Specification

Product Name: Multi-functional Conference Host

Product Model：HY-6500MSR

Document Version：A/1（2024.4.15）

Production Department: Product Department

Huain (Zhuhai) Digital Technology Co., Ltd.

Catalog

1、Product Overview

1.1 Product Image

1.2 Dimensions and Weight

Main Unit Dimensions (LxWxH)	483×320×90mm
Packaging Dimensions (LxWxH)	570×430×175mm
Weight	Net Weight: 4.5 kg; Gross Weight: 5.8 kg
Packaging Method	Foam + Carton

1.3 Packing List

Serial Number	Name	Number	Unit
1	Controller	1	Set
2	Power Cable	1	Unit
3	Audio Cable	1	Unit
4	Fuse	2	Piece
5	RS232/485 Converter	1	Piece

6	8-pin 10-meter Male-Female Cable	1	Piece
7	Warranty Card, Certificate of Conformity	1	Sheet

2、Product Specifications and Parameters

2.1　Product Description

Fully digital conference technology, compliant with IEC60065 international standards, utilizing DSP/DDOV digital processing and transmission technology to overcome long-distance transmission attenuation issues; fully digital DSP audio processing technology with an audio sampling rate of up to 48KHz and a frequency response range of 20Hz-20KHz; the system is equipped with a 2.8-inch LCD display screen and control buttons, employing ID addressing method, allowing for customizable conference unit numbering; the panel can control auxiliary input volume, MIC input volume, conference unit output volume, speaker volume, master volume, and the equalization adjustment of treble, midrange, and bass

2.2　Functional Parameters

1. Uses DSP/DDOV digital processing and transmission technology, compliant with IEC60065 international standards;

2. Equipped with a 2.8" LCD color display, allowing system setup without a computer, increasing installation and debugging efficiency;

3. Utilizes high-fidelity lossless audio transmission technology with a 48KHz audio sampling rate and a frequency response of 20Hz-20KHz;

4. Built-in DSP digital audio module with adaptive feedback suppression, digital equalizer, and automatic gain functions to maximize elimination of interference, distortion, and crosstalk;

5. The system uses ID addressing control, allowing customizable conference unit numbering to effectively avoid ID address conflicts;

6. Features 6 unit output interfaces, including 4 8-core and 2 RJ45 network interfaces, supporting connection of up to 180 units;

7. Supports simultaneous connection of 256 conference extension hosts, allowing up to 65,535 conference units via extension hosts;

8. Expandable with USB recording functionality to record all audio content of the conference, supporting up to 2000 hours of continuous recording;

9. Equipped with intelligent automatic protection technology to ensure uninterrupted conference audio signals in case of non-power faults in the conference host;

10. Uses 8-core DIN shielded cables to effectively prevent and avoid electromagnetic interference, ensuring no data loss;

11. Supports multiple connection methods, including daisy-chaining, junction boxes, T-type daisy-chaining, and ring daisy-chaining;

12. Features FIFO mode, allowing customizable settings for the number of speakers, with 1 to 6 speakers allowed at the same time;

13. Can be set to free discussion mode, where all conference units can freely speak without quantity restrictions;

14. Supports various speaking modes through PC conference management software, including application speaking mode, queuing mode, computer permission mode, and timed speaking mode;

15. Built-in camera tracking card, supporting VISCA and PELCO-D/P control protocols, allowing camera tracking setup, saving, and automatic recall without video tracking software or control keyboards;

16. Built-in 4x4 SD video matrix switcher with 3 video loop-out functions, easily managing multiple video signals;

17. Automatically switches HD camera signals when connected to an HD video decoding box and matrix;

18. Built-in electronic voting function, including sign-in, voting, election, and rating data management functions;

19. Supports key sign-in and IC card sign-in, with sign-in time settings and real-time dynamic display of sign-in data;

20. Supports both named and anonymous voting, with all voting data exportable and printable in text and graphics;

21. Expandable simultaneous interpretation function, supporting 8, 16, 32, and 64 channels;

22. Features "hot swap" capability for live line connection, ensuring system operation safety and stability;

23. Can connect to other condenser or dynamic microphones, providing more options for users;

24. Panel control for auxiliary input volume, MIC input volume, conference unit output volume, speaker volume, master volume, and equalizer adjustment for treble, midrange, and bass;

