

## HCS-5300MA/ 80 Digital Infrared Wireless Conference Main Unit



### Features

- Original dirATC-digital infrared Audio Transmitting and Control technologies
- Supports up to 8 simultaneous interpretation language channels (incl. the original floor channel)
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Supports Dante, an uncompressed, multi-channel digital media networking technology, with near-zero latency and synchronization
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Compatible with HCS-5100Plus series digital infrared language distribution system, when cooperating with digital infrared language distribution system, enabling a larger audience to join in the conference
- Can be connected to HCS-4100/50 series Wired Congress Unit and Interpreter Unit, to implement 1+3 CHs wired simultaneous interpretation system and 1+7 CHs wireless simultaneous interpretation system
- Microphone sensitivity and EQ individually adjustable
- TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Excellent immunity to RF interference from mobile phones and comparable devices

The digital infrared wireless conference main unit includes features for controlling delegate microphones, distributing simultaneous interpretation and conducting voting sessions, without an operator. With web page control function, the user can access the IP address of main unit from web browser to handle meeting management.

### Functions

- Compliant with IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Digital infrared audio processing and transmitting technologies ensure perfect sound quality
- Digital infrared transmission technology guarantees conference privacy. Users are released from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- Operating the IR conference system does not require a radio frequency license all over the world
- Supports up to 8 simultaneous interpretation language channels (incl. the original floor channel)
- Controls up to 1000 contribution units
- Microphone sensitivity and EQ individually adjustable
- Built-in adjustable audio compression feature
- Compatible with HCS-5100Plus series digital infrared language distribution system, when cooperating with digital infrared radiator, enabling a larger audience to join in the conference
- Implemented features in stand-alone mode:
  - ◆ Set the number (1/2/3/4) of delegates permitted to speak at the same time
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone is turned on and the first active microphone is turned off
  - ◆ "VOICE" mode, Mic. sensitivity and close time adjustable, built-in "Flash-on" technology for quick voice control
  - ◆ Simultaneous interpretation
- In combination with the corresponding software modules, multiform voting can be implemented:
  - ◆ Parliamentary: YES/NO/ABSTAIN
  - ◆ Questionnaire: 1/2/3/4/5
  - ◆ Audience response: --/-/0/+/>++
- Automatic video tracking, when cooperating with camera and video switcher unit
- Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control
- Connection to central control system through RS232 interface for centralized control

### 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 1 electric level adjust knob
- Conference unit floor audio channel master volume adjust knob

**Interconnections**

- Multiple audio in/out interfaces:
  - ◆ Balanced LINE OUT 1 interface (XLR-M) and unbalanced LINE OUT 2 interfaces (RCA×2) for floor audio line out
  - ◆ 8 interpretation audio output interfaces (0~7)
  - ◆ Balanced LINE IN 1 interface (XLR-F) and unbalanced LINE IN 2 interfaces (RCA×2) for connection to external audio devices
  - ◆ Ø 3.5 mm jack for stereo monitor earphone
- Dante interfaces to connect to peripheral digital devices without losing any sound quality
- 2 × USB interfaces at front panel to upgrade system and to save system parameters
- Ethernet interface
- 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 conference units
- 6 digital infrared transceiver interfaces, each interface can connect 4 transceivers if operating distributor HCS-5352, thus each HCS-5300MA/80 can connect up to 10 transceivers
- 1 interpreter unit / DCS interface: for connection to HCS-4100/50 series Wired Congress Unit or Interpreter Unit. By using HCS-8300MES, up to 200 congress units can be connected
- Power supply socket
- HF signal output interface (BNC socket) for connection to HCS-5100T/B Digital Infrared Radiator
- RS232 interface for connection to central control system

**Audio outputs**

LINE OUT 1 .....+20 dBu, BAL.  
 LINE OUT 2 .....+20 dBu, UNBAL.  
 SI. OUTPUT (CH 0 ~ 7) RCA×8 .....+10 dBu, UNBAL.

