                      Tabletop Microphone Stand (3-pin XLRM-type socket output, with 2-metre cable) .....	12.7
HCS-1857BN                      Tabletop Microphone Stand (3-pin XLRM-type socket output, with 2-metre cable, with non-lock button) .....	12.8
HCS-1857BS                      Tabletop Microphone Stand (3-pin XLRM-type socket output, with 2-metre cable, with self-lock button) .....	12.9



## HCS-1857C Series Cardioid Condenser Gooseneck Microphone



### Features

- Stylish and ergonomic design
- For quality sound reinforcement, professional recording, television, conference and other demanding sound pickup applications
- The small diameter double-gooseneck design permits highly flexible positioning while maintaining a smooth, wellcontoured appearance
- An included snap-on foam windscreen effectively reduces wind and pop noise
- Uni-directional electret condenser microphone
- Excellent immunity to RF interference from mobile phones and comparable devices
- Built-in microphone power supply and amplifier components can be powered from any external 11 V to 52 V DC phantom power supply
- Flat frequency response when switch is set to "—" position. When switch is set to "∟" position the built-in high-quality low-frequency attenuation circuit cuts-off at 80 Hz, reducing airflow noise when speaking close to the microphone. Reduces pick-up of low-frequency ambient noise (such as traffic, air-conditioning system, etc.), room echo and the sound of mechanical vibrations
- Simple and rapid installation. The microphone terminal is a standard 3-pin XLRM-type connector, which can be connected to any 3-pin XLRF-type socket or directly to the sound mixing console
- Low-impedance balanced audio output, audio signals output from Pins 2 and 3 of XLRM-type connector (Pin 2 is positive phase level, Pin 3 is negative phase level), while Pin 1 is for the ground (shield) connection

### Technical Specifications

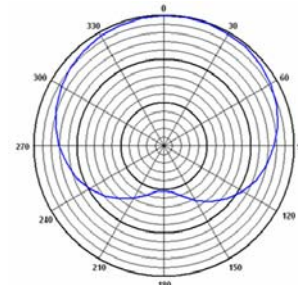
#### Electrical

Element.....Electret condenser microphone  
 Polar pattern.....Cardioid unidirectional  
 Sensitivity.....-40 dBV/Pa  
 Frequency response.....30 Hz~20 kHz  
 Low-frequency attenuation.....80 Hz, -18 dB/Max  
 Output impedance.....280 Ω  
 Maximum sound pressure.....139 dB, THD<1%  
 SNR.....>90 dB  
 Phantom power requirements.....11 V~ 52 V DC, 2 mA  
 Switch.....Flat, low frequency attenuation  
 Output connector.....3-pin XLRM-type connector

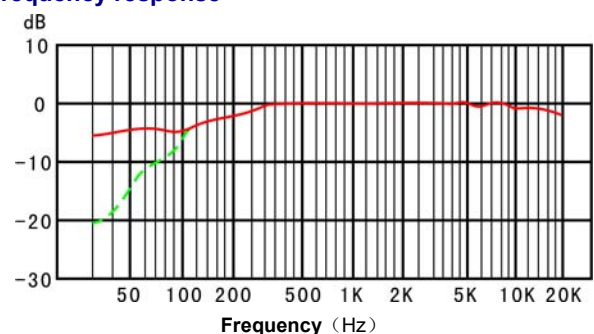
#### Mechanical

Dimensions.....HCS-1857C13: 330.2 mm – long  
 .....HCS-1857C15: 381.0 mm – long  
 .....HCS-1857C18: 457.2 mm - long  
 .....Head diameter: 12.0 mm  
 Weight.....HCS-1857C13: 146 g  
 .....HCS-1857C15: 150 g  
 .....HCS-1857C18: 156 g  
 Accessory.....foam windscreen

### Polar pattern



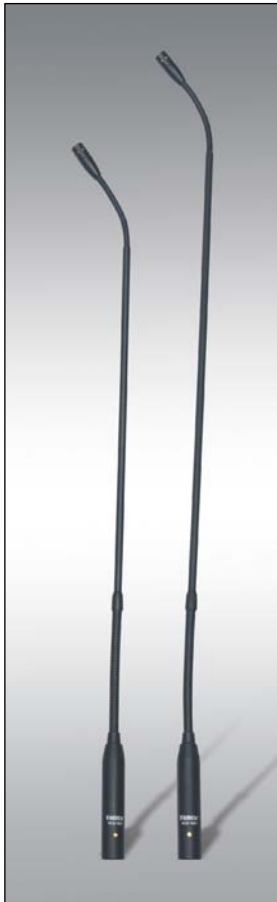
### Frequency response



### Ordering Information

HCS-1857C13.....Cardioid Condenser Gooseneck Microphone  
 HCS-1857C15.....Cardioid Condenser Gooseneck Microphone  
 HCS-1857C18.....Cardioid Condenser Gooseneck Microphone

