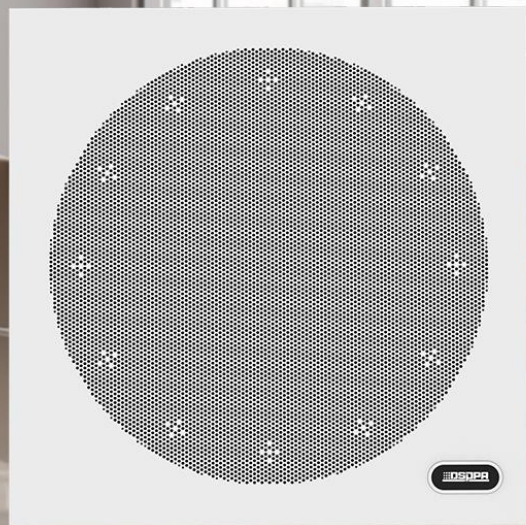
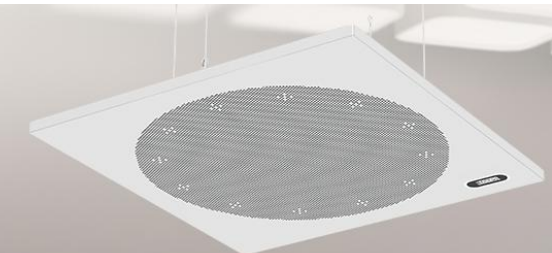


# D7702 Ceiling Array Conference System: All-Scenario Smart Conferencing Solution



D7702P Audio Processor

D7702M Ceiling Array Microphone



104 Digital MEMS Microphones



360° Omnidirectional Pickup



8m Optimal Pickup Radius



AI Feedback Cancellation



Distributed Automatic Mixing



AI Noise Reduction



Ultra-Low Latency



AI Reverberation Suppression

# I. System Overview

- As meeting demands continue to evolve across enterprises, educational institutions, government bodies, and various organizations, expectations for audio and video systems are steadily increasing. Clear and natural sound, precise voice reinforcement, smooth and low-latency remote communication, as well as intelligent management and efficient collaboration, have all become essential requirements.
- The D7702 Smart Conference System emerges as an all-in-one, full-scenario solution that integrates seamless in-room sound reinforcement, remote conferencing, and **AI-powered meeting capabilities**. It is designed for various application scenarios such as meeting rooms, conference rooms, lecture halls, command and dispatch centers, tiered classrooms, and training centers, providing an immersive, natural, and enjoyable voice experience.

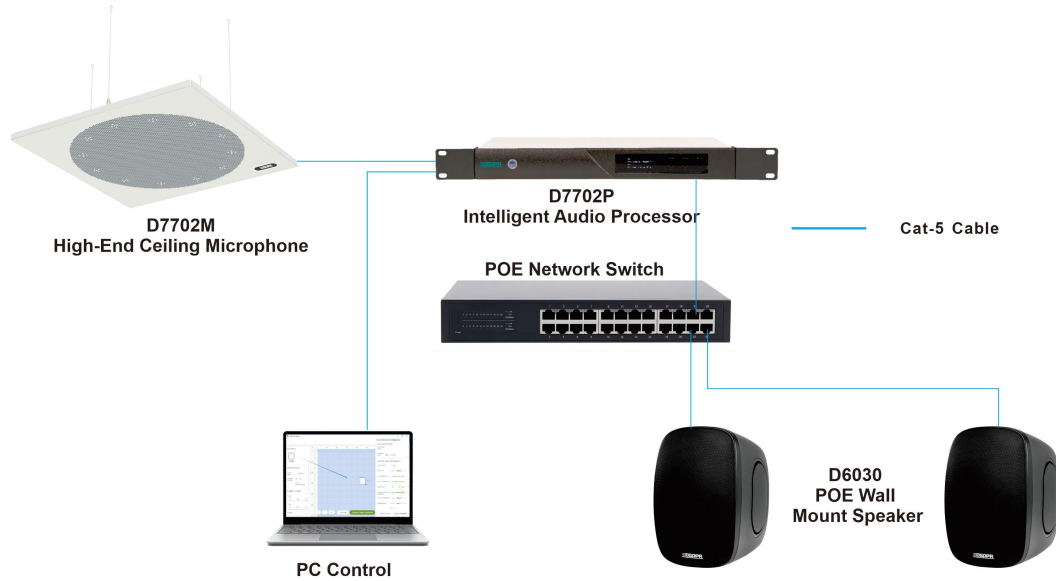


## Project Requirements

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- Enhance audio and video performance in meeting rooms to ensure clear and smooth communication;
- Simplify the operation of conference room equipment and lower the user threshold;
- Improve meeting room utilization to support a wide range of conferencing scenarios;
- Automatically adapt to different room environments and noise levels, reducing enterprise costs and improving work efficiency;
- Seamlessly integrate with mainstream conferencing platforms for an immersive remote meeting experience.

