

# Specification

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

**Product Model :** HY-5800M

**Document Version :** A/1 (2024.4.15)

**Production Department:** Product Department

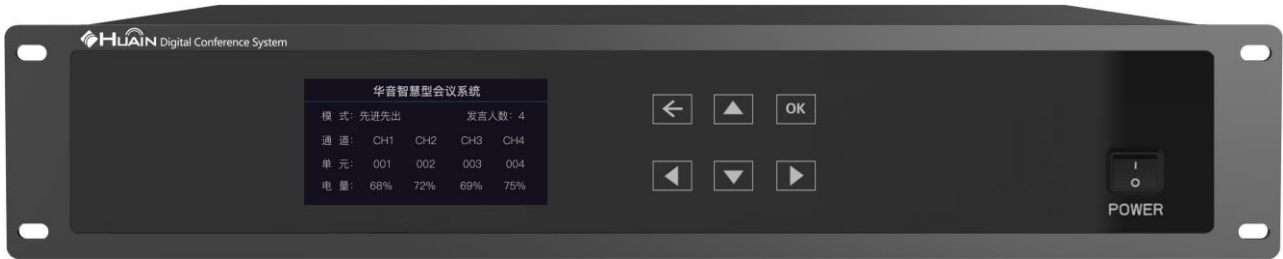
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# 1、Product Overview

## 1.1 Product Image



## 1.2 Dimensions and Weight

Main Unit Dimensions (LxWxH)	483×320×90mm
Packaging Dimensions (LxWxH)	560×430×160mm
Weight	Net Weight: 4.6 kg; Gross Weight: 5.7 kg
Packaging Method	Foam + Carton

## 1.3 Packing List

Serial Number	Name	Number	Unit
1	Power Cable	1	unit
2	Audio Cable	1	unit
3	Fuse	2	piece
4	User Manual	1	copy
5	Warranty Card and Certificate	1	sheet

## 2、 Product Specifications and Parameters

### 2.1 Product Description

Uses DSP/DDOV digital processing and transmission technology for digital signal transmission and processing, with ISM frequency band allowing complete coexistence with wireless WiFi and providing excellent interference resistance. It features 128-bit AES Rijndael and 48-bit PIN code encryption protection to prevent eavesdropping and unauthorized access, ensuring the confidentiality of the meeting. The system includes a 3.8-inch LCD display that dynamically shows meeting information. It features an aluminum alloy panel embedded with Mohs hardness 6-level touch glass panel, clearly displaying channel information, ID address code, and real-time battery status of the system. The host monitors the battery level of connected conference units in real-time, displaying it as a percentage on the host screen. One host can connect up to 256 wireless conference units, and the entire system can be expanded to accommodate up to 4096 units, making it suitable for various small, medium, and large meeting venues.

### 2.2 Functional Parameters

1. DSP/DDOV digital processing and transmission technology is used to realize digital signal transmission and processing;
2. Aluminum alloy panel is embedded with Mohs hardness 6-level touch glass panel, and the human-machine interface is simple and intuitive;
3. The system is equipped with a 3.8-inch LCD display and control buttons, with Chinese and English menu display, and any language can be ordered on demand;
4. ISM band, 2.4G full digital frequency hopping (DSSS) modulation communication technology, can fully coexist with WiFi, and has super anti-interference;
5. True digital wireless transceiver separation and adaptive frequency hopping technology, forward error correction and retransmission mechanism to ensure that data is never lost;
6. Adopt 128-bit AES Rijndael and 48-bit PIN code encryption protection prevent eavesdropping and unauthorized access to ensure the privacy of the meeting;
7. Fully digital audio processing technology, audio sampling frequency up to 48KHz, frequency

response up to 20Hz-20KHz close to CD sound quality;

8. The system adopts ID addressing control method, a single host can connect 256 wireless conference units, and the entire system can be expanded to access 4096 units;

9. Built-in DSP digital audio module, with adaptive feedback suppression, digital equalizer, automatic gain function, to eliminate interference, distortion, crosstalk and other phenomena to the greatest extent;

