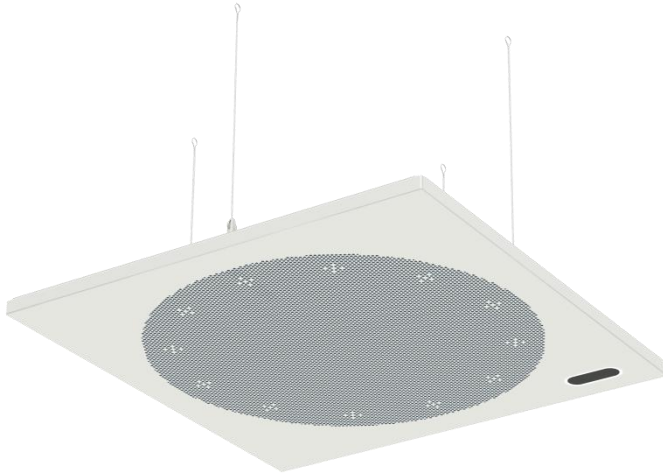


D7702

Ceiling Array Conference System



D7702M Ceiling Array Microphone



D7702P Audio Processor

Description

The D7702 Ceiling Array Conference System is an innovative conferencing solution that simultaneously supports seamless on-site sound reinforcement, remote conferencing, and AI-powered meetings. It is designed to deliver clear, natural, and pleasant speech for a wide range of venues, including conference halls, meeting rooms, auditoriums, command and dispatch centers, lecture halls, and training centers. Built on an IP-based intelligent network architecture, the system is highly integrated, with all components powered by advanced AI voice processing and AI-powered seamless sound reinforcement technologies.

Unlike traditional public address systems, this system delivers an immersive and highly realistic audio experience. With ultra-low latency (<22ms), it ensures perfectly synchronized audio transmission, eliminating any perceptible delay that could distract participants. The system provides outstanding sound reinforcement gain (over 20 dB for local amplification), ensuring every word is heard clearly throughout the venue. Its microphone array captures sound from a distance with exceptional clarity, enabling highly detailed voice transmission both on-site and in remote meetings.

The D7702 Smart Conference System is designed for full-scenario adaptability. It easily accommodates a wide range of medium to large venues while effectively handling varying background noise conditions. With the ability to suppress and eliminate over 300 types of background noise, the system delivers rich, dynamic, and highly intelligible sound. With its full-bodied and natural sound reproduction, the system creates an experience as if the speaker were standing right beside you.

Features

- AI-powered immersive audio delivers natural and seamless sound reinforcement for a lifelike communication experience.
- Adapts to different venues and noise conditions, ensuring consistently clear and full-bodied sound.

- Supports seamless hybrid meetings with synchronized on-site and remote audio communication.
- DNN-based AI noise reduction eliminates over 300 types of environmental noise for clean voice pickup.
- Provides natural, full-range sound with smooth coverage and freedom of movement.
- Delivers over 20 dB of gain to ensure clear speech even in large or acoustically challenging spaces.
- AI feedback cancellation effectively prevents howling and distortion for stable system performance.
- Ultra-low latency of less than 22 ms ensures real-time, perfectly synchronized audio.
- Focuses on human voice while filtering out unwanted sounds for a clean communication environment.
- Supports cascading deployment to easily expand coverage for medium to large venues.
- Defines precise acoustic zones to enhance key speakers while suppressing irrelevant noise.
- IP-based architecture enables flexible deployment, high-quality transmission, and unified management.
- Automatically adjusts audio parameters to match different meeting scenarios and environments.
- Offers versatile connectivity with multiple digital and analog interface options.
- Built-in amplifier simplifies system design and reduces installation complexity.
- User-friendly operation with remote control and clear status indication.
- PC software enables easy configuration, monitoring, and system upgrades.
- Fast plug-and-play deployment with minimal cabling and quick system setup.
- Supports easy maintenance with remote management and online firmware updates.