## II. Solution Configuration – Small Conference Room (50 m<sup>2</sup>)



### Single D7702M Unit:

- It is suitable for corporate departmental meetings, project discussions, small-scale training sessions, and remote video conferences. Designed for compact spaces, it prioritizes clear audio performance, easy installation, and overall aesthetic integration, ensuring efficient and productive meetings.



No.	Model	Product Name	Quantity
1	D7702M	High-End Ceiling Microphone	1PC
2	D7702P	Intelligent Audio Processor	1PC
3	D6030	POE Wall Mount Speaker	2PCS
4	POE Switch	POE Switch	1PC
5	PC	PC	1PC

Note: This solution is provided for reference only. For specific requirements, please feel free to contact us.

# Advantages and Core Value of the Solution

## Core Advantages



### Full Coverage

An 8-meter pickup radius allows a single device to fully cover small and medium-sized conference rooms.



### Exceptional Audio Clarity

Ceiling-mounted or suspended installation frees up desk space, with simplified cabling for a neat and tidy setup.



### Exceptional Audio Clarity

AI-based noise reduction and voice enhancement effectively filter out background noise for clearer speech.



### Rapid Deployment

Standardized configuration enables commissioning within 30 minutes, ensuring true plug-and-play operation.

## Core Values



### Significantly Improved Meeting Efficiency

Eliminates the inefficiency of passing around traditional microphones. Omnidirectional pickup allows everyone to speak freely and be clearly heard.



### Enhanced Meeting Experience

A clean and pure audio environment reduces listening fatigue, helping participants stay more focused throughout the meeting.



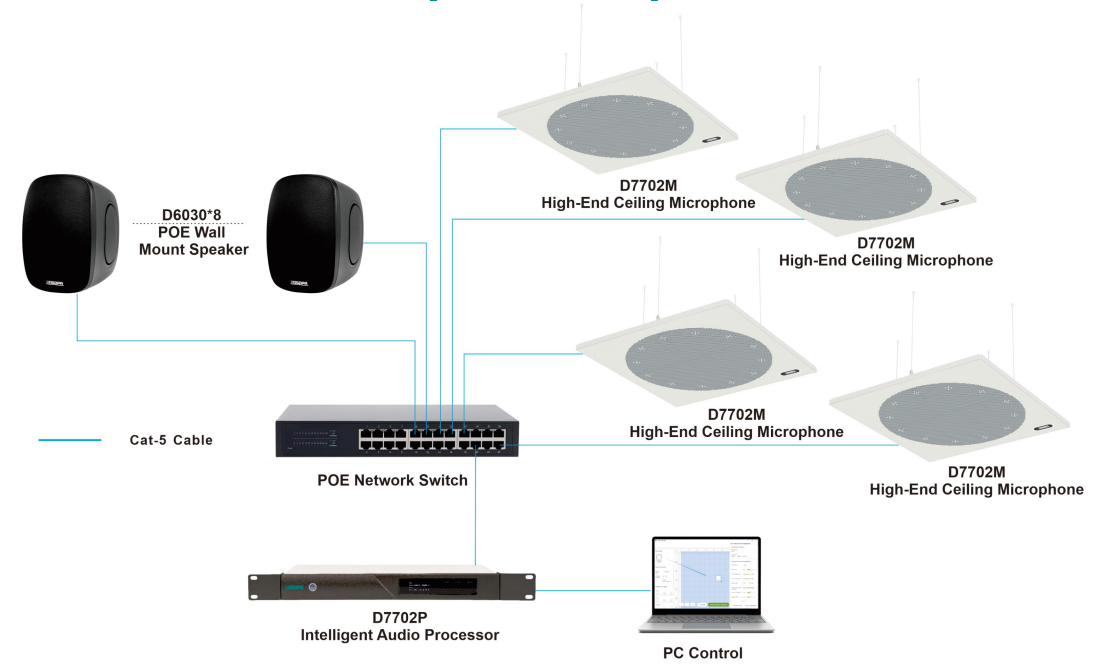
### Reduced Deployment Costs

An all-in-one solution eliminates the need for additional peripheral devices, significantly lowering both hardware, software, and maintenance costs.

# III. Solution Configuration – Large Conference Room (180 m<sup>2</sup>)

## Four D7702M Units:

- It is suitable for large-scale corporate annual meetings, all-hands conferences, and academic lectures. Designed for spacious environments with a large number of participants, it focuses on ensuring uniform audio coverage across a wide area, maintaining clear speech intelligibility, and delivering long-term system stability.



No.	Model	Product Name	Quantity
1	D7702M	High-End Ceiling Microphone	4PCS
2	D7702P	Intelligent Audio Processor	1PC
3	D6030	POE Wall Mount Speaker	8PCS
4	POE Switch	POE Switch	1PC
5	PC	PC	1PC

Note: This solution is provided for reference only. For specific requirements, please feel free to contact us.

