TAIDEN®

Digital Infrared Wireless Conference System

Security Guaranteed / Perfect Acoustics / Interference Free

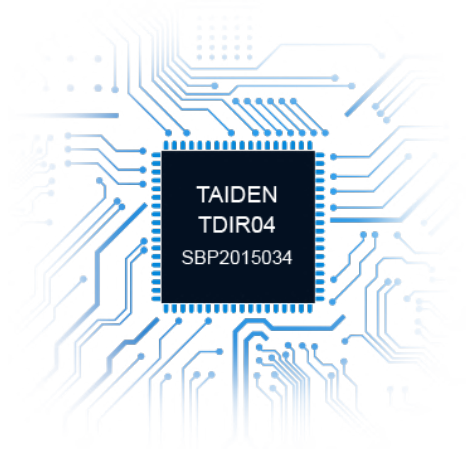# The First Digital Infrared Wireless Conference System In The World

Overview

- Compliant with ISO 22259, IEC61603-7
- Original dirATC -- digital infrared Audio Transmitting and Control technologies
- Wireless system, easy setup and removal
- Perfect CD-like sound quality from the microphone
- Microphone sensitivity and EQ individually adjustable
- Isolated audio recording function for simultaneous interpretation (1+7 CHs)
- Privacy guarantee by infrared transmission
- Unlimited quantity of infrared wireless conference systems within a building
- No worries about eavesdropping and radio interference, no radio radiation
- Adapts 1 to 8 MHz transmission frequency, undisturbed by HF-driven light sources
- Full functions (discussion, voting and 1+7 CHs interpretation)
- Excellent immunity to RF interference from mobile phone and RF devices

System Highlights

Infrared Transmission Technology

- Conference privacy is guaranteed as infrared signals do not pass through opaque walls or ceilings
- Wherever there is a partition between conference rooms, there is no interference
- Any quantity of infrared wireless conference systems can be installed within a building
- The infrared communication frees users from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications
- No radio radiation
- No radio frequency license needed for operating an infrared system all over the world
- Undisturbed by HF driven light sources and mobile phones
- Work without errors, even in bright sunlight

TAIDEN TDIR04
Digital Infrared Processing Chip

Security Guaranteed
Perfect Acoustics
Interference Free

Wireless Conference System

Quick setup and removal

Elegant and unobtrusive design

No impact on furniture, interior equipment or building structure

No cabling needed and therefore free from troubles resulting from cable breaks and cable deteriorations,

Digital Infrared Audio Technology

Digital infrared audio processing and transmitting technologies ensure superb sound quality:
Frequency response: 80 Hz ~ 20 kHz
S/N: ≥90 dBA
THD: ≤0.05%

Full Functions

Discussion

Vote (5 keys)

Simultaneous interpretation (1+7 CHs)

Isolated audio recording function for simultaneous interpretation (1+7 CHs)

Audio video tracking

Compatible with HSC-5100PI new generation digital infrared language distribution system

Powerful application software

Web conrtol function

System Performance

Compliant with ISO 22259

Compliant with IEC 61603-7

DQPSK Digital Modulation/Demodulation Technology

Transmission Characteristics

Wavelength .... 870 nm

Carrier frequency .... 1-8 MHz

Modulation method ....DQPSK

System Environmental Conditions

Transport temperature .... -40 ^{o}C ~ +70 ^{o}C

Operational temperature .... 0 ^{o}C ~ +45 ^{o}C

Max. relative humidity .... ≤95%(no condensation)

Safety ....Compliant with EN60065

EMC emission ....Compliant with EN55032

EMC immunity ....Compliant with EN55035

EMC approvals ....CE, FCC

Power harmonics ....Compliant with EN61000-3-2

Voltage fluctuations and flicker ....Compliant with EN61000-3-3

Frequency response measurement diagram of the TAIDEN HCS-5300
Series Digital Infrared Wireless Conference System compared with a
customary conventional analog infrared wireless conference system.
The system frequency response bandwidth of the TAIDEN digital infrared
wireless conference system is large and flat, thus ensuring a perfect
sound performance of the conference system.
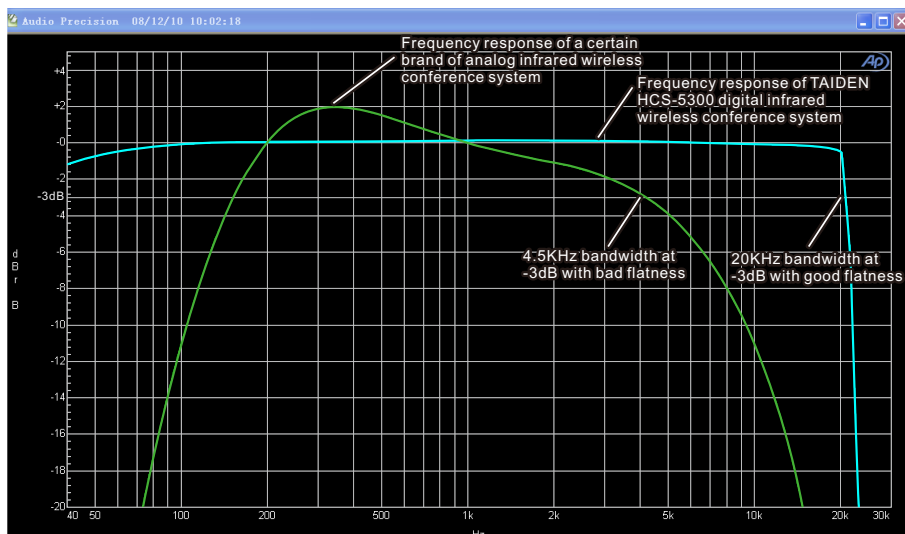
Radio frequency (RF) systems in use in adjacent rooms (including the upstairs and downstairs) will interfere with each other. The more active units operated, the worse the interferences. Since a room receives signals of adjacent rooms, a breach of confidentiality could be caused.

