HUAIN 华音

产品规格书

Specification

Product Name Dual-engine Wireless Unit

Product Model HY-ST20CW、HY-ST20DW

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 system employs a composite design of multi-channel WiFi and four-channel UHF to ensure stable signal transmission and resistance to interference. It features a 3.5-inch touchscreen supporting Chinese, English, and Russian language interfaces and six theme backgrounds. Utilizing dual gold-plated condenser microphones and a precision acoustic interference aperture design, it achieves high-sensitivity sound pickup and supports 0-10 levels of independent gain adjustment. It offers four conference modes, including first-in-first-out and free discussion, and supports up to four chairman units. A built-in 3000mAh lithium battery provides up to 10 hours of battery life, with an ideal transmission distance of up to 30 meters, making it suitable for various professional conference settings.

1.2 Product Images





2. Product Specifications and Parameters

2.1 Functional Parameters

1. It adopts a WiFi multi-channel + UHF four-channel design and high-precision phase-locked loop frequency synthesis PLL technology for more stable transmission;

2. Features 1-18 levels of customizable screen brightness adjustment, allowing you to adjust the display brightness to a comfortable level according to your current environment.

3. Equipped with a 3.5" LCD high-brightness touchscreen, supporting Chinese, English and Russian language display, and can display system signal, channel, ID address and speaking time;

4. It adopts a gravity-sensing touch sensor chip, with an elliptical track indicator light, no mechanical button sound when switching on and off, and a long service life;

5. The aluminum alloy panel is embedded with a Mohs hardness level 6 touch glass panel, which is waterproof and dustproof, preventing tea and water from splashing during meetings and affecting the normal use of the equipment;

6. Features 6 online theme background switching functions, allowing users to customize the

microphone unit display screen background style to match different scene requirements;

7. 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;

8. It uses the frequency band between 630-690MHz, has 5 UHF channels to choose from, supports 5 systems to be used at the same time, easily avoids various interferences, and prevents crosstalk interference.

9. It adopts an aluminum alloy microphone boom and has a built-in 2×14mm high-fidelity gold-plated condenser pickup head, supporting dual pickup head horizontal array technology;

10. The unique cavity and one-piece molded pickup steel mesh design can precisely control the pickup angle and avoid acoustic feedback and howling;

11. The microphone boom uses 32,500 high-density acoustic interference holes with a diameter of 0.4mm. The aperture and spacing are precisely calculated, and combined with interference correction technology, the sound pickup details are precisely controlled, effectively improving the sound pickup sensitivity of the human voice frequency response range.

12. High sensitivity design, built-in automatic gain control, effective pickup distance up to 60-100cm;

13. Features 0-10 level independent gain adjustment for microphone units, allowing users to customize the microphone boom pickup gain according to their needs;

14. High-fidelity lossless audio transmission technology, 48KHz audio sampling frequency, sensitive sound pickup, clear voice, frequency response up to 20Hz-20KHz;

15. It adopts a forward error correction and retransmission mechanism, which has a strong anti-interference capability and can effectively isolate interference from mobile phones, radio waves, Bluetooth, WiFi and other signals, and will not generate noise when receiving calls;

16. A single host unit can support up to 999 wireless conference units online, and can connect to the chairman unit, which has priority.

17. It features four meeting modes: first-in-first-out, free discussion, chair permission, and voice-activated start; the number of wireless speakers can be set from 1 to 4.

18. The system can connect to 4 chairperson units at the same time. The chairperson unit has priority function and can also shut down other representative units that are speaking.

19. The system allows for customizable meeting unit ID numbers, effectively avoiding ID address conflicts and ensuring the uniqueness of system ID addresses;

20. 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;

21. Built-in 3000mA/H high-capacity lithium battery with dual charging function, supporting USB charging and charging case charging;

22. Low power consumption design, with dynamic power display and low power reminder function, supporting 10 hours of continuous use;

23. In ideal environments, the effective distance can reach 30 meters, completely eliminating the constraints of cables and making it suitable for various high-requirement meeting occasions;

24. Equipped with one TYPE-C port, which can be used for charging or upgrading and maintaining the device without disassembling it;