# Advantages and Core Value of the Solution

## Core Advantages



### Seamless Full-Area Coverage

Four D7702M units, connected via distributed intelligent cascading technology, easily cover spaces of 180 m<sup>2</sup> and above with no blind spots.



### Intelligent Mixing and Sound Source Localization

Automatically detects who is speaking and intelligently activates the nearest microphone for pickup, significantly improving voice clarity.



### Uniform Sound Distribution Across the Room

Works in coordination with multiple PoE speakers to achieve consistent sound pressure levels throughout the space, ensuring an optimal listening experience.



### High Reliability and Flexible Scalability

Built on a mature IP network architecture, the system can be easily expanded from 4 to 8 ceiling microphones to meet growing needs.

## Core Values



### Premium Meeting Experience Assurance

Ensures that every participant's voice in large venues is captured and reproduced clearly and naturally, effectively reducing listening fatigue.



### Enhanced Professional Image

An advanced audio system reflects the intelligence and professionalism of the meeting space, helping elevate the overall corporate brand image.



### Investment Protection and Future Scalability

With a modular design and standard IP-based architecture, the system can be flexibly expanded to meet future business needs, protecting initial investment.

## ■ IV. Summary of Smart Conference System Solution

### AI-Driven Core

Powered by advanced AI audio algorithms, it enables automatic noise reduction and echo cancellation, providing a clean and clear voice foundation for meetings.



### Highly Integrated Design

Integrates microphones, speakers, and processing units into a single system, greatly simplifying deployment and reducing conference room construction costs.



### Flexible IP Networking

Based on standard IP protocols, it supports cross-region cascading and centralized management, easily adapting to complex multi-room conferencing scenarios.

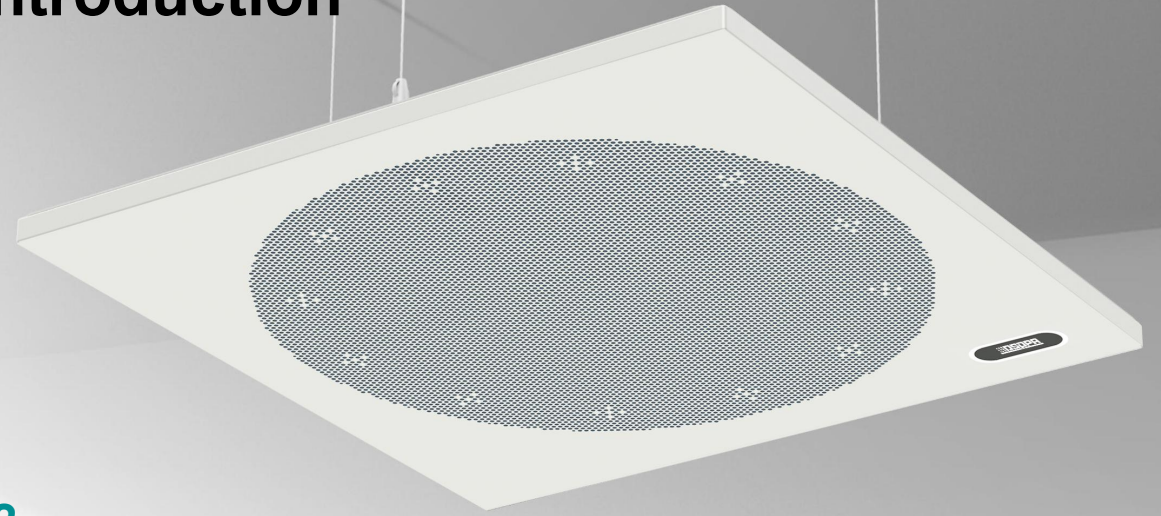
### All-Scenario Smart Conference System Solution

Whether addressing the need for convenience and efficiency in small and medium-sized meeting rooms or meeting the professional full-coverage requirements of large venues, the DSPPA D7702 system delivers outstanding performance. Through the deep integration of hardware and software, it overcomes the limitations of traditional audio equipment, ensuring every remote or on-site communication is clear, smooth, and efficient.

# ■ V. D7702 Smart Conference System Introduction



D7702P Audio Processor



## The Ultimate Sound Reinforcement Experience D7702

### Voice Lift +20dB

Louder Sound, Better Quality

### AI-AFC $\leq$ 22ms

Ultra-Low Latency

### Hybrid Meetings

Support

### Ultimate Experience

Real-time

Powerful

Authentic

### Natural and Immersive

As if the Voice Is Right Beside You

### Superb and Lifelike Detail

Full-space Pickup Coverage

### >300 Types

AI Noise Cancellation

### AI-powered

Acoustics

Fence

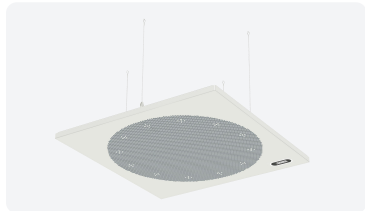
## ■ VI. All-Scenario Smart Conference System



### D7702P Audio Processor

#### System “Brain” · Intelligent Core

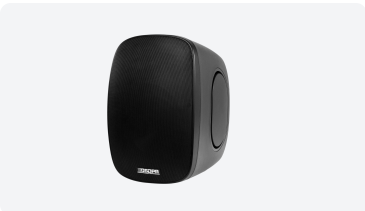
Handles audio processing, AI algorithm execution, system control, and network management, coordinating all components for efficient operation.



