TAIDEN

Digital Infrared Language Distribution System

HCS-5100Plus Series New Generation Digital Infrared Language Distribution System

HCS-5100Plus Series New Generation Digital Infrared Language Distribution System

Overview

In 2008, TAIDEN company has introduced successfully the digital infrared processing chip, and launched the world's first HCS-5300 Digital Infrared Conference System, and the HCS-5100 Digital Infrared Language Distribution System which conforms to the international standard for digital infrared. This system provides superb sound quality, that makes TAIDEN to be the world's leading conference system manufacturer.

Now, TAIDEN developed successfully the new generation digital infrared processing chip and launched HCS-5100Plus New Generation Digital Infrared Language Distribution System. This system supports at most 40 distributing channels which is the most advanced infrared language distribution system.
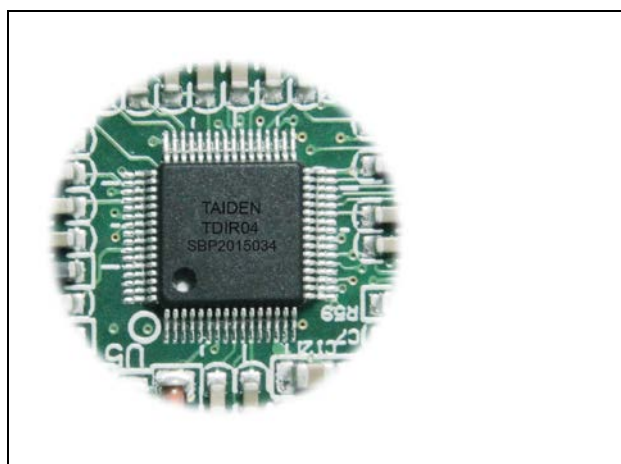
TAIDEN TDIR04 digital infrared processing chip

Fully Certificated, Comprehensive Compatibility

HCS-5100Plus series is compliant to IEC 61603-7, compatible with any other IR system compliant to IEC 61603-7.

IEC 61603: Transmission of audio and/or video and related signals using infrared radiation

IEC 61603-Part 7: Digital audio signals for conference and similar applications

Features

- Compatible with any other IR system compliant to IEC 61603-7
- Capable of distributing a maximum of 4, 8, 16, 32 or 40 audio channels
- Adopts 1 to 8 MHz frequency, undisturbed by HF-driven lighting
- Flexible configuration of channels and channel quality modes
- LCD receiver display shows channel number and complete language name
- Automatic synchronization: number of available channels is the same as number of channels in use by the system
- 270° super wide reception angle
- Works without errors, even in bright sunlight
- Bypass mode, used for signal distribution to multiple rooms
- Delay compensation for cable transmission
- Audio frequency response: 20 Hz ~ 20 kHz (perfect mode), weighted S/N ≥85 dBA
- Freedom of movement within the range of IR power radiator
- Conference privacy is guaranteed as infrared signals do not pass through opaque walls or ceilings
- The infrared communication frees users from worries about eavesdropping and radio interference inherent to radio wave-based wireless communications

System Environmental Conditions

Transport temperature	-40 ºC ~ +70 ºC
Operating temperature	0 ºC ~ +45 ºC
Max. relative humidity	≤95% (not condensing)
Safety	Compliant to EN 60065
EMC emission	Compliant to EN 55022
EMC immunity	Compliant to EN 55024
EMC approvals	CE, FCC
Power harmonics	Compliant to EN 61000-3-2
Voltage fluctuations and flicker	Compliant to EN 61000-3-3

HCS-5100MA/FS/08B
8 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MA/FS/08B accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can be connected to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/FS/08B is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **DQPSK digital modulation/demodulation technology**
- **Capable of distributing a maximum of 8 audio channels**
- **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Each audio channel can be assigned a language name for easy identification**
- **Flexible configuration of channels and channel quality modes:**
  - **Mono, standard quality, maximum 8 channels**
  - **Mono, perfect quality, maximum 4 channels**
  - **Stereo, standard quality, maximum 4 channels**
  - **Stereo, perfect quality, maximum 2 channel**
- **Adjustable sensitivity for each input to enable fine tuning of audio levels, support levels indicating of audio input**
- **Automatic synchronization to the number of channels in use by the system**
- **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- **During adjournment, music mode can be used to feed music to all channels**
- **Independent test facility: self-generates diverse frequencies for system debugging**
- **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- **With optical fiber interface, DCS interface and 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit directly**
- **With 8 (1+7) audio output channels for recording**
- **With web control function, transmitter can be controlled through web page**
- **Digital Infrared Radiator can be turned off remotely via RS-232 port**
- **With the function of synchronous shutdown of the radiator and the transmitter**
- **Universal mains power facility allows worldwide use**

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 8 audio signal output connectors (RCA sockets) for output DCS multi-channel audio
- 8 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit or HCS-8385N Interpreter Unit
- Duplex SC single-mode optical fiber interface and DCS interface (2 × RJ45 standard socket) for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit
- USB_H interface to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Power supply socket

Technical Specifications

System Specifications

Modulation .... DQPSK, according to IEC 61603-7
Modulation frequency .... 1 to 8 MHz
Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response ...... 20 Hz to 10 kHz (-3dB) at standard quality;
20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz .... ≤0.05%
Isolation .... ≥85 dB
Dynamic range .... ≥90 dB
Weighted SNR .... ≥85 dBA

Electrical

Unbalanced audio inputs .... -12 dBV to +12 dBV nominal
Balanced audio inputs .... -6 dBV to +18 dBV nominal
Emergency switch connector ...... 2-PIN 3.81 mm Phoenix connector,
alarm signal control input
Headphone output .... 32 Ohm to 2 kOhm
HF input/output .... 75 Ohm
Power supply .... AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption .... Maximum 25 W

Mechanical

Mounting ...... Brackets for 19″ rack mounting or fixing to a table top;
detachable feet for free-standing use on a table top
Dimensions h x w x d (mm) .... 88 × 480 × 418
Weight .... 7 kg
Color .... Black (PANTONE 419 C)

Ordering Information

HCS-5100MA/FS/08B .... 8 CHs Digital Infrared Transmitter
(compatible with HCS-4100M/ HCS-8300M/
HCS-4800M/ HCS-8600M or HCS-4385U/50
interpreter unit, HCS-8385N interpreter unit,
single-mode optical fiber interface)

HCS-5100MA/FS/16B
16 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MA/FS/16B accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can be connected to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/FS/16B is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied..

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **DQPSK digital modulation/demodulation technology**
- **Capable of distributing a maximum of 16 audio channels**
- **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Each audio channel can be assigned a language name for easy identification**
- **Flexible configuration of channels and channel quality modes:**
  - **Mono, standard quality, maximum 16 channels**
  - **Mono, perfect quality, maximum 8 channels**
  - **Stereo, standard quality, maximum 8 channels**
  - **Stereo, perfect quality, maximum 4 channel**
- **Adjustable sensitivity for each input to enable fine tuning of audio levels, support levels indicating of audio input**
- **Automatic synchronization to the number of channels in use by the system**
- **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- **During adjournment, music mode can be used to feed music to all channels**
- **Independent test facility: self-generates diverse frequencies for system debugging**
- **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- **With optical fiber interface, DCS interface and 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit directly**
- **With 16 (1+15) audio output channels for recording**
- **With web control function, transmitter can be controlled through web page**
- **Digital Infrared Radiator can be turned off remotely via RS-232 port**
- **With the function of synchronous shutdown of the radiator and the transmitter**
- **Universal mains power facility allows worldwide use**

