



IP Audio Conference
System for Medium-Sized
Conference Rooms



System Overview



Background Description

- A medium-sized conference room can usually accommodate from dozens to about one hundred people. In order to meet the needs of medium-sized meetings, designers design an efficient, professional and convenient meeting environment to promote smooth business cooperation and seminars.
- The conference system may have quality problems when transmitting audio and video, such as blurred images and unclear sound. This may affect participants' understanding on the presentation and engagement. Generally, it is necessary to choose high-quality network conference sound reinforcement equipment, LED display or 4K intelligent all-in-one display.
- Operations, such as preparation of multiple nameplates or cumbersome setup procedures, may result in difficulty for participants in using the conference system, affecting the efficiency and smoothness of the conference.
- In terms of security, the information in the conference management system needs to be encrypted and permission-controlled to ensure that only authorized personnel can access and use it.



Conference Room to be Upgraded

Design Objectives

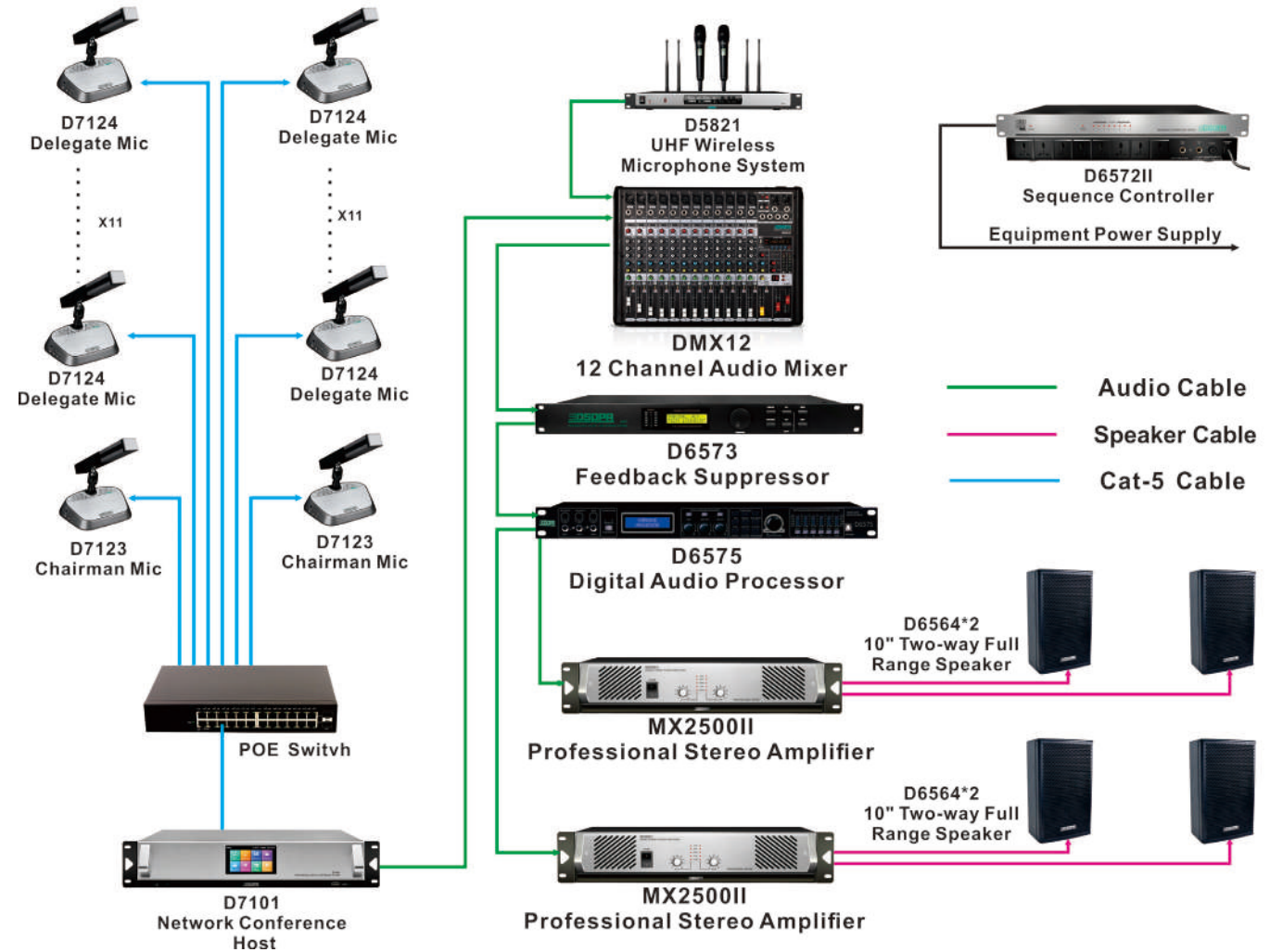
- Usually, a meeting involves multi-party participants, so that the conference system needs to make it easy for participants to communicate, share files and screens without any barriers.
- As professional presentations, reports and data need to be displayed, the conference system needs to provide high-quality audio, video and presentation effects to ensure that participants can clearly see and comprehend the presentation.
- When it comes to commercially confidential and sensitive information, the conference system needs to provide security measures to ensure the confidentiality and security of conference information.
- The conference system needs to streamline operations and provide user-friendly interfaces and features so that participants can quickly get started and effectively work with it.