## HCS-1857C Series Cardioid Condenser Gooseneck Microphone



### Features

- Stylish and ergonomic design
  - For quality sound reinforcement, professional recording, television, conference and other demanding sound pickup applications
  - The small diameter double-gooseneck design permits highly flexible positioning while maintaining a smooth, wellcontoured appearance
  - An included snap-on foam windscreen effectively reduces wind and pop noise
  - Uni-directional electret condenser microphone
  - Excellent immunity to RF interference from mobile phones and comparable devices
- Built-in microphone power supply and amplifier components can be powered from any external 11 V to 52 V DC phantom power supply
  - Flat frequency response when switch is set to "—" position. When switch is set to "⌋" position the built-in high-quality low-frequency attenuation circuit cuts-off at 80 Hz, reducing airflow noise when speaking close to the microphone. Reduces pick-up of low-frequency ambient noise (such as traffic, air-conditioning system, etc.), room echo and the sound of mechanical vibrations
  - Simple and rapid installation. The microphone terminal is a standard 3-pin XLRM-type connector, which can be connected to any 3-pin XLRF-type socket or directly to the sound mixing console
  - Low-impedance balanced audio output, audio signals output from Pins 2 and 3 of XLRM-type connector (Pin 2 is positive phase level, Pin 3 is negative phase level), while Pin 1 is for the ground (shield) connection

### Technical Specifications

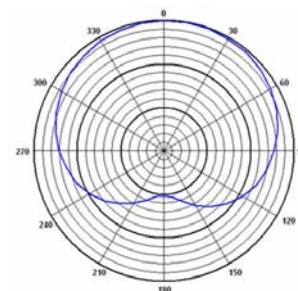
#### Electrical

Element	Electret condenser microphone
Polar pattern	Cardioid unidirectional
Sensitivity	-40 dBV/Pa
Frequency response	30 Hz~20 kHz
Low-frequency attenuation	80 Hz, -18 dB/Max
Output impedance	280 Ω
Maximum sound pressure	139 dB, THD<1%
SNR	>90 dB
Phantom power requirements	11 V~ 52 V DC, 2 mA
Switch	Flat, low frequency attenuation
Output connector	3-pin XLRM-type connector

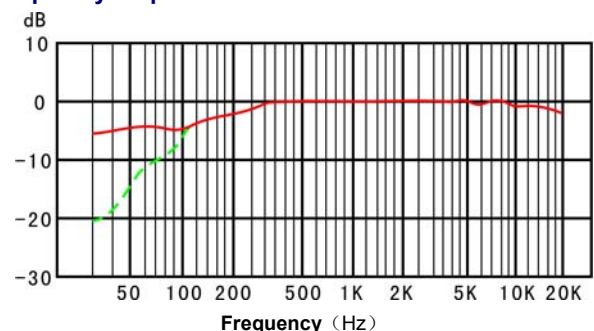
#### Mechanical

Dimensions	HCS-1857C21: 533.4 mm – long
	HCS-1857C24: 609.6 mm – long
	Head diameter: 12.0 mm
Weight	HCS-1857C21: 161 g
	HCS-1857C24: 166 g
Accessory	foam windscreen

### Polar pattern



### Frequency response



### Ordering Information

HCS-1857C21	Cardioid Condenser Gooseneck Microphone
HCS-1857C24	Cardioid Condenser Gooseneck Microphone

## HCS-1857A Tabletop Microphone Stand



### Features

- Delicate and elegant structural design, ergonomic and highly modern
- 3-pin XLRF-type socket as microphone input; 3-pin XLRM-type socket on the rear as microphone signal output
- It can be widely used in meetings, lectures, teaching and on other occasions when cooperating with gooseneck microphone
- Complementary to other 3-pin XLRM-type microphone devices

### Technical Specifications

#### Electrical

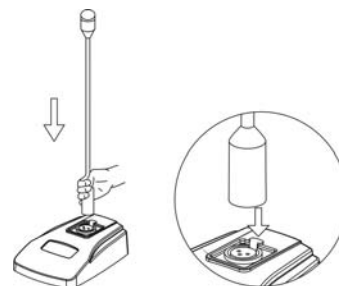
Input connector.....3 pin XLRF-type  
 Output connector.....3 pin XLRM-type  
 Phantom power requirements.....24 V~ 48 V DC, 3 mA  
 Insertion loss.....1 dB (150 Ω input resistance)  
 Output impedance.....380 Ω

#### Mechanical

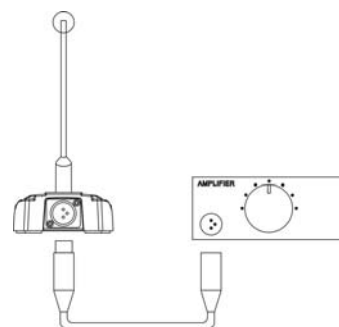
Installation.....Tabletop  
 Dimensions (h x w x d).....41 x 91 x 131 mm  
 Weight.....808 g  
 Color.....Black

### Configuration and connection

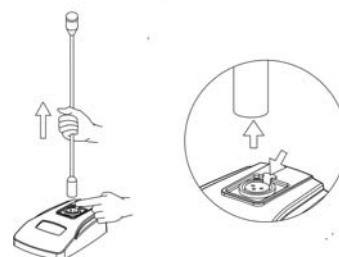
1. Connecting microphone: Connecting 3-pin XLRM-type connector at the bottom of the microphone to the 3-pin XLRF-type socket on the microphone stand.



2. Connecting amplifier: Connecting 3-pin XLRM-type connector to other devices such as amplifier, audio mixing console, etc.