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 16 audio signal output connectors (RCA sockets) for output DCS multi-channel audio
- 16 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit or HCS-4385U/50 Interpreter Unit
- Duplex SC single-mode optical fiber interface and DCS interface (2 × RJ45 standard socket) for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit
- USB_H interface to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality;
	20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs	-12 dBV to +12 dBV nominal
Balanced audio inputs	-6 dBV to +18 dBV nominal
Emergency switch connector	2-PIN 3.81 mm Phoenix connector, alarm signal control input
Headphone output	32 Ohm to 2 kOhm
HF input/output	75 Ohm
Power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption	Maximum 25 W

Mechanical

Mounting	Brackets for 19″ rack mounting or fixing to a table top; detachable feet for free-standing use on a table top
Dimensions h x w x d (mm)	88 × 480 × 418
Weight	7 kg
Color	Black (PANTONE 419 C)

Ordering Information

HCS-5100MA/FS/16B	16 CHs Digital Infrared Transmitter (compatible with HCS-4100M/ HCS-8300M/ HCS-4800M/ HCS-8600M or HCS-8385N interpreter unit, single-mode optical fiber interface)

HCS-5100MA/04B
4 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MA/04B accepts and modulates up to 4 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/04B is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **DQPSK digital modulation/demodulation technology**
- **Capable of distributing a maximum of 4 audio channels**
- **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Each audio channel can be assigned a language name for easy identification**
- **Flexible configuration of channels and channel quality modes:**
  - **Mono, standard quality, maximum 4 channels**
  - **Mono, perfect quality, maximum 2 channels**
  - **Stereo, standard quality, maximum 2 channels**
  - **Stereo, perfect quality, maximum 1 channel**
- **Adjustable sensitivity for each input to enable fine tuning of audio levels, support levels indicating of audio input**
- **Automatic synchronization to the number of channels in use by the system**
- **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- **During adjournment, play music mode can be used to feed music to all channels**
- **Independent test facility: self-generates diverse frequencies for system debugging**
- **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- **With DCS interface and 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit directly**
- **With 4 (1+3) audio output channels for recording**
- **With web control function, transmitter can be controlled through web page**
- **Digital Infrared Radiator can be turned off remotely via RS-232 port**
- **With the function of synchronous shutdown of the radiator and the transmitter**
- **Universal mains power facility allows worldwide use**

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 4 audio signal output connectors (RCA sockets) for output DCS multi-channel audio
- 4 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit or HCS-8385N Interpreter Unit
- DCS interface (2×RJ45 standard socket) for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit
- USB_H interface to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality;
	20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs	-12 dBV to +12 dBV nominal
Balanced audio inputs	-6 dBV to +18 dBV nominal
Emergency switch connector	2-PIN 3.81 mm Phoenix connector,
	alarm signal control input
Headphone output	32 Ohm to 2 kOhm
HF input/output	75 Ohm
Power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption	Maximum 25 W

Mechanical

Mounting	Brackets for 19″ rack mounting or fixing to a table top;
	detachable feet for free-standing use on a table top
Dimensions h x w x d (mm)	88 × 480 × 418
Weight	6.8 kg
Color	Black (PANTONE 419 C)

Ordering Information

HCS-5100MA/04B	4 CHs Digital Infrared Transmitter (compatible with HCS-4100M/ HCS-8300M/ HCS-4800M/ HCS-8600M or HCS-8385N interpreter unit)

HCS-5100MA/08B
8 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MA/08B accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/08B is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- Compliant with ISO 22259
- Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7
- DQPSK digital modulation/demodulation technology
- Capable of distributing a maximum of 8 audio channels
- Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls
- Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues
- Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Each audio channel can be assigned a language name for easy identification
- Flexible configuration of channels and channel quality modes:
  - Mono, standard quality, maximum 8 channels
  - Mono, perfect quality, maximum 4 channels
  - Stereo, standard quality, maximum 4 channels
  - Stereo, perfect quality, maximum 2 channel
- Adjustable sensitivity for each input to enable fine tuning of audio levels, support levels indicating of audio input
- Automatic synchronization to the number of channels in use by the system
- "Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used
- During adjournment, play music mode can be used to feed music to all channels
- Independent test facility: self-generates diverse frequencies for system debugging
- Built-in infrared emitters in transmitter for audio monitoring in operating room
- With DCS interface and 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit directly
- With 8 (1+7) audio output channels for recording
- With web control function, transmitter can be controlled through web page
- Digital Infrared Radiator can be turned off remotely via RS-232 port
- With the function of synchronous shutdown of the radiator and the transmitter
- Universal mains power facility allows worldwide use

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 8 audio signal output connectors (RCA sockets) for output DCS multi-channel audio
- 8 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- 6P-DIN connector for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit or HCS-8385N Interpreter Unit
- DCS interface (2×RJ45 standard socket) for connecting to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M Congress Main Unit
- USB_H interface to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality;
	20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs	-12 dBV to +12 dBV nominal
Balanced audio inputs	-6 dBV to +18 dBV nominal
Emergency switch connector	2-PIN 3.81 mm Phoenix connector, alarm signal control input
Headphone output	32 Ohm to 2 kOhm
HF input/output	75 Ohm
Power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption	Maximum 25 W

Mechanical

Mounting	Brackets for 19″ rack mounting or fixing to a table top; detachable feet for free-standing use on a table top
Dimensions h x w x d (mm)	88 × 480 × 418
Weight	6.8 kg
Color	Black (PANTONE 419 C)

Ordering Information

HCS-5100MA/08B	8 CHs Digital Infrared Transmitter (compatible with HCS-4100M/ HCS-8300M/ HCS-4800M/ HCS-8600M or HCS-8385N interpreter unit)

HCS-5100MC/08BD
8 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MC/08BD accepts and modulates up to 8 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit through HCS-8300MO 8 Channels Audio Output Device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/08BD is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- ■ **Compliant with ISO 22259**
- ■ **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- ■ **DQPSK digital modulation/demodulation technology**
- ■ **Capable of distributing a maximum of 8 audio channels**
- ■ **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- ■ **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- ■ **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- ■ **Each audio channel can be assigned a language name for easy identification**
- ■ **Flexible configuration of channels and channel quality modes:**
  - ◆ **Mono, standard quality, maximum 8 channels**
  - ◆ **Mono, perfect quality, maximum 4 channels**
  - ◆ **Stereo, standard quality, maximum 4 channels**
  - ◆ **Stereo, perfect quality, maximum 2 channel**
- ■ **Adjustable sensitivity for each input to enable fine tuning of audio levels**
- ■ **Automatic synchronization to the number of channels in use by the system**
- ■ **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- ■ **During adjournment, music mode can be used to feed music to all channels**
- ■ **Independent test facility: self-generates diverse frequencies for system debugging**
- ■ **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- ■ **With web control function, transmitter can be controlled through web page**
- ■ **Digital Infrared Radiator can be turned off remotely via RS-232 port**
- ■ **With the function of synchronous shutdown of the radiator and the transmitter**
- ■ **Universal mains power facility allows worldwide use**

Controls and Indicators

- ■ 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- ■ One operation knob` for configuration
- ■ Standby switch with indicator
- ■ Mini IR radiators

Interconnections

- ■ Ø 3.5 mm jack for stereo monitor earphone
- ■ 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- ■ 8 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- ■ 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- ■ 1 BNC connector for receiving HF signal from another transmitter
- ■ USB_H interfaces to upgrade system and to save system parameters.
- ■ Ethernet and RS232 ports for connection to computer
- ■ Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- ■ Dante interface for connecting to the Dante network to transmit input and output audio signal
- ■ Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5: 2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality; 20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs .... -12 dBV to +12 dBV nominal
Balanced audio inputs .... -6 dBV to +18 dBV nominal
Emergency switch connector ..... 2-PIN 3.81 mm Phoenix connector,
alarm signal control input
Headphone output .... 32 Ohm to 2 kOhm
HF input/output .... 75 Ohm
Power supply .... AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption .... Maximum 25 W

