

Specification

Product Name: 2.4G Wireless Data Transceiver

Product Model: HY-CL5830

Document Version: A/1 (2024.4.15)

Production Department: Product Department

Catalog

1、 Product Overview	2
1. 1 Product Image	2
1. 2 Dimensions and Weight	2
1. 3 Packing List	2
2、 Product Specifications and Parameters	3
2. 1 Product Description	3
2. 2 Functional Parameters	3
2. 3 Technical Parameters	4
3、 System Connection Diagram	5

1、Product Overview

1.1 Product Image



1.2 Dimensions and Weight

Panel Dimensions (LxWxH)	173×30×173mm
Weight	Net Weight: 0.45 kg; Gross Weight: 1.2 kg
Packaging	Foam + Carton

1.3 Packing List

Serial Number	Name	Number	Unit
1	Transceiver	1	Unit
2	10-meter EC50 Antenna	1	Unit
3	Mounting Bracket	1	Set
4	Expansion Screws and Plugs	3	Unit
5	Fixing Screws	1	Unit
6	Warranty Card and Certificate	1	Sheet

2、 Product Specifications and Parameters

2.1 Product Description

The system uses a 2.4-2.5 GHz frequency band with a 14 dBi directional high-gain planar antenna, with an input impedance of 50Ω . It is equipped with a 2.4 GHz ultra-low power wireless module, offering a 64K digital audio sampling rate and 16-bit sample quantization, ensuring high audio quality from the source. The system employs 128-bit AES Rijndael and 48-bit PIN code encryption for security, preventing eavesdropping and unauthorized access, and ensuring meeting confidentiality. It features a powerful built-in wireless audio transmission protocol with extensive coexistence mechanisms to avoid interference with wireless conference units. The device connects directly to the host without requiring an external power supply and has both receiving and transmitting capabilities.

2.2 Functional Parameters

1. Uses a 2.4-2.5 GHz frequency band with a 14 dBi directional high-gain planar antenna, with an input impedance of 50Ω .
2. Equipped with a 2.4 GHz ultra-low power wireless module, featuring a 64K digital audio sampling rate and 16-bit sample quantization, ensuring high audio quality from the source.
3. Utilizes 2.4 GHz all-digital spread spectrum (DSSS) modulation communication technology, operating in the unlicensed ISM frequency band, suitable for global use without regional restrictions.
4. Employs 128-bit AES Rijndael and 48-bit PIN code encryption for protection, preventing eavesdropping and unauthorized access, and ensuring meeting confidentiality.
5. Includes a powerful built-in wireless audio transmission protocol with extensive coexistence mechanisms to avoid interference with wireless conference units.
6. Features built-in digital circuitry to significantly amplify the 2.4 GHz wireless signal, enhancing communication stability for conference units.
7. Provides 360-degree omnidirectional communication, adaptive frequency hopping, forward error correction, and retransmission mechanisms to ensure data is never lost.
8. Automatically intercepts unauthorized wireless conference devices not permitted by the wireless

conference host, enhancing security.

9. Connects directly to the host without requiring an external power supply, and has both receiving and transmitting functions.

10. Has a radiation range of up to 60 meters and supports various installation methods including wall-mounting and desktop mounting.

11. Does not require an external power supply and connects directly with the wireless conference host and wireless transceiver for operation.

12. Color: Silver.

2.3 Technical Parameters

Working Frequency	2.4G-2.5G
Modulation Method	DSSS
Power Supply Method	Main Unit Power Supply
Receiving/Transmitting Angle	360° Omnidirectional
Radiation Range	Diameter 60 Meters
Transmission Power	18dBm
Receiving Sensitivity	-88dBm
Signal-to-Noise Ratio (SNR)	>82dB
Total Harmonic Distortion (THD)	< 0.05%
Dynamic Range	>82dB
Cable Specification	SYV50-3
Connection Method	Optional Extension Cables: 10 meters, 20 meters, 25 meters

Color	White
Installation Method	Wall-mounted, Desktop

3、System Connection Diagram