### D7702M Ceiling Array Microphone

#### 360° Omnidirectional Pickup · 8 m Pickup Radius

Equipped with a 104-element digital MEMS microphone array, it precisely captures every sound within the room, ensuring outstanding pickup performance.



### POE Wall Mount D6030

#### IP Network Audio Reinforcement · Professional Sound Quality

Designed specifically for the D7702 system, it receives audio signals via standard IP network for sound reinforcement, offering easy and flexible installation.

## VII. D7702 Smart Ceiling Array Conference System Features

**D7702**  
**Ceiling Array Conference System**  
D7702M Ceiling Array Microphone  
+ D7702P Audio Processor



D7702M Ceiling Array Microphone

D7702P Audio Processor

- 104 Digital MEMS Microphones
- 360° Ominidirectional Pickup
- 8m Optimal Pickup Radius
- AI Feedback Cancellation
- Distributed Automatic Mixing
- AI Noise Reduction
- Ultra-Low Latency
- AI Reverberation Suppression

The D7702 Smart Conference System is an integrated solution consisting of two core components: the **D7702P audio processor** and the **D7702M ceiling array microphone**. Power supply and data transmission are both achieved through a single network cable, greatly simplifying system deployment. The system delivers seamless local sound reinforcement with natural, unobtrusive audio, ensuring clear on-site communication. It also integrates smoothly with remote conferencing platforms, providing both local and remote participants with an **equally clear and consistent communication experience**.



**Natural In-Room Sound Reinforcement** | Delivers a lifelike, crystal-clear audio experience with uniform sound coverage throughout the room.



**HD Remote Conferencing** | Seamlessly integrates with mainstream conferencing platforms, delivering an immersive experience for remote participants as if they were in the room.



