

D7712

AI Ceiling Array Conference Microphone



Description

The D7712 Ceiling Array Microphone is certified to Tencent Tianlai technical standards and fully compatible with Tencent Meeting. Featuring a built-in Tencent Tianlai network protocol support and USB audio compatibility with Tencent Meeting audio processing, it delivers an exceptional conferencing audio experience. Through Tencent ecosystem integration, the D7712 enables a seamless and intelligent meeting experience across various application scenarios. It supports direct control of Tencent Meeting functions, including joining meetings, exiting meetings, and microphone mute control via physical buttons, while integrated lighting indicators clearly display different meeting statuses for more intuitive and convenient operation.

The D7712 supports IP audio technology, PoE power supply, and IP cascading with support for up to 8 units. Multiple ceiling microphones can be cascaded directly without requiring external mixers or audio processors, providing a more cost-effective, simplified, and convenient deployment solution.

Equipped with advanced distributed cascading technology, two or more D7712 ceiling microphones can work together through direct cascading without additional audio processors or mixers. When multiple D7712 units are deployed in a cascaded network, they automatically coordinate and collaborate to intelligently determine the speaker's position, enabling the optimal microphone beam to precisely track and capture the speaker's voice. This delivers clearer speech reproduction and extended voice pickup range. The distributed cascading architecture effectively combines multiple ceiling microphones into one larger intelligent array microphone system, delivering higher automation, more precise sound source localization,

and superior voice