

System Solution_D5920 Compact Digital Conference System for Small Conference Rooms



I. System Solution

- This solution is based on the D5920 compact conference host and is designed to provide an efficient, streamlined, and user-friendly conference system for small to medium-sized meeting rooms. It meets both audio quality and management needs while featuring a space-saving compact design, making it suitable for a wide range of conference applications.



Project Requirements

- **High-Fidelity Audio Processing:** Delivers stable audio output with minimal distortion or noise interference, significantly enhancing overall conference sound quality.
- **Strong Scalability:** The system offers flexible configuration options to adapt to various venues, meeting diverse audio and speech management needs with excellent scalability.
- **Multiple Conference Modes:** Supports a range of advanced conference modes for efficient meeting management. The intelligent speech control features help regulate the order of speaking, maintain meeting discipline, and prevent disorganized discussions.
- **User-Friendly Operation:** The system features a clean and intuitive user interface with menu-based controls for easy operation. Its hand-in-hand connection requires only a single cable between units, simplifying installation and reducing labor and material costs.

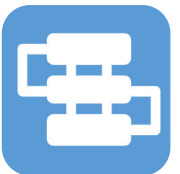
II. Pain Point Overview

Meeting Pain Points



Chaotic Meeting Discussions:

Unorganized speaking and multiple participants vying for the microphone disrupt the meeting flow and reduce overall efficiency.



Complex Cabling:

Complex wiring, high installation cost and long construction period, making deployment difficult.



Poor Audibility in the Back Rows:

Low speech intelligibility for participants at the back hampers effective communication and weakens the overall meeting atmosphere.



Limited System Scalability:

The system lacks flexibility and cannot be easily upgraded or adjusted to meet changing needs.

D5920 Compact Digital Conference System Solution

Intelligent Speech Management:

- The chairman unit can mute all delegate units with one touch.
- Auto mode supports limiting the number of active speaker.

Hand-in-Hand Connection:

- Connected in series using a single 8-core aviation cable.
- Automatic unit addressing by the host—no manual setup required.

High-Fidelity Audio Processing:

- Signal-to-noise ratio $\geq 75\text{dB}$; distortion $\leq 0.5\%$.
- Balanced output with howling suppression adjustment (P8 potentiometer).

Flexible Expansion Design:

- A single host supports up to 100 units (dual-channel output).
- Plug-and-play expansion for quick addition of conference units.

III. Solution Configuration for a 50m² Small Conference Room

Configuration Description

- Designed for a conference room of approximately 50m² with a 12-seat conference table and one chairman position.
- Chairman Unit: Positioned at the center front of the conference room (host seat), providing full override priority. Equipped with a feedback suppressor featuring an advanced auto-tuning module that automatically eliminates acoustic feedback (howling).
- Paired with four ceiling speakers, the system delivers sufficient sound pressure levels while meeting national standards for average SPL and sound field uniformity. The flush-mounted installation enhances the overall aesthetics of the conference room.



Conference Room Layout Diagram — D5920 Conference System Application



No.	Model	Product Name	Quantity
1	D5920	Compact Conference Host	1
2	D5921	Compact Conference Chairman Unit	1
3	D5922	Compact Conference Delegate Unit	12
4	D6576	Feedback Suppressor	2
5	DMX12	12 Channel Audio Mixer	1
6	D6648	Digital Audio Processor	1
7	DX1000	2*150W Professional Amplifier	1
8	DSP916D	40W Coaxial Ceiling Speaker	4

Note: This configuration is for reference only. For customized solutions, please contact us.

■ IV. Core Functions of the D5920 Digital Conference System



Efficient Control:

Chairman unit with priority function enables one-touch control to maintain conference order.

Exceptional Audio Quality:

Wide frequency response from 120Hz to 16kHz ensures clear and detailed voice reproduction.

Flexible Deployment:

Hand-in-hand connection supports complex conference room layouts with ease.