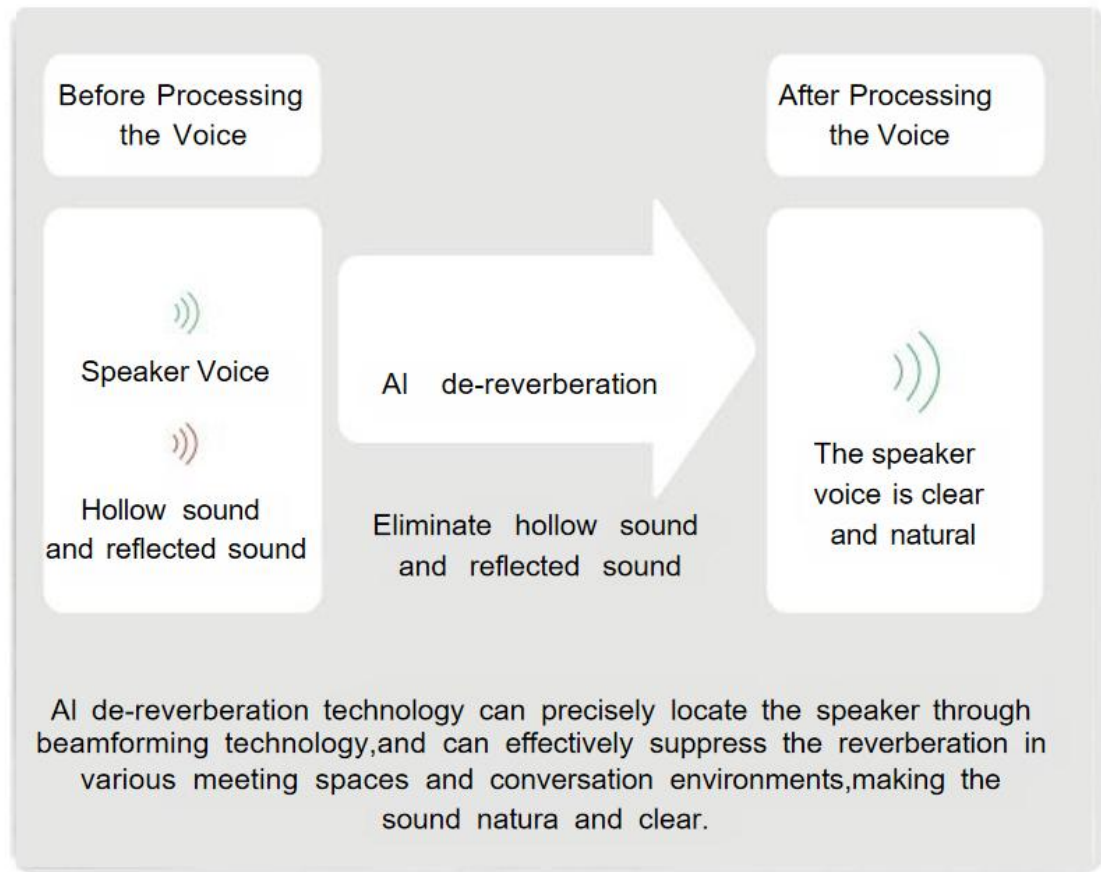
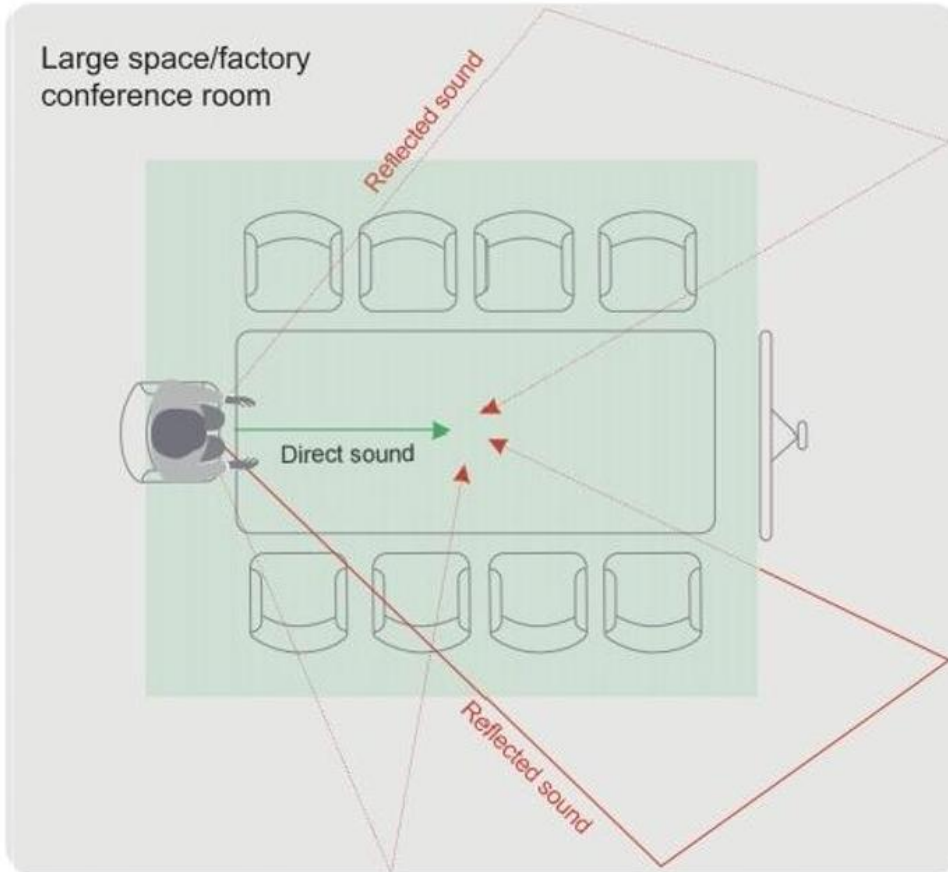
**AI Intelligent Audio Processing** | Intelligent noise reduction and echo cancellation ensure stable performance even in complex acoustic environments.

# ■ D7702 Smart Ceiling Array Conference System Features



## AI De-Reverberation Technology—8m Long-Range High-clarity Voice Pickup

It reduces echo and reverberation in large or acoustically challenging spaces, ensuring high-quality voice clarity in any environment.