Speaking-Only Conference Configuration

System Composition: IP Audio Conference System + Professional Sound System.

System Functions: Speaking-only conference discussion and audio reinforcement.

No.	Model	Product Name	Quantity
Audio System			
1	D7101	IP Audio Conference Host	1 PC
2	D7123	Chairman Unit	2 PCS
3	D7124	Delegate Unit	22 PCS
4	D5821	UHF Handheld Wireless MIC System	1 PC
5	DMX12	12-Channel Audio Mixer	1 PC
6	D6573	Feedback Suppressor	1 PC
7	D6575	Digital Audio Processor	1 PC
8	MX2500II	Professional Stereo Amplifier	2 PCS
9	D6564	10" Two-Way Full-Range Speaker	4 PCS
Peripheral Equipment			
1	D6572II	Power Sequence Controller	1 PC
2	D5A	Professional Speaker Bracket (Wall Mount)	4 PCS
3	--	POE Switch	1 PC
4	MP20U	20U 19" Floor Stand Audio Rack with Electric Fan	1 PC

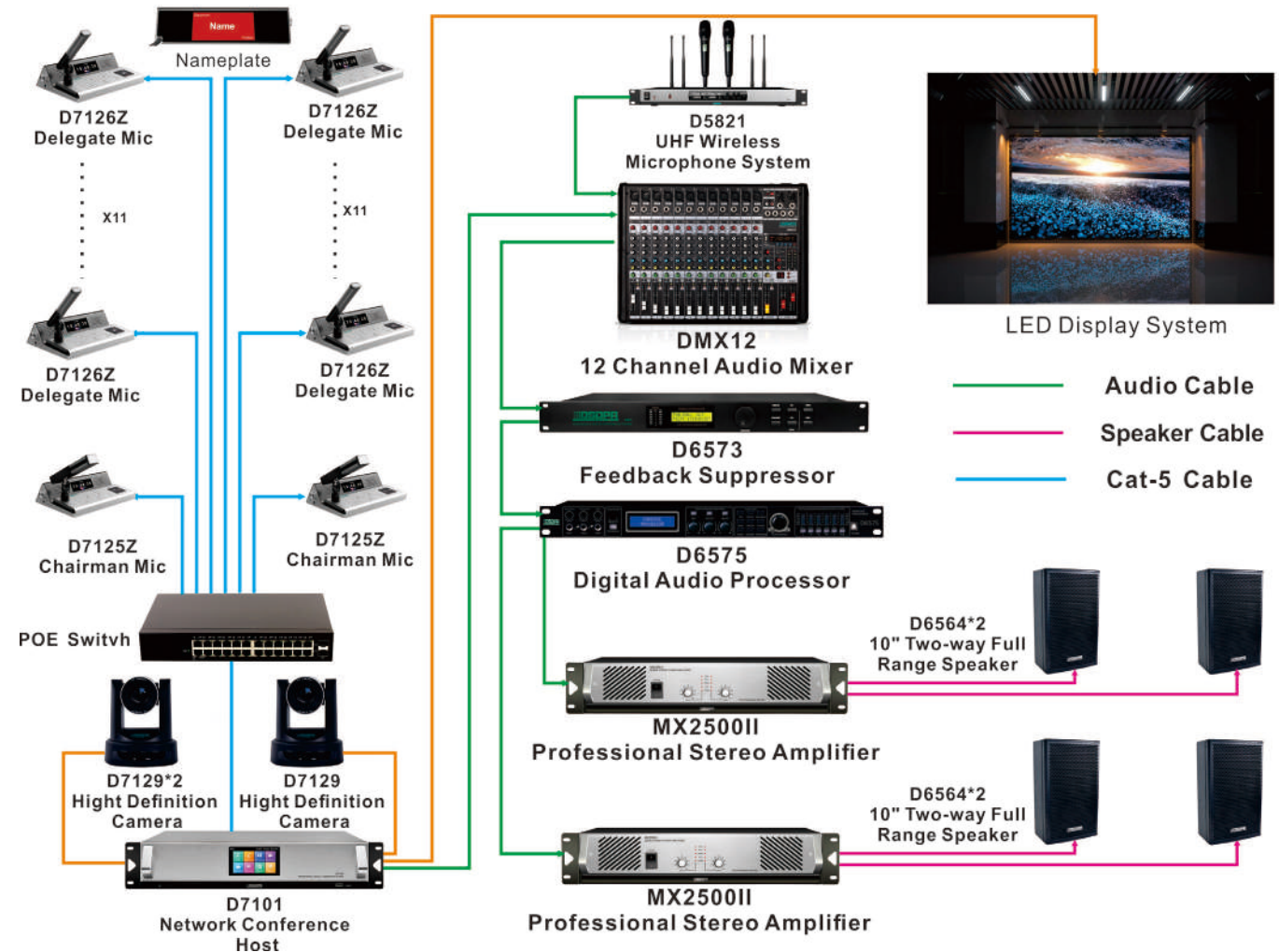


Conference Configuration with Camera Tracking

System Composition: IP Audio Conference System + Camera Tracking + Professional Sound System.