Mechanical

Mounting ..... Brackets for 19″ rack mounting or fixing to a table top;
detachable feet for free-standing use on a table top
Dimensions h x w x d (mm) .... 88 × 480 × 418
Weight .... 6.6 kg
Color .... Black (PANTONE 419 C)

Ordering Information

HCS-5100MC/08BD .... 8 CHs Digital Infrared Transmitter
(Dante interface)

HCS-5100MC/16BD
16 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MC/16BD accepts and modulates up to 16 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit through HCS-8300MO 8 Channels Audio Output Device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/16BD is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **DQPSK digital modulation/demodulation technology**
- **Capable of distributing a maximum of 16 audio channels**
- **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Each audio channel can be assigned a language name for easy identification**
- **Flexible configuration of channels and channel quality modes:**
  - **Mono, standard quality, maximum 16 channels**
  - **Mono, perfect quality, maximum 8 channels**
  - **Stereo, standard quality, maximum 8 channels**
  - **Stereo, perfect quality, maximum 4 channel**
- **Adjustable sensitivity for each input to enable fine tuning of audio levels**
- **Automatic synchronization to the number of channels in use by the system**
- **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- **During adjournment, music mode can be used to feed music to all channels**
- **Independent test facility: self-generates diverse frequencies for system debugging**
- **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- **With web control function, transmitter can be controlled through web page**
- **Digital Infrared Radiator can be turned off remotely via RS-232 port**
- **With the function of synchronous shutdown of the radiator and the transmitter**
- **Universal mains power facility allows worldwide use**

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 16 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- USB_H interfaces to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Dante interface for connecting to the Dante network to transmit input and output audio signal
- Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality; 20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs .... -12 dBV to +12 dBV nominal
Balanced audio inputs .... -6 dBV to +18 dBV nominal
Emergency switch connector .... 2-PIN 3.81 mm Phoenix connector,
alarm signal control input
Headphone output .... 32 Ohm to 2 kOhm
HF input/output .... 75 Ohm
Power supply .... AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption .... Maximum 25 W

Mechanical

Mounting ...... Brackets for 19″ rack mounting or fixing to a table top;
detachable feet for free-standing use on a table top
Dimensions h x w x d (mm) .... 88 × 480 × 418
Weight .... 6.6 kg
Color .... Black (PANTONE 419 C)

Ordering Information

HCS-5100MC/16BD .... 16 CHs Digital Infrared
Transmitter (Dante interface)

HCS-5100MC/40BD
40 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MC/40BD accepts and modulates up to 16 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit through HCS-8300MO 8 Channels Audio Output Device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/40BD is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **DQPSK digital modulation/demodulation technology**
- **Capable of distributing a maximum of 16 audio channels**
- **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Each audio channel can be assigned a language name for easy identification**
- **Flexible configuration of channels and channel quality modes:**
  - **Mono, standard quality, maximum 40 channels**
  - **Mono, perfect quality, maximum 20 channels**
  - **Stereo, standard quality, maximum 20 channels**
  - **Stereo, perfect quality, maximum 10 channel**
- **Adjustable sensitivity for each input to enable fine tuning of audio levels**
- **Automatic synchronization to the number of channels in use by the system**
- **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- **During adjournment, music mode can be used to feed music to all channels**
- **Independent test facility: self-generates diverse frequencies for system debugging**
- **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- **With web control function, transmitter can be controlled through web page**
- **Digital Infrared Radiator can be turned off remotely via RS-232 port**
- **With the function of synchronous shutdown of the radiator and the transmitter**
- **Universal mains power facility allows worldwide use**

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 40 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- USB_H interfaces to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Dante interface for connecting to the Dante network to transmit input and output audio signal
- Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5.2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality; 20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB

Weighted SNR ≥85 dBA

Electrical

Unbalanced audio inputs	-12 dBV to +12 dBV nominal
Balanced audio inputs	-6 dBV to +18 dBV nominal
Emergency switch connector	2-PIN 3.81 mm Phoenix connector, alarm signal control input
Headphone output	32 Ohm to 2 kOhm
HF input/output	75 Ohm
Power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption	Maximum 25 W

Mechanical

Mounting	Brackets for 19″ rack mounting or fixing to a table top; detachable feet for free-standing use on a table top
Dimensions h x w x d (mm)	88 × 480 × 418
Weight	6.6 kg
Color	Black (PANTONE 419 C)

Ordering Information

HCS-5100MC/40BD	40 CHs Digital Infrared Transmitter (Dante interface)

HCS-5100MC/40B
40 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MC/40B accepts and modulates up to 40 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit through HCS-8300MO 8 Channels Audio Output Device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/40B is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

■ **Compliant with ISO 22259**

■ **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**

■ **DQPSK digital modulation/demodulation technology**

■ **Capable of distributing a maximum of 40 audio channels**

■ **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**

■ **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**

■ **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**

■ **Each audio channel can be assigned a language name for easy identification**

■ **Flexible configuration of channels and channel quality modes:**
  ♦ **Mono, standard quality, maximum 40 channels**
  ♦ **Mono, perfect quality, maximum 20 channels**
  ♦ **Stereo, standard quality, maximum 20 channels**
  ♦ **Stereo, perfect quality, maximum 10 channel**

■ **Adjustable sensitivity for each input to enable fine tuning of audio levels**

■ **Automatic synchronization to the number of channels in use by the system**

■ **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**

■ **During adjournment, music mode can be used to feed music to all channels**

■ **Independent test facility: self-generates diverse frequencies for system debugging**

■ **Built-in infrared emitters in transmitter for audio monitoring in operating room**

■ **With web control function, transmitter can be controlled through web page**

■ **Digital Infrared Radiator can be turned off remotely via RS-232 port**

■ **With the function of synchronous shutdown of the radiator and the transmitter**

■ **Universal mains power facility allows worldwide use**

Controls and Indicators

■ 2.8" LCD displays status and menu of the system configuration, supporting multi language menu

■ One operation knob` for configuration

■ Standby switch with indicator

■ Mini IR radiators

Interconnections

■ Ø 3.5 mm jack for stereo monitor earphone

■ 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal

■ 40 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals

■ 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected

■ 1 BNC connector for receiving HF signal from another transmitter

■ USB_H interfaces to upgrade system and to save system parameters.

■ Ethernet and RS232 ports for connection to computer

■ Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically

■ Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality; 20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs .... -12 dBV to +12 dBV nominal
Balanced audio inputs .... -6 dBV to +18 dBV nominal
Emergency switch connector .... 2-PIN 3.81 mm Phoenix connector,
                                                        alarm signal control input
Headphone output .... 32 Ohm to 2 kOhm
HF input/output .... 75 Ohm
Power supply .... AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption .... Maximum 25 W

Mechanical

Mounting ...... Brackets for 19″ rack mounting or fixing to a table top;
                        detachable feet for free-standing use on a table top
Dimensions h x w x d (mm) .... 88 × 480 × 418
Weight .... 6.6 kg
Color .... Black (PANTONE 419 C)