Specifications

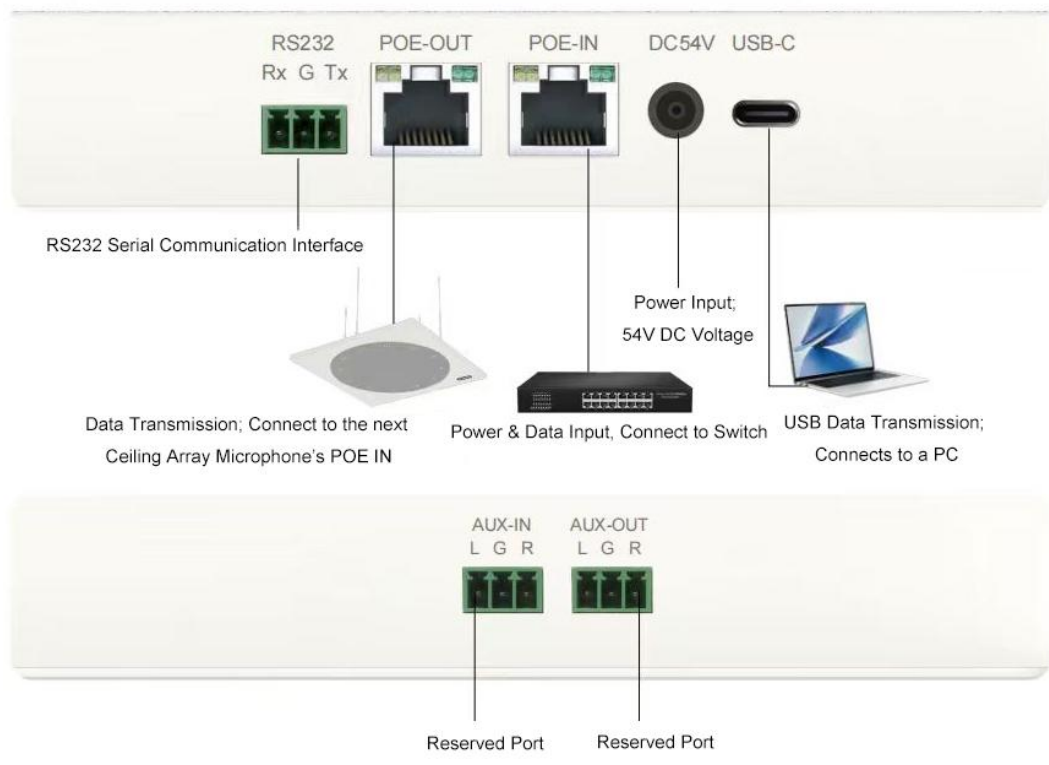
Model	D7702M		
General Specifications	Built-in Microphones	104 Digital MEMS Microphones	
	Optimal Pickup Radius	8m	
	Intelligent Noise Reduction	Supports 300+ Noise Types	
	Cascade	IP Cascade	
	Acoustic Zone (Audio Fence)	User-configurable	
	PC Control Software	Yes	
	Infrared Remote	Yes	
Voice Technical Parameters	AI Noise Reduction	Supported	Supports 300+ noise types
	AI Reverberation Suppression	Supported	RT60 < 1.5s
	AI Echo Cancellation	Supported	65dB
	AI Full-Duplex	Supported	
	AI Acoustic Zone	Supported	30 dB suppression outside zone
	AI Noise Suppression	Supported	40dB
	Intelligent Mixing	Support	
Audio Parameters	Audio Characteristics	Distributed Intelligent Automatic Pickup And Mixing	
	Sampling Rate	48KHz	
	Max. Background Noise Suppression	40dB	
Microphone	Sensitivity	-37dBv /94dB SPL @1KHz	
	Microphone Type	104 MEMS Microphones Array	

