

HCS-4100MA/FS/52 Congress Main Unit



Features

- Connectable to HCS-8300 series multichannel 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
- Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 30 Hz to 20 kHz
- Connection facility for an additional condenser or dynamic microphone, expanding user's application spectrum
- Dual connection backup via Cat.5 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
- 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 30 Hz to 20 kHz frequency response

- 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
- 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 multichannel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technologies
- Proprietary MCA-STREAM technology used to transmit fully digital audio between main unit(s) 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 6 (incl. chairman/delegate/VIP unit)
- 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)
- Dual connection backup between congress main unit and extension main unit via optical fiber and Cat.5 cable
- If additional contribution units are connected for system expansion, additional extension main units HCS-8300ME or HCS-8300ME/FS are required:
 - ◆ 4096 discussion or voting units
 - ◆ 378 interpreter units (with maximum 63 booths, each booth with maximum 6 interpreter 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 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

- "APPLY" mode, delegate applies 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)
- ◆ 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
 - 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-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
- Fully compatible with TAIDEN HCS-8300 Series Paperless Multi-media Congress System: HCS-8300 series congress 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, loudspeaker, LEDs and voting keys prior to start of the meeting
- Automatic system recovery and "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
- Integrated real-time clock displays time on the LCD of the interpretation unit to inform interpreter to stay on schedule

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 RS232 port for connection to central control system and system diagnosis each
- Duplex SC single-mode optical fiber interface to combine two widely separated 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 interface 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 100 V-120 V 60 Hz or AC 220 V-240 V 50 Hz
Power consumption.....	200 W
RS232 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.....	+20 dBu, UNBAL.

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 (PANTONE 420 C)

Ordering Information

HCS-4100MA/FS/52..... Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, single-mode optical fiber interface)

HCS-4100MB/52 Congress Main Unit



Features

- Connectable to HCS-8300 series multichannel 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
- Perfect sound quality on all 64 simultaneous interpretation channels: frequency response 30 Hz to 20 kHz
- Connection facility for an additional condenser or dynamic microphone, expanding user’s application spectrum
- Dual connection backup via Cat.5 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
- 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 30 Hz to 20 kHz frequency response

- 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 multichannel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technologies
- Proprietary MCA-STREAM technology used to transmit fully digital audio between main unit(s) and congress units
- Dual connection backup between congress main unit and extension main unit via Cat.5 cable
- 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 6 (incl. chairman/delegate/VIP unit)
- 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/FS are required:
 - ◆ 4096 discussion or voting units
 - ◆ 378 interpreter units (with maximum 63 booths, each booth with maximum 6 interpreter 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 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
 - “APPLY” mode, delegate applies 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)

- ◆ 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
 - 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-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-8300 Series Paperless Multi-media Congress System: HCS-8300 series congress 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, loudspeaker, LEDs and voting keys prior to start of the meeting
- Automatic system recovery and "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
- Integrated real-time clock displays time on the LCD of the interpretation unit to inform interpreter to stay on schedule

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 RS232 port for connection to 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 interface 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 100 V-120 V 60 Hz or AC 220 V-240 V 50 Hz
Power consumption.....	200 W
RS232 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.....	+20 dBu, UNBAL..

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 (PANTONE 420 C)

Ordering Information

HCS-4100MB/52.....	Fully Digital Congress System Main Unit (discussion, voting, 64 CHs)
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HCS-4100MC/52 Congress main unit



Features

- Connectable to HCS-8300 series multichannel audio input or output devices for versatile expansion of the system
- High system reliability guaranteed by "Closed Loop - Daisy Chain" connection topology
- Adopted fully digital audio transmitting technology between the main units 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
- 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
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- 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 multichannel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technologies
- 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 6 (incl. chairman/delegate/VIP unit)
- 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/FS 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 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 can be adjusted continuously, built-in "flash-on" technology, immediate microphone activation on speaking
 - "APPLY" mode, delegate applies to speak by pressing microphone On/Off button, delegate can speak only 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 modules, more functions can be implemented:
 - ◆ Centralized microphone management
 - ◆ Multiforum 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/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)
- ◆ 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-8300 Series Paperless Multi-media 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, loudspeaker, LEDs and voting keys prior to start of the meeting
- Automatic system recovery and “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

- 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 XLRF-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 RS232 port for connection to 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 interface 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
Crosstalk.....	>85 dB
THD.....	<0.05%
Power supply.....	AC 100 V-120 V 60 Hz or AC 220 V-240 V 50 Hz
Power consumption.....	200 W
RS232 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.....	+20 dBu, UNBAL.

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 (PANTONE 420 C)

Ordering Information

HCS-4100MC/52.....	Fully Digital Congress System Main Unit (discussion, voting)
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HCS-8300 and HCS-4100/50 Series Congress Main Units Function list

Type No.	Speech	Voting	Graphic LCD	64CHs SI	Mic. group output	Optical fiber interface	CobraNet interface	Dante interface	Mixer interface	AES/EBU interface
HCS-8300MAD/FS/50	√	√	√	√	√	√		√	√	√
HCS-8300MB/50	√	√	√	√	√					
HCS-4100MA/FS/52	√	√	√	√		√				
HCS-4100MB/52	√	√	√	√						
HCS-4100MC/52	√	√	√							

Low power consumption design

All congress units of HCS-8300 and HCS-4100/50 series (except HCS-8338/48 series and HCS-8368 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 connection 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. Refer to the table 1 for the max. connection number of congress units.