In an existing application within a large Administration Center, nine installed RF wireless conference system sets ofteninterfere with each other in operation. Therefore only alternating operation is possible - a great inconvenience for the user! Therefore wireless conference systems may interfere with WiFi devices, Bluetooth devices, wireless radio, cordless phones, wireless projectors, wireless mouses, wireless keyboards and wireless touch panels of central control systems. These interferences are both space-and-time varying and a cause for the instability of RF wireless conference systems.
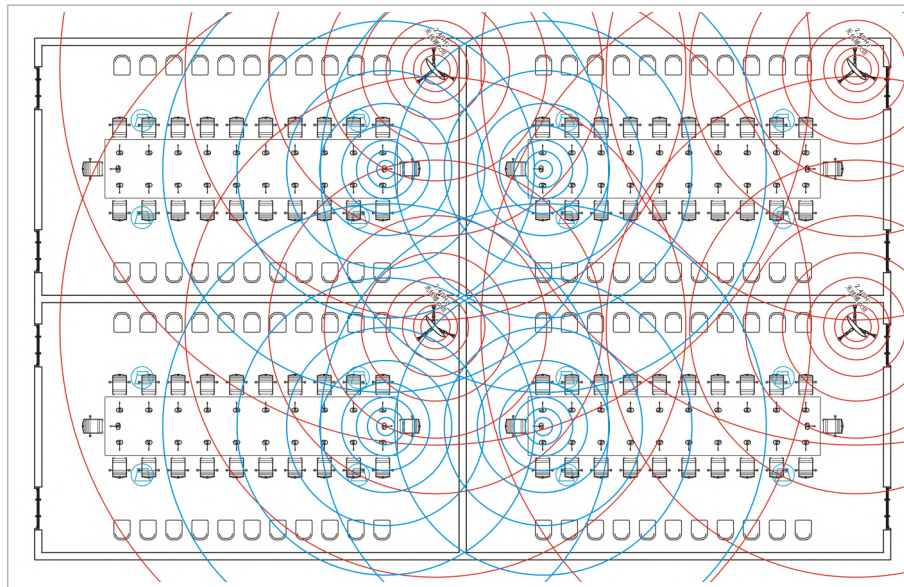
Digital infrared wireless conference systems can be operated in adjacent rooms (including the upstairs and downstairs). The users do not need to worry about mutual interference or about the breach of confidentiality.
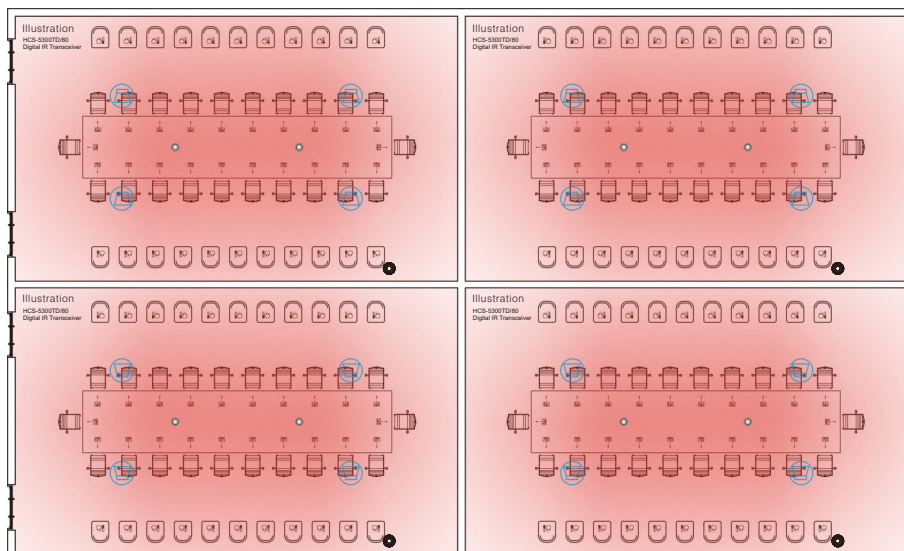
# Digital Infrared Wireless Conference Units

HCS-5381 Series

- Tabletop, stylish and ergonomically designed unit
- Based on TAIDEN original dirATC--digital infrared Audio Transmission and Control technologies
- Compliant with ISO 22259
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 80 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Controls up to 1000 contribution units
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- The chairman unit with a priority button to switch on/off or to mute the speacking units according to preset
- Built-in rechargeable Lithium battery operation duration:12 hours when microphone is continuously on; 40 hours when microphone is off
- Stem length: 330 mm (standard version), 410 mm, 470 mm

① Infrared transmitting/receiving glass,
at the frontage of the conference unit
for transmitting/ receiving infrared signals

② Headphone volume adjustment switch

③ Built-in loudspeaker which outputs floor audio;
the volume is adjusted by the main unit or
by PC application software. Mutes automatically
when its microphone is switched on