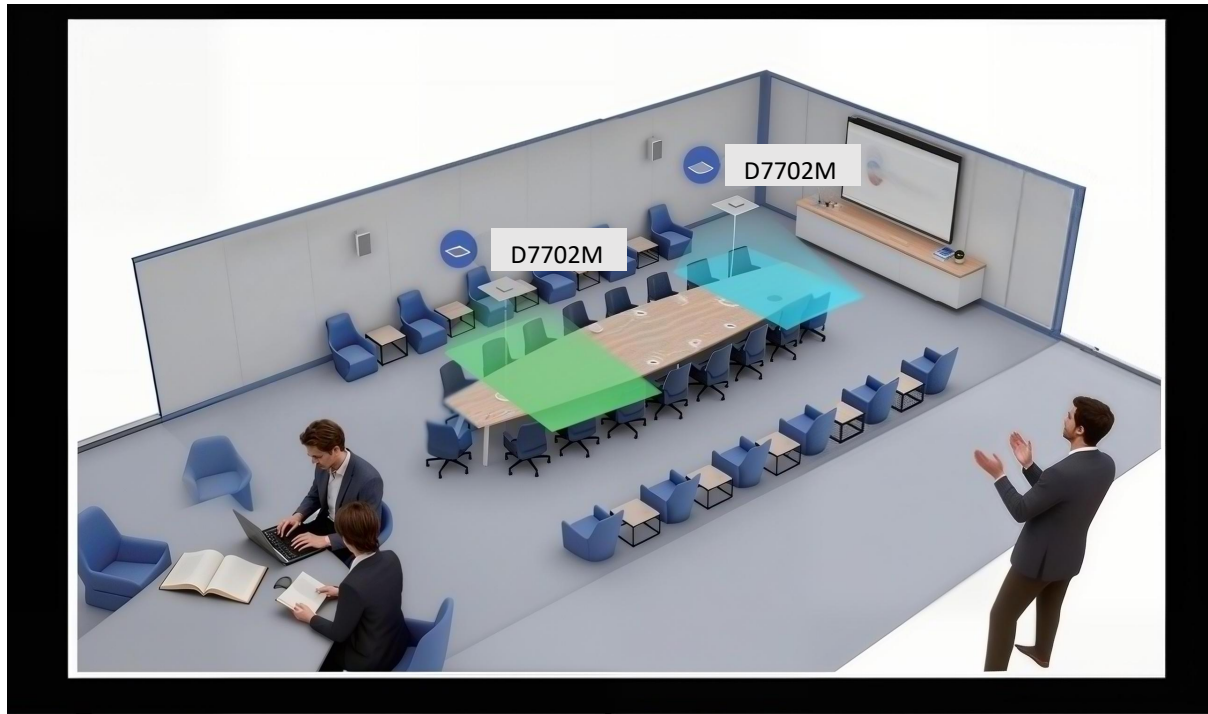


— Direct sound    — Reflected sound

# D7702 Smart Ceiling Array Conference System Features

## AI Noise Cancellation

With over 300 types of environmental noise profiles, the system efficiently eliminates unwanted noise from meetings, classrooms, factories, and other environments, ensuring clear and uninterrupted audio quality.