**Interface data**

Transceivers I/O terminal .....6P-DIN socket × 6  
 up to 10 transceivers  
 External control terminal .....RS232 D-sub (9P, male), USB  
 interface, RJ45 (ETHERNET,  
 Dante)  
 Interpreter unit / DCS terminal .....6P-DIN socket × 1  
 HF OUT (Radiator terminal) .....BNC connector × 1  
 Alarm terminal .....3.81 mm Phoenix connectors, 2-pole  
 Video switcher terminal .....3.81 mm Phoenix connectors, 4-pole

**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 .....10.5 kg  
 Color .....White (PANTONE 420 C)

**Ordering Information**

HCS-5300MA/80 .....Digital IR Wireless Conference System  
 Main Unit (discussion, voting, 1+7 CHs,  
 with interface for HCS-4100/50 series  
 Wired Congress Unit and Interpreter  
 Unit, Dante interface)

**Technical Specifications**

**Electrical**

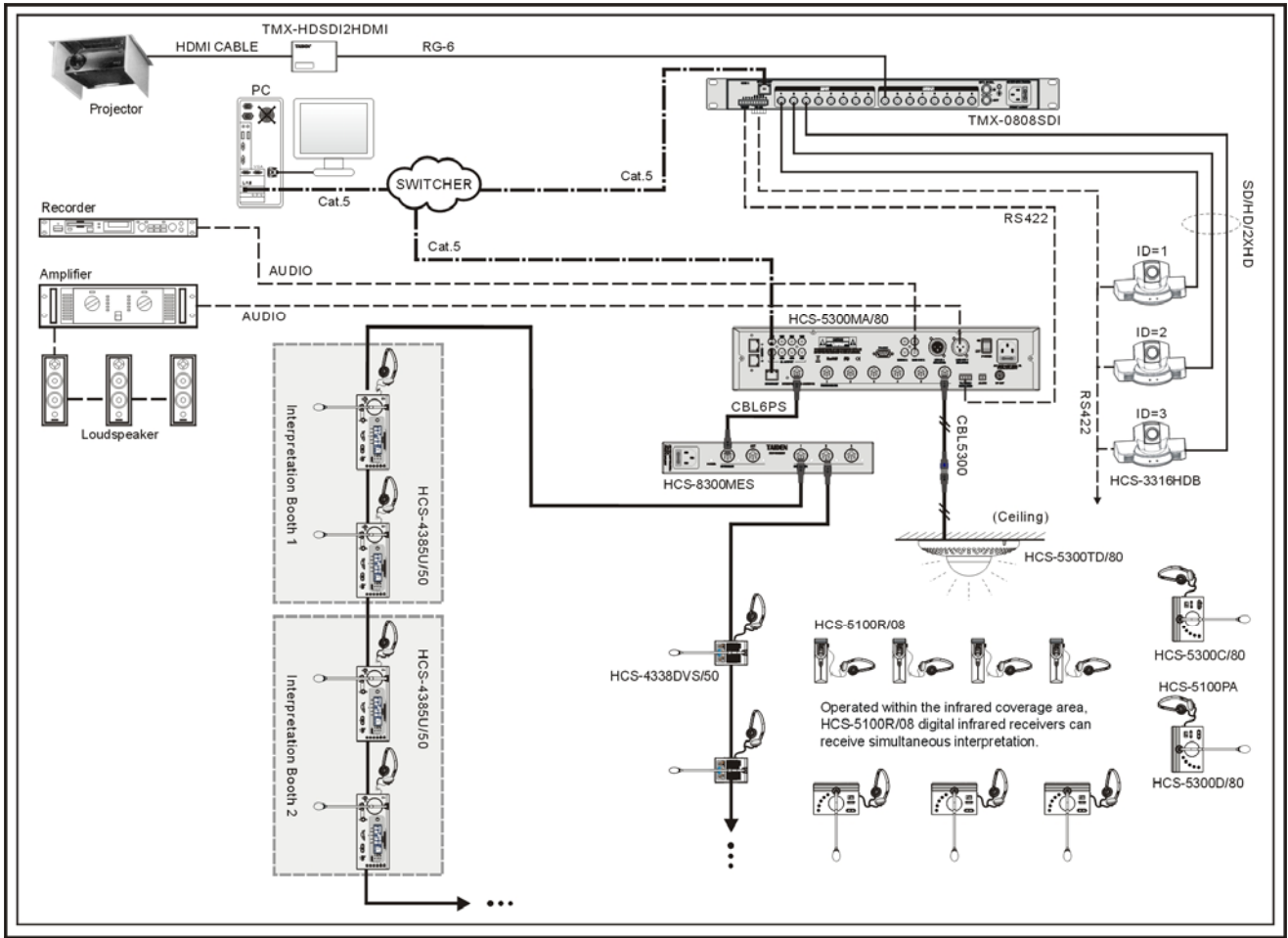
Frequency response .....20 Hz to 20 kHz (-3dB)  
 SNR .....>85 dBA  
 Dynamic range .....>90 dB  
 THD at 1 kHz .....<0.06%  
 Isolation .....>80 dB  
 Power supply .....AC 100 V-120 V 60 Hz or AC 220 V-240 V 50 Hz  
 Power consumption .....Max. 160 W