④ Mic. on/off button with indicating light around

HCS-5381D

Upgraded economical discussion solution
Best for small to medium sized rooms

HCS-5381RC

Function List

Type No.	Status	Discussion	Microphone	Color
HCS-5381C	Chairman	●	Pluggable Microphone	Charcoalgray
HCS-5381D	Delegate	●		
HCS-5381RC	Chairman	●	Rectangular columnar metal microphone	
HCS-5381RD	Delegate	●		

# Digital Infrared Wireless Conference Units

HCS-5300/80 Series

- Tabletop, stylish and ergonomically designed unit
- Based on TAIDEN original dirATC--digital infrared Audio Transmission and Control technologies
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Compliant with ISO 22259
- Broadcast standard microphone and digital infrared audio processing and transmitting technologies ensure 80 Hz ~ 20 kHz perfect sound quality, extremely low distortion factor
- Controls up to 1000 contribution units
- Every delegate unit is assigned an individual ID for convenient setup and to avoid double ID forever
- The chairman unit with a priority button to switch on/off or to mute the speacking units according to preset
- Cooperate with HCS-5300BAT rechargeable Lithium battery operation duration:14.4 hours when microphone is continuously on; 48 hours when microphone is off
- Stem length: 330 mm (standard version), 410 mm, 470 mm

① HCS-5301D Digital IR Wireless Conference Unit
Built-in channel selectors with independent volume adjstment. Two participants can share one conference unit to save costs.

② LCD for displaying channel number, language name, signal icon, battery capacity and IR emission strength

③ Channel selector

④ Microphone on/off and bi-color indicative ring, chairman unit isequipped with priority button

⑤ Built-in loudspeaker, mutes automatically when microphone is switched on

⑥ Sign-in/Vote

## Infrared service angle of digital infrared wireless conference unit

120°

125°
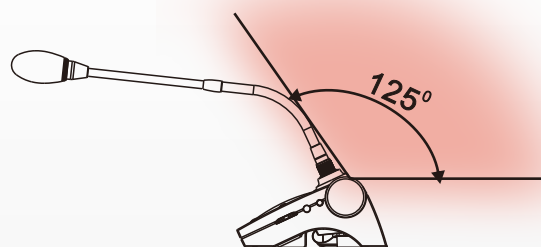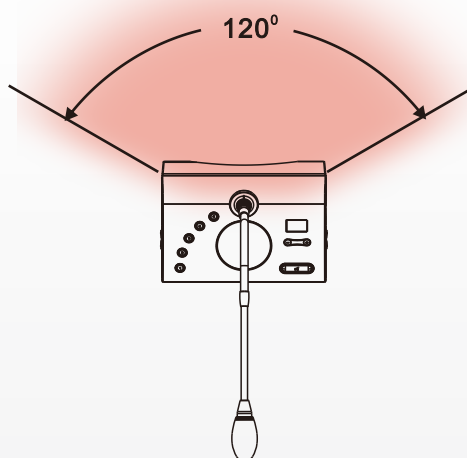
Function List

| Type No.	Status	Discussion	Voting	SI	LCD	Color	Main Unit
HCS-5300C/80	Chairman	●	5-Key	1+7 CHs	●	Charcoalgray/Silver	HCS-5300MA/80
HCS-5300D/80	Delegate	●	5-Key	1+7 CHs	●	Charcoalgray/Silver	HCS-5300MA/80
HCS-5301D/80	Delegate	●		(1+7 CHs)×2	●	Charcoalgray/Silver	HCS-5300MB/80
HCS-5302C/80	Chairman	●			●	Charcoalgray/Silver	HCS-5300MC/80
HCS-5302D/80	Delegate	●			●	Charcoalgray/Silver	HCS-5300MC/80

New Generation Digital Infrared Transceivers

HCS-5300T/80 Series

- Compliant with ISO 22259
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Transmitting in 1~8 MHz frequency band, eliminating the interference from HF-driven lights
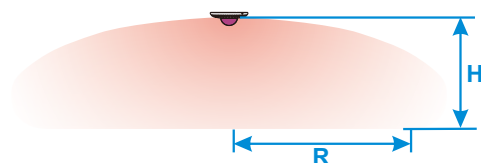
Cutaway view of coverage area of
HCS-5300TD/80 digital infrared transceiver
(If H=2.5 ~7.0 m, then R=9.0~13.0 m)
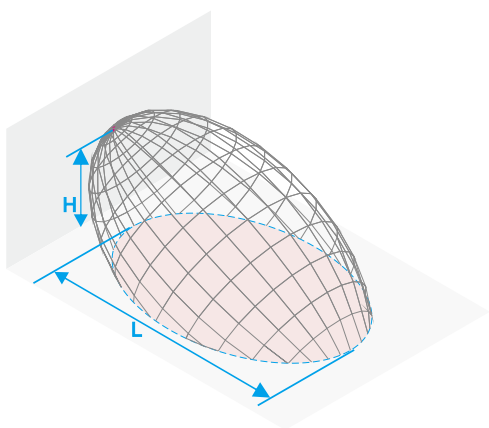
Cutaway view of coverage area of
HCS-5300TWN/80 digital infrared transceiver
(If H＜5 m, then L=15 m)
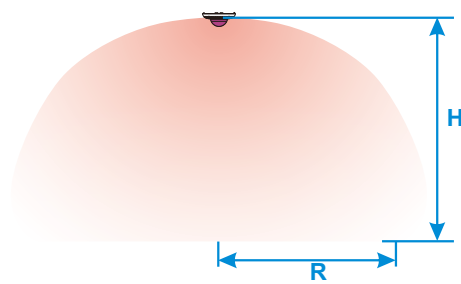
Cutaway view of coverage area of
HCS-5300TH/80 digital infrared transceiver
(If H=6.0 ~12.0 m, then R=9.0~11.0 m)