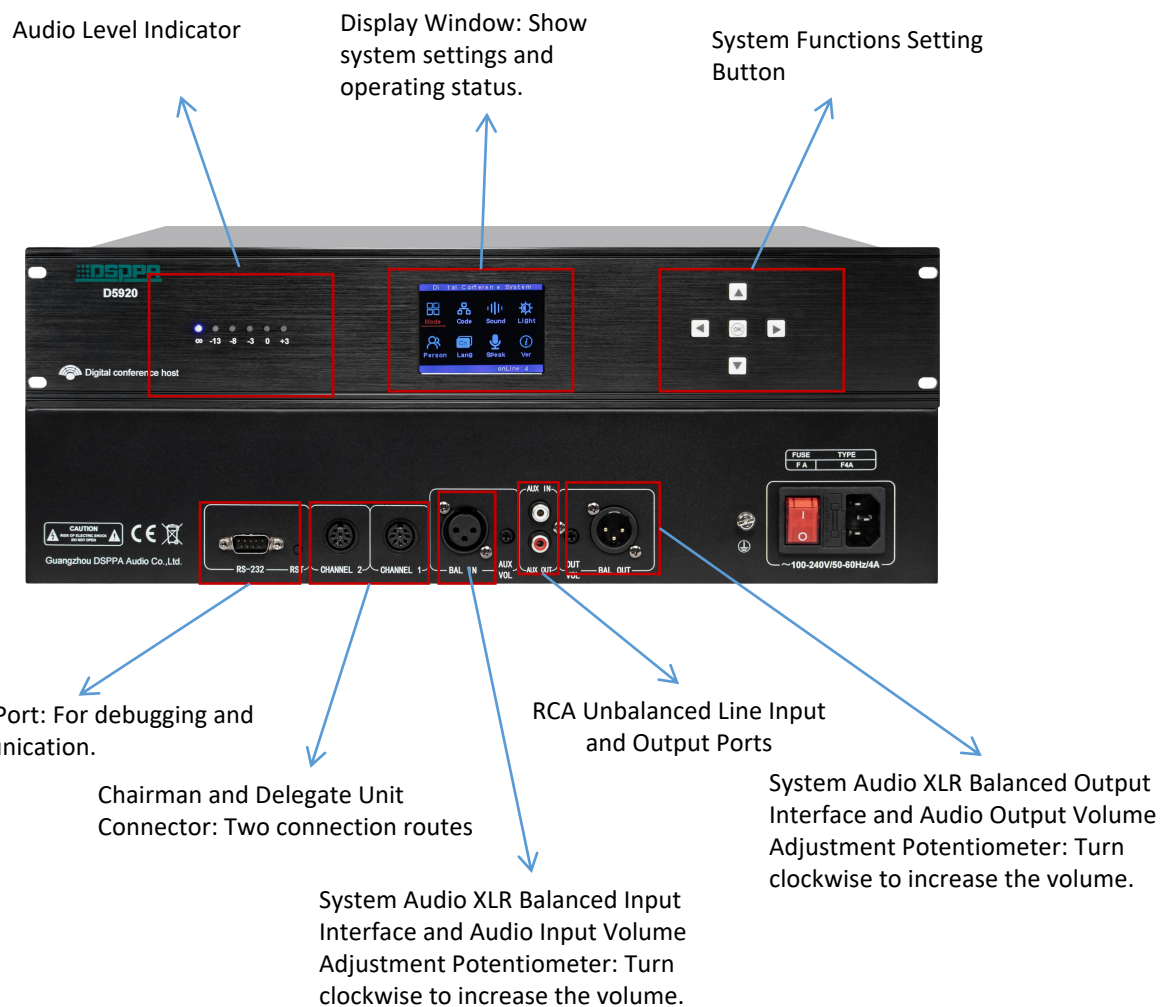
Smart and User-Friendly:

Voice-activated wake-up and automatic IP address assignment reduce manual configuration.

Secure and Reliable:

24V power supply with multiple protection mechanisms ensures system stability and safety.

V. D5920 Digital Conference System Host



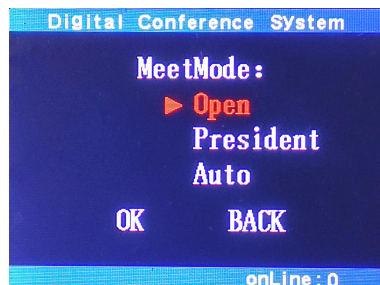
Features:

- Developed with an eight-core fully digital high-fidelity circuit design.
- Built-in high-performance RISC CPU as the core for stable and fast processing.
- The system host is equipped with an LCD display for more intuitive and user-friendly menu operations.
- The system host has 2 output channels and can connect up to 100 units.
- The system speaking modes include FIFO (first-in-first-out), fully open mode, and chairman mode.
- With a unique high-fidelity audio processing circuit to enhance the clarity of the entire system.
- With a recording output interface, which can be connected to external sound amplification equipment.
- The chairman unit can control the speaking order and manage the meeting atmosphere using the Priority button.
- The conference unit is powered by the system host with a working voltage of DC 24V, meeting safety standards.