System Functions: Speaking-only conference discussion, sign-in, voting, nameplate display, automatic camera tracking and audio reinforcement.

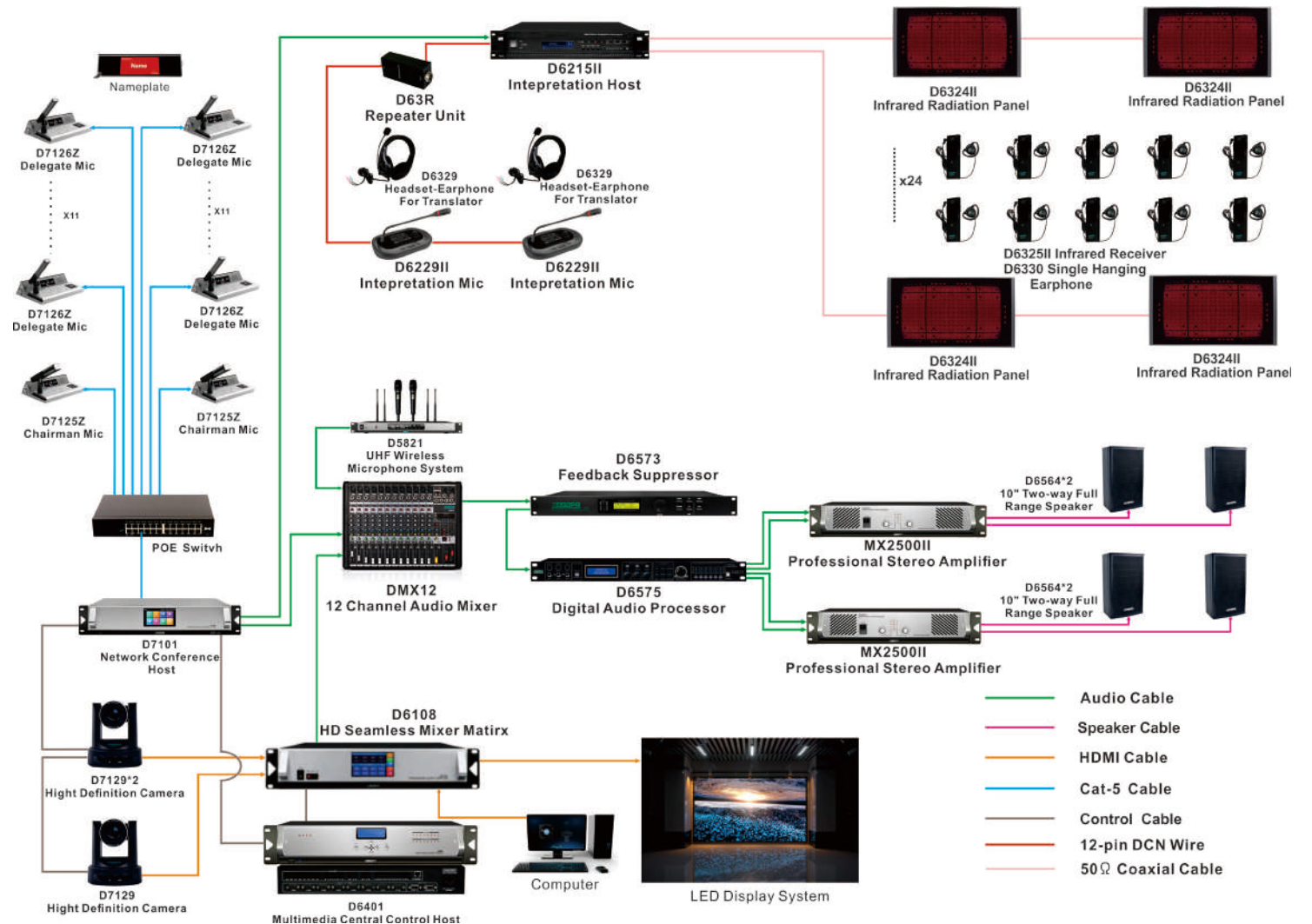
No.	Model	Product Name	Quantity
Audio System			
1	D7101	IP Audio Conference Host	1 PC
2	D7125Z	Chairman Unit	2 PCS
3	D7126Z	Delegate Unit	22 PCS
4	D5821	UHF Handheld Wireless MIC System	1 PC
5	DMX12	12-Channel Audio Mixer	1 PC
6	D6573	Feedback Suppressor	1 PC
7	D6575	Digital Audio Processor	1 PC
8	MX2500II	Professional Stereo Amplifier	2 PCS
9	D6564	10" Two-Way Full-Range Speaker	4 PCS
10	D7129	High-Definition Camera	3 PCS
Peripheral Equipment			
1	D6572II	Power Sequence Controller	1 PC
2	D5A	Professional Speaker Bracket (Wall Mount)	4 PCS
3	--	POE Switch	1 PC
4	MP20U	20U 19" Floor Stand Audio Rack with Electric Fan	1 PC



Conference Configuration with Camera Tracking + Simultaneous Interpretation

About 200m² Conference Room (20m (L) * 10m (W) * 4m (H))

- System Composition: IP Audio Conference System + Simultaneous Interpretation System + Tracking Display System + Professional Sound System.
- System Functions: Automatic camera tracking, central control, video switching, voting, nameplate display, and simultaneous interpretation.
- The system is designed to have 2 chairmen and 22 delegates to attend the meeting, with 3 cameras in different directions for close-ups of the participants, 4 250W professional speakers for sound coverage of the whole area, 4 infrared radiation panel for signal coverage, and 24 receivers for participants for real-time interpretation.