**Audio inputs**

LINE IN 1 .....+10 dBu, BAL.  
 LINE IN 2 .....+15 dBu, UNBAL.

**System Connection**

**[Wired/Wireless discussion + 1+7 CHs digital simultaneous interpretation + voting + video tracking]**



## HCS-5301D

### Wireless Discussion Unit with Dual Channel Selection



#### Features

- Table, stylish and ergonomic design
- Wireless unit, easy setup and removal
- Vertical acceptance/emission angle selectable
- Hi-Fi loudspeaker
- Pluggable microphone
- System controls up to 1000 contribution units
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Built-in dual channel selectors consist of up/down channel select keys and 2-digit channel indicator display
- The microphone on/off buttons provide dual delegate identification, used for individual delegate identification on the left and right respectively and easy for automatic video tracking
- Can be used as a dual delegate unit
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz to 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven lighting and mobile phones
- Microphone sensitivity and EQ can be adjusted individually
- Built-in rechargeable Lithium battery pack

The multi-functional wireless delegate unit can be used by two delegates. It provides facilities for speaking, listening and selecting language channels and has excellent immunity to RF interference from mobile phones. It features two separate headphone connections with individual volume control, two separate microphone on/off buttons and two separate channel selectors on both sides of the unit, allowing one unit to serve two delegates. The loudspeaker offers superior acoustics with minimal feedback, for enhanced intelligibility.

Separate rechargeable Lithium battery packs can be removed and replaced in a matter of seconds, providing maximum flexibility in recharge scheduling.

#### Functions

- Compliant to IEC 60914
- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- System controls up to 1000 contribution units
- Transmitting up to 4 CHs high quality digital audio signals
- Vertical emission angle selectable via LCD menu
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 20 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Digital infrared transmission technology guarantees privacy, no worries about eavesdropping and radio interference, no radiation, no radio frequency license needed
- Excellent immunity to RF interference from HF-driven light and mobile phones
- 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
- Two Ø 3.5 mm stereo headphone jacks for headphones with separate volume control
- With two separate microphone on/off buttons for individual microphone control and individual delegate identification
- Can be used as a dual delegate unit
- Built-in dual channel selectors
  - ◆ Channel selector is operable only when earphone is inserted, built-in speaker will mute automatically on earphone insertion
- Microphone sensitivity and EQ can be adjusted individually
- 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 (1/2/3/4)
  - ◆ "OPEN" mode, if Mic. active limit has been reached, next microphone cannot be turned on when pressing "Mic. On/Off" button
  - ◆ "OVERRIDE" mode, if Mic. active limit has been reached, when pressing "Mic. On/Off" button, next microphone can be turned on and the first active microphone will be turned off
  - ◆ Simultaneous interpretation

- Automatic video tracking, when cooperating with camera and video switcher unit
- Built-in rechargeable Lithium battery operation duration: 14.4 hours when microphone is continuously on; 48 hours when microphone is off