25. Panel with 32-level volume indicator lights, showing red when the volume is abnormal or overloaded;

26. Supports simultaneous connection of up to 8 chairman units, with the chairman units having priority functions and the ability to turn off other speaking delegate units;

27. Through software, delegate units can be set as VIP units, allowing unrestricted and free speech without being affected by other delegate units;

28. Strong resistance to mobile phone interference, ensuring no noise during calls and normal use even in venues with mobile signal blockers;

29. Multi-functional conference host connects to PC and programmable central control system via RS-232 for secure and stable control;

30. Built-in international AC100V~240V power supply and voltage stabilization system, ensuring safe and stable use under unstable voltage conditions.
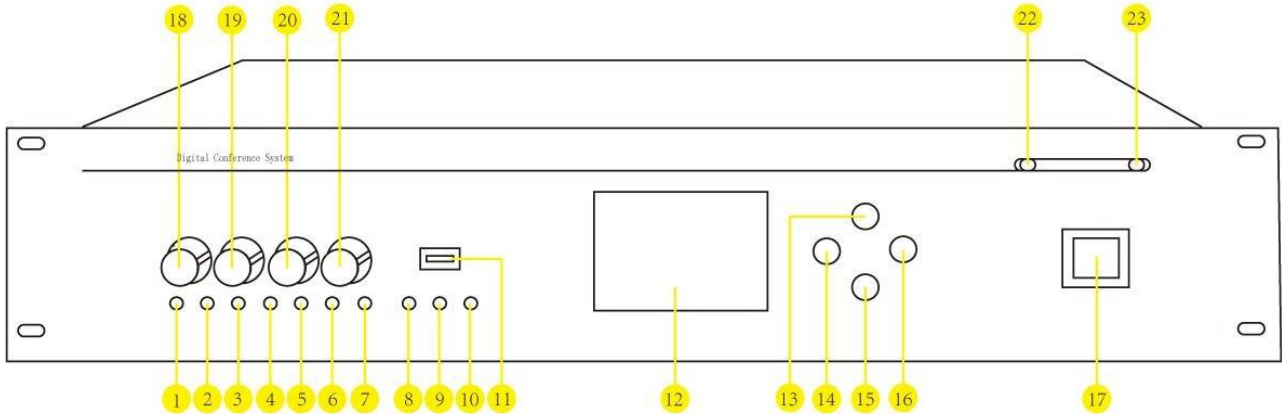
2.3　Technical Parameters

Working Power Supply	AC100~240V 50/60Hz
Power Consumption	Static 10W, Maximum 200W
System Capacity	180 units per standalone unit, expandable up to 65,535 units
Display Screen	2.8 inches, 128×64 graphic LCD display
Display Menu	Chinese, English (customizable)
Frequency Response	20Hz~20KHz
Signal-to-Noise Ratio	>96 dB
Dynamic Range	106dB
Total Harmonic Distortion	< 0.05%
Output Impedance	47 KΩ
Audio Input	RCA×2 +20dB XLR×1 +10dB
Audio Output	Auxiliary Output RCA×2 +20dB Main Output RCA×2 +20dB
Video Input	RCA×3
Video Output	RCA×5
Video Output Level	RCA×5 1.08V p－p
Video Output Impedance	75Ω
Video Bandwidth	150MHz (-3dB), fully loaded
Video Control	RS-232 interface
Recording Function	USB recording
Simultaneous Interpretation Function	Depending on model (8/16/32/64 channels available)
Control Interface	9PIN, D-type female connector