With Camera Tracking + Simultaneous Interpretation



No.	Model	Product Name	Quantity
Simultaneous Interpretation System			
1	D6215II	Interpretation Host	1 PC
2	D6229II	Interpreter Unit	2 PCS
3	D6329	Headset Earphone for Interpreter	2 PCS
4	D63R	Repeater Unit	1 PC
5	D6324II	Infrared Radiation Panel	4 PCS
6	D6325II	Infrared Receiver	24 PCS
7	D6330	Single Hanging Earphone	24 PCS
Audio System			
1	D7101	IP Audio Conference Host	1 PC
2	D7125Z	Chairman Unit	2 PCS
3	D7126Z	Delegate Unit	22 PCS
4	D5821	UHF Handheld Wireless MIC System	1 PC
5	DX12	12-Channel Audio Mixer	1 PC
6	D6573	Feedback Suppressor	1 PC
7	D6575	Digital Audio Processor	1 PC
8	MX2500II	Professional Stereo Amplifier	2 PCS
9	D6564	10" Two-Way Full-Range Speaker	4 PCS

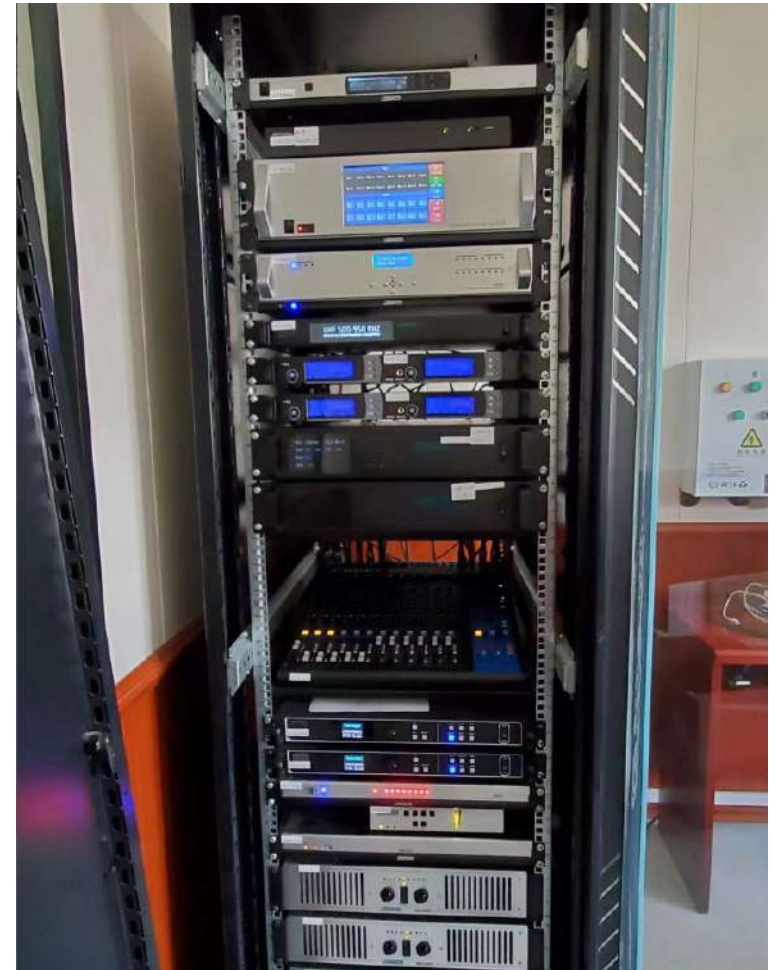
No.	Model	Product Name	Quantity
Tracking Display System			
1	D7129	High-Definition Camera	3 PCS
2	D6108	HD Seamless Hybrid Matrix	1 PC
3	D6401	Multimedia Central Control Host	1 PC
4	--	Computer	1 PC
5	--	LED Display System	1 PC
Peripheral Equipment			
1	D6572II	Power Sequence Controller	1 PC
2	D5A	Professional Speaker Bracket (Wall Mount)	4 PCS
3	MP40U	40U 19" Floor Stand Audio Rack with Electric Fan	1 PC

System Advantages

- The conference system is designed with good sound transmission, strong confidentiality, high stability and strong anti-interference capability.
- Pre-meeting preparation, nameplate display, sign-in and voting, easy to operate, convenient to use, efficient to manage.
- The conference system works with cameras, central control and matrix equipment to realize seamless tracking switching and improved on-site conference recording effect.
- The conference system works with the simultaneous interpretation system equipment to realize that the main speaker and the interpreter speak nearly at the same time, thus saving the time of the meeting and improving the work efficiency.

