

## HCS-4886DW/54 Discussion Unit with Voting and Channel Selection



### Features

- **Elegant and ergonomic design**
- **Hi-Fi loudspeaker**
- **Pluggable microphone**
- **5 voting keys**
- **Built-in contactless IC-Card reader**
- **“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 perfectly reproducing audio frequencies between 30 Hz and 20 kHz**
- **Built-in channel selector consists of up/down channel select buttons**
- **Excellent immunity to RF interference from mobile phones**
- **Separate adjustment of gain and EQ (5 band) of each microphone for the perfect sound**
- **Supporting “PnP” (plug and play)**
- **Built-in contactless IC-Card slot**
- **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, contactless IC-Card reading and displaying conference and user-related information. Excellent immunity to RF interference from mobile phones. Channel selector, contactless IC-Card reader and graphic display with backlighting. When the contactless IC-Card is near 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. The loudspeaker offers superior acoustics with minimal feedback for enhanced 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 technologies
- Proprietary MCA-STREAM technology used to transmit fully digital audio between the congress units as well as between congress units and main unit(s)
- 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 perfectly reproducing audio frequencies between 30 Hz and 20 kHz
- Integrated high-pass filter (low-cut switch) to cut low frequency elements from the audio when needed
- Automatic system recovery and “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
- Built-in contactless IC-Card slot to place the IC card, while automatically logout once the card is taken out from the slot
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Facilities in independent operation from computer:
  - ◆ 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
  - ◆ Voting function (Yes/No/Abstain)
  - ◆ Simultaneous interpretation
- Dedicated software module for more forms of voting
- Built-in contactless 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
  - ◆ 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 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 buttons
- Uni-directional electret condenser microphone with two-color illuminated ring
- Headphones volume up and down
- Five voting keys with indicators
- Microphone On/Off button with indicator

**Interconnections**

- Socket for pluggable microphone
- 2 x 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**

Max. consumption.....2.3 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 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 x Ø 3.5 mm stereo jack for headphone

**Mechanical**

Mounting.....Tabletop (portable or fixed mounting)

Dimensions (h x w x d) (w/o stem microphone)...66 x 251 x 121 mm

Weight (incl. stem microphone).....1.5 kg

Color.....Champagne (PANTONE 401 C) panel + black (PANTONE 419 C) base / Charcoal gray (PANTONE Cool Gray 11C) panel + black (PANTONE 419 C) base

Stem length.....410 mm (standard version), 240 mm, 330 mm, 470 mm

**Ordering Information**

HCS-4886DW\_S/54.....Fully Digital Congress System Delegate Unit (tabletop, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, champagne panel + black metal base)

HCS-4886DW\_G/54.....Fully Digital Congress System Delegate Unit (tabletop, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, charcoal gray panel + black metal base)

HCS-4886DWN\_G/54.....Fully Digital Congress System Delegate Unit (tabletop, E-ink Nameplate can be connected, 5 voting keys, contactless IC-Card reader, 64 CHs, 256x32 LCD, charcoal gray panel + black metal base)

## HCS-4330DE/20 Discussion Unit with Voting and Channel Selection



### Features

- Flush-mounting, stylish and ergonomic design
- Hi-Fi loudspeaker
- Pluggable 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 2-digit channel indicator display
- Excellent immunity to RF interference from mobile phones
- Microphone sensitivity and EQ can be adjusted individually
- Built-in Compress and Limit function (adjustable)
- 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. 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
- Based on TAIDEN originated MCA-STREAM digital audio processing and transmitting technology
- Audio signals processed by the high performance DSP, the sound quality is close to CD quality
- Transmitting up to 64 CHs high quality digital audio signals on a dedicated 6-pin cable (general cat. 5 cable substitutable)
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Automatic recovery facility, supporting "PnP" (plug and play)
- Microphone sensitivity and EQ can be adjusted individually
- 4 audio effect modes are prestored:  
NORMAL/PRESS/THEATER/PARLIAMENT
- Built-in Compress and Limit function (adjustable)
- 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, 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
  - ◆ "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, 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/Opinion poll: 1/2/3/4/5
  - ◆ Audience response/Rating: --/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**

- 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
- 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 .....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/20... Fully Digital Conference System Delegate Unit  
 (tabletop, 5 voting keys, IC-Card, 64 CHs, gray)  
 HCS-4330DE\_S/20... Fully Digital Conference System Delegate Unit  
 (tabletop, 5 voting keys, IC-Card, 64 CHs, silver)

## 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 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 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 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/50	.....Fully Digital Congress System Main Unit (discussion, voting, 64 CHs)
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