3. Microphone detachment: Press the release tab of the XLR socket on the microphone stand and pull out the microphone.



### Ordering Information

HCS-1857A.....Tabletop Microphone Stand  
 (3-pin XLRM-type socket output, with 6-metre cable)

## HCS-1857AN Tabletop Microphone Stand



### Features

- Delicate and elegant structural design, ergonomic and highly modern
- 3-pin XLR-type socket as microphone input; 3-pin XLRM-type socket on the rear as microphone signal output
- It can be widely used in meetings, lectures, teaching and on other occasions when cooperating with gooseneck microphone
- Complementary to other 3-pin XLRM-type microphone devices
- HCS-1857AN with mute (MUTE) key. When pressing the MUTE button, the red LED indicator lights up and the microphone is muted; release the MUTE button to activate the microphone again. The MUTE key can be repeatedly pressed to freely control the microphone. The attenuation value is 55 dB at 1 kHz

### Technical Specifications

#### Electrical

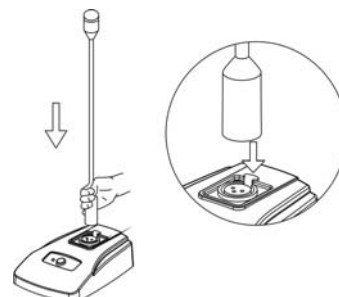
Input connector	3 XLRF-type
Output connector	3 XLRM-type
Indicator light	MUTE key with red LED
Phantom power requirements	24 V ~ 48 V DC, 3 mA
Insertion loss	1 dB (150 Ω input resistance)
Output impedance	380 Ω
Mute attenuation (150 Ω input resistance)	55 dB at 1 kHz
	35 dB at 100 Hz
	30 dB at 50 Hz

#### Mechanical

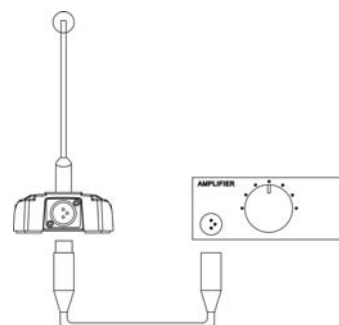
Installation	Tabletop
Dimensions (h x w x d)	41 x 91 x 131 mm
Weight	808 g
Color	Black

### Configuration and connection

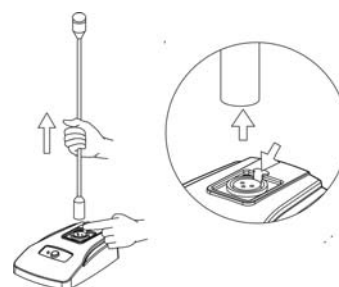
1. Connecting microphone: Connecting 3-pin XLRM-type connector at the bottom of the microphone to the 3-pin XLRF-type socket on the microphone stand.



2. Connecting amplifier: Connecting 3-pin XLRM-type connector to other devices such as amplifier, audio mixing console, etc.



3. Microphone detachment: Press the release tab of the XLR socket on the microphone stand and pull out the microphone.



### Ordering Information

HCS-1857AN.....Tabletop Microphone Stand (3-pin XLRM-type socket output, with 6-metre cable, with non-lock button)

## HCS-1857AS Tabletop Microphone Stand



### Features

- Delicate and elegant structural design, ergonomic and highly modern
- 3-pin XLR-type socket as microphone input; 3-pin XLRM-type socket on the rear as microphone signal output
- It can be widely used in meetings, lectures, teaching and on other occasions when cooperating with gooseneck microphone
- Complementary to other 3-pin XLRM-type microphone devices
- HCS-1857AS with ON/OFF key. When pressing the ON/OFF button, the red LED indicator lights up, and the microphone is activated, press ON/OFF button again to turn off the microphone. The attenuation value is 55 dB at 1 kHz

### Technical Specifications

#### Electrical

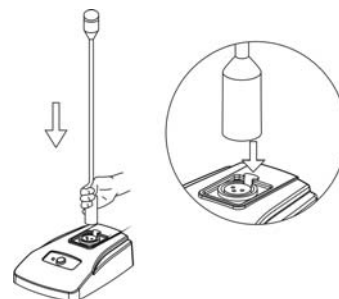
Input connector	3 XLR-type
Output connector	3 XLRM-type
Indicator light	ON/OFF key with red LED
Phantom power requirements	24 V ~ 48 V DC, 3 mA
Insertion loss	1 dB (150 Ω input resistance)
Output impedance	380 Ω
Turn off attenuation (150 Ω input resistance)	55 dB at 1 kHz
	35 dB at 100 Hz
	30 dB at 50 Hz

#### Mechanical

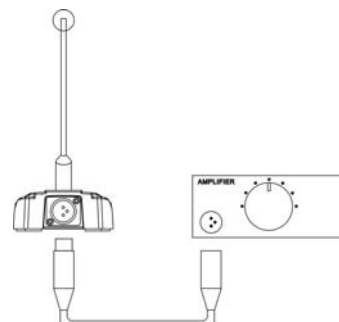
Installation	Tabletop
Dimensions (h x w x d)	41 x 91 x 131 mm
Weight	808 g
Color	Black

### Configuration and connection

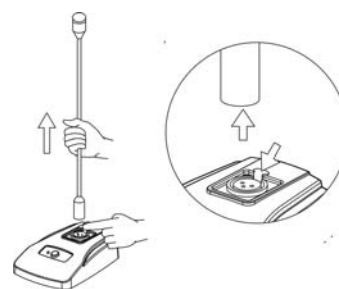
1. Connecting microphone: Connecting 3-pin XLRM-type connector at the bottom of the microphone to the 3-pin XLRF-type socket on the microphone stand.