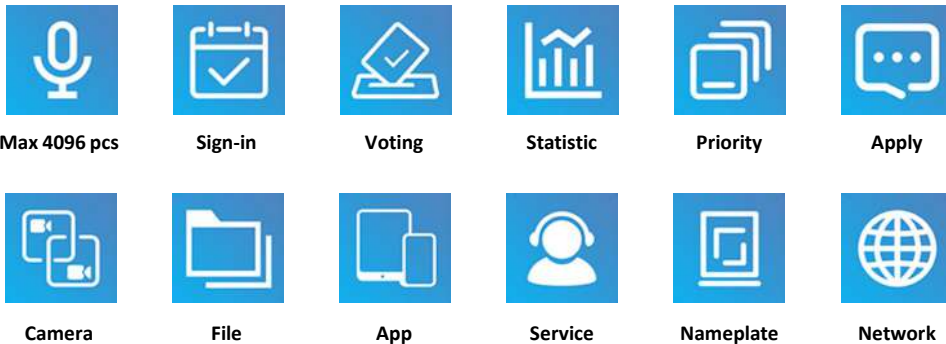
On-Site Rendering

About 200m² Conference Room (20m (L) * 10m (W) * 4m (H))



Functional Advantages

(IP Audio Conference System Host) D7101



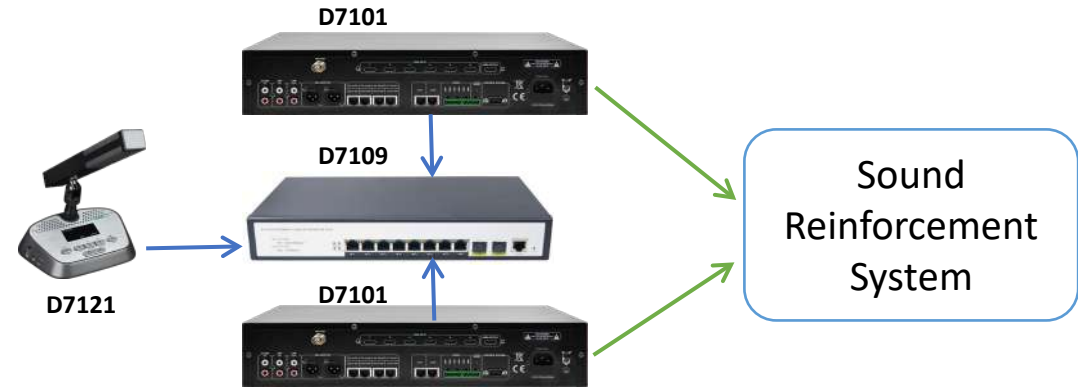
- A set of conference system can access up to **4096 conference units**.
- With built-in DSP network sound processor for **uncompressed and high-quality** sound effects.
- Designed with high-fidelity network lines for **high microphone stability and strong anti-interference capability**.
- Support **5 conference modes**: FIFO, NORMAL, VOICE, FREE, and APPLY.
- Allow for **recording of the entire meeting**, with automatic and manual options available.
- With timed speaking and timed speaking countdown functions. Support **remote control of the on/off of the microphone**.
- With +5V alarm trigger voltage input interface, combined with the alarm audio input interface for **emergency alarm override function**.
- With 4 100M +48V powered RJ45 network interface to **provide network transmission protocol and +48V network power supply to connected conference units**.
- Support the connection to wired conference units and 5G WiFi wireless conference units; allow for **3 connection modes**, including the connection to pure wired units and pure wireless units, as well as hybrid connection to wired and wireless units.
- Can **work with the simultaneous interpretation system** for instant interpretation, ensuring that participants can comprehend the speaking content in real time.

Functional Advantages

(IP Audio Conference System Host) D7101

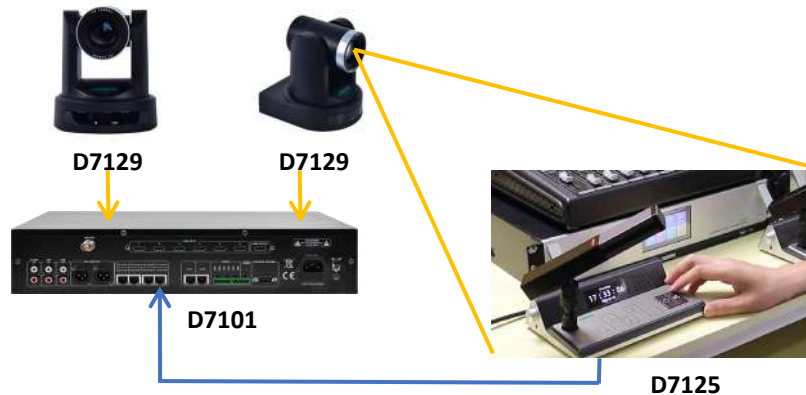
Dual-Machine Hot Backup Function

- One conference host can be set as the host, and the other conference host can be set as the backup host (slave), and connected to the system. When the host fails, the slave will be activated automatically to ensure a smooth and uninterrupted conference.



Camera Tracking Function

- The host integrates the camera tracking system, supports 6 camera access, and holds 1 high-definition output. After the appropriate position is set, when the Speak button of the microphone is pressed, automatic camera tracking can be realized.