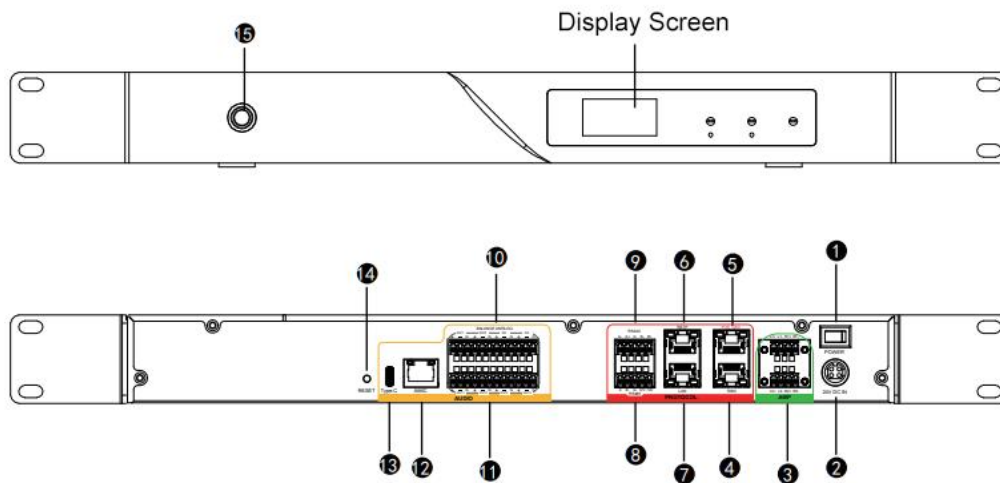
Cascade	Beamforming	Hundreds of Beams
	IP Audio	Supported
	Frequency Response	50Hz-22kHz
	SNR	66dB(20Db (SPL@ 94dB,-weighted)
	Cascade Quantity	Up to 8
	Cascade Method	Distributed Cascade Technology
	Type-C Port	1
Interface	Phoenix Balanced AUX Port	AUX IN / OUT
	RS232 Communication Port	1
	RJ45 Network Port	2
	DC54V Power Interface	1
Indicator Light	Operation Status Indicator	White LED Steady on for Normal Operation, Red LED Steady on for Microphone Mute
	Identification Indicator	White LED Steady on
Operating Temperature	0°C–50°C (in Operation)	
Storage Temperature	-10 ~ -50°C	
Product Color	Elegant White	
Product Dimension	596×596×52.5mm	
Inner Package Dimensions	712×712×132mm	
Outer Package Dimensions	730×730×160mm	
Net Weight	4.34kg	
Power Supply Mode	PoE or Power Adapter	
Installation Method	Ceiling Mount / Suspended	
Accessories	Remote Control ×1, User Manual ×1, USB-C Cable ×1 (1.5 m), RJ45 Cable ×1 (10 m), Suspension Kit ×1	

Model	D7702P
AI-AFC	Network Speaker Output < 22 ms
Amplification Delay	Amplification Delay < 20 ms; Full-Link Up/Down Delay < 70 ms
Amplification	> 20 dB

Transmission Gain	
AI Reverberation Suppression	RT60 < 1.5 s
AI Noise Reduction	Noise Types Eliminated > 300
AI-AEC	Echo Return Loss > 65 dB
Line In SNR	2 × Mic In (Adjustable Analog Gain), 2 × Line In; 105 dB
Line Out SNR	2 × Stereo Channels; 109 dB
Amplifier Output / Power	4 × 10 W @ 4 Ω or 2 × 20 W @ 4 Ω; Adjustable Analog Gain (-15 dB, 0)
Power Supply	DV24V / 5A
Max. Power Consumption	120 W (PoE + Full Amplifier Load)
Interfaces	RS422, RS485, USB-A, USB-C, Proprietary Protocol Network Port, Standard Protocol Network Port, Line In/Out
Product Dimension	1U, 330 × 217.3 × 44.5 mm (Excluding Foot Pads)
Net Weight	Approx. 2.62 kg
Operating System	Supports Linux (Buildroot) / Android 14
Operating Temperature	0 °C ~ +60 °C
Storage Temperature	-20 °C ~ +75 °C
Relative Humidity	≤ 65 %
ESD Protection	Air Discharge: 8 kV, Contact Discharge: 4 kV 4KV

Front / Rear Panel





No.	Interface	Function
1	POWER	Power Switch
2	24V DC IN	Power Input, 24 V DC
3	AMP	Amplifier Output, Connect to Speakers
4	TMIC	Connect to Switch, For Cascading Multiple Ceiling Microphones
5	POE TMIC	POE Power Supply, Connect to Ceiling Microphones
6	RSTP	Connects and Controls Devices on the Network
7	LAN	Ethernet Interface, For External Network Connection
8	RS485	RS485 Communication Port
9	RS422	RS422 Communication Port
10	LINE IN	Analog Audio Input, Phoenix Terminal, Positive-Negative-Ground
11	LINE OUT	Analog Audio Output, Phoenix Terminal, Positive-Negative-Ground
12	AMIC	Dedicated Digital Audio Interface
13	Type-C	USB Interface, Connects to PC or Other Devices
14	RESET	Reset Button, Restart Device or Restore Factory Settings
15	Power On/Off Key	Turn On / Off or Enter Standby Mode