Coverage Area

Type No.	Mounting height (H)	Coverage area radius (R)
HCS-5300TD/80 HCS-5300TDS/80	2.5 ~ 3.0 m	13 m
	3.5 ~ 4.0 m	11 m
	5.0 ~ 7.0 m	9 m
HCS-5300TH/80	6 m	9 m
	9 m	11 m
	12 m	9 m

Type No.	Mounting height (H)	Coverage area Distance (L)
HCS-5300TWN/80	under 5 m	15 m

Note: The table above is the coverage area of a single transceiver; but the actual coverage area will be affected by the number of the transceivers and the length of the cable connected in system.

HCS-5300TWN/80
Digital Infrared
Transceivers

HCS-5300TD/80
Digital Infrared Transceiver
(ceiling, gray)

HCS-5300TH/80
Digital Infrared Transceiver
(ceiling, white)

HCS-5300TD/80
Digital Infrared Transceiver
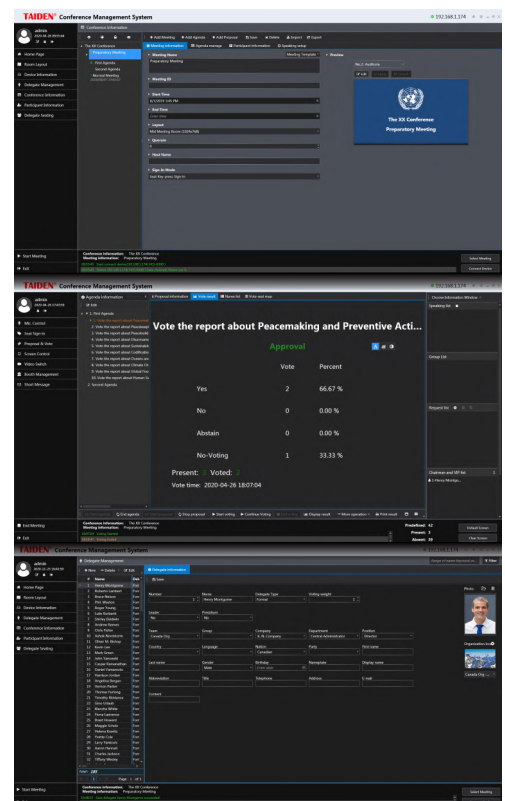(Tripod mounted, adjustable angle)