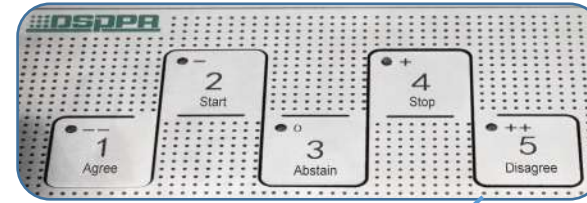


Functional Advantages

(IP Audio Conference System Host) D7101

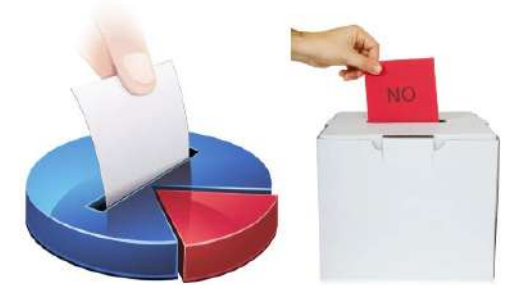
Voting Function

- Participants can vote via a voting unit, which is quick and easy to operate.
- The LCD screen displays all the prompts for the voting operation, and you can directly complete the voting (Yes/No/Abstain) operation as prompted.
- The LCD screen displays the total number of votes cast, the number of affirmative votes, the number of abstentions, and the number of negative votes.



D7125

VS



Electronic Desktop Nameplate Function

- Up to 5 lines of text can be added to the electronic desktop nameplate, with a maximum length of 20 characters for each text, and the screen size of the microphone unit is 4.0”.
- The background color and text displayed on the microphone can be set.



D7125Z

VS

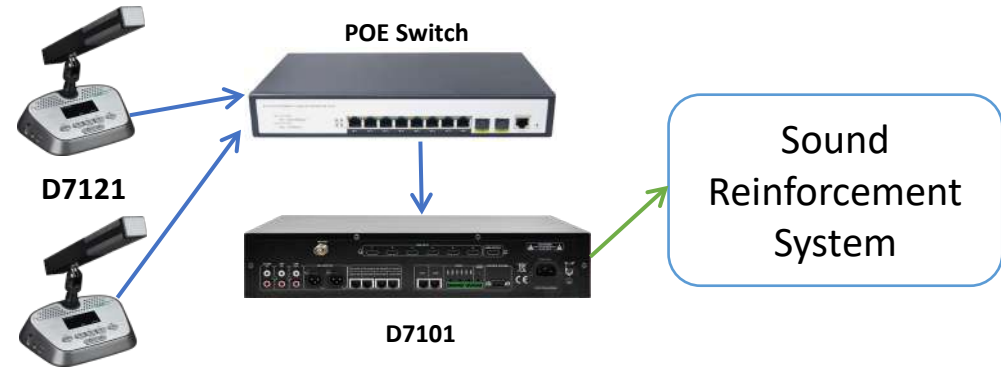


Functional Advantages

(IP Audio Conference System Host) D7101

Strong Anti-interference Capability

- By using analog/digital (A/D) and digital/analog (D/A) conversion technology, the digital signal can be transmitted on the network after being encoded, which fundamentally solves the problems of equipment interference, distortion and crosstalk, signal attenuation over long distance transmission, and so on. Networked transmission leads to enhanced anti-interference capability of the system.



Conference Recording Function

- The whole meeting can be recorded, either automatically or manually. The audio files generated by the recording of the conference system are automatically saved in wav format, and the capacity of the USB flash drive is no more than 128G.