2. Connecting amplifier: Connecting 3-pin XLRM-type connector to other devices such as amplifier, audio mixing console, etc.



3. Microphone detachment: Press the release tab of the XLR socket on the microphone stand and pull out the microphone.



### Ordering Information

HCS-1857AS.....Tabletop Microphone Stand (3-pin XLRM-type socket output, with 6-metre cable, with self-lock button)

## HCS-1857B Tabletop Microphone Stand



### Features

- Delicate and elegant structural design, ergonomic and highly modern
- 3-pin XLRF-type socket as microphone input; 3-pin XLRM-type connector with 2-meter long cable on the rear as microphone signal output
- It can be widely used in meetings, lectures, teaching and on other occasions when cooperating with gooseneck microphone
- Complementary to other 3-pin XLRM-type microphone devices

### Technical Specifications

#### Electrical

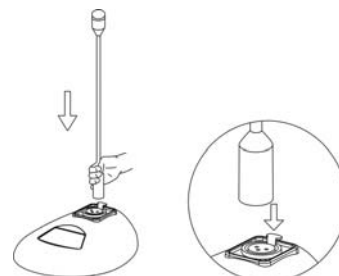
Input connector.....3 XLRF-type  
 Output connector.....3 XLRM-type with 2-meter long cable  
 Phantom power requirements.....24 V~ 48 V DC, 3 mA  
 Insertion loss.....1 dB (150 Ω input resistance)  
 Output impedance.....380 Ω

#### Mechanical

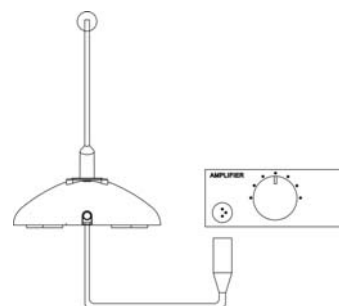
Installation.....Tabletop  
 Dimensions (h x w x d).....41 x 112 x 140 mm  
 Weight.....820 g  
 Color.....Black

### Configuration and connection

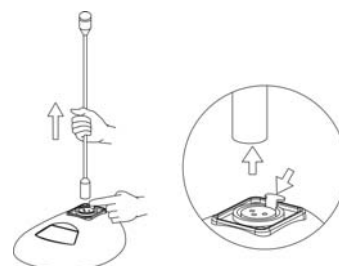
1. Connecting microphone: Connecting 3-pin XLRM-type connector at the bottom of the microphone to the 3-pin XLRF-type socket on the microphone stand.



2. Connecting amplifier: Connecting 3-pin XLRM-type connector to other devices such as amplifier, audio mixing console, etc.



3. Microphone detachment: Press the release tab of the XLR socket on the microphone stand and pull out the microphone.



### Ordering Information

HCS-1857B.....Tabletop Microphone Stand  
 (3-pin XLRM-type socket output, with 2-metre cable)

## HCS-1857BN Tabletop Microphone Stand



### Features

- Delicate and elegant structural design, ergonomic and highly modern
- 3-pin XLR-type socket as microphone input; 3-pin XLRM-type connector with 2-meter long cable on the rear as microphone signal output
- It can be widely used in meetings, lectures, teaching and on other occasions when cooperating with gooseneck microphone
- Complementary to other 3-pin XLRM-type microphone devices
- HCS-1857 BN with mute (MUTE) key. When pressing the MUTE button, the red LED indicator lights up and the microphone is muted; release the MUTE button to activate the microphone again. The MUTE key can be repeatedly pressed to freely control the microphone. The attenuation value is 55 dB at 1 kHz

### Technical Specifications

#### Electrical

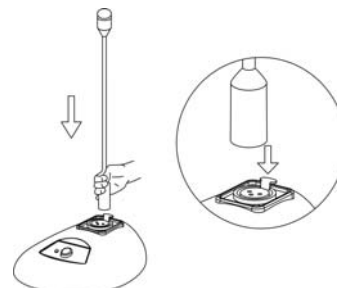
Input connector	3 XLR-type
Output connector	3 XLRM-type with 2-meter long cable
Indicator light	MUTE switch with red LED
Phantom power requirements	24 V ~ 48 V DC, 3 mA
Insertion loss	1 dB (150 Ω input resistance)
Output impedance	380 Ω
Mute attenuation (150 Ω input resistance)	55 dB at 1 kHz
	35 dB at 100 Hz
	30 dB at 50 Hz

#### Mechanical

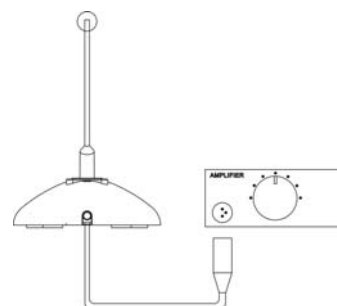
Installation	Tabletop
Dimensions (h x w x d)	41 x 112 x 140 mm
Weight	820 g
Color	Black

### Configuration and connection

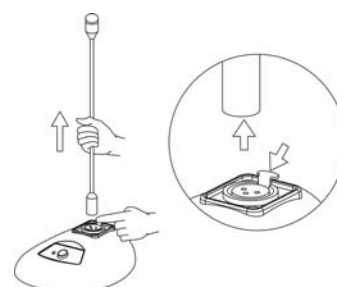
1. Connecting microphone: Connecting 3-pin XLRM-type connector at the bottom of the microphone to the 3-pin XLR-type socket on the microphone stand.