HCS-5300TD/80
Digital Infrared Transceiver
(wall-mounted, adjustable angle)
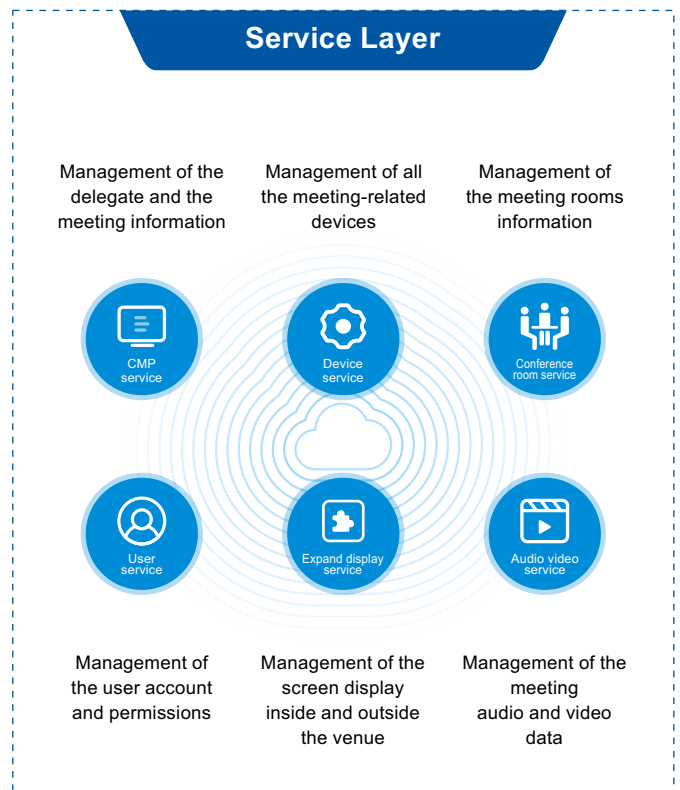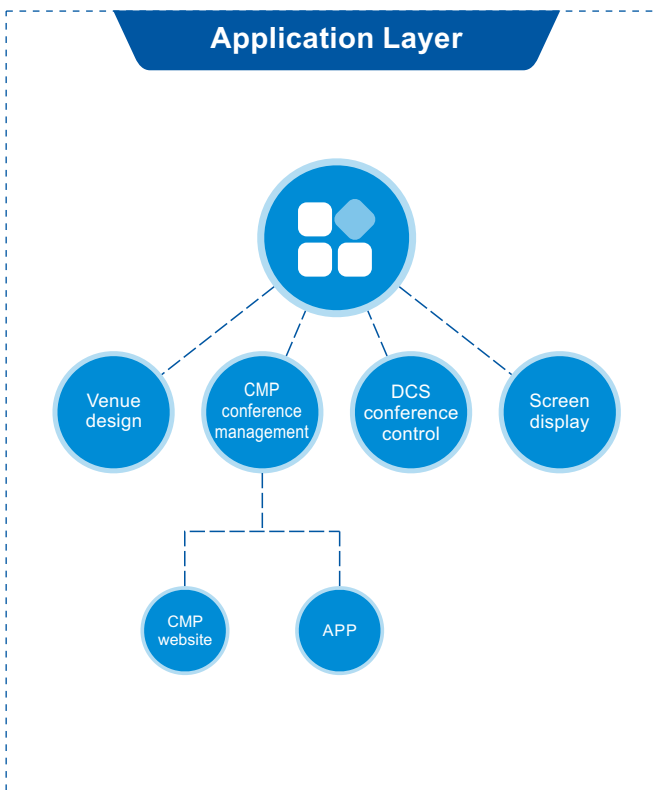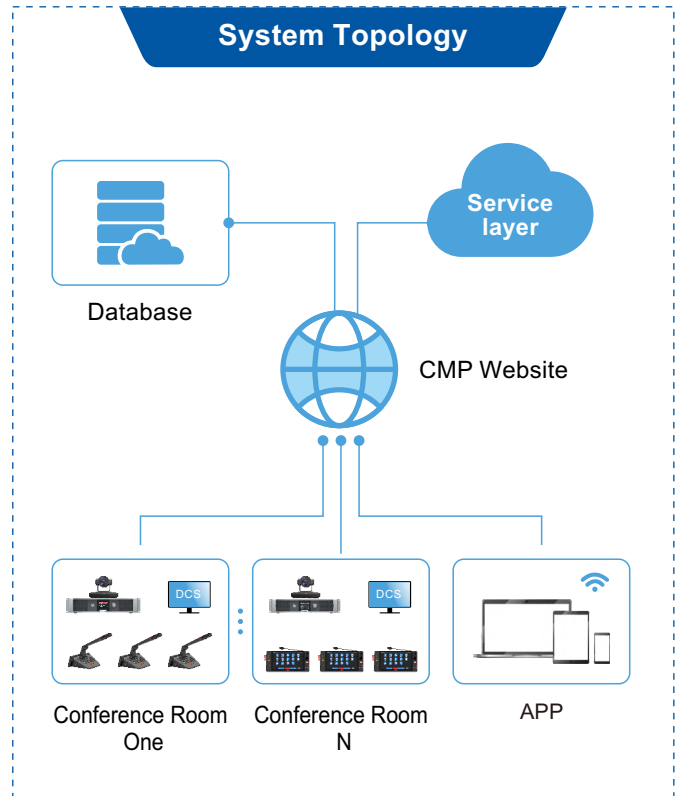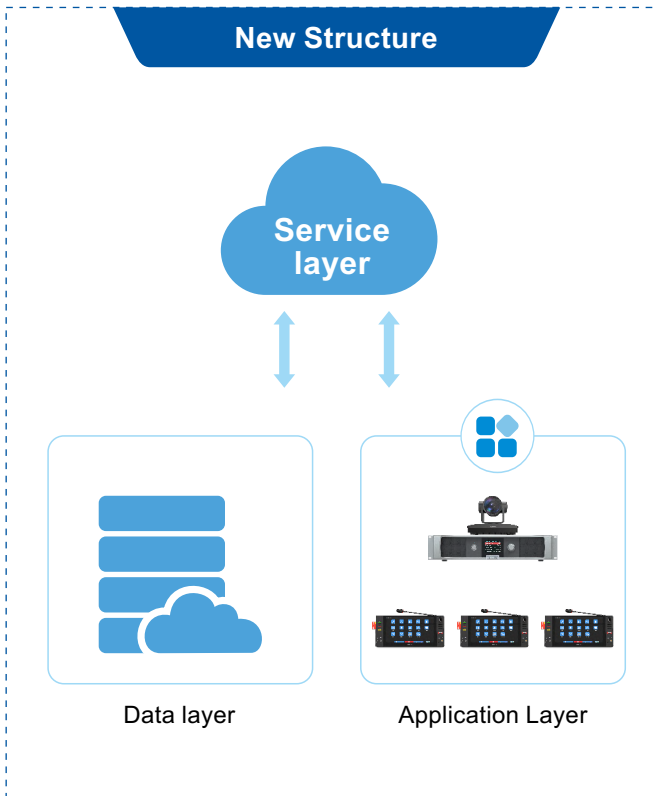

HCS-5300TZJ2
Transceiver Stand

New Generation
Conference Management Platform

Features

- Centralized management of conference rooms and allocation of the devices
- More reliable and secure with data saved on the server
- Simple and intuitive interface with higher interactivity
- Available and operable on various devices (PC, mobile, tablet, etc.)
- Customizable user permissions, more user-friendly
- Meeting notice can be send to inform attendees when connected to internal email system
- Procedures of agenda can be preset and automatically proceeded to realize intelligent control during the meeting
- Conference video and audio can be streamed to public network for live broadcasting
- Customization: it's convenient for user to further develop and expand its application function because of the open structure of the service-side interface