10. Use professional 2.4G communication cable to connect to the wireless transceiver, the host can power the wireless transceiver , no additional power supply is required;

11. Built-in camera tracking host board, camera tracking settings, saving and calling can be performed without video tracking software and control keyboard;

12. The system supports VISCA, PELCO-D, PELCO-P conventional control protocols, and adopts RS485/RS422 control method;

13. Built-in 4x2-channel video matrix switching function, which can easily manage multiple video signals, and adopts RCA input and output interface;

14. When a single microphone is turned off, it automatically tracks to the previous unit, and automatically returns to the preset panoramic view when all microphones are turned off;

15. The system has four working modes, and the number of speeches can be customized (the number can be set to 1/2/3/4):

\* First-in-first-out working mode: after reaching the number limit, the unit opened again will cover the first opened unit;

\* Chairman-only working mode: only the chairman unit can open the speech, and the representative unit will not be opened;

\* Limited-time speaking working mode: the speaking time can be set according to actual needs, and the unit will be automatically closed after the time is up;

\* Restricted speaking working mode: after reaching the limit, other conference units will not be able to be turned on;

16. The system has a real-time dynamic display of the channel, ID address code, and power of the turned-on unit, and the system operation status is clear at a glance;

17. The host has real-time monitoring of the battery power status of the turned-on conference unit

and displays it as a percentage on the host screen;

18. It has a volume shortcut setting key, which can humanize the system output signal to prevent disorder and initialize the setting;

19. The voting host function board can be expanded, with data management functions such as sign-in, voting, election, scoring, response, etc.;

20. The system can connect to 4 chairman units at the same time. The chairman unit has a priority function and can also turn off other representative units that are speaking;

21. Super strong anti-mobile phone interference ability, no noise will be generated when a call comes in, even with a mobile phone signal blocker It can also be used normally in the conference hall;

22. It has balanced and unbalanced audio output channels, which can be connected to sound reinforcement equipment, recording systems, remote conferences, video conferences, etc.;

23. With the telephone coupler, it can be used for multi-party remote video conference functions;

24. With network conference software or video conference terminals, it can realize multi-party remote video conference functions;

25. It adopts three-level anti-static and lightning protection technology, which can resist 8000V static electricity;

26. It has a built-in dual power backup device, which can be powered by AC100V~240V international universal power supply or DC12V~17V power adapter;

27. It has a built-in power supply voltage stabilization system to ensure that the voltage can be used normally, stably and safely under unstable conditions;

28. It adopts an environmentally friendly aluminum alloy body, 2U international standard design, and can be fixedly installed on a standard 19-inch cabinet;

### 2.3 Technical Parameters

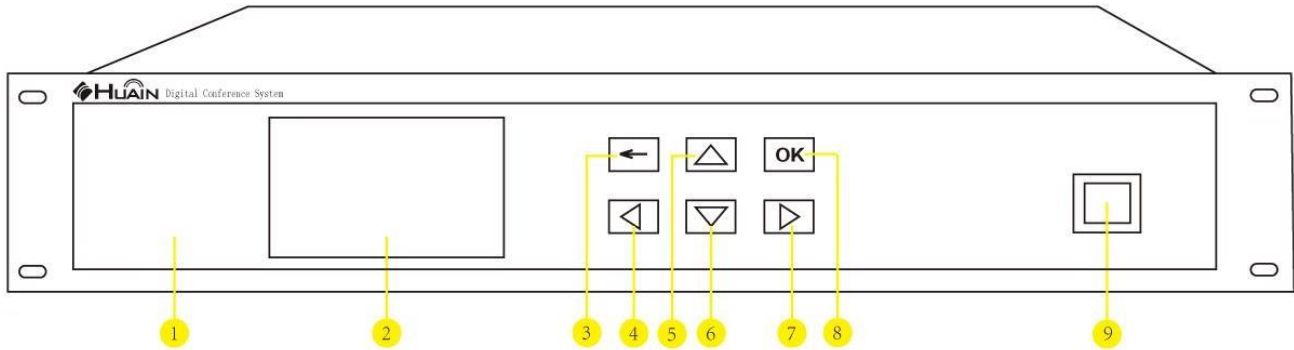
Power Supply	AC100V~240V 50/60Hz, DC12V~17V
Power Consumption	Static 10W, Maximum 50W
System Capacity	Up to 256 units per host, expandable to 4096 units