2. Connecting amplifier: Connecting 3-pin XLRM-type connector to other devices such as amplifier, audio mixing console, etc.



3. Microphone detachment: Press the release tab of the XLR socket on the microphone stand and pull out the microphone.



### Ordering Information

HCS-1857BN	Tabletop Microphone Stand (3-pin XLRM-type socket output, with 2-metre cable, with non-lock button)
------------	---



## HCS-1857BS Tabletop Microphone Stand



### Features

- Delicate and elegant structural design, ergonomic and highly modern
- 3-pin XLRF-type socket as microphone input; 3-pin XLRM-type connector with 2-meter long cable on the rear as microphone signal output
- It can be widely used in meetings, lectures, teaching and on other occasions when cooperating with gooseneck microphone
- Complementary to other 3-pin XLRM-type microphone devices
- HCS-1857BS with ON/OFF key. When pressing the ON/OFF button, the red LED indicator lights up, and the microphone is activated, press ON/OFF button again to turn off the microphone. The attenuation value is 55 dB at 1 kHz

### Technical Specifications

#### Electrical

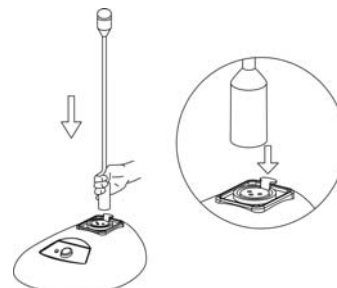
Input connector	3 XLRF-type
Output connector	3 XLRM-type with 2-meter long cable
Indicator light	MUTE switch with red LED
Phantom power requirements	24 V ~ 48 V DC, 3 mA
Insertion loss	1 dB (150 Ω input resistance)
Output impedance	380 Ω
Turn off attenuation (150 Ω input resistance)	55 dB at 1 kHz
	35 dB at 100 Hz
	30 dB at 50 Hz

#### Mechanical

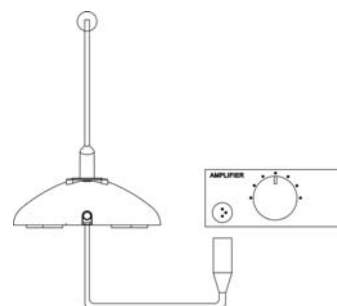
Installation	Tabletop
Dimensions (h x w x d)	41 x 112 x 140 mm
Weight	820 g
Color	Black

### Configuration and connection

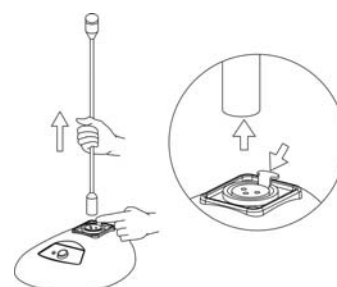
1. Connecting microphone: Connecting 3-pin XLRM-type connector at the bottom of the microphone to the 3-pin XLRF-type socket on the microphone stand.



2. Connecting amplifier: Connecting 3-pin XLRM-type connector to other devices such as amplifier, audio mixing console, etc.



3. Microphone detachment: Press the release tab of the XLR socket on the microphone stand and pull out the microphone.



### Ordering Information

HCS-1857BS	Tabletop Microphone Stand (3-pin XLRM-type socket output, with 2-metre cable, with self-lock button)
------------	--

## Accessories

<b>Earphones.....</b>	<b>13.3</b>
EP-820AS Single Earphone.....	13.3
EP-820BS Single Earphone.....	13.3
EP-920BS Inner Earphone.....	13.3
HCS-5100PA Headphone.....	13.4
Sponge Ear Pads Sponge Ear Pads.....	13.4
<b>HCS-1020 Clip Microphone.....</b>	<b>13.4</b>
<b>Cables and Connectors.....</b>	<b>13.5</b>
CBL6PS-03 3 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PS-05 5 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PS-10 10 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PS-20 20 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PS-30 30 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PS-40 40 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PS-50 50 m 6-pin Extension Cable (with a plug and a socket).....	13.5
CBL6PP-02 2 m 6-pin Extension Cable (with two plugs).....	13.5
S-UTP CABLE Professional Extension Cable for Conference System.....	13.5
CBL13PS-03 3 m 13-pin Extension Cable (with a plug and a socket).....	13.6
CBL13PS-05 5 m 13-pin Extension Cable (with a plug and a socket).....	13.6
CBL13PS-10 10 m 13-pin Extension Cable (with a plug and a socket).....	13.6
CBL13PS-20 20 m 13-pin Extension Cable (with a plug and a socket).....	13.6
CBL13PP-02 2 m 13-pin Extension Cable (with two plugs).....	13.6
CBL5300-05 5 m Dedicated Transceiver Cable.....	13.6
CBL5300-10 10 m Dedicated Transceiver Cable.....	13.6
CBL5300-20 20 m Dedicated Transceiver Cable.....	13.6
CBL5300-50 50 m Dedicated Transceiver Cable.....	13.6
CBL6PT-01 6-pin T-type Cable 1 m ×1 (plug) + 0.5 m ×2 (socket) (for HCS-3600 series).....	13.7
CBL6PT-03 6-pin T-type Cable 3 m ×1 (plug) + 0.5 m ×2 (socket) (for HCS-3600 series).....	13.7
CBL25PS-03 3 m 25-pin Extension Cable (with a plug and a socket, for HCS-850PB/10).....	13.7
CBL25PS-05 5 m 25-pin Extension Cable (with a plug and a socket, for HCS-850PB/10).....	13.7
CBL25PS-10 10 m 25-pin Extension Cable (with a plug and a socket, for HCS-850PB/10).....	13.7
CBL25PS-20 20 m 25-pin Extension Cable (with a plug and a socket, for HCS-850PB/10).....	13.7
RG-59 Coaxial-cable (75 Ω).....	13.7
HCS-4352 6-pin Cable Splitter (1 input & 2 outputs, for HCS-4100/50 series).....	13.8
HCS-4353/06 6-pin Grounding Cable Connection Socket (for HCS-4100/50 & HCS-3600 series).....	13.8
HCS-2053/13 13-pin Grounding Cable Connection Socket (for HCS-3600MC2).....	13.8
BNC Connector BNC Connector.....	13.8
6P-DIN (plug) 6DIN Standard Plug.....	13.9
6P-DIN (socket) 6DIN Standard Socket (insulating).....	13.9