New Structure

Service layer

Data layer

Application Layer

System Topology

Database

Service layer

CMP Website

Conference Room One

Conference Room N

APP

DCS

DCS

Application Layer

Venue design

CMP conference management

DCS conference control

Screen display

CMP website

APP

Service Layer

Management of the delegate and the meeting information

Management of all the meeting-related devices

Management of the meeting rooms information

CMP service

Device service

Conference room service

User service

Expand display service

Audio video service

Management of the user account and permissions

Management of the screen display inside and outside the venue

Management of the meeting audio and video data

Digital IR Wireless Conference Main Unit
HCS-5300M/80A

- Based on TAIDEN originated dirATC-digital infrared Audio Transmitting and Control technologies
- Compliant with ISO 22259
- Infrared transmitting carrier frequency conforms to IEC 61603-7, DQPSK digital modulation/demodulation technology
- Microphone sensitivity and EQ can be adjusted individually
- With digital infrared transceiver interfaces can connect up to 10 transceivers
- Multiform input/output interfaces for connection to external audio devices
- Automatic video tracking, when cooperating with camera and video switcher unit
- When operated in stand-alone mode, the system features the functions of discussion and up to 1+7 S.I. languages distribution
- In combination with the corresponding software modules, multiform voting can be implemented

① 2.8" LCD, displays main unit status and configuration menu

② Operation knob

③ Compatible with HCS-5100 Plus Series Digital Infrared Language Distribution System, enabling a larger audience to join in the conference

④ Connection to central control system for centralized control

⑤ Connect to HCS-4385U for 1+7 S.I. languages and also can connect to HCS-4385U and wired conference units for 1+3 S.I. languages

⑥ Advanced TCP/IP communication protocol in PC controlled mode, easy to carry out remote control

⑦ With Dante interface for connecting the conference main unit to the Dante network to transmit audio signals

Function list

Type No.	Discussion	Voting	S.I.	Dante
HCS-5300MA/80A	●	●	●	●
HCS-5300MB/80A	●		●	
HCS-5300MC/80A	●			

Web Control

The user can access the IP address of main unit from browser to handle meeting management, e.g. CMU setting, conferenceunit management, video matrix control, S.I. setting, etc.

Digital IR Conference Room Switcher

HCS-5300MX

- Perfect solution for selectively combining or separating meeting rooms
- 4 inputs × 4 group output Digital IR Matrix Switcher, 5 outputs per group
- Up to 20 transceivers can be connected
- Able to merge up to 4 meeting rooms
- RS-232 port for connection to network central control system and system diagnosis
- LCD to display real-time operation
- Front panel button control, easy to switch manually
- 2U high, full rack width

Splitting/Combining several meeting rooms with the HCS-5300MX
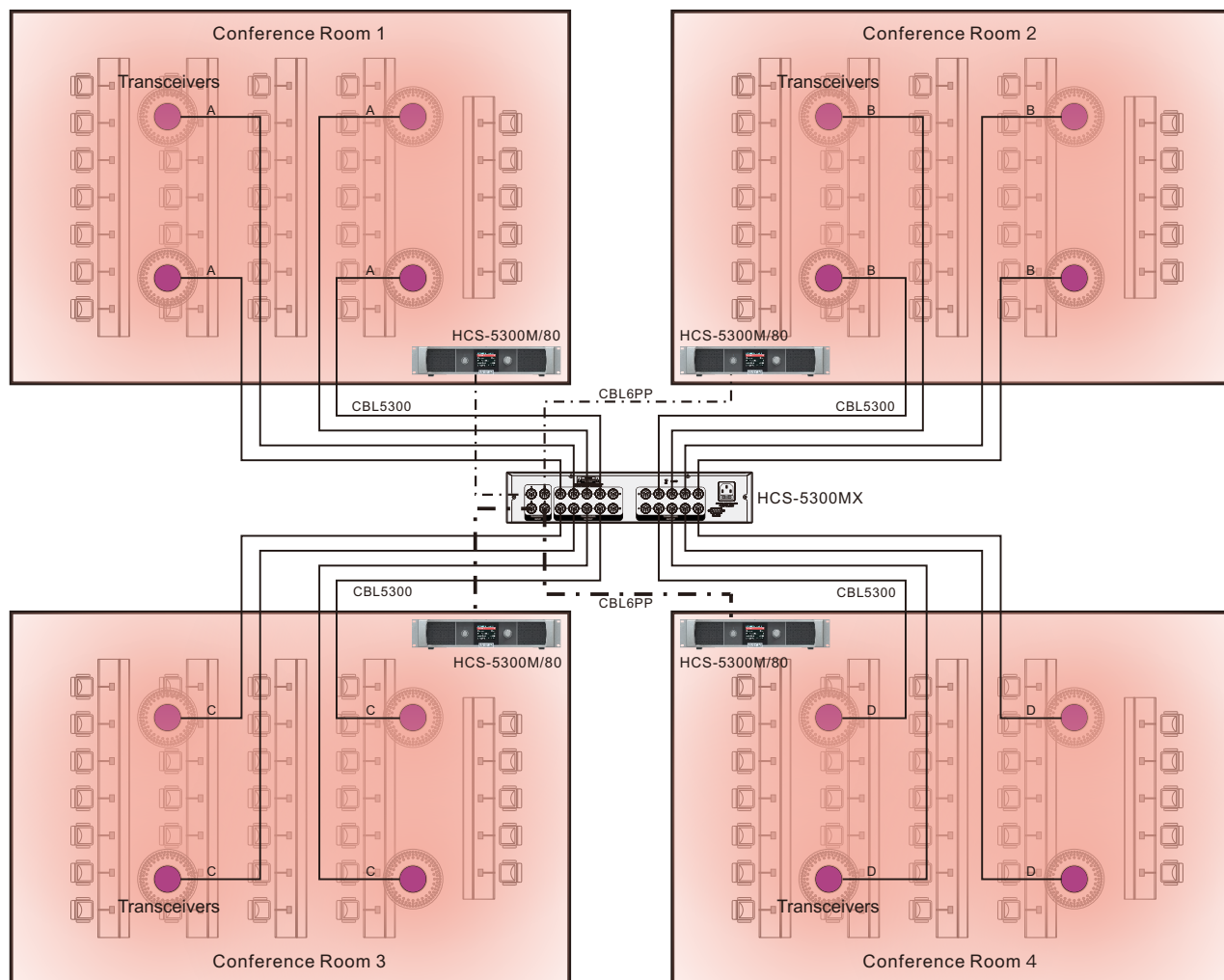
Note:
- All cable lengths A must be equal; all cable lengths B must be equal; all cable lengths C must be equal; all cable lengths D must be equal.
- All cable lengths A, B, C and D must be equal when the four conference rooms are combined as one venue.