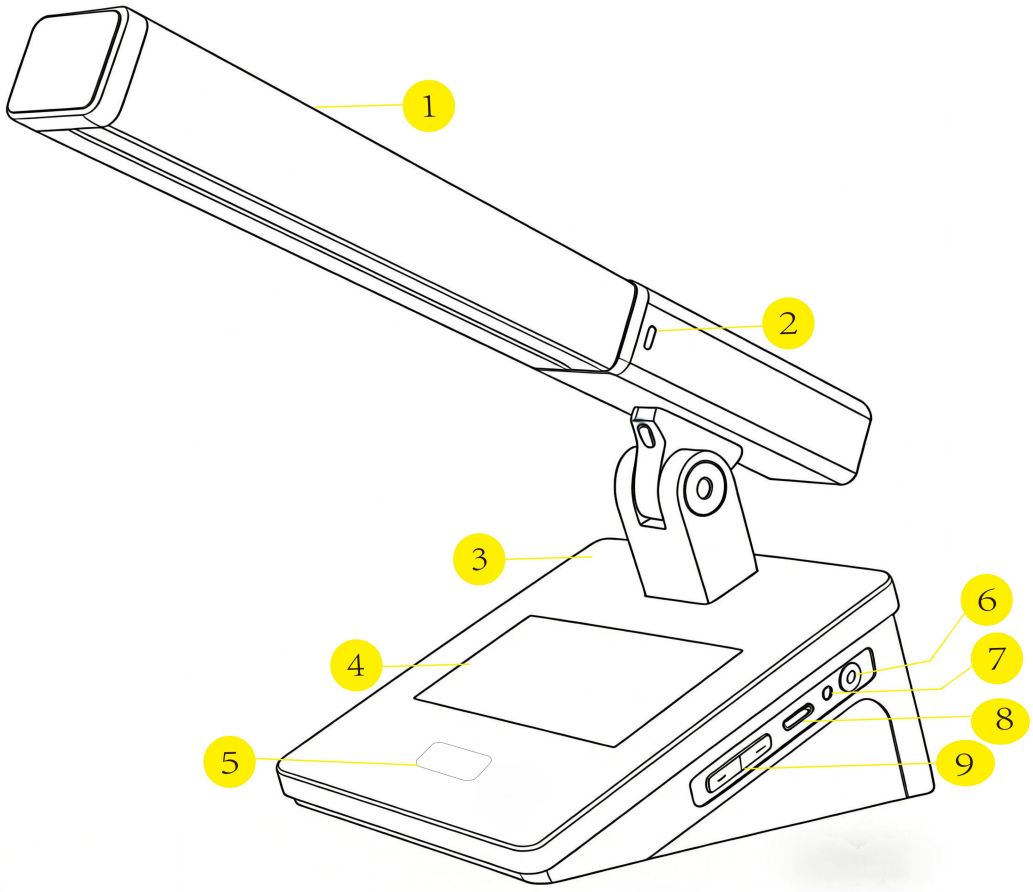
2.2 Product Specifications

Technical parameters	
Operating frequency	UHF 630-690MHz
Microphone method	2×14mm capacitive gold-plated microphone core
Pointing characteristics	Cardioid Direction
Display screen	3.5" LCD touchscreen
Frequency response	20Hz~20kHz
SNR	>92dB
Dynamic range	>98dB
Total Harmonic Distortion	< 0.05%
Microphone Sensitivity	-35dB±2dB

lithium battery capacity	3000mA
equivalent noise	18dBA (SPL)
Max sound pressure level	136dB (THD<3%)
Meeting Mode	First-in, first-out, free discussion, chairman's permission, voice-activated start
Number of Spokespersons	1-4 can be set
Language display	Chinese, English, and Russian
Charging port	1 Type-C interface
Gain Adjustment	Levels 0-10
Power parameters	
Input power	DC4V ±%5
Input current	200ma±%5
Overall power consumption	1W
physical parameters	
Meter stick size	225×34×23mm
Base size	130×100×55mm
Packaging dimensions (length × width × height)	345×185×150mm
Net weight/Gross weight	0.7kg/1.4kg

Product accessories included (if different from the actual product, the actual product shall prevail).	
charging head	1
1 TC charging cable	1 item
Warranty card	1 copy
Certificate of Conformity	1 copy

3. Product Introduction



1、Microphone stand: All-aluminum alloy high-interference series microphone stand (2x14mm gold-plated microphone core);

2、Red indicator light: stays on when the unit is turned on;

3、Touch glass panel: Aluminum alloy embedded touch glass panel with a Mohs hardness of 6;

4、LCD Display: 3.5" LCD high-brightness touchscreen;

5、Power button: can turn the conference unit on and off, and the indicator light will stay on when it is on; Chairman button: has priority function and can turn off all delegate units (delegate units do not have this function).

6、Power switch button: can turn off the device when not in use; press and hold to turn it on or off.

7、Headphone jack: 3.5mm stereo headphone jack;

8、TYPE-C interface: can be used for charging or upgrading and maintaining devices without disassembling them;

9、Volume control buttons: Adjust the volume level;