<b>Multifunctional Storage Case</b>		<b>13.10</b>
HCS-852KS	Multifunctional Storage Case	13.10
HCS-852S-CMU	Foam Insert (for 1 pcs main unit + 20 m extension cable)	13.10
HCS-852S-5300TD	Foam Insert (for 1 pcs HCS-5300CHG + 2 pcs HCS-5300TD)	13.11
HCS-852S-5300D	Foam Insert (for 8 pcs 5300 wireless conference units)	13.11
HCS-852S-5300CHG	Foam Insert (for 2 pcs HCS-5300CHG)	13.12
HCS-852S-5100T	Foam Insert (for 1 pcs HCS-5100T+ 2 pcs HCS-4385K2/50)	13.12
HCS-852S-DStyle	Foam Insert (for 12 pcs D-style congress units + 8 pcs MIC. stems)	13.13
HCS-852S-GStyle	Foam Insert (for 10 pcs G-style congress units + 6 pcs MIC. stems)	13.13
HCS-852S-4385K2	Foam Insert (for 6 pcs HCS-4385K2/50 interpreter units + 2 pcs MIC. stems)	13.14
HCS-853KS	Main Unit Storage Case (for 6 pcs main units)	13.14

## EP-820AS Single Earphone



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- Ø 3.5 mm stereo plug
- 32 Ω (Tip and Sleeve, Ring: NC)
- Frequency response: 50 Hz to 20 kHz
- Sensitivity: ≥102 dBA/1 mW

### Ordering Information

EP-820AS .....Single Earphone

## EP-920BS Inner Earphone (stereo)



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- 16 Ω × 2, Ø 3.5 mm stereo plug
- Frequency response: 50 Hz to 20 kHz
- Sensitivity: ≥108 dBA/1 mW

### Ordering Information

EP-920BS .....Inner Earphone (stereo)

## EP-820BS Single Earphone



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- Ø 3.5 mm stereo plug
- 32 Ω (Tip and Sleeve, Ring: NC)
- Frequency response: 20 Hz to 20 kHz
- Sensitivity: ≥108 dBA/1 mW

### Ordering Information

EP-820BS .....Single Earphone

## HCS-5100PA Headphone (stereo)



### Features

- Used with the receiver or a conference unit
- Hi-Fi sound quality
- 32  $\Omega \times 2$ ,  $\varnothing$  3.5 mm stereo plug
- Frequency response: 20 Hz to 20 kHz
- Sensitivity:  $\geq 108$  dBA/1 mW

### Ordering Information

HCS-5100PA.....Headphone (stereo)

## Sponge Ear Pads



### Features

- Used for HCS-5100PA headphone
- 100 pairs per package
- Color: black

### Ordering Information

Sponge Ear Pads.....Sponge Ear Pads

## HCS-1020 Clip Microphone



### Features

- Stylish and ergonomic design
- Excellent immunity to RF interferences from mobile phones
- $\varnothing$  3.5 mm stereo plug with a 1.5 meter cable

### Technical Specifications

#### Electrical

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Operating voltage.....5 VDC  
 Sensitivity.....-46 dBA at 680 Ohm (0 dB = 1 V/Pa at 1 kHz)  
 Frequency response.....30 Hz to 20 kHz  
 Input impedance.....2 kOhm  
 Directivity 0°/180°.....> 20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Maximum sound pressure level.....125 dB (THD<3%)

#### Mechanical

Dimensions (h x w x d).....51 x 25 x 13 mm  
 Weight.....3 g  
 Color.....Black

### Ordering Information

HCS-1020.....Clip Microphone

## CBL6PS 6-pin Extension Cable



### Features

- Connecting conference main unit with contribution unit when extensive cable needed
- Standard connectors (a plug and a socket at each end)
- Optional: 3 m, 5 m, 10 m, 20 m, 30 m, 40 m and 50 m available
- Used for HCS-3600 series, HCS-4100/50 series and HCS-8300 series

### Ordering Information

CBL6PS-03.....	3 m 6-pin Extension Cable (with a plug and a socket)
CBL6PS-05.....	5 m 6-pin Extension Cable (with a plug and a socket)
CBL6PS-10.....	10 m 6-pin Extension Cable (with a plug and a socket)
CBL6PS-20.....	20 m 6-pin Extension Cable (with a plug and a socket)
CBL6PS-30.....	30 m 6-pin Extension Cable (with a plug and a socket)
CBL6PS-40.....	40 m 6-pin Extension Cable (with a plug and a socket)
CBL6PS-50.....	50 m 6-pin Extension Cable (with a plug and a socket)