Ordering Information

HCS-5100MC/40B .... 40 CHs Digital Infrared Transmitter
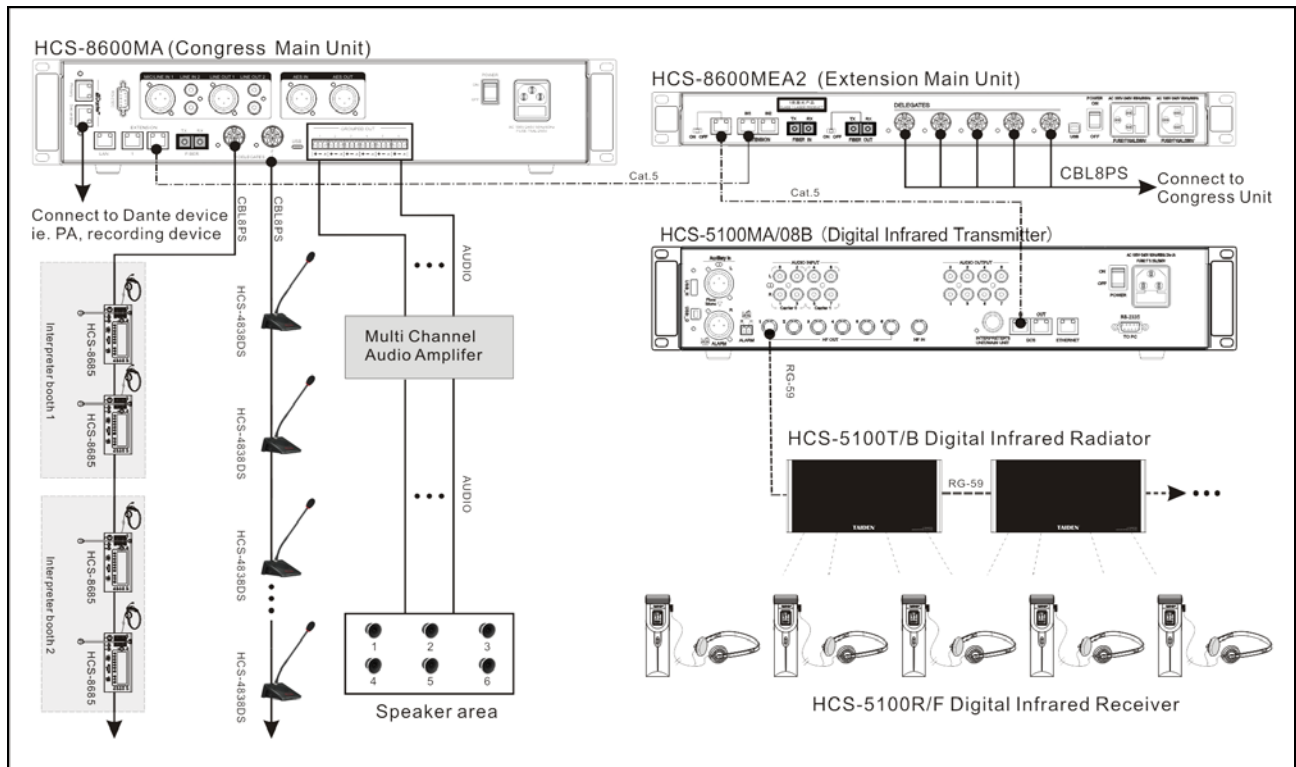
System Connection

Figure   HCS-5100MA/B transmitter connectiing with HCS-8600 series Congress Main unit
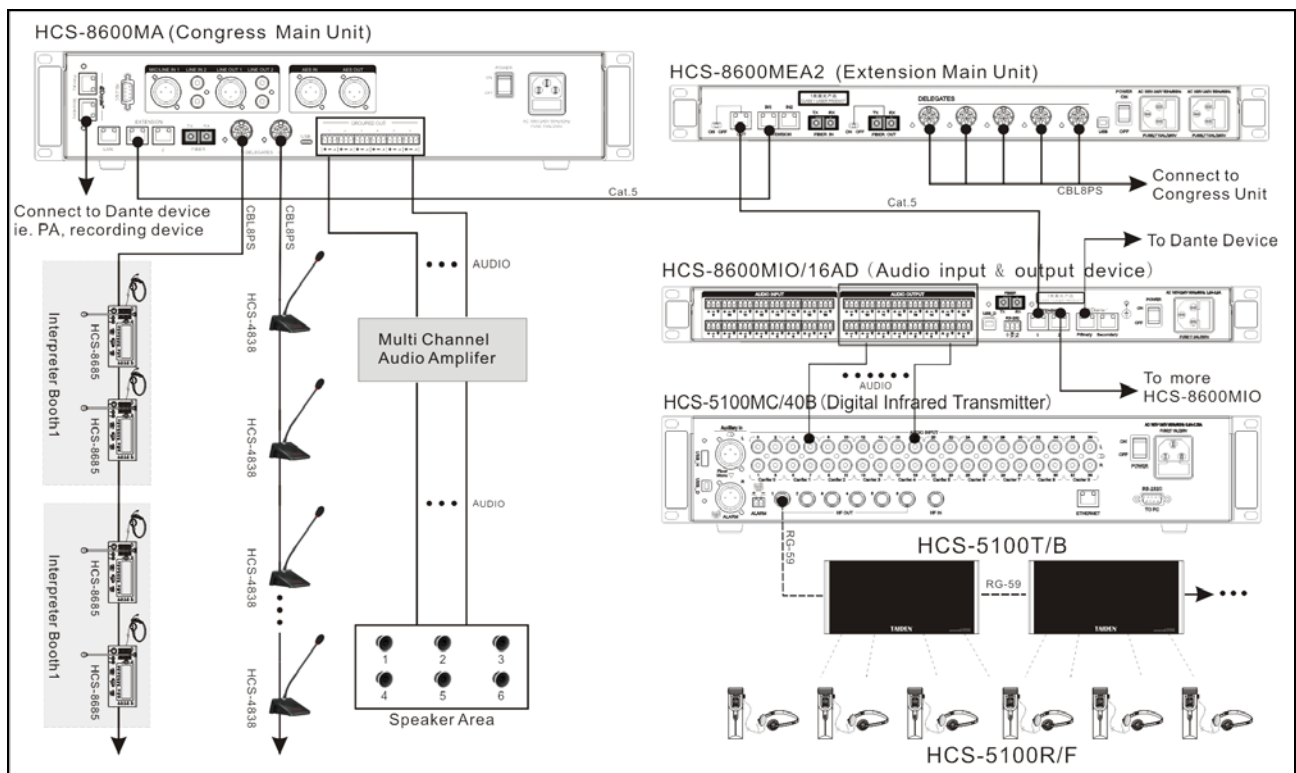

Figure   HCS-5100MC/B transmitter connecting to HCS-8600M congress main unit through HCS-8600MIO

HCS-5100MA/16F
16 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MA/16F accepts and modulates up to 16 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-4100M/50/ HCS-8300M/ HCS-4800M/ HCS-8600M congress main unit directly, or be used as a stand-alone system for distributing external audio signals. HCS-5100MA/16F is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

■ **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**

■ **DQPSK digital modulation/demodulation technology**

■ **Capable of distributing a maximum of 16 audio channels**

■ **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**

■ **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**

■ **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**

■ **Each audio channel can be assigned a language name for easy identification**

■ **Flexible configuration of channels and channel quality modes:**
   ♦ **Mono, standard quality, maximum 16 channels**
   ♦ **Mono, perfect quality, maximum 8 channels**
   ♦ **Stereo, standard quality, maximum 8 channels**
   ♦ **Stereo, perfect quality, maximum 4 channel**

■ **Adjustable sensitivity for each input to enable fine tuning of audio levels, support levels indicating of audio input**

■ **Automatic synchronization to the number of channels in use by the system**

■ **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**

■ **During adjournment, music mode can be used to feed music to all channels**

■ **Independent test facility: self-generates diverse frequencies for system debugging**

■ **Built-in infrared emitters in transmitter for audio monitoring in operating room**

■ **With DCS interface and 6P-DIN connector for connecting to HCS-8300M or HCS-4100M/50 Congress Main Unit directly**

■ **With 16 (1+15) audio output channels for recording**

■ **With web control function, transmitter can be controlled through web page**

■ **Universal mains power facility allows worldwide use**

Controls and Indicators

■ Graphic LCD with back-lighting displays status and menu of the system configuration, supporting multi language menu

■ Four buttons for configuration

■ Standby switch with indicator

■ Monitor channel select knob

■ Monitor volume control knob

■ Mini IR radiators

Interconnections

■ Ø 3.5 mm jack for stereo monitor earphone

■ 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal

■ 8 audio signal output connectors (RCA sockets) for output DCS multi-channel audio

■ 8 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals

■ 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected

■ 1 BNC connector for receiving HF signal from another transmitter

■ 6P-DIN connector for connecting to Interpreter Unit or HCS-8300M or HCS-4100M/50 Congress Main Unit

■ DCS interface (2×RJ45 standard socket) for connecting to HCS-8300M or HCS-4100M/50 Congress Main Unit

■ USB_H interface to upgrade system and to save system parameters.