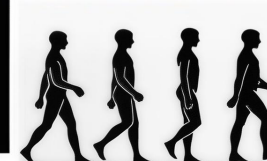
Desk Tapping



Whiteboard Writing



Keyboard Typing



Footsteps



Drill Whine



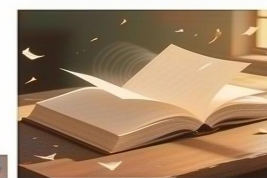
Fan Hum



Office Ambient Clatter



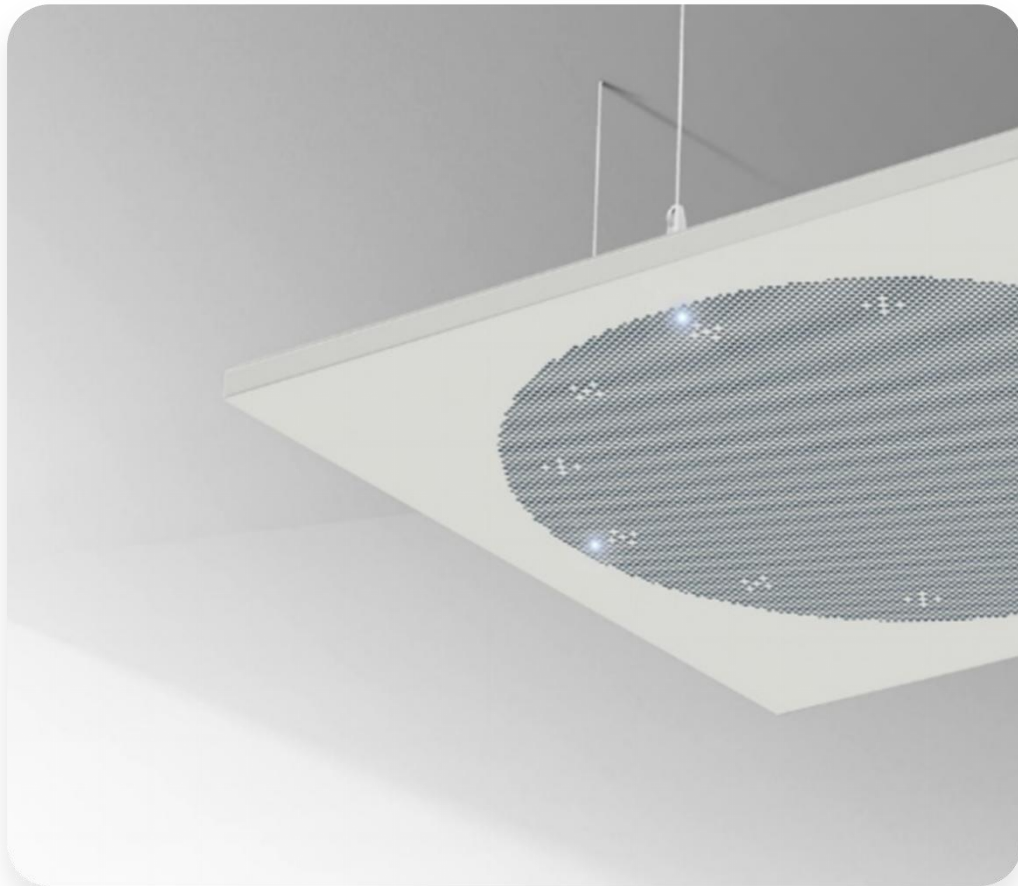
General Background Noise



Page Turning / Rustling

## VIII. Core Product\_D7702M Ceiling Array Microphone

The D7702M is the core audio capture unit, specially designed for modern conference rooms. With a sleek, space-saving design, it integrates seamlessly into the environment while delivering an exceptional audio experience.



### 104-Element Digital Microphone Array

The built-in high-performance microphone array provides a solid foundation for accurate sound source localization and noise reduction.



### 360° Omnidirectional Pickup

Ensures full-room sound coverage with no blind spots, capturing every speaker clearly from any corner of the room.



### 8m Optimal Pickup Radius

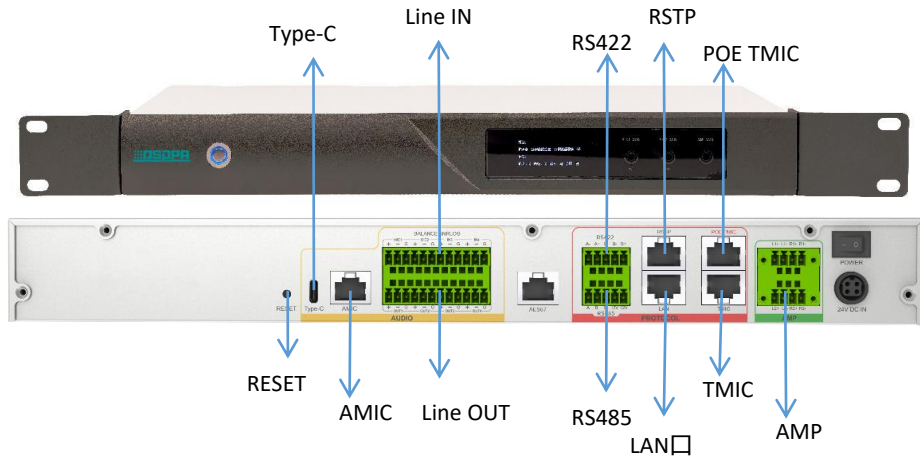
A single unit can effectively cover small and medium-sized conference rooms, significantly simplifying room wiring requirements.



### Flexible Installation Options

Supports ceiling recessed and suspended installation, easily adapting to various conference room interior designs.

# IX. Core Product\_D7702P Audio Processor



The D7702P serves as the intelligent “brain” of the entire audio system. It handles high-speed audio signal processing, real-time execution of advanced AI algorithms, and centralized control of all connected devices, acting as the core hub that ensures stable system operation.

No.	Interface	Function Description
1	AMP	Amplifier Output, Connect to Speakers
2	TMIC	Connect to Switch, For Cascading Multiple Ceiling Microphones
3	POE TMIC	POE Power Supply, Connect to Ceiling Microphones
4	RSTP	Connects and Controls Devices on the Network
5	LAN	Ethernet Interface, For External Network Connection
6	RS485	RS485 Communication Port
7	RS422	RS422 Communication Port
8	Line in	Analog Audio Input, Phoenix Terminal, Positive-Negative-Ground
9	Line Out	Analog Audio Output, Phoenix Terminal, Positive-Negative-Ground
10	AMIC	Dedicated Digital Audio Interface
11	Type-C	USB Interface, Connects to PC or Other Devices
12	RESET	Reset Button, Restart Device or Restore Factory Settings



## AI Algorithm Core

Runs noise reduction, de-reverberation, and voice enhancement algorithms to ensure clean, clear, and high-quality audio output.



## Built-in 4-Channel Power Amplifier

Integrates a high-performance power amplifier, eliminating the need for additional external devices, effectively simplifying system architecture and reducing overall cost.



