HUAIN 华音

产品规格书

Specification

Product Name	All Digital 5G Touch Unit
Product Model	HY-8505CW/HY-8505DW
Company Name	Zhuhai Huain Electronic Technology Co., Ltd.

Revision history				
Serial Number	**Version number**	**Revision Summary**	**Reviser**	**Revision Date**
1	V1.0	First formulation		2019/10/22
2	V2.0	Page Update		2025/11/5

1. Product Overview

1.1 Product Overview

The all-new, fully digital 5G wireless touch unit adopts a twin interaction design concept, offering optional wired and wireless communication functions, breaking away from the single communication mode . The wireless communication adopts standard 5G fully digital frequency hopping (DSSS) modulation technology , and the intelligent wireless channel management function ensures that the meeting is not disturbed. It integrates FPGA digital audio processing technology and is a discussion device with many multimedia functions, easily achieving functional expansion . It is a perfect combination of flexibility and stability, with a built-in wireless router that can be wirelessly controlled and supports wireless access point redundancy .

1.2 Product Images



2. Product Specifications and Parameters

2.1 Functional Parameters

1. It adopts high-performance FPGA, dual MCU processors, large-capacity FLASH and DDR memory to realize fully digital signal transmission and processing, which complies with the IEC60065 international standard;

2. Employs an electret supercardioid microphone with audio activation function to ensure pickup distance and sound quality; pickup distance can reach 50cm.

3. The microphone boom features a spiral detachable design, facilitating equipment transportation, storage, installation, and maintenance and safekeeping during breaks;

4. It adopts the FTC334C professional capacitive touch sensing button processing chip, with an embedded Mohs hardness level 6 touch glass panel, virtual touch buttons, no mechanical button sound when switching on and off, and long service life.

5. Utilizing nano-level fingerprint isolation technology, the oleophobic and waterproof layer effectively isolates water, oil, and stains, thereby achieving fingerprint-proof and sweat-proof effects;

6. Equipped with a 4.5" high-definition LCD fully laminated touch screen, supporting Simplified Chinese, Traditional Chinese, English, Russian, French, and Spanish display, and supporting screen brightness adjustment via a progress bar;

7. It can display information such as the organization's logo, attendee information, speaking time, meeting services, SMS messages, system version, speaking list, perpetual calendar, attendance and voting data, and battery level;

8. It has a speaking timer function, supports dynamic display of speaking time, and allows setting a countdown timer before speaking;

9. It adopts high-fidelity lossless audio transmission technology, supports selectable audio

sampling frequencies of 32KHz and 48KHz, has sensitive sound pickup and clear voice, and a frequency response of up to 20Hz-20KHz;

10. It adopts 5.8G all-digital frequency hopping (DSSS) modulation communication technology, supports WAP/WAP2 wireless security technology, and conducts voice data interaction through a wireless router to ensure that the audio latency is less than 5.5ms;

11. Employs 128-bit AES Rijndael and 48-bit PIN code encryption to prevent eavesdropping and unauthorized access, ensuring the privacy of the meeting;

12. Supports seven meeting modes: First-In-First-Out (FIFO), Last-In-First-Out (LIFO), Request to Speak, Queue to Speak, Free Mode, Chairman Mode, and Voice Control Mode. The number of speakers can be set from 1 to 6.

13. Once a speaker's microphone is turned on, the speaking list will display the application scenarios of all currently turned-on microphones and the speaker's information. Attendees can quickly understand the speaker's information, truly realizing the value of interactive collaboration in the meeting.

14. Upgradeable central control function, which can turn off all microphones in the system with one click, supports the control of environmental equipment in the conference room, such as the on/off of lighting, power, screen and other equipment, and one-click call of conference mode;

15. It adopts a digital ID addressing method, allows for custom ID numbering, has a digital identification code, and the signal stream can be output to a third-party speech recognition system for conversion into text archiving;

16. When used with a high-definition camera, it can automatically track speakers and switch the view automatically, and supports image freeze and multiple cameras tracking the same conference unit;

17. Supports customizable meeting service functions, and has the ability to receive meeting requests from technicians, secretaries, tea, paper, pens, waiters, coffee, towels, mineral water, etc.