■ Ethernet and RS232 ports for connection to computer

■ Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically

■ Power supply socket

HCS-4800M/ HCS-8600M or HCS-8385N interpreter unit)

Technical Specifications

System Specifications

Modulation ....DQPSK, according to IEC 61603-7
Modulation frequency   1 to 8 MHz
            Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response ......20 Hz to 10 kHz (-3dB) at standard quality;
                20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz ....≤0.05%
Isolation ....≥80 dB
Dynamic range ....≥90 dB
Weighted SNR ....≥85 dBA

Electrical

Unbalanced audio inputs ....-12 dBV to +12 dBV nominal
Balanced audio inputs ....-6 dBV to +18 dBV nominal
Emergency switch connector ....2-PIN 3.81 mm Phoenix connector,
                        alarm signal control input
Headphone output ....32 Ohm to 2 kOhm
HF input/output ....75 Ohm
Power supply ....AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption ....Maximum 25 W

Mechanical

Mounting ....Brackets for 19″ rack mounting or fixing to a table top;
            detachable feet for free-standing use on a table top
Dimensions h x w x d (mm)...........................99 × 430 × 325
Weight ....7.5 kg
Color ....White (PANTONE 420 C)

Ordering Information

HCS-5100MA/16F ....16 CHs Digital Infrared Transmitter
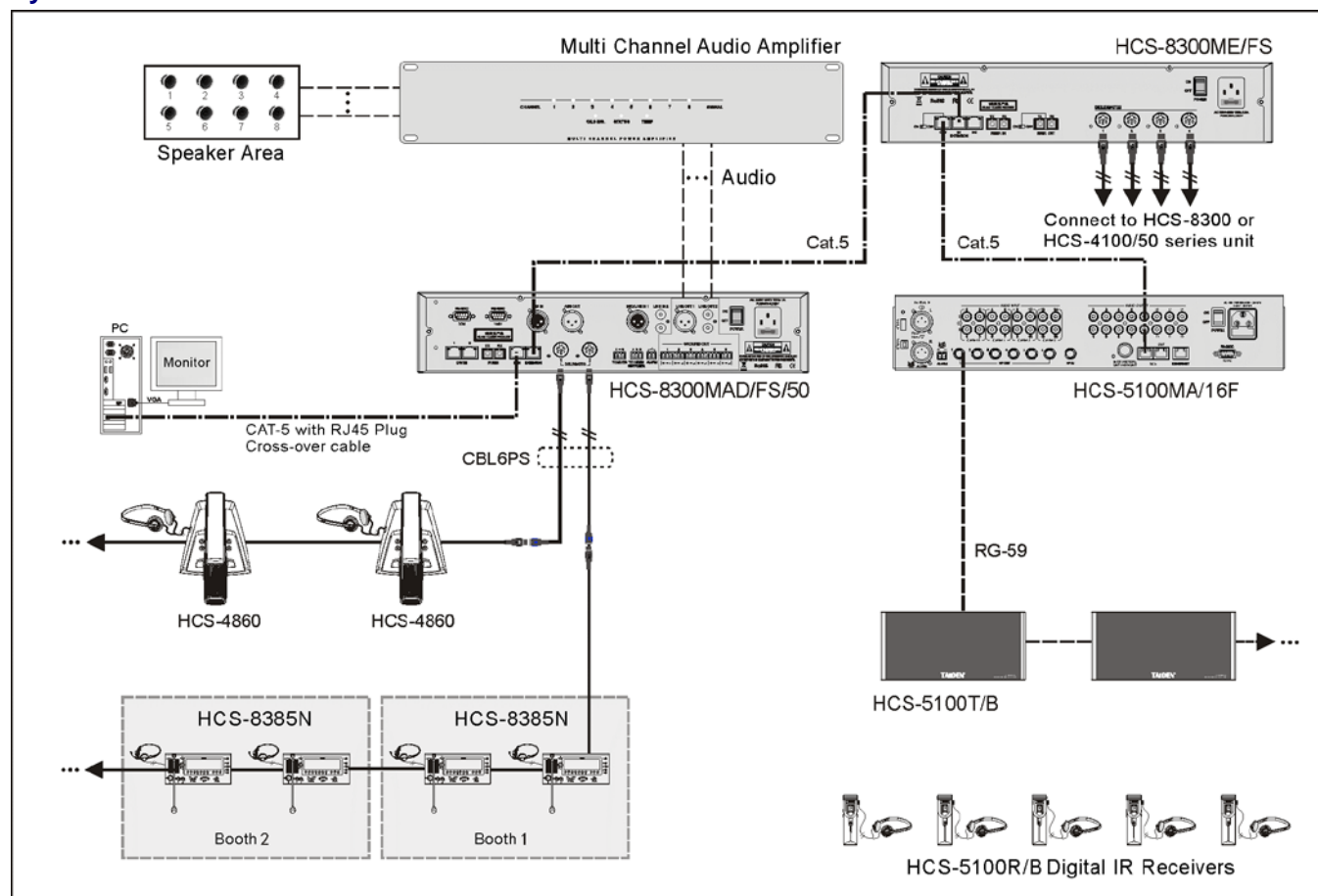   (compatible with HCS-4100M/ HCS-8300M/

System Connection

Figure   HCS-5100MA/16F transmitter connecting to HCS-8300M congress main unit

HCS-5100MC/16A
16 CHs Digital Infrared Transmitter

The transmitter is the heart of the HCS-5100Plus system. HCS-5100MC/16A accepts and modulates up to 16 unbalanced audio signals onto carrier waves which are transmitted to radiators located in the room. It can either be connected to HCS-8300M congress main unit through HCS-8300MO 8 Channels Audio Output Device, or be used as a stand-alone system for distributing external audio signals. HCS-5100MC/16A is suitable for either tabletop or 19-inch rack mounting using. Four feet (for tabletop) and two brackets (for rack mounting) are supplied.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **DQPSK digital modulation/demodulation technology**
- **Capable of distributing a maximum of 16 audio channels**
- **Conference hall privacy; the congress venue itself acts as a barrier to infrared signals escaping and being overheard, as infrared is unable to pass through opaque objects such as walls**
- **Suitable for various kinds (small/medium/large international) of conference halls and outdoor venues**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Each audio channel can be assigned a language name for easy identification**
- **Flexible configuration of channels and channel quality modes:**
  - **Mono, standard quality, maximum 16 channels**
  - **Mono, perfect quality, maximum 8 channels**
  - **Stereo, standard quality, maximum 8 channels**
  - **Stereo, perfect quality, maximum 4 channel**
- **Adjustable sensitivity for each input to enable fine tuning of audio levels**
- **Automatic synchronization to the number of channels in use by the system**
- **"Bypass" mode for distribution of signals from another transmitter allows multiple rooms to be used**
- **During adjournment, music mode can be used to feed music to all channels**
- **Independent test facility: self-generates diverse frequencies for system debugging**
- **Built-in infrared emitters in transmitter for audio monitoring in operating room**
- **With web control function, transmitter can be controlled through web page**
- **Universal mains power facility allows worldwide use**

