

## HCS-4100MC/52 Congress System Main Unit



### Features

- 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
  - Excellent immunity to RF interference from mobile phones and comparable devices
  - System power controllable by central control system
- 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 technology
  - Adopted fully digital audio transmitting technology between the main units and congress units
  - An ID can be assigned by default or manually to each conference unit bearing a unique serial number for convenient maintenance
  - Set any delegate unit to be VIP unit, VIP unit can be activated as long as the total of active microphones is not beyond 6
  - Built-in multi-channel intercom facility
  - Connection facility for additional condenser or dynamic microphone, expanding user’s 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
  - 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 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
      - “PTT” mode, press microphone key to talk
    - ◆ Parliamentary voting (YES/NO/ABSTAIN)

The Congress Main Unit includes features for controlling delegate microphones, 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
  - System power controllable by central control system
  - Embedded high performance DSP for audio signal processing, supporting 48 kHz and 32 kHz audio sampling rate
- In combination with the corresponding software modules, more functions can be implemented:
    - ◆ Centralized microphone management
    - ◆ Multiform voting:
      - For/Against
      - Parliamentary: YES/NO/ABSTAIN
      - Appraisal:
        - ◇ satisfied
- (Three keys voting:  
satisfied/basicly satisfied/unsatisfied)  
(Two keys voting: satisfied/unsatisfied)

- ✧ Qualified (three/two keys voting)
  - ✧ Competent (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 Digital 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, 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

**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-F-type connector for microphone input or audio line in
  - ◆ Two symmetrical RCA input interfaces for audio line in
  - ◆ One balanced XLR-M-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

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**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
DCS system supply.....	33 V DC, max 60 W per DCS socket
Total supply power.....	120 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)

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**Ordering Information**

HCS-4100MC/52.....	Fully Digital Congress System Main Unit (discussion, voting)
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System Connection

