# HCS-5100R
# Digital Infrared Receivers

HCS-5100R is a series of IR receivers, which can receive up to 32 language channels. Both rechargeable NI-HM 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 to IEC 61603-7 and IEC 60914
- 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 2~8 MHz frequency band eliminates disturbance from high frequency lighting systems
- Channel selection via up/down button, at most 4,8,16 or 32 channels available
- 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 single earphone (EP-820AS/EP-820BS) or 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 the battery life
- Can be used with disposable batteries (2×AA alkaline batteries, not included) or environmentally-friendly Ni-MH rechargeable battery pack (not included)
- No power consumption when headphone is disconnected
- Measurement mode for easy checking of radiator coverage
- Can be equipped with alarm system to prevent loss
- Can work with HCS-5300 digital infrared wireless conference system and achieve up to 1+3 channels infrared wireless simultaneous interpretation

## Controls and Indicators

- LCD can display 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, according to IEC 61603-7
Modulation frequency
- Carriers 0 to 5: 2 to 6 MHz, according to IEC 61603-7
- Carriers 6 and 7: up to 8 MHz

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%
Crosstalk attenuation at 1 kHz: >80 dB
Dynamic range: >80 dB
Weighted SNR: >80 dBA
Input range: -12 dBV ~ +12 dBV (adjustable)

### Electrical

IR irradiance level: 4 mW/m$^2$ per carrier
Angle of sensitivity: 270º
Headphone output level at 2.4 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: >80 dBA
Supply voltage: 1.8 to 3.6 V, nominal 2.4 V
Power consumption
- Normal (at 2.4 V): 38 mA (32 Ohm headphone)
- Headphone jack unplugged: 0 mA

Battery life
- 2×AA alkaline cells: 70 hours
- Rechargeable battery pack: 52 hours

## Mechanical

| | |
|---|---|
| Dimensions h x w x d (mm) | 155 × 46 × 24 |
| Weight | |
| Excl. batteries | 80 g |
| Incl. batteries | 135 g |
| Color | Gray |

## Ordering Information

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|---|---|
| HCS-5100R/04 | 4 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) |
| HCS-5100R/08 | 8 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) |
| HCS-5100R/16 | 16 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) |
| HCS-5100R/32 | 32 CHs Digital Infrared Receiver (LCD, language display, optional rechargeable battery pack or 2xAA alkaline cells) |