18. Supports real-name and anonymous check-in, with touch button check-in and make-up check-in functions. Check-in countdown time and check-in data can be displayed dynamically in real time.

19. Built-in voting function, which can set the pass rate or display status, the calculation method of expected or actual attendance, the handling of no key presses, the confidentiality

method, countdown and other functions;

20. Supports connection of 240 chairperson units. The chairperson unit has the function of controlling the meeting order and priority speaking rights, and can shut down other representative units that are speaking.

21. It has a dedicated mode for the chairperson and supports the function of processing representative unit requests to speak through the Web application service screen. The chairperson can approve or reject representative unit requests to speak.

22. The system has an automatic detection function, which can detect the number of online chairman units and representative units, making the system's operating status clear at a glance;

23. Built-in 7000mA/H rechargeable battery with dynamic power display and low battery reminder function;

24. Equipped with one Type-C port, it can be used for charging or connecting to a computer to import files, allowing for program upgrades and maintenance without disassembling the device;

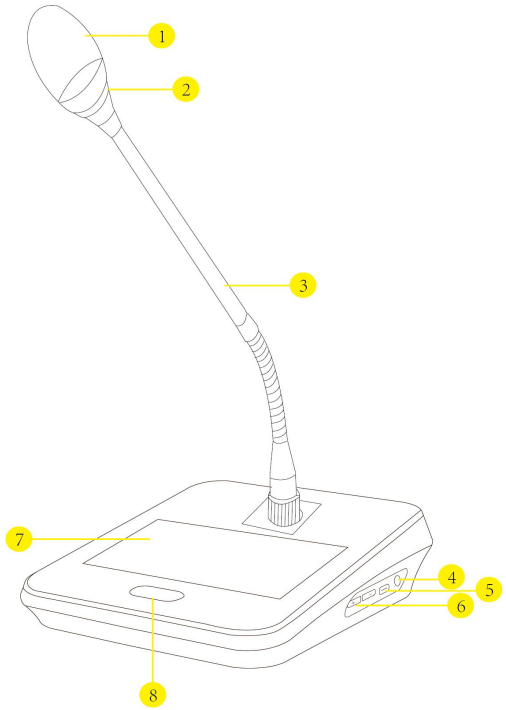
2.2 Product Specifications

Technical parameters	
Operating frequency	5.8G WIFI
Microphone method	9.7mm gold-plated microphone core
Communication distance	30M±5M
Receive/Transmit Angle	360° all-round
System capacity	256 units per machine, expandable to 4096 units.
Display screen	4.5-inch LCD display
Microphone type	Cardioid directional electret
Frequency response	20Hz~20kHz

SNR	>90dB
Dynamic range	96dB
Total Harmonic Distortion	<0.05%
Microphone Sensitivity	-37dB±2dB
lithium battery capacity	7800mA
Standby operating current	90mA±3mA
Speaking working current	110mA±3mA
Equivalent noise	20 dBA (SPL)
Max sound pressure level	125dB (THD<3%)
Camera tracking	have
Number of units activated	1-32
Power parameters	
Input power	DC 3.7V-5V
Input current	2A
Overall power consumption	8W
physical parameters	
Base dimensions (LxWxH)	120×155×48mm
Meter length	390mm
Packaging dimensions (length × width × height)	550×220×93mm
Net weight/Gross weight	0.55Kg/1.34Kg

Product accessories included (if different from the actual product, the actual product shall prevail).	
sponge cover	1
Type-C line	1 item
charger	1
Certificate of Conformity	1 copy
Warranty card	1 copy

3. Product Introduction



1. Conference unit microphone: Super directional microphone core (9.7mm gold-plated microphone core) ;

2. Red indicator halo: stays on when the unit is activated , and flashes when someone requests to

speak ;

3. Microphone stand: Strong anti-interference series microphone stand , custom length supported ;

4. Power switch button: can turn the conference unit on and off ;

5. TYPE-C interface: Upgrade program and maintenance;

6. Volume buttons : Increase the volume of the monitoring headphones;

7. LCD Display: 4.5 - inch high-brightness fully laminated LCD touchscreen ;

8. Talk switch button: This button can turn the conference unit's talking function on and off. When on, the indicator light will remain on .