Communication Method	2.4G Frequency Hopping (DSSS) Modulation Technology
Display Screen	3.8-inch LCD Display
Display Menu	Chinese and English (Customizable)
Frequency Response	20Hz~20KHz
Signal-to-Noise Ratio	>96 dB
Dynamic Range	106dB
Total Harmonic Distortion	< 0.05%
Output Impedance	47 K $\Omega$
Audio Output	XLR $\times$ 1 +10dB, 6.3mm $\times$ 1 +20dB
Video Input	RCA $\times$ 4
Video Output	RCA $\times$ 2
Video Output Level	RCA $\times$ 5 1.08V p-p
Video Output Impedance	75 $\Omega$
Video Bandwidth	150MHz (-3dB), Full Load
Video Control	RS-422 Phoenix Connector
Control Interface	9-Pin D-Sub Female
Color	Dark Grey
Installation Method	Compatible with 19-Inch Standard Racks

### 3、Product Introduction

#### 3.1 Product Interface Introduction

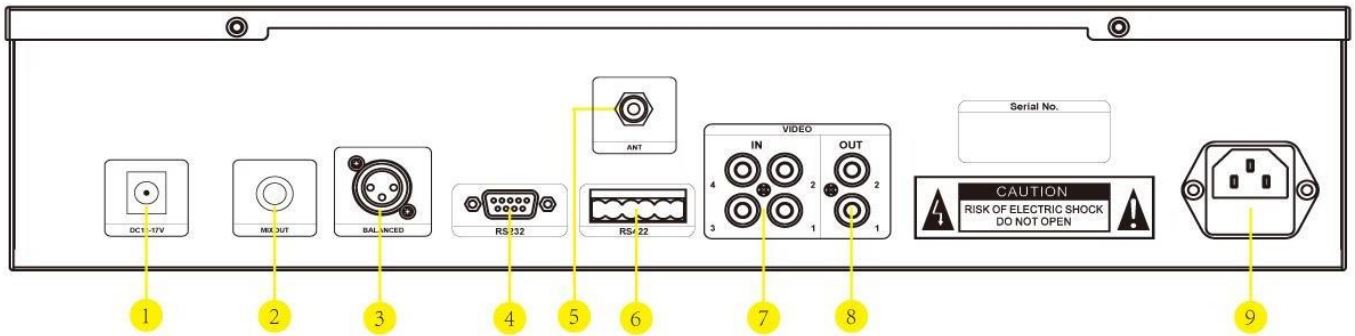
##### Front Panel



- 1、 Aluminum Alloy Glass Panel: Aluminum alloy embedded with a touch control glass panel.
- 2、 LCD Display Screen: 3.8-inch LCD display screen.
- 3、 EXIT Button: Button for exiting or returning.
- 4、 LEFT (VOL-) Button: Left control button, quick access for volume decrease.
- 5、 UP Button: Up control button.
- 6、 DOWN Button: Down control button.
- 7、 RIGHT (VOL+) Button: Right control button, quick access for volume increase.
- 8、 OK Button: Confirm button.
- 9、 Power Switch Button: The power switch at the "1" position (up) represents the ON state, and at the "0" position (down) represents the OFF state.



**Rear Panel**



1. Backup Power Input: DC12~17V power input (optional).
2. Audio Output (6.3mm): Unbalanced audio output connector.
3. Audio Output (XLR): Balanced audio output connector.
4. RS-232 Interface: Connection for central control devices or PC.
5. Wireless Transceiver Interface: Connection for 2.4G wireless conference transceiver.
6. RS-422 Interface: Connection for camera control (negative on pin 3, positive on pin 4).
7. RCA Video Input (VIDEO IN): 4 channels of video input.
8. RCA Video Output (VIDEO OUT): 2 channels of video output.
9. Main Power Input: AC100~240V 50/60Hz power supply input.

### 3.2 System Connection Diagram