Controls and Indicators

- 2.8" LCD displays status and menu of the system configuration, supporting multi language menu
- One operation knob` for configuration
- Standby switch with indicator
- Mini IR radiators

Interconnections

- Ø 3.5 mm jack for stereo monitor earphone
- 2 female XLR connectors for external audio inputs to connect auxiliary balanced audio signals such as music, floor language or emergency audio signal
- 16 audio signal input connectors (RCA sockets) to connect external unbalanced audio input signals
- 6 BNC connectors for output HF signal to radiator. To each connector, up to 30 radiators can be connected
- 1 BNC connector for receiving HF signal from another transmitter
- USB_H interfaces to upgrade system and to save system parameters.
- Ethernet and RS232 ports for connection to computer
- Emergency signal interface: when the public emergency system is active, alarm signal can be fed to all channels automatically
- Power supply socket

Technical Specifications

System Specifications

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3dB) at standard quality; 20 Hz to 20 kHz (-3dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

Unbalanced audio inputs	-12 dBV to +12 dBV nominal
Balanced audio inputs	-6 dBV to +18 dBV nominal
Emergency switch connector	2-PIN 3.81 mm Phoenix connector, alarm signal control input
Headphone output	32 Ohm to 2 kOhm
HF input/output	75 Ohm
Power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption	Maximum 25 W

Mechanical

Mounting	Brackets for 19″ rack mounting or fixing to a table top; detachable feet for free-standing use on a table top
Dimensions h x w x d (mm)	88 × 480 × 418
Weight	6.6 kg
Color	Black (PANTONE 419 C)

Ordering Information

HCS-5100MC/16A	16 CHs Digital Infrared Transmitter

System Connection
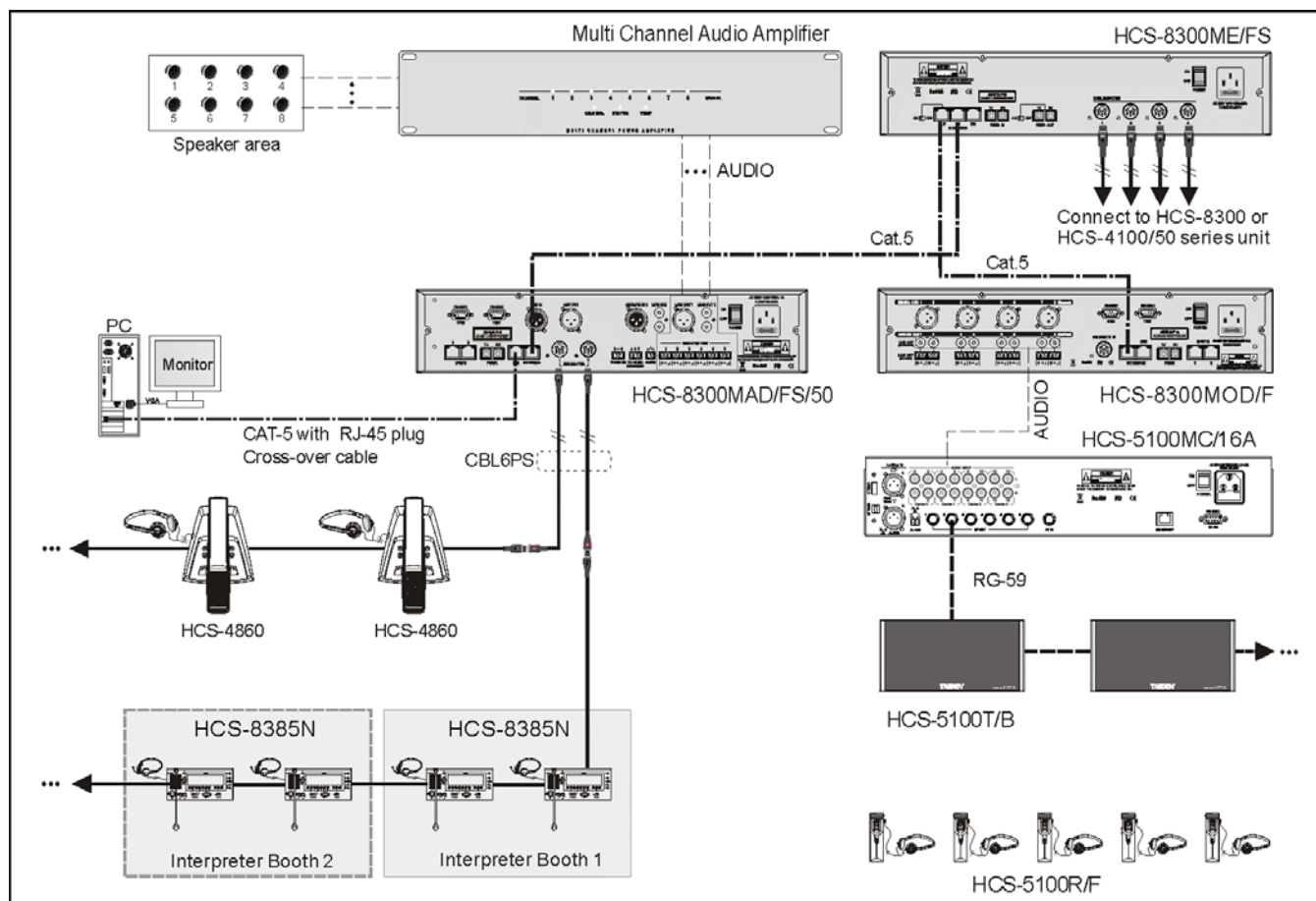

Figure 3.11　HCS-5100MC/16A transmitter connecting to HCS-8300M congress main unit through HCS-8300MO

HCS-5100T/25B
Digital Infrared Radiator

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **Standby indication, working indication, failure indication**
- **Installation: fixed up by bracket or tripod (various mounting methods supported), 13 radiation angles**
- **Half-transmitting angle : ±22°**
- **Emission power: 25 W**
- **Power consumption: 62 W**
- **Maximum radiation range: 50 meters**
- **Synchronization ON/OFF with transmitter**
- **Automatic gain control**
- **Temperature control: if temperature is too high, control switches to half-power with LED indication**
- **Manual half-power switch on the rear, convenient for small conferences**
- **Delay compensation for differences in cable lengths between transmitter and radiators**

The radiator receives carrier signals generated by the transmitter and emits infrared radiation, carrying up to 40 audio distribution channels. Radiators are connected to the HF (BNC) connectors of the IR transmitter. A maximum of 30 daisy chained radiators can be connected to each output.

Controls and Indicators

- Power indicator
- Temperature protection indicator
- Input signal indicator
- Fault indicator
- Output power switch
- Delay compensation indicator
- Delay compensation buttons (-/+)

Interconnections

- HF input and output connectors (2 x BNC) for connection to transmitter and loop-through to other radiators

Technical Specifications

Electrical and optical

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Angle of half intensity	$\pm 22^0$
HF input/output	75 Ohm
Power supply	AC 100 V - 240 V, 50 Hz / 60 Hz
Power consumption	62 W
Power consumption (standby)	3 W

Mechanical

Mounting	Suspension bracket for direct ceiling mounting; mounting plates for floor stands; wall mounting bracket HCS-5100TBZJ can be used for fixing radiator to wall surfaces
Dimensions h x w x d (mm)	212 × 448 × 110
Weight	3.1 kg
Front color	Dark Red (PANTONE 476 C)

Ordering Information

HCS-5100T/25B	25W Digital Infrared Radiator (delay compensation function, 75 Ω, switching mode power supply, without fan)

HCS-5100T/35B
Digital Infrared Radiator

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **Standby indication, working indication, failure indication**
- **Installation: fixed up by bracket or tripod (various mounting methods supported), 13 radiation angles**
- **Half-transmitting angle: ±22°**
- **Emission power: 35 W**
- **Power consumption: 120 W**
- **Maximum radiation range: 97 meters**
- **Synchronization ON/OFF with transmitter**
- **Automatic gain control**
- **Temperature control: if temperature is too high, control switches to half-power with LED indication**
- **Manual half-power switch on the rear, convenient for small conferences**
- **Delay compensation for differences in cable lengths between transmitter and radiators**

The radiator receives carrier signals generated by the transmitter and emits infrared radiation, carrying up to 40 audio distribution channels. Radiators are connected to the HF (BNC) connectors of the IR transmitter. A maximum of 30 daisy chained radiators can be connected to each output.