## CBL6PP-02 6-pin Extension Cable



### Features

- Connecting conference main units
- Standard connectors (plug at each end)
- Length: 2 m
- Used for HCS-3600 series, HCS-4100/50 series and HCS-8300 series

### Ordering Information

CBL6PP-02.....2 m 6-pin extension Cable (with two plugs)

## S-UTP CABLE Professional Extension Cable for Conference System



### Features

- For embedding system cables
- Conductor: 4x2x(7x0.203)+96x0.12

### Ordering Information

S-UTP CABLE.....Professional extension Cable  
for conference system

## CBL13PS 13-pin Extension Cable



### Features

- Connecting conference main unit with contribution unit when cable prolongation is needed
- Standard connectors (A plug and a socket at each end)
- Optional: 3 m, 5 m, 10 m and 20 m available
- Used for HCS-3600 series

### Ordering Information

CBL13PS-03	3 m 6-pin Extension Cable (with a plug and a socket)
CBL13PS-05	5 m 6-pin Extension Cable (with a plug and a socket)
CBL13PS-10	10 m 6-pin Extension Cable (with a plug and a socket)
CBL13PS-20	20 m 6-pin Extension Cable (with a plug and a socket)

## CBL13PP-02 13-pin Extension Cable



### Features

- Connecting conference main units
- Standard connectors (plug at each end)
- Length: 2 m
- Used for HCS-3600 series

### Ordering Information

CBL13PP-02	2 m 13-pin extension Cable (with two plugs)
------------	---

## CBL5300 Dedicated Transceiver Cable



### Features

- Dedicated cable for HCS-5300TD/TDB/TDS
- 1 × 6P-DIN male plug
- 1 × 6P-DIN female socket
- Optional: 5 m, 10 m, 20 m and 50 m available
- Ø 6 mm
- Color: black
- **Attention:** cable looks identical to CBL6PS but pin-assignment differs!! Please do not mix up!

### Ordering Information

CBL5300-05	5 m Dedicated Transceiver Cable
CBL5300-10	10 m Dedicated Transceiver Cable
CBL5300-20	20 m Dedicated Transceiver Cable
CBL5300-50	50 m Dedicated Transceiver Cable



## CBL6PT 6-pin T-type Cable (for HCS-3600 series)



### Features

- Standard 6-pin cable, "1 in / 2 out" structure for tap-off connection
- Used to connect voting/discussion units
- Input end is a plug, and the output end is two sockets, one of which is connected with a conference unit, the other for another tap-off cable
- 1m/3m alternative
- One pair of connector clasps included

### Ordering Information

CBL6PT-01\_\_6-pin T-type Cable 1 m ×1 (plug) + 0.5 m ×2 (socket)  
(for HCS-3600 series)

CBL6PT-03\_\_6-pin T-type Cable 3m ×1 (plug) + 0.5 m ×2 (socket)  
(for HCS-3600 series)

## CBL25PS 25-pin Extension Cable (for HCS-850/PB)



### Features

- Used to connect the interpretation units (HCS-850PB/10)
- 25P DIN plug and socket
- Optional: 3 m, 5 m, 10 m and 20 m available

### Ordering Information

CBL25PS-03.....3 m 25-pin extension Cable (with a plug  
and a socket, for HCS-850PB/10)

CBL25PS-05.....5 m 25-pin extension Cable (with a plug  
and a socket, for HCS-850PB/10)

CBL25PS-10.....10 m 25-pin extension Cable (with a  
plug and a socket, for HCS-850PB/10)

CBL25PS-20.....20 m 25-pin extension Cable (with a  
plug and a socket, for HCS-850PB/10)

## RG-59 Coaxial-cable



### Features

- Equivalent impedance: 75 Ohm
- Ø 5 mm
- Length of per roll: 200 meter

### Ordering Information

RG-59.....Coaxial-cable (75 Ω)

## HCS-4352 6-pin Cable Splitter



### Features

- Relay facility, can amplify the communication signals
- 6P-DIN interface, "1 in / 2 out " structure for connection
- 2m-cable with a 6P-DIN connector at the input end
- Two 6PIN output interface for connection with conference units/extension cable

### Ordering Information

HCS-4352 .....6-pin Cable Splitter (1 input & 2 outputs, for HCS-4100/50 series and HCS-8300 series)

## HCS-2053/13 13-pin Grounding Connection Socket



### Features

- For embedding cables to connect conference unit
- For connecting to HCS-3600MC2 main unit
- Interface: 2 13P-DIN female

### Ordering Information

HCS-2053/13 .....13-pin Grounding Cable Connection Socket  
(for HCS-3600MC2)

## HCS-4353/06 6-pin Grounding Cable Connection Socket



### Features

- For embedding cables to connect conference unit
- For connecting to HCS-3600 series, HCS-4100/50 series or HCS-8300 series conference unit
- Interface: 2 6P-DIN female
- The ground wire of all sockets are insulated isolation to ensure the independence of the ground wire

### Ordering Information

HCS-4353/06 .....6-pin Grounding Cable Connection Socket  
(for HCS-3600 series, HCS-4100/50 series and HCS-8300 series)

## BNC Connector



### Features

- Used to connect HCS-5100M/S and HCS-5100T/S or between HCS-5100T/S
- Used with RG-59 Coaxial-cable