## IP Network Management

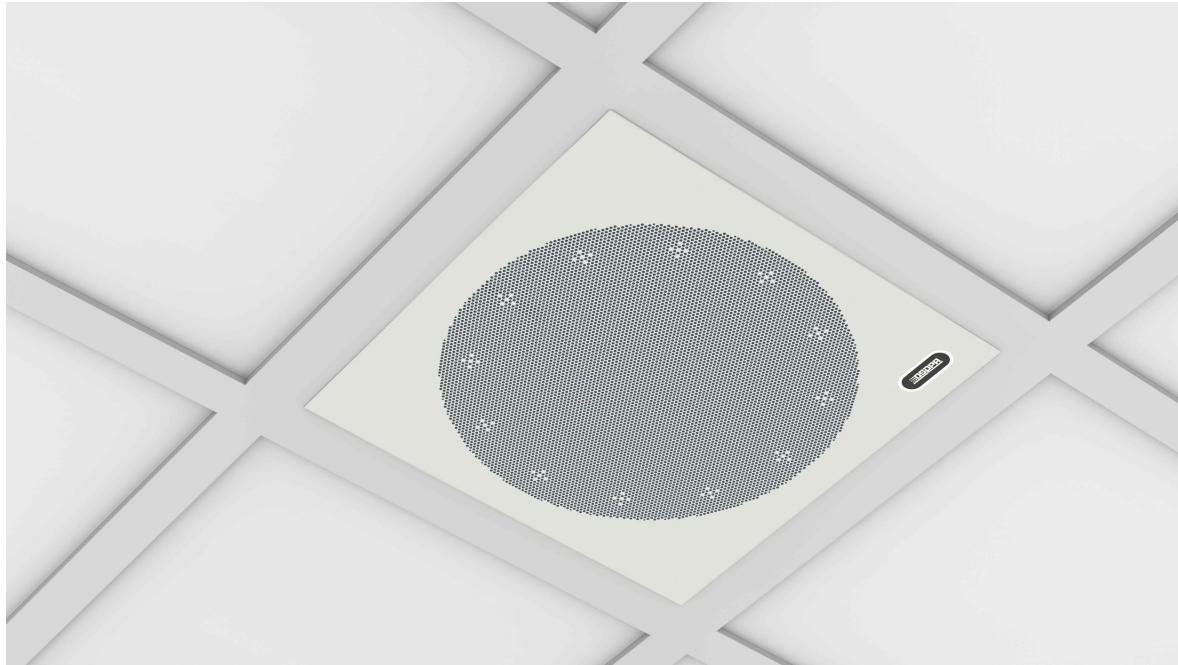
Supports intelligent networking and centralized management of microphones and PoE speakers, enabling efficient and convenient unified system operation and maintenance.



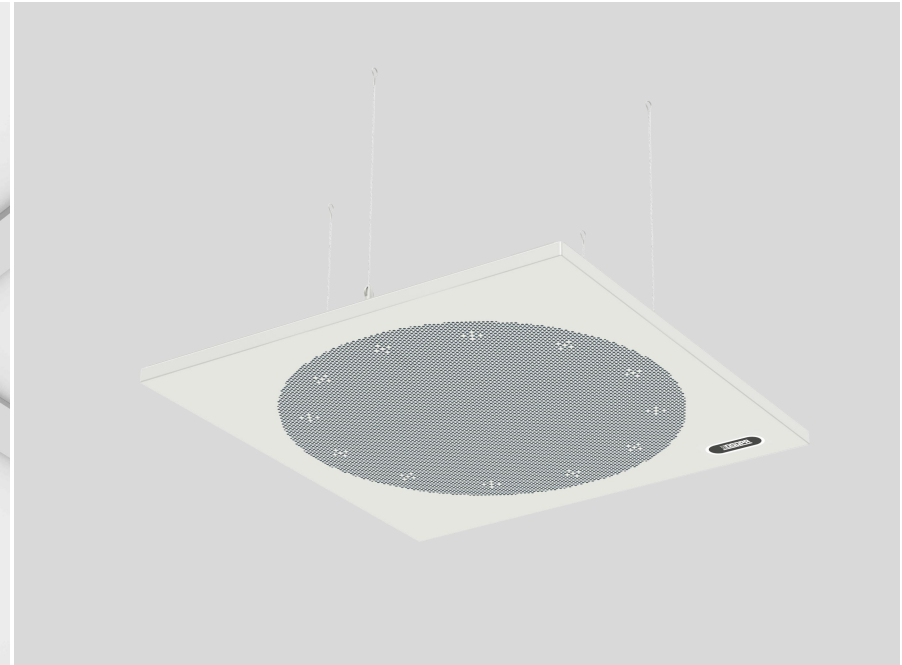
## 10U Rack-Mount Design

Standard 19-inch rack-mount form factor with a compact structure, enabling easy integration while maintaining a clean and organized equipment setup.

## ■ X. Intallation Method\_ **D7702M**



**Ceiling Recessed Installation**



**Standard Suspended Installation**

# XI. Application Scenarios



Training Rooms



Smart Classrooms



High-End  
Conference Rooms



Interactive  
Meeting Spaces



Academic Lectures

The all-scenario smart conference system, with AI-powered processing, flexible deployment, and seamless coverage capabilities, is suitable for a wide range of applications ranging from small and medium-sized departmental meetings to large-scale corporate conferences, ensuring clear and efficient communication across all meeting sizes.



# CREATING THE BEST SOUNDING THE WORLD

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