Controls and Indicators

- Power indicator
- Temperature protection indicator
- Input signal indicator
- Fault indicator
- Output power switch
- Delay compensation indicator
- Delay compensation buttons (-/+)

Interconnections

- HF input and output connectors (2 x BNC) for connection to transmitter and loop-through to other radiators

Technical Specifications

Electrical and optical

Modulation	DQPSK, according to IEC 61603-7
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Angle of half intensity	±22⁰
HF input/output	75 Ohm
Power supply	AC 100 V -240 V 50/60 Hz
Power consumption	120 W
Power consumption (standby)	3 W

Mechanical

Mounting	Suspension bracket for direct ceiling mounting or wall mounting; mounting plates for floor stands
Dimensions h x w x d (mm)	272 × 498 × 110
Weight	4.2 kg
Front color	Dark Red （PANTONE 476 C）

Ordering Information

HCS-5100T/35B	35W Digital Infrared Radiator (delay compensation function, 75 Ω, switching mode power supply, without fan)

HCS-5100TBZJ
Wall-Mounting Bracket

Features

■ **Wall mounting bracket, can be used for fixing radiator to wall surface**

Technical Specifications

Mechanical

Dimensions h x w x d (mm)	203× 200 × 285
Weight	1.6 kg
Color	Silver

Ordering Information

HCS-5100TBZJ	Wall-Mounting Bracket

HCS-5100R/F
Digital Infrared Receivers

HCS-5100R/F is a series of infrared receiver, which can receive up to 40 language channels. Both rechargeable Li-ion battery and disposable battery can be used. The receiver is equipped with channel selector, volume control, power switch, Ø 3.5 mm stereo earphone jack, and charging circuit on the PCB. A LCD displays channel number with language name, received signal intensity, battery capacity and volume.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **Independent intellectual property chipset for digital infrared processor, and DQPSK digital modulation/demodulation technology**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Channel selection via up/down button, at most 4, 8, 16, 32 or 40 channels available**
- **Back-lighting LCD display with channel number, language name, battery and signal status indication**
- **Number of available channels is always the same as the number of channels in use by the system, eliminating the need to scroll through unused channels**
- **Adjustable volume**
- **Unique 270º super wide reception angle, ensuring perfect sound quality even when casually placed**
- **Audio signal automatically muted when signal is too low, ensuring that the user receives only high quality audio**
- **Ergonomically compact and elegant design**
- **Lightweight and handy receiver in conjunction with headphone (HCS-5100PA) for easy and comfortable use**
- **Can be hung over the neck via a nice strap or fit into the shirt pocket**
- **Freedom of movement within the range of IR power radiator**
- **No limit to the receiver number within the IR power radiation range**
- **Works without errors, even in bright sunlight**
- **Built-in high precision rechargeable circuitry to prolong battery life**
- **Can be used with disposable batteries (2×AA alkaline batteries, not included) or environmentally-friendly Li-ion rechargeable battery pack (not included)**
- **No power consumption when headphone is disconnected**
- **Measurement mode for easy checking of radiator coverage**
- **Can work with HCS-5300/80 new generation digital infrared wireless conference system and achieve up to 1+7 channels infrared wireless simultaneous interpretation**

Controls and Indicators

- LCD displays channel number, language name, battery capacity, signal intensity and volume
- Power switch
- Channel selector buttons
- Volume control buttons

Interconnections

- Ø 3.5 mm stereo earphone jack
- Charging contacts

Technical Specifications

System Specifications

Modulation	DQPSK
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5: 2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3 dB) at standard quality; 20 Hz to 20 kHz (-3 dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

IR irradiance level	4 mW/m² per carrier
Angle of sensitivity	270º
Headphone output level at 3.0 V	450 mVrms (speech at maximum volume, 32 Ohm headphone)
Headphone output freq. range	20 Hz to 20 kHz
Headphone output impedance	32 Ohm to 2 kOhm
Max. SNR	≥85 dBA
Supply voltage	2.5 V to 4.2 V, nominal 3.0 V
Power consumption	
Normal (at 3.0 V)	38 mA (32 Ohm headphone)
Headphone jack unplugged	0 mA
Battery life	
2×AA alkaline cells	55 hours
Rechargeable battery pack	42 hours

Mechanical

Dimensions h x w x d (mm) 155 × 46 × 24

Weight

Excl. batteries 70 g

Incl. HCS-5100BAT-Li 115 g

Color Black (PANTONE 419 C)

White (PANTONE Cool Gray 1 C)

Ordering Information

HCS-5100R/04F 4 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 4 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, excl. battery, black)

HCS-5100R/08F 8 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 4 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, excl. battery, black)

HCS-5100R_W/08F 8 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 4 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, excl. battery, white)

HCS-5100R/16F 16 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 4 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, excl. battery, black)

HCS-5100R/40F 40 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 4 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, excl. battery, black)

HCS-5100RA/F
Digital Infrared Receivers

HCS-5100RA/F is a series of infrared receiver, which can receive up to 40 language channels, only for disposable battery. The receiver is equipped with channel selector, volume control, power switch, Ø 3.5 mm stereo earphone jack. A LCD displays channel number with language name, received signal intensity, battery capacity and volume.

Controls and Indicators

■ LCD displays channel number, language name, battery capacity, signal intensity and volume
■ Power switch
■ Channel selector buttons
■ Volume control buttons

Interconnections

■ Ø 3.5 mm stereo earphone jack

Features

■ **Compliant with ISO 22259**
■ **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
■ **Independent intellectual property chipset for digital infrared processor, and DQPSK digital modulation/demodulation technology**
■ **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
■ **Channel selection via up/down button, at most 4 or 8 channels available**
■ **Back-lighting LCD display with channel number, language name, battery and signal status indication**
■ **Number of available channels is always the same as the number of channels in use by the system, eliminating the need to scroll through unused channels**
■ **Adjustable volume**
■ **Unique 270º super wide reception angle, ensuring perfect sound quality even when casually placed**
■ **Audio signal automatically muted when signal is too low, ensuring that the user receives only high quality audio**
■ **Ergonomically compact and elegant design**
■ **Lightweight and handy receiver in conjunction with headphone (HCS-5100PA) for easy and comfortable use**
■ **Can be hung over the neck via a nice strap or fit into the shirt pocket**
■ **Freedom of movement within the range of IR power radiator**
■ **No limit to the receiver number within the IR power radiation range**
■ **Works without errors, even in bright sunlight**
■ **Used with disposable batteries (2×AA alkaline batteries, not included)**
■ **No power consumption when headphone is disconnected**
■ **Measurement mode for easy checking of radiator coverage**
■ **Can work with HCS-5300/80 new generation digital infrared wireless conference system and achieve up to 1+7 channels infrared wireless simultaneous interpretation**

Technical Specifications

System Specifications

Modulation	DQPSK
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3 dB) at standard quality;
	20 Hz to 20 kHz (-3 dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