Note:

- 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 80 meters (incl. 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 80 m, cable splitter HCS-4352T/50 is needed; and the length of an individual extension cable following HCS-4352T/50 must not exceed 70 meters.
- The extension 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.

Table 1 Quick lookup table for the max. number of connected congress units

Type	Type No.	The extension cable length between the CMU(EMU) and the first Congress Unit connected to the socket					
		20 m	40 m	60 m	80 m	80 m + HCS-4352T/50 +70 m	80 m + HCS-4352T/50 + 70 m + HCS-4352T/50 + 70 m
Equipped with E-ink Nameplate, speaker and microphone	HCS-48U7/U8/U9/U10 /4886N+HCS-1080/50	11	10	9	8	5	-
Equipped with 256x64 LCD, speaker and microphone	HCS-4385U/50	14	12	11	9	6	4
Equipped with 7.2" LCD, speaker and microphone	HCS-8385/70	8	8	7	7	5	4
	2 HCS-8385/70 + HCS-8385HDMI	3	3	2	2	1	-
	3 HCS-8385/70 + HCS-8385HDMI	2	2	1	1	-	-
	4 HCS-8385/70 +1 HCS-8385HDMI	2	2	1	1	-	-
Equipped with 256x32 LCD, speaker and microphone	HCS-4886 HCS-4887 HCS-48U7 HCS-48U8 HCS-48U9	16	13	12	11	8	5
Equipped with OLED and microphone	HCS-48U10/50 HCS-48U6						
Equipped with speaker and microphone, without 256x32 LCD	HCS-4888 HCS-4330/50 HCS-4332/50 HCS-4326/50	22	19	17	15	9	6
Equipped with 256x32 LCD, without speaker nor microphone	HCS-4368/50						
Equipped with microphone, without 256x32 LCD nor speaker	HCS-8313 HCS-8314 HCS-8315 HCS-4325/50 HCS-4326/50	30	27	24	22	17	12
Only equipped with retractable microphone array	HCS-4851/50	14	13	13	12	7	4
Number of sync retractable microphone: 6							
Without 256x32 LCD, speaker nor microphone	HCS-4368SDT/50	30	29	26	24	19	14
Equipped with 10" LCD	HCS-8335 HCS-8336	6	6	5	4	-	-
	HCS-8335-NP	5	5	4	3	-	-

Table 1 Quick lookup table for the max. number of connected congress units (continue)

Type	Type No.	The extension cable length between the CMU(EMU) and the first Congress Unit connected to the socket					
		20 m	40 m	60 m	80 m	80 m + HCS-4352T/50 +70 m	80 m + HCS-4352T/50 + 70 m + HCS-4352T/50 + 70 m
HCS-4340/50 series Multi-function connector	HCS-4340A/50 HCS-4340DT/50	10	9	9	9	7	6
	HCS-4340B/50	9	8	8	8	6	5
	HCS-4340UN/52	11	10	9	8	5	-
	HCS-4340U/50	16	13	12	11	8	5
E-ink Nameplate	HCS-1080/50	42	38	34	30	-	-
		Note: the connection number of HCS-1080T is no more than 15 for each 6P-DIN interface.					

Table 2 Quick lookup table of HCS-8300MES load capability

Type	Type No.	The extension cable length between the HCS-8300MES and the first Congress Unit connected to the socket			
		20 m	40 m	60 m	80 m
Equipped with E-ink Nameplate, speaker and microphone	HCS-48U7/U8/U9/U10/ 4886N+HCS-1080/50	8	7	6	5
Equipped with 256x64 LCD, speaker and microphone	HCS-4385U/50	10	9	8	7
Equipped with 7.2" LCD, speaker and microphone	HCS-8385/70	7	7	6	6
	2 HCS-8385/70 + HCS-8385HDMI	3	3	2	2
	3 HCS-8385/70 + HCS-8385HDMI	2	2	1	1
	4 HCS-8385/70 +1 HCS-8385HDMI	2	2	1	1
Equipped with 256x32 LCD, speaker and microphone	HCS-4886 HCS-4887 HCS-48U7 HCS-48U8 HCS-48U9	12	11	10	9
Equipped with OLED and microphone	HCS-48U10/50 HCS-48U6				
	Equipped with speaker and microphone, without 256x32 LCD	HCS-4338N/50 HCS-4860/50 HCS-4865/50 HCS-4866/50	18	16	14
HCS-4888 HCS-4330/50 HCS-4332/50 HCS-4326/50					
Equipped with 256x32 LCD, without speaker nor microphone	HCS-4368/50	24	22	20	18
Equipped with microphone, without 256x32 LCD nor speaker	HCS-8313 HCS-8314 HCS-8315 HCS-4325/50 HCS-4326/50				
Without 256x32 LCD, speaker nor microphone	HCS-4368SDT/50				
Equipped with 10" LCD	HCS-8335 HCS-8336	5	5	4	3
	HCS-8335-NP	4	4	3	2
HCS-4340/50 series Multi-function connector	HCS-4340A/50 HCS-4340DT/50	9	8	8	8
	HCS-4340B/50	8	7	7	7
	HCS-4340UN/52	8	7	6	5
	HCS-4340U/50	12	11	10	9
E-ink Nameplate	HCS-1080/50	29	27	27	25
		Note: the connection number of HCS-1080T is no more than 15 for each 6P-DIN interface.			