3、Product Introduction
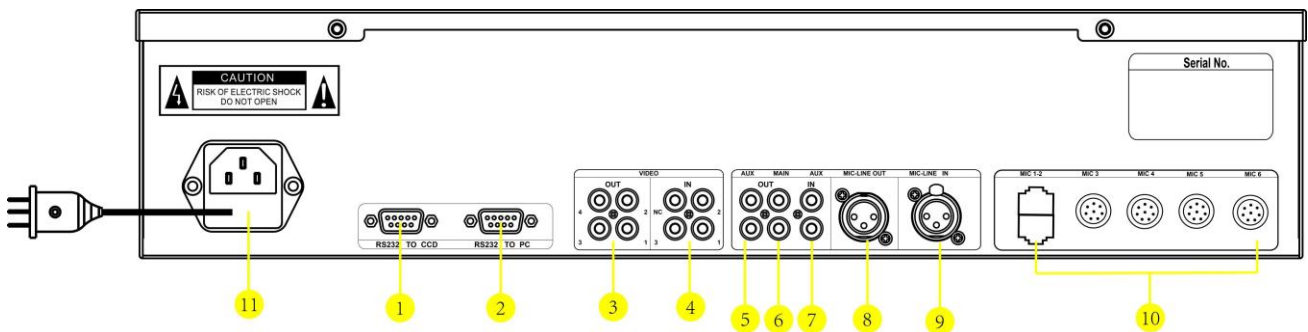
3.1　Product Interface Introduction

Front Panel

1、Main Volume Equalization Adjustment: Main volume output bass adjustment

2、Main Volume Equalization Adjustment: Main volume output midrange adjustment

3、Main Volume Equalization Adjustment: Main volume output treble adjustment

4、Speaker Equalization Adjustment: Conference unit built-in speaker bass adjustment

5、Speaker Equalization Adjustment: Conference unit built-in speaker midrange adjustment

6、Speaker Equalization Adjustment: Conference unit built-in speaker treble adjustment

7、Speaker Volume Control: Conference unit built-in speaker main volume adjustment 8

、Recording Button: Start recording button

9、Stop Button: Stop recording button

10、Play Button: Play recording button

11、USB Interface: USB recording interface (optional feature)

12、LCD Display: 2.8-inch LCD display, dynamically displaying conference information

13、Four-Directional Operation Button "Up": Multi-functional button

14、Four-Directional Operation Button "Left": Multi-functional button

15、Four-Directional Operation Button "Down": Multi-functional button

16、Four-Directional Operation Button "Right": Multi-functional button

17、Power Switch Button: When the power switch is set to the 1 position (up), it represents the power-on state; when set to the 0 position (down), it represents the power-off state

18、AUX Auxiliary Volume Knob: Adjust the volume of the AUX auxiliary input

19、Conference Unit Volume Control Knob (DESK): Adjust the volume of the conference unit

20、MIC Input Volume Knob: Adjust the volume of the MIC/LINE input

21、Main Volume Control Knob (MAIN): Adjust the main output volume of the conference host

22、Audio Signal Indicator Light: When the red indicator light is on, it indicates that the audio amplitude is too high

23、Power Indicator Light: When the conference host is powered on, the red indicator light will be on constantly

Rear Panel

1. RS-232 Interface (CCD): Connects to the camera control port or central control port.

2. RS-232 Interface (PC): Connects to a PC for computer control.

3. RCA Video Signal Output Interface (VIDEO OUT): Video output interface with three video loop-through channels.

4. RCA Video Signal Input Interface (VIDEO IN): Video input interface.

5. RCA Audio Output (AUX OUT): System audio output interface.

6. RCA Main Audio Output (MAIN OUT): System main volume output interface.

7. RCA Audio Input (AUX IN): System audio input interface for connecting third-party audio sources.

8. MIC Audio Output (MIC/LINE-OUT): Balanced main audio output, system main volume balanced output interface.

9. MIC Audio Input (MIC/LINE-IN): Balanced audio input interface for connecting third-party audio sources.

10. Six-Channel Unit Interface: 2 network ports + 4 eight-pin interfaces for connecting conference

units, can be mixed.

11. Power Interface: Connects to AC100~240V 50/60Hz power supply, with a spare fuse.

3.2　System Connection Diagram