IR irradiance level	4 mW/m^2 per carrier
Angle of sensitivity	270º
Headphone output level at 3.0 V	450 mVrms (speech at maximum volume, 32 Ohm headphone)
Headphone output freq. range	20 Hz to 20 kHz
Headphone output impedance	32 Ohm to 2 kOhm
Max. SNR	≥85 dBA
Supply voltage	2.5 V to 4.2 V, nominal 3.0 V
Power consumption	
Normal (at 3.0 V)	38 mA (32 Ohm headphone)
Headphone jack unplugged	0 mA
Battery life	55 hours

Mechanical

Dimensions h x w x d (mm)	155 × 46 × 24

Weight

Excl. batteries	70 g
Color	Black (PANTONE 419 C)
	White (PANTONE Cool Gray 1 C)

Ordering Information

HCS-5100RA/04F .... 4 CHs Digital Infrared Receiver (LCD, language display, 2xAA alkaline cells, black)

HCS-5100RA/08F .... 8 CHs Digital Infrared Receiver (LCD, language display, 2xAA alkaline cells, black)

HCS-5100R/B
Digital Infrared Receivers

HCS-5100R/B is a series of infrared receiver, which can receive up to 40 language channels. Both rechargeable Li-ion battery and disposable battery can be used. The receiver is equipped with channel selector, volume control, power switch, Ø 3.5 mm stereo earphone jack, and charging circuit on the PCB. A LCD displays channel number with language name, received signal intensity, battery capacity and volume.

Features

- **Compliant with ISO 22259**
- **Compatible with any other IR simultaneous interpretation system compliant to IEC 61603-7**
- **Independent intellectual property chipset for digital infrared processor, and DQPSK digital modulation/demodulation technology**
- **Transmitting in 1~8 MHz frequency band eliminates disturbance from high frequency lighting systems**
- **Channel selection via up/down button, at most 4, 8, 16, 32 or 40 channels available**
- **Back-lighting LCD display with channel number, language name, battery and signal status indication**
- **Number of available channels is always the same as the number of channels in use by the system, eliminating the need to scroll through unused channels**
- **Adjustable volume**
- **Unique 270º super wide reception angle, ensuring perfect sound quality even when casually placed**
- **Audio signal automatically muted when signal is too low, ensuring that the user receives only high quality audio**
- **Ergonomically compact and elegant design**
- **Lightweight and handy receiver in conjunction with headphone (HCS-5100PA) for easy and comfortable use**
- **Can be hung over the neck via a nice strap or fit into the shirt pocket**
- **Freedom of movement within the range of IR power radiator**
- **No limit to the receiver number within the IR power radiation range**
- **Works without errors, even in bright sunlight**
- **Built-in high precision rechargeable circuitry to prolong battery life**
- **Can be used with disposable batteries (2×AA alkaline batteries, not included) or environmentally-friendly Li-ion rechargeable battery pack (not included)**
- **No power consumption when headphone is disconnected**
- **Measurement mode for easy checking of radiator coverage**
- **One USB Type-C interface for upgrade and charging**
- **Can work with HCS-5300/80 New Generation Digital Infrared Wireless Conference System and achieve up to 1+7 channels infrared wireless simultaneous interpretation**

Controls and Indicators

- LCD displays channel number, language name, battery capacity, signal intensity and volume
- Power switch
- Channel selector buttons
- Volume control buttons

Interconnections

- Ø 3.5 mm stereo earphone jack
- Charging contacts
- USB Type-C interface

Technical Specifications

System Specifications

Modulation	DQPSK
Modulation frequency	1 to 8 MHz
	Carriers 0 to 5:2 to 6 MHz, according to IEC 61603-7
Frequency response	20 Hz to 10 kHz (-3 dB) at standard quality;
	20 Hz to 20 kHz (-3 dB) at perfect quality
THD at 1 kHz	≤0.05%
Isolation	≥85 dB
Dynamic range	≥90 dB
Weighted SNR	≥85 dBA

Electrical

IR irradiance level	4 mW/m² per carrier
Angle of sensitivity	270º
Headphone output level at 3.0 V	450 mVrms (speech at maximum volume, 32 Ohm headphone)
Headphone output freq. range	20 Hz to 20 kHz
Headphone output impedance	32 Ohm to 2 kOhm
Max. SNR	≥85 dBA
Supply voltage	2.5 V to 4.2 V, nominal 3.0 V
Power consumption	
Normal (at 3.0 V)	38 mA (32 Ohm headphone)
Headphone jack unplugged	0 mA
Battery life	
2×AA alkaline cells	55 hours
Rechargeable battery pack	42 hours

Mechanical

Dimensions h x w x d (mm)	155 × 46 × 24
Weight	
Excl. batteries	70 g
Incl. HCS-5100BAT-Li	115 g
Color	Black (PANTONE 419 C)

Ordering Information

HCS-5100R/04B .... 4 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 4 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, with USB Type-C port, excl. battery, black)

HCS-5100R/08B .... 8 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 8 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, with USB Type-C port, excl. battery, black)

HCS-5100R/16B .... 16 CHs Digital Infrared Receiver 16 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 8 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, with USB Type-C port, excl. battery, black)

HCS-5100R/32B .... 32 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 8 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, with USB Type-C port, excl. battery, black)

HCS-5100R/40B .... 40 CHs Digital Infrared Receiver (LCD, language display, cooperates with HCS-5300/80 series can achieve 8 CHs simultaneous audit, optional rechargeable battery pack or 2xAA alkaline cells, with USB Type-C port, excl. battery, black)

HCS-5100CHG/60A
IR Receiver Charging Case

Features

■ **Used for charging IR receivers (HCS-5100R)**
■ **Charges 60 pcs of IR receivers per charging**
■ **Uses universal power supply with automatic voltage matching**

Controls and Indicators

■ Power switch
■ Charging indicator on the receiver

Interconnections

■ Power output interface
■ Power input interface
■ Charging lattices

Technical Specifications

Electrical

Power supply	AC 100 V -240 V 50/60 Hz
Power consumption	280 W (60 receivers charging)
Power consumption (standby)	7 W (no receiver in charging case)

Mechanical

Dimensions h x w x d (mm)	240 ×504 ×376
Net weight	11.3 kg (w/o IR receiver)
Color	Blue

Ordering Information

HCS-5100CHG/60A   IR Receiver Charging Case (60 pcs/case)

HCS-5100KS
IR Receiver Storage Case

Features

■ **Used for storing and transporting IR receivers**
■ **Every case can store up to 100 IR receivers**

Technical Specifications

Mechanical

Dimensions h x w x d (mm)	215× 702 × 325
Net weight	6.0 kg (w/o IR receiver)
Gross weight	14.0 kg (w/100 pcs IR receivers, w/o battery)
Color	Blue

Ordering Information

HCS-5100KS   IR Receiver Storage Case (100 pcs/case)

V1.2|20240704

HCS-5100PA Headphone

Features

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

Ordering Information

HCS-5100PA .... Headphone(180° plug)

HCS-5100PA-PAD
Sponge Ear Pads

Features

- **Used for headphone**
- **50 pairs per package**
- **Color: black**

Ordering Information

HCS-5100PA-PAD .... Sponge Ear Pads
(for HCS-5100PA, 50 pairs / package)

HCS-5100BAT-Li
Li-ion Rechargeable Battery Pack

Features

- **Li-ion rechargeable battery pack**
- **Suitable for HCS-5100R/F series digital infrared receiver**

Technical Specifications

Electrical

Voltage	3.7 V
Capacity	1500 mAh

Mechanical

Dimensions h x w x d (mm)	48 × 29 × 15
Weight	45 g
Color	Blue

Ordering Information

HCS-5100BAT-Li .... Li-ion Rechargeable Battery Pack