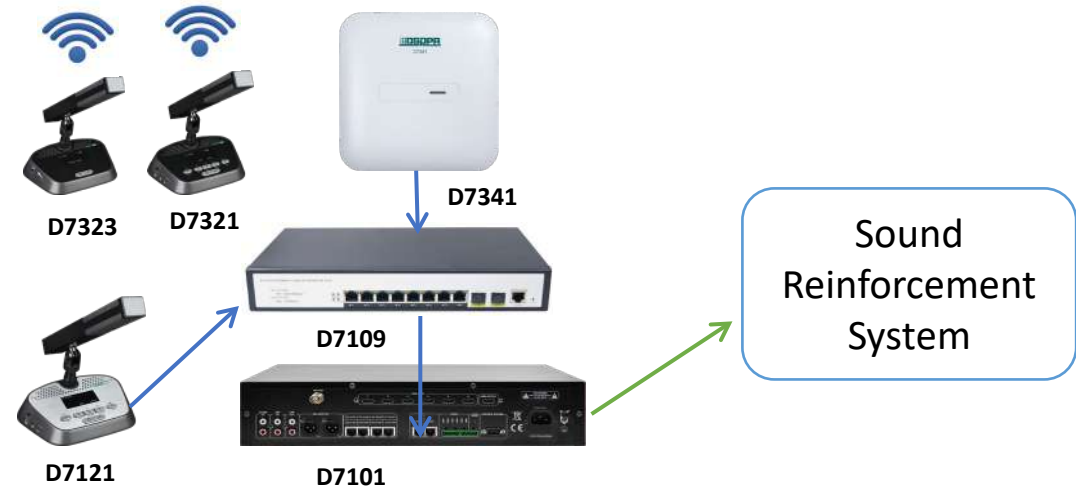
Functional Advantages



(IP Audio Conference System Host) D7101

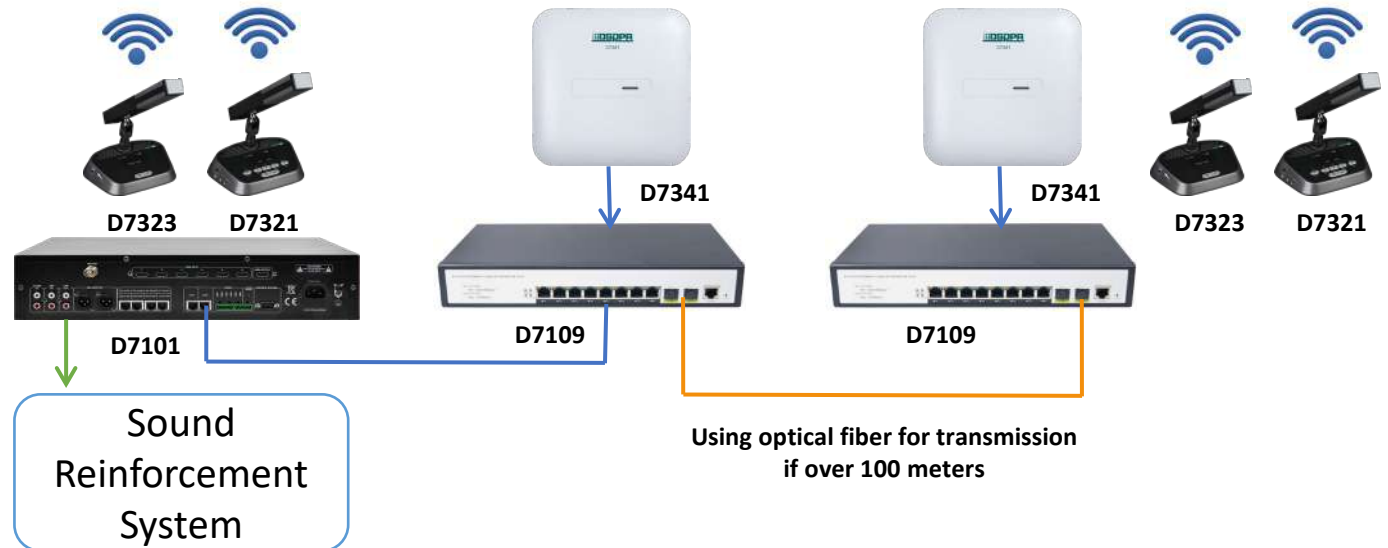
Paired with D73 Series Wireless Units

- Wireless APs can be expanded by connecting to a PoE network switch, and the system can access up to 300 D73 series wireless conference units.
- Wireless and wired conference units can be used simultaneously, and up to 4096 conference units can be connected (including up to 300 wireless conference units).



Long Transmission Distance

- There is no limitation on the distance of transmission, and it needs to be carried out in the LAN, which must be a private network and cannot be connected to other equipment except for conference units.
- It is free from space constraints and can be used in multiple rooms.



Functional Advantages

IP Audio Conference System VS. Digital Conference System

Load Capacity

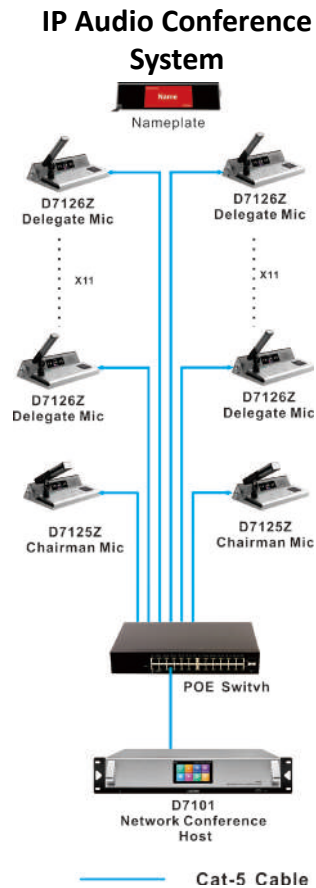
A set of conference system can access up to **4096 conference units**, which can be realized via a switch.

Wiring Distance

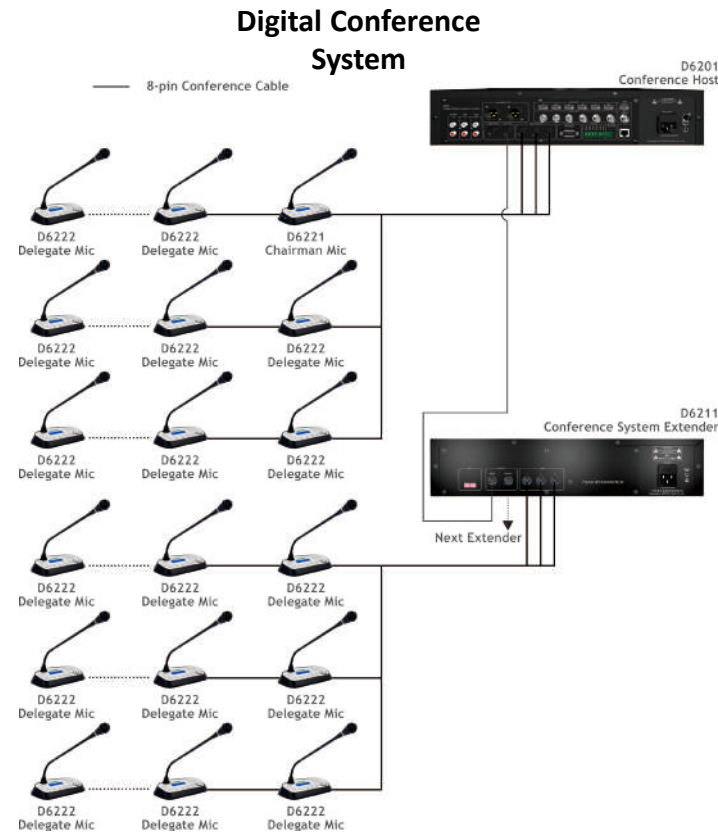
As connected via a network cable, there is no limitation on the distance of transmission. It needs to be carried out in the LAN, and multiple switches can be cascaded.

