

HCS-4800MC Congress Main Unit



Features

- 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
- Proprietary MCA-STREAM technology used to transmit fully digital audio between main unit(s) and congress units
- Supporting 48 kHz and 32 kHz audio sampling rate
- Connection facility for an additional condenser or dynamic microphone, expanding user’s application spectrum
- 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
- 2.8” LCD display for status information and configuration
- Rotary control to navigate through the LCD menus
- With web page control function, main unit's parameters can be set through web browser
- Emergency signal interface, all congress units will be switched off when it be activated

The Congress Main Unit includes features for controlling delegate microphones and conducting voting sessions, without an operator. In combination with a PC, the Congress Main Unit brings greater sophistication to conference control. Users are able to access an extensive range of software, 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 Congress Main Unit will revert to its stand-alone operation mode, enabling the conference to proceed.

The Congress Main Unit also provides power supply to the Congress units.

Functions

- Compliant to ISO 22259
- “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

- Embedded high performance DSP for audio signal processing, supporting 48 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
- Integrated high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Integrated voice enhance and howling suppression function for each microphone to improve sound effects
- 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 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
- Adopted fully digital audio transmitting technology between the main units and congress units
- An ID can be assigned by default or manually to each conference unit bearing a unique serial number for convenient maintenance
- Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 8
- Built-in multi-channel intercom facility
- Connection facility for additional condenser or dynamic microphones, expanding user’s application spectrum (HCS-8600MIO series)
- If additional contribution units are connected for system expansion, additional Congress Extension Main Units HCS-8600MEA are required:
 - ◆ 4096 discussion or voting units
 - ◆ Any quantity of channel selectors
- Automatic video tracking implementation when cooperating with cameras and 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/Request/PTT
 - "Open" mode, microphone On/Off button with request-to-speak registration (AUTO)
 - "Override" mode, microphone On/Off button 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
 - "Request" mode, delegate requests to speak by pressing microphone On/Off button, delegate only speaks when operator or chairman approved his application
 - "PTT" mode, press microphone On/Off button to talk
 - ◆ Parliamentary voting (YES/NO/ABSTAIN)
- In combination with the corresponding software, more functions can be implemented:
 - ◆ Centralized microphone management
 - ◆ Multiform voting:
 - For/Against
 - Parliamentary: YES/NO/ABSTAIN
 - Questionnaire: 1/2/3/4/5
 - Audience response: --/0/+/>
 - Parliamentary (NPPV): Yes/No/ABSTAIN/NPPV

- Appraisal:
 - ◊ 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-4800 software, 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
- With web page control function, main unit's parameters can be set through web browser
- USB interface (Type-c) support digital audio transmission, mainstream conference software is adaptive
- Hot spare dual server structure: another Congress Main Unit is set up as backup Congress 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 Congress Extension Main Unit(s) to carry out multi-room configuration flexibly. Multiple Congress Main Unit configuration allows all connected multiple rooms to be operated either as one unique system or as independent systems
- 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
- System power controllable by central control system

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi-language menu
- Rotary control to navigate through the LCD menus
- Power switch
- Standby switch with indicator

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
- RS232 port for connection to central control system and system diagnosis each
- 1 × RJ45 standard socket for connection to Ethernet interface (LAN)
- 2 × RJ45 standard socket (output) for connection with a Congress Extension Main Unit (EXTENSION)
- 2 × outlet (8P-DIN) trunk-line cable outlet
- 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

Technical Specifications

Electrical

Frequency response.....	20 Hz to 20 kHz
SNR.....	≥100 dBA
Dynamic range.....	≥94 dB
Isolation.....	≥90 dB
THD.....	≤0.05%
Power supply.....	100 V - 240 V AC, 50/60 Hz
Consumption.....	20W
Load capacity.....	200W
RS232 connection.....	9-pole Sub-D female socket
Net connection.....	RJ45 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.

Mechanical

Mounting.....	Tabletop or mounted in a 19" rack
Dimensions (h x w x d)	
For table use, with feet.....	95 × 480 × 418 mm
For 19" rack use, with brackets.....	88 × 480 × 418 mm
Weight.....	7.8 kg
Color.....	Black (PANTONE 419 C)

Ordering Information

HCS-4800MC.....	Fully Digital Congress System Main Unit (discussion, voting)
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HCS-8600 and HCS-4800 series main unit function table

Type	Discussion	Vote	LCD	64CHs	Microphone team output	Fiber optic interface	Dante interface	AES/EBU digital input/output interface	HDMI interface	USB record	Build-in PA
HCS-8600MA/20	√	√	√	√	√	√	√	√			
HCS-8600MBU/20	√	√	√	√	√	√			√	√	
HCS-8600MB/20	√	√	√	√	√	√					
HCS-4800MA/20	√	√	√	√		√					
HCS-4800MB/20	√	√	√								√
HCS-4800MC	√	√	√								

- In HCS-4800 series fully digital congress system, power is provided by HCS-4800M or HCS-8600MEA or HCS-8600EMS for all congress units. Thus, the total number of system units in any installation is limited by the maximum power handling capacity and control capacity of the HCS-4800M or HCS-8600MEA or HCS-8600EMS. It must be ensured that, during the installation, the sum of the total power consumption of all the congress units connected to every single 8P-DIN interface plus the power loss in the extension cables does not surpass the power limit of each 8P-DIN interface. Otherwise the system will not work properly or automatic protection will occur. Refer to table below for maximum load capability.