### Ordering Information

BNC Connector .....BNC Connector

## 6P-DIN 6DIN Standard Plug



---

### Features

- For soldering to 6P-DIN cable
- Removable DIN standard male connector (6PIN)

---

### Ordering Information

6P-DIN (plug).....6DIN Standard Plug

## 6P-DIN 6DIN Standard Socket



---

### Features

- For soldering to 6P-DIN cable
- Weldable 6P-DIN female socket with insulated isolation
- Make sure that the socket ground and fixed metal plate are short-circuit, guarantee the independence of the ground wire

---

### Ordering Information

6P-DIN (socket).....6DIN Standard Socket (insulating)

## HCS-852KS Multifunctional Storage Case



### Features

- Used for storing and transporting TAIDEN series products

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm)

Outside ..... 890 × 760 × 590

Inside ..... 620 × 705 × 535

Net weight ..... 31.0 kg

Color ..... Blue

### Ordering Information

HCS-852KS ..... Multifunctional Storage Case

## HCS-852S-CMU Foam Insert



### Features

- Used to secure Conference System Main Unit and Extension Cable
- Can store up to 1 pcs main unit + 20 metres extension cable

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm) ..... 118 × 700 × 530

Net weight ..... 1.0 kg

Color ..... Black

### Ordering Information

HCS-852S-CMU ..... Foam Insert  
(for 1 pcs main unit + 20 m extension cable)

## HCS-852S-5300TD Foam Insert



### Features

- Used to secure HCS-5300CHG Charging Unit and HCS-5300TD Digital Infrared Transceiver
- Can store up to 1 pcs HCS-5300CHG + 2 pcs HCS-5300TD

### Technical Specifications

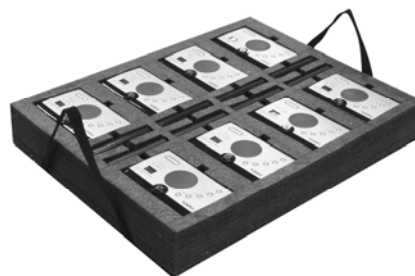
#### Mechanical

Dimensions h x w x d (mm).....100 × 700 × 530  
 Net weight.....1.0 kg  
 Color.....Black

### Ordering Information

HCS-852S-5300TD.....Foam Insert  
 (for 1 pcs HCS-5300CHG + 2 pcs HCS-5300TD)

## HCS-852S-5300D Foam Insert



### Features

- Used to secure HCS-5300 Series Digital Infrared Wireless Conference Units
- Can store up to 8 pcs HCS-5300 Digital Infrared Wireless Conference Units

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....100 × 700 × 530  
 Net weight.....1.0 kg  
 Color.....Black

### Ordering Information

HCS-852S-5300D.....Foam Insert  
 (for 8 pcs HCS-5300 wireless conference units)

## HCS-852S-5300CHG Foam Insert



### Features

- Used to secure HCS-5300CHG Charging Units
- Can store up to 2 pcs HCS-5300CHG

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....100 × 700 × 530  
 Net weight.....1.0 kg  
 Color.....Black

### Ordering Information

HCS-852S-5300CHG.....Foam Insert  
 (for 2 pcs HCS-5300CHG)

## HCS-852S-5100T Foam Insert



### Features

- Used to secure HCS-5100T/S Digital Infrared Radiator and HCS-4385K2/50 Interpreter Units
- Can store up to 1 pcs HCS-5100T/S + 2 pcs HCS-4385K2/50

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....200 × 700 × 530  
 Net weight.....1.6 kg  
 Color.....Black

### Ordering Information

HCS-852S-5100T.....Foam Insert  
 (for 1 pcs HCS-5100T/S + 2 pcs HCS-4385K2/50)

## HCS-852S-DStyle Foam Insert



### Features

- Used to secure D-style congress units and MIC. stems
- Can store up to 12 pcs D-style congress units + 8 pcs MIC. stems

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....100 × 700 × 530  
 Net weight.....0.9 kg  
 Color.....Black

### Ordering Information

HCS-852S-Dstyle.....Foam Insert (for 12 pcs D-style  
 congress units + 8 pcs MIC.  
 stems)

## HCS-852S-GStyle Foam Insert



### Features

- Used to secure G-style congress units and MIC. stems
- Can store up to 10 pcs G-style congress units + 6 pcs MIC. stems

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....150 × 700 × 530  
 Net weight.....1.0 kg  
 Color.....Black

### Ordering Information

HCS-852S-Gstyle.....Foam Insert (for 10 pcs G-style  
 congress units + 6 pcs MIC.  
 stems)



## HCS-852S-4385K2 Foam Insert



### Features

- Used to secure HCS-4385K2/50 interpreter units and MIC. stems
- Can store up to 6 pcs HCS-4385K2/50 interpreter units + 2 pcs MIC. stems

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....100 × 700 × 530  
 Net weight.....0.9 kg  
 Color.....Black

### Ordering Information

HCS-852S-4385K2.....Foam Insert (for 6 pcs HCS-4385K2/50  
 interpreter units + 2 pcs MIC. stems)

## HCS-853KS Transport Cabinet



### Features

- Used for storing and transporting TAIDEN series main units

### Technical Specifications

#### Mechanical

Dimensions h x w x d (mm).....890 × 590 × 545  
 Net weight.....33.7 kg  
 Color.....Blue

### Ordering Information

HCS-853KS.....Transport Cabinet