**Controls and Indicators**

- Two graphic 96×64 LCDs with back-lighting for channel number, language name, battery capacity, signal icon and emission angle icon
- Built-in two channel selectors consist of up/down channel select keys and 2-digit channel indicator display
- Uni-directional electret condenser microphone with two-color illuminated ring (blue/red)
- Charging indicator
- Fully charged indicator
- Power switch
- Two headphone volume control buttons
- Two microphone On/Off buttons with indicator

**Interconnections**

- Socket for pluggable microphone
- 2 × Ø 3.5 mm stereo headphone jack
- Power adapter interface

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**Technical Specifications**

**Electrical**

**Headphone connection**

Frequency response.....20 Hz to 20 kHz (-3dB)  
 Headphone load impedance.....≥16 Ohm × 2  
 Headphone output.....10 mW

**Microphone**

Transducer.....Electret-condenser  
 Polar pattern.....Uni-directional  
 Sensitivity.....-46 dBV/Pa  
 Frequency response.....50 Hz to 20 kHz  
 Directionality 0°/180°.....>20 dB (1 kHz)  
 Equivalent noise.....20 dBA (SPL)  
 Max.SPL.....125 dB (THD<3%)

**Interface data**

Connector.....2 x Ø 3.5 mm stereo jack for headphone

**Operation time of battery pack**

When mic. is continuously on  
 Not omnidirectional.....Approx. 14.4 hours  
 Omnidirectional.....Approx. 10 hours  
 When mic. is off.....Approx. 48 hours  
 15% mic. on + 85% mic. off.....Approx. 36 hours

**Mechanical**

Mounting.....Tabletop  
 Dimensions (h x w x d) (w/o Mic.).....68 x 180 x 132 mm  
 Weight  
 Excl. battery.....0.46 kg  
 Incl. battery.....0.78 kg  
 Color.....Silver/ Charcoal gray

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**Ordering Information**

HCS-5301D\_S.....Digital IR Wireless Delegate Unit  
 (1+3 CHs, 2 channel selectors,  
 dual ID, silver)  
 HCS-5301D\_G.....Digital IR Wireless Delegate Unit  
 (1+3 CHs, 2 channel selectors,  
 dual ID, charcoal gray)

# HCS-5300TD Digital Infrared Transceiver



Ceiling-mounting



Wall-mounting



Tripod-mounting

## Features

- Compliant to IEC 60914
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 2 ~ 8 MHz frequency band, eliminating the interference from HF-driven lights
- Tripod, wall or ceiling mounting, easy to install
- Inside the coverage area of infrared signals, also HCS-5100R/RA digital infrared receivers can be in operation simultaneously to receive (1+3 CHs) simultaneous interpretation

HCS-5300TD digital infrared transceiver manages communication between main unit and conference units. It can be mounted onto the ceiling and wall for optional coverage or fixed onto a tripod at any appropriate spot.

## Indicators

- Power indicating light

## Interconnections

- Equipped with a 2.0 m specific cable with 6P-DIN male plug. For extension purposes, 6P-DIN extension cable can be used.

## Technical Specifications

### Electrical

Wavelength.....870 nm  
 Modulation method.....DQPSK  
 Carrier frequency.....2 ~ 8 MHz  
 Voltage.....33 V DC (supplied from HCS-5300M)  
 Current consumption.....Max. 550 mA  
 Connector.....6P-DIN  
 Cable.....2.0 m specific cable with 6P-DIN male plug

### Mechanical

Mounting.....Ceiling, wall or tripod mounting  
 Dimensions.....Ø 181 mm, 63 mm (height)  
 Weight.....0.5 kg  
 Color.....Silver/ Charcoal gray / White

## Ordering Information

- HCS-5300TD\_S.....Digital Infrared Transceiver (ceiling, wall or tripod-mounted, excl. tripod when ordered, wide-angle, silver)
- HCS-5300TD\_G.....Digital Infrared Transceiver (ceiling, wall or tripod-mounted, excl. tripod when ordered, wide-angle, charcoal gray)
- HCS-5300TD\_W.....Digital Infrared Transceiver (ceiling, wall or tripod-mounted, excl. tripod when ordered, wide-angle, white)

Footprint of HCS-5300TD Digital Infrared Transceiver

