
TAIDEN®

Fully Digital Congress System



Excellent solutions for conferences

Fully Digital Congress System HCS-4100/50

By using TAIDEN originated MCA-STREAM (Multi-Channel-Audio STREAM) digital processing and transmitting technologies, TAIDEN HCS-4100/50 Fully Digital Congress System revolutionizes conference systems technology by incorporating the latest fully digital technologies, audio 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.

Connecting the congress units via "Closed Loop - Daisy Chain" cabling topology - thus simplifying installation and achieving cabling redundancy.

Supporting 48 kHz audio sampling rate, all 64 channels feature a frequency response of 30 Hz to 20 kHz.



The AU Convention Center



The 2011 World Bank & IMF Annual Meetings



HCS-4385U/50
Interpreter Unit
(64 CHs)



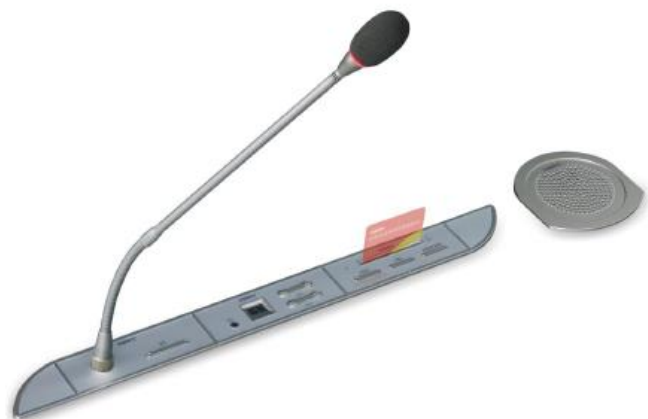
The 2011 World Bank & IMF Annual Meetings



United Nation



HCS-4886DW/50
64 CHs / Vote / Contactless IC card
Intercom / Message



HCS-4841ND/50 (Discussion)
HCS-4843NDTKE/50 (Vote+IC card)
HCS-4842N/50 (64 CHs)



ITU Plenipotentiary Conference 2010

System features

- Original MCA-STREAM digital audio processing and transmitting technology
- Up to 64 CHs audio signals transmitted on a dedicated 6-pin cable
- 48 kHz audio sampling, 64 audio channels, each with a 30 Hz~20 kHz frequency response for perfect sound quality
- Gain and EQ (5 band) of each microphone adjustable separately
- Increased reliability with "Closed Loop - Daisy Chain" connection topology, supports "PnP"
- Low power consumption design
- Equipped with optical fiber interface to combine two widely separated conference rooms to form one unique coherent system
- Dual connection backup via optical fiber and Cat.5 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
- Built-in multi-channel intercom facility
- TCP/IP communication protocol in PC control
- Remote control, remote diagnosis and remote update
- Downward compatible with TAIDEN HCS-4100/20 Fully Digital Conference System



Technical Specifications

Frequency response ······ 30 Hz to 20 kHz
 SNR ······ >96 dBA
 Dynamic range ······ >94 dB
 Isolation ······ >85 dB
 THD ······ <0.05%

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.

Headphone connection

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

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 ······ 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%)



Fully Digital Congress System Congress Units

- 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 technologies
- 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 to 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)
- Stem microphone can be unplugged during adjournment, easy to maintain
- Mini-microphone, with foam windshield
- Hi-Fi loudspeaker, minimal feedback, mutes automatically 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 to access the 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
 - Voting function (Yes/No/Abstain)
 - Simultaneous interpretation
- Multiform voting in combination with the corresponding software modules
- 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
- 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 button 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)



HCS-4325W/50 + HCS-4327HD/50
Discussion / 64 CHs × 2
Contactless IC card



HCS-4326DWE/50 + HCS-4327HD/50
Discussion / Vote / 64 CHs
Contactless IC card



HCS-4368DFW/FM/50
Voting Unit
Vote / Contactless IC card



HCS-4368SDT/FM/50
Voting Unit



HCS-4886U8/50
64 CHs / Vote / Contactless IC card
Intercom / Message



HCS-4886U9/50
64 CHs / Vote / Contactless IC card
Intercom / Message



HCS-4886U9F/50
64 CHs / Vote / Contactless IC card
Intercom / Message / Fingerprint identification