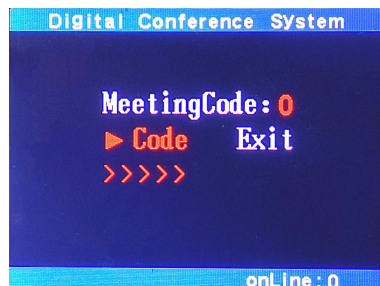
VI. Core Functions of the D5920 Conference Host



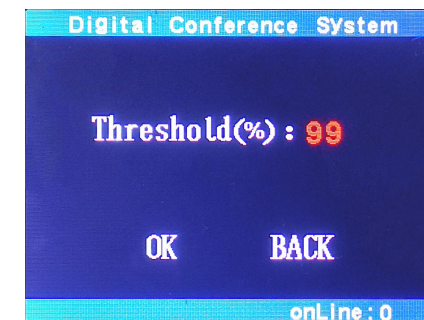
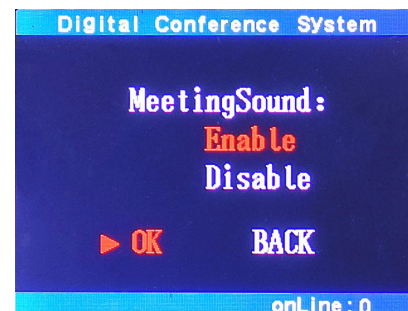
- The digital conference system includes conference mode setting, unit ID setting, voice control setting, backlight setting, number of speaking units setting, language setting, speaking setting, and version checking.



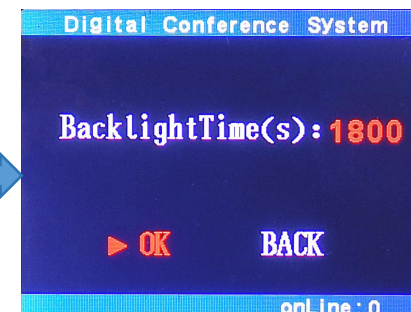
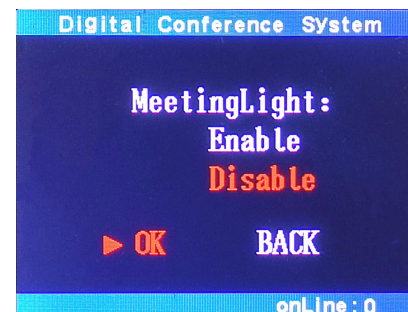
- Three Conference Mode: FIFO (first-in-first-out)/Fully Open Mode/and Chairman Mode



- Auto Addressing: After entering the addressing mode, press "OK" to initialize addressing. Then, press the button on each microphone unit to complete its addressing, with the current address count displayed. Finally, press "OK" again to finish. The number of online units will be shown in the lower right corner.



- Voice Control Setting: The voice control function can be enabled or disabled. When enabled, the microphone will automatically pick up sound without manual activation. The lower the threshold, the higher the sensitivity.



- After enabling the backlight setting, you can set the delay time for the host display backlight to automatically turn off when no button is pressed. The delay range is from 1 to 1800 seconds.

■ VII. D5921/D5922 Conference Unit



Features:

- The units are **powered uniformly by the host's DC 24V supply** (no separate wiring or socket required), allowing flexible installation locations.
- The chairman unit (D5921) and delegate units (D5922) can be connected in any combination; the system automatically recognizes them.
- The chairman conference unit features a priority button, priority function key, and indicator light. Pressing the priority button can mute or turn off the speaking units currently active.
- The chairman's speech is not limited by the number of simultaneous speakers and has full control over maintaining meeting order.
- In a simplified conference system, multiple chairman units with priority rights can coexist simultaneously, and their connection positions in the system wiring are unrestricted. LED indicators display the current operating status.

■ VIII. Application Scenarios



Multifunctional Hall



Government
Conference Rooms



Education & Training



Emergency Command
and Control

With secure deployment, professional audio, and intelligent control, the D5920 Digital Conference System is ideal for diverse meeting scenarios—from internal corporate discussions to multinational conferences and academic forums.



CREATING THE BEST SOUNDING THE WORLD

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