Power Attenuation

If a single conference unit is connected and powered by a single port of the switch, the power supply distance can be up to 90 meters with attenuation.



VS



Load Capacity

A set of conference system can access up to **4096 conference units**, which can be realized via the expansion machine D6211. One expansion machine can support 128 conference units, and multiple expansion machines can be cascaded.

Wiring Distance

Connected hand in hand via an 8-pin cable over a distance of no more than 100 meters.

Power Attenuation

The host supplies power to conference units via 8-pin cables, and no more than 20 units can be connected hand in hand.

Microphone Options



Diverse Needs of Conference Systems

D7121 Chairman MIC D7122 Delegate MIC

- A speaking conference unit integrating speaking and voting functions.
- With high-brightness 2.4" OLED liquid crystal screen.



D7125 Chairman MIC D7126 Delegate MIC

- A speaking conference unit integrating speaking and voting functions.
- With high-brightness 2.9" RGB color LCD screen.



D7125Z/D7127Z Chairman MIC D7126Z/D7128Z Delegate MIC

- A speaking conference unit integrating speaking, voting (D7125Z/D7126Z), and electronic desktop nameplate functions.
- With a high-brightness 2.9" RGB color LCD screen.
- With 4.0" RGB color LCD screen for electronic desktop nameplate display.



D7143 Chairman MIC D7144 Delegate MIC

- Designed with an embedded structure, a speaking-only conference unit.
- Dimensions (L×W×H) 90×80×150mm.



D7123 Chairman MIC D7124 Delegate MIC

- A speaking-only conference unit.

D7127 Chairman MIC D7128 Delegate MIC

- A speaking-only conference unit.
- With high-brightness 2.9" RGB color LCD screen.

D7141 Chairman MIC D7142 Delegate MIC

- Designed with an embedded structure, a speaking conference unit integrating speaking and voting functions.
- Dimensions (L×W×H) 145×80×150mm.

Peripheral Equipment



Microphone Rod Selection



D7286 (Standard)

- Cardioid directional condenser square microphone rod.
- Black (customizable).
- 186mm in length.



D7287 (Standard)

- Cardioid directional condenser square and oval microphone rod.
- Titanium gray (customizable).
- 182mm in length.

Tracking Camera



D7129

- 20x optical zoom, 12x networked zoom, 58.7° high-quality wide-focus lens.
- High-quality HD CMOS sensor with 2 megapixels for 1080p full HD.
- With RS232 and RS485 serial ports for camera control.
- With HDMI, HD-SDI, IP interfaces for video output and video audio input.

SNMP Gigabit 8-Port PoE Switch



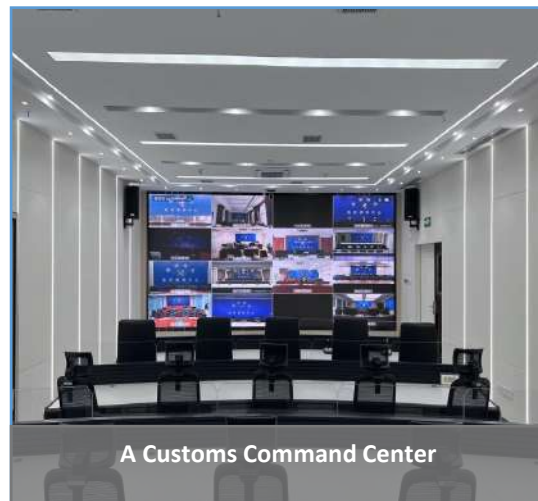
D7109

- 8 10/100/1000Mbps network ports support PoE+; 2 Gigabit uplink SFP optical ports, 1 Console management port, support Layer 2 network management function, with 66Gbps backplane bandwidth.
- 6KV lightning protected, rack-mounted.
- Rated voltage range: 100~240V AC; 50/60Hz.
- The single-ended maximum output power can be up to 30W, the power of the whole machine can be 120W. PoE power supply distance can be 100 meters.

■ Case Gallery



Ministry of Foreign Affairs,
Ugandan



A Customs Command Center



Hangzhou Electric Power
Mansion



Arxan Forum, Inner Mongolia

The IP audio conference system is suitable for a variety of conference scenarios, such as internal corporate conferences, international summit, academic seminar, and command and dispatch centers, and plays an important role.



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