HCS-4335D/50
64 CHs × 2 / Double ID



HCS-4886U7/50
64 CHs / Vote / Contactless IC card
Intercom / Message



HCS-4325U/50
64 CHs × 2



HCS-4360DE/50
64 CHs / Vote / IC card

Fully Digital Congress System Congress Main Units

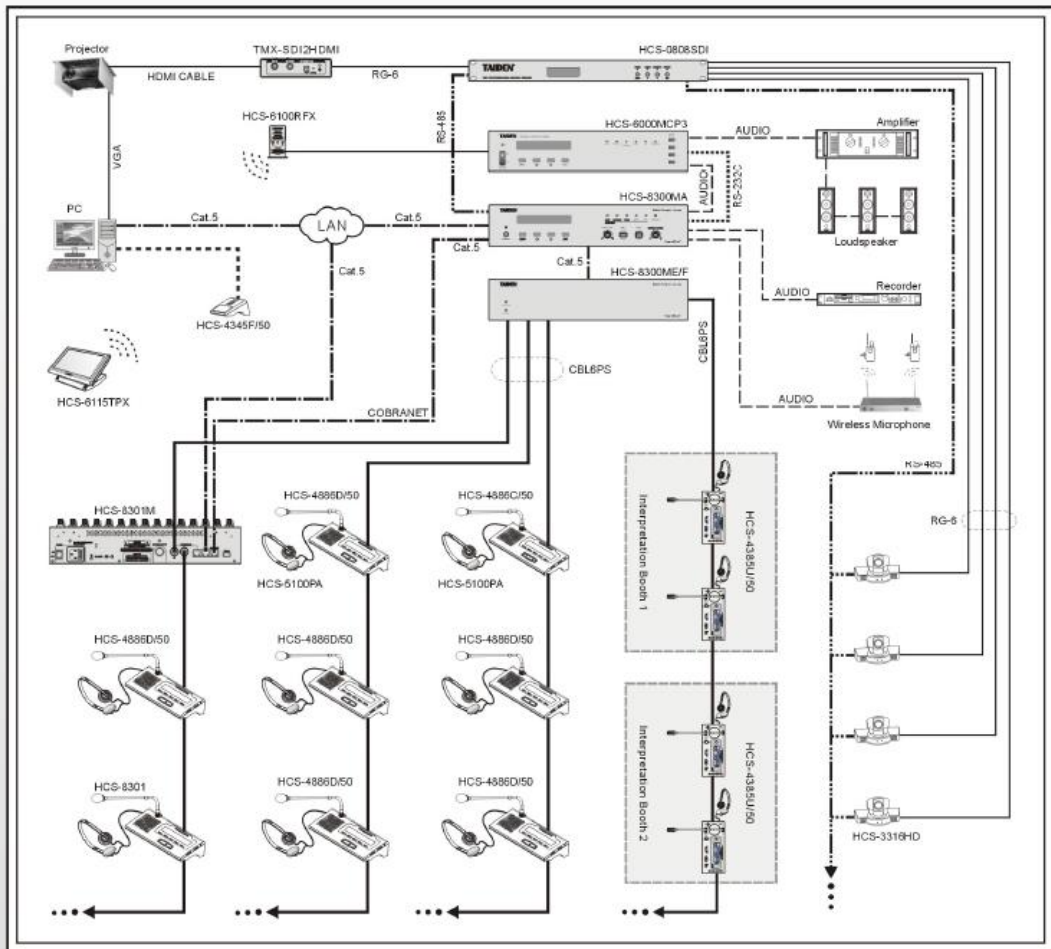


- Compliant to IEC 60914
- "Closed Loop - Daisy Chain" connection topology for a high operational system reliability: breakdown or replacement of a congress unit and connection failure of a cable will not influence other congress units
- Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate. All 64 channels feature perfect sound quality with a frequency response of 30 Hz to 20 kHz
- 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 multi channel audio input or output devices for versatile expansion of the system
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technologies
- 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 user's 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/F 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-8300MO 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
 - 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
 - Multifunction 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-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 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 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
- Integrated real-time clock displays time on the LCD of the interpretation unit to inform interpreter to stay on schedule



Bali 2010 - UNEP



Discussion, voting and simultaneous interpretation system



Distributed by:



Member of International Congress & Convention Association (ICCA)

IB004100TD-2012EN

TAIDEN INDUSTRIAL CO.,LTD.
Printed in Shenzhen ©TAIDEN