HCS-8335D
Economical Multimedia Congress Terminal

Features

- **Stylish and ergonomic design**
- **Equipped with a 10" TFT LCD, 1280×800 high-resolution**
- **Supporting high definition digital video display (HDMI, SDI, VGA, CVBS, DVI, etc.)**
- **Transmitting video signal on a coaxial-cable, latency < 30 us**
- **"Closed Loop - Daisy Chain" connection topology**
- **Supports 48 kHz audio sampling, 64 audio channels, each with a 30 Hz to 20 kHz frequency response for perfect sound quality**
- **Based on TAIDEN originated MCA-STREAM (Multi_Channel_ Audio STREAM) digital processing and transmitting technologies**
- **2×64 CHs interpretation with volume control. Two delegates may share one unit thus cutting the cost by half**
- **Pluggable microphone**
- **Transmitting up to 64 CHs high quality digital audio signals**
- **Excellent immunity to RF interferences from mobile phones**
- **Supporting "PnP" (plug and play)**
- **Built-in contactless IC-Card slot**

The 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 two channel selectors with automatic limitation to the number of language channels available.

Loudspeaker with superior acoustics with minimal feedback for enhanced intelligibility.

Functions

- Compliant to IEC 60914
- Equipped with a 10" TFT LCD, 1280×800 high-resolution
- Supporting high definition digital video display (HDMI, SDI, VGA, CVBS, DVI, etc.)
- Transmitting video signal on a coaxial-cable, latency < 30 us
- "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 to 20 kHz frequency response for perfect sound quality
- Conference service: short messages reader
- 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 high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic recovery facility, supporting "PnP" (plug and play)
- Mini-microphone, with foam windshield
- Stem microphone can be unplugged during adjournment, easy to maintain
- 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
- 2×64 CHs interpretation with volume control. Two delegates may share one unit thus cutting the cost by half (earphone needed)
- Built-in contactless IC-Card slot to place the IC card, while automatically logout once the card is taken out from the slot
- Optional printed nameplate
- 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 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
    - Key press sign-in
    - Voting function (Yes/No/Abstain)
    - Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules

- Automatic video tracking implementation when cooperating with cameras and video switcher unit; preset positions on PC
- Built-in multi-channel intercom facility
- Set any delegate unit to be VIP unit
  - Up to 32 units can be set as VIP in one system via application software
  - VIP unit can be activated as long as the total of active microphones is not beyond 6 (incl. chairman/delegate/VIP unit)

Controls and Indicators

- Graphic 10" TFT LCD
- Uni-directional electret condenser microphone with two–color illuminated ring
- Headphones volume up and down
- Five buttons with indicators
- Microphone On/Off button

Interconnections

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

Technical Specifications

Electrical

Max. consumption	8 W

LCD

Type	True color TFT LCD
Dimension	10 inches, 16:10
Resolution	1280×800
Display color	2^{18} (18 bit)
Contrast	500:1

Headphone connection

Frequency response	30 Hz to 20 kHz
Earphone load impedance	>16 Ohm
Earphone output	13 mW

Microphone

Transducer	Electret-condenser
Polar pattern	Uni-directional
Operating voltage	5 VDC
Sensitivity	-46 dBV/Pa
Frequency response	50 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 microphone
	2 × Ø 3.5 mm stereo jack for headphone

Mechanical

Mounting	Tabletop/Flush-mounting
Dimensions (h × w × d) (w/o stem microphone)	155 × 361 × 122 mm
Weight (incl. stem microphone)	2.8 kg
Color	Silver-gray panel (PANTONE Cool Gray 7 C) + black base (PANTONE 419 C)
Stem length	330 mm (standard version), 240 mm, 410 mm, 470 mm

Ordering Information

HCS-8335D   Economical Multimedia Congress Terminal (delegate unit, 10" 1280×800 LCD, speech, voting, 2×64 CHs, HD video display, built-in contactless IC-Card reader, printed nameplate, silver-gray panel + black base)

HCS-8300MB
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 to 20 kHz**
- **Dual connection backup via optical fiber and Cat.5 cable between Congress Main Unit and Congress 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 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 Congress 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 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 (except for HCS-8338 and HCS-8348 series which are powered by HCS-8300PM or HCS-8300PM2).

Functions

- Compliant to IEC 60914
- Based on ingenious CongressMatrix™ technology, integrated n×8 audio matrix processor (n is the number 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 1~6: 5 band graphical EQ + DRC (dynamic range compressor) + time delay (Maximum delay time for 32 kHz sampling rate is 1.5 s, maximum delay time for 48 kHz sampling rate is 1 s.)
    - ♦ 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
- 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 to 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 user's application spectrum (HCS-8300MI series audio input interface required)

- If additional contribution units are connected for system expansion, additional Congress 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 8 channel digital/analog audio output device (several units cascadable), 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 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/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)
  - 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-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

- Dual connection backup between Congress Main Unit and Congress Extension Main Unit via optical fiber and Cat.5 cable
- 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
- Integrated real-time clock displays time on the LCD of the interpreter unit to inform interpreter to stay on schedule
- Fully compatible with TAIDEN HCS-4100/50 Fully Digital Congress System: HCS-4100/50 series Congress Units can be connected to the HCS-8300 system (exclusive functions only available with HCS-8300 series 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
- System power controllable by central control system

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
  - One headphone output socket (Ø 3.5 mm) for monitoring channel languages
- 2 × RS232 port for connection to 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 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
Total supply power	120 W
RS232 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 (PANTONE 420 C)

Ordering Information

HCS-8300MB   Fully Digital Congress System Main Unit (discussion, voting, 64 CHs, Mic. group output)

HCS-4100MB/50
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
- 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 (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 cascadable), 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 New Generation 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 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
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/50 .... Fully Digital Congress System Main Unit (discussion, voting, 64 CHs)