REGIONE LOMBARDIA, Italy

World Bank Headquarter

Accessories

HCS-5100PA
Headphone (stereo)

- Used with the receiver or a congress unit
- Hi-Fi sound quality
- 32Ω×2, Ø 3.5 mm stereo plug (TRS)
- Frequency response: 20 Hz to 20 kHz
- Sensitivity: ≥108 dBA/1 mW
- Weight: 70 g

EP-820AS
Single Earphone

- Used with the receiver or a congress unit
- Hi-Fi sound quality
- Ø 3.5 mm stereo plug (TRS)
- 32Ω (Tip and Sleeve, Ring: NC)
- Frequency response: 50 Hz to 20 kHz
- Sensitivity: ≥102 dBA/1 mW
- Weight: 20 g

EP-830
Single Earphone

- Used with the receiver or a congress unit
- Hi-Fi sound quality
- Assembled with detachable shell, cable and earphone
- The shell can be removed and cleaned separately
- Ø3.5 mm stereo plug (TRS)
- 32 Ohm (Tip and Sleeve, Ring: NC)
- Frequency response: 20 Hz to 20 kHz
- Sensitivity: ≥108 dBA/1 mW
- Weight: ≤25 g

Ear pads are detachable and washable

EP-960BH
Interpreter Headphone

- Used with the interpreter unit
- Hi-Fi sound quality
- 150 Ω×2, Ø 3.5 mm stereo plug
- Frequency response: 20 Hz to 20 kHz
- Sensitivity: ≥108 dBA/1 mW
- Weight: 90 g

HCS-5352
1×4 Cable Splitter

- Voltage: 33 V DC (supplied from HCS-5300M/80)
- Has one in and four out structure
- Interface: 4×6P-DIN sockets +2 m cable with 6P-DIN plug
- Dimensions h×w×d (mm): 35×149×90
- Weight: 0.3 kg

MS33/41/47EGB1&EGF1
Stem Microphone

- Broadcast quality microphone
- With two-color illuminated ring (green/red)
- Built-in windshield (MSXXEGF1 Series)
- With lockable windshield (MSXXEGF1 Series)
- Frequency: 30~20000 Hz
- Sensitivity: -46 dBV/Pa
- length: 330/410/470 mm (MSXXEGB1 Series)
  330/410/470 mm (MSXXEGF1 Series)

TES-ADP5V
Power Adapter

Power supply: AC 100 V - 240 V, 50 Hz / 60 Hz

Output: 5 V DC, 2.0 A

Connector: UL, CE or VDE type, according to the sales area

Cable length: 1 m
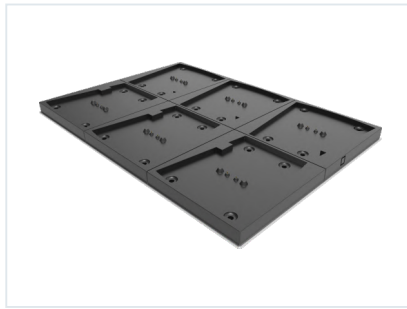
HCS-5300CHG/06A
Charging Unit

Power supply: DC9V,6Aadapter

Power consumption: Max. 50 W

Charging time: Approx 4 hours

Charges 6 pcs of 5381C/D units per charging

Dimensions (h×w×d): 21×448×316 mm

HCS-5300CHG/06
Charging Unit

Power supply: DC9V,6Aadapter

Power consumption: Max. 50 W

Charging time: Approx 4 hours

Charges 6 pcs of HCS-5381C/D, HCS−5381RC/RD units per charging

HCS-5300-05/10/20/30/40/50
Dedicated Extension Cable for Digital Infrared Transceive

