

# Specification

**Product Name:** 2.4G Wireless Conference Microphone

**Product Model :** HY-5820C/HY-5820D

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**Production Department:** Product Department

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## 1、 Product Overview

### 1.1 Product Image



## 2、 Product Specifications and Parameters

### 2.1 Product Description

Adopting DSP/DDOV digital processing and transmission technology to achieve digital signal transmission and processing, it features automatic protection functions such as temperature, over-voltage, magnetic field, short circuit, overcharge, and overcurrent protection during wireless charging. Designed with a streamlined desktop style, it is equipped with a 2" high-brightness LCD display, supporting information such as battery level, signal, ID address, and speaking time. It uses a detachable rechargeable battery, with a low-power design, built-in 7800mA/H rechargeable battery, featuring dynamic battery display and low power alert functions, supporting 20 hours of continuous standby use. It employs 2.4G full digital frequency hopping (DSSS) modulation communication technology in the ISM band, interacting voice data through a wireless transceiver, ensuring audio delay is less than 5.5ms.

### 2.2 Functional Parameters

1. Adopts advanced and stable "IRIN" chips and DSP/DDOV digital conference technology for digital signal transmission and processing;
2. Designed with a streamlined desktop style, equipped with a 2" high-brightness LCD display, supporting information such as battery level, signal, ID address, and speaking time;

3. Features speaking time function, supports dynamic display of speaking time, supports 48KHz audio sampling frequency, with a frequency response range of 30Hz-20KHz;
4. Uses 2.4G full digital frequency hopping (DSSS) modulation communication technology in the ISM band, interacting voice data through a wireless transceiver, ensuring audio delay is less than 5.5ms;
5. Provides 128-bit AES Rijndael and 48-bit PIN code encryption protection to prevent eavesdropping and unauthorized access, ensuring the confidentiality of meetings;
6. Automatically identifies interference frequencies within the entire frequency range and silently switches to interference-free frequencies to ensure real-time normal communication of the system;
7. With high-definition cameras, it supports automatic tracking of speakers and automatic screen switching, supports screen freezing function, and supports multiple cameras tracking the same conference unit;
8. The system has four working modes, and the number of speakers can be customized (1/2/3/4 units can be set):
  - \* First-In-First-Out mode: Once the limit is reached, opening a new unit will replace the earliest opened unit;
  - \* Chairperson-exclusive mode: Only the chairperson unit can open for speaking, while delegate units cannot open;
  - \* Timed speaking mode: Sets speaking time according to actual needs, and units automatically close when the countdown ends;
  - \* Limited speaking mode: Once the limit is reached, other delegate units cannot open;
9. The wireless conference unit has an independent power switch button, effectively preventing leakage and adhering to a user-friendly design;
10. Uses a detachable rechargeable battery, low power consumption design, built-in 7800mA/H rechargeable battery, features dynamic battery display and low power alert functions, supporting 20 hours of continuous standby use;
11. Equipped with one TYPE-C interface, supports adapter and charging box charging, and offers optional wireless charging;
12. The microphone rod connector and all studs are made of pure copper material, restoring sound quality, ensuring quality stability, and ensuring pickup distance and sound quality;
13. Uses high-quality sponge covers with good elasticity, breathability, and features that prevent loosening, making it not easy to fall off or deform during use;
14. High sensitivity design, built-in automatic gain control (AGC) function, with an effective pickup distance of

50-60cm;

15. Utilizes advanced electrostatic isolation technology design, avoiding static electricity even in dry environments and regions;

16. The system supports connecting up to 4 chairperson units, with chairperson units having control over meeting order and priority speaking rights, and can close other delegate units that are speaking;

17. Uses digital ID addressing, customizable ID numbers, with digital identification codes, and signal streams can be output to third-party voice recognition systems for transcription and archiving;

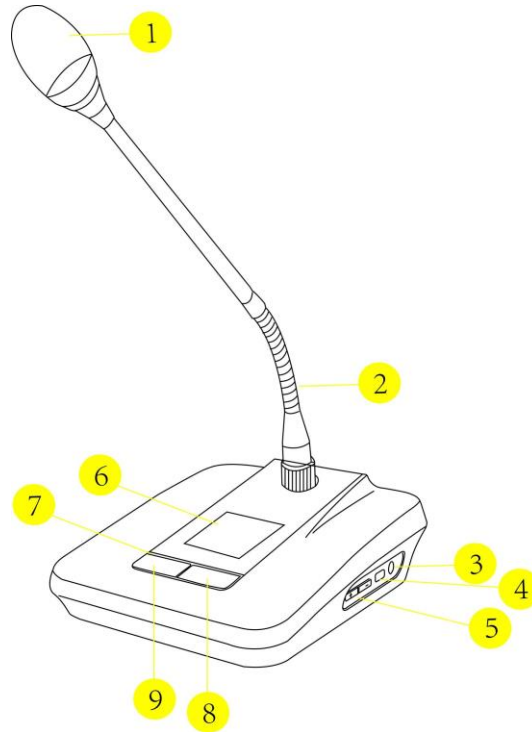
18. Possesses strong anti-interference ability, effectively isolating mobile phone, radio wave, Bluetooth, and WiFi signal interference, ensuring no noise when calls come in.

### 2.3 Technical Parameters

Operating Frequency	2.4G-2.5G
Communication Distance	30M±5M (using 14dB antenna)
Receiving/Transmitting Angle	360° Omni-Directional
System Capacity	256 units per system, expandable to 4096 units
Display Screen	2" LCD Display Screen
Microphone Type	Cardioid Electret Microphone
Frequency Response	30Hz~20KHz
Signal-to-Noise Ratio	>92dB
Dynamic Range	98dB
Total Harmonic Distortion	< 0.05%
Microphone Sensitivity	-35dB±2dB
Lithium Battery Capacity	7800mA
Operating Power Supply	3.7V DC
Unit Power Consumption	<1.4W
Standby Operating Current	100mA±3mA
Speaking Operating Current	120mA±3mA
Equivalent Noise	20dBA (SPL)
Camera Tracking	Equipped
Maximum Sound Pressure Level	136dB (THD<3%)

### 3、Product Introduction

#### 3.1 Product Interface Introduction



- 1、Conference Unit Microphone Head: Supercardioid Microphone Capsule (9.7mm Gold-Plated Capsule)
- 2、Microphone Rod: High Interference-Resistant Microphone Rod, Customizable Length
- 3、Power Button: Can be turned off when not in use; long press to turn on or off
- 4、TYPE-C Interface: For charging the wireless microphone unit
- 5、Volume Adjustment Button: Adjusts the volume level
- 6、LCD Display Screen: 2" High-Brightness LCD Display
- 7、Indicator Light: Red Speaking Indicator Light
- 8、Chairperson Button: Has priority function, can turn off all delegate units (delegate units do not have this function)
- 9、Switch Button: Can turn the conference unit on or off; indicator light stays on when turned on

### 3.2 System Connection Diagram