Dedicated cable for HCS-5300/80 series Digital Infrared Transceiver

1 × 6P-DIN plug and 1 × 6P-DIN socket

Optional: 5 m, 10 m, 20 m, 30 m, 40 m, 50 m available

Ø 6 mm

HCS-854KS
Portable Multifunctional Storage Case

Used for storing and transporting TAIDEN series products

Dimensions h×w×d (mm):
outside: 338×663×496
inside: 299×575×406

Net weight: 10.5kg

HCS-854S-5300
Foam Insert

Used to secure HCS-5300 series digital infrared wireless conference units

Stores up to 8 pcs HCS-5300 digital infrared wireless conference units

Dimensions (h×w×d): 100×700×530 mm

Net weight: 0.7kg

HCS-5300BAT
Lithium Battery Pack

Nominal voltage: 11.1 V DC

Nominal capacity: 4400 mAh

Used for HCS-5300 series conference unit
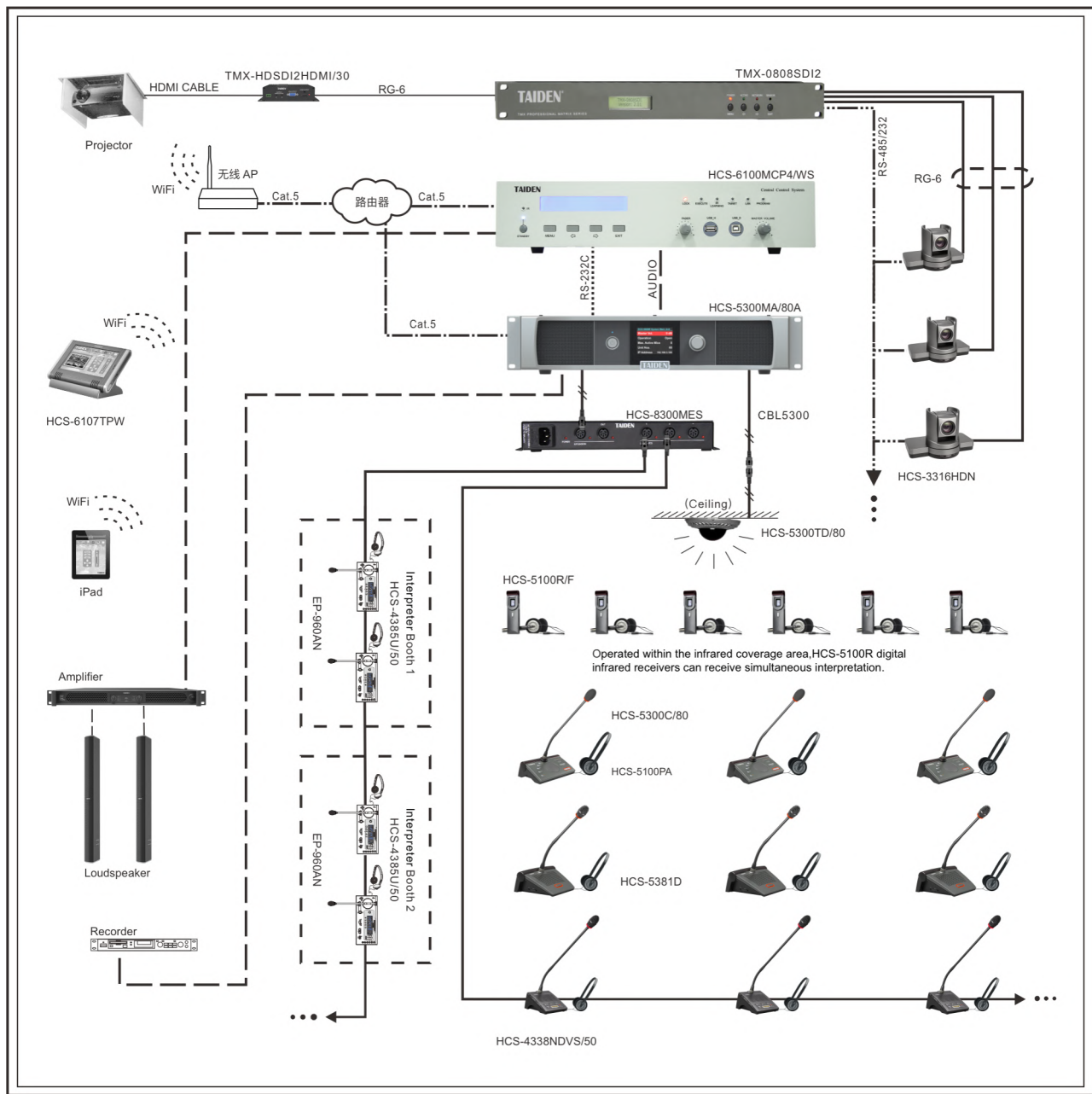
Dimensions h×w×d (mm): 28×140×58

Weight: 0.3 kg

HCS-5300CHG/08
Charging Unit

Mains voltage: AC 100-240 V 50 Hz/60 Hz

Power consumption: max. 380 W

Charging time: approx. 6 hours

Charging capacity: 8 HCS-5300BAT batteries

Dimensions h×w×d (mm): 74×300×288

Weight: 4.5 kg

HCS-ADP15V&HCS-ADP24V
Power Adapter

Mains voltage: AC 100-240 V 50 Hz/60 Hz

Output: DC 15 V, 2.4 A (HCS-ADP15V)
DC 24 V, 1.5 A (HCS-ADP24V)

Connector: UL, CE, VDE type according to the sales area

Weight: 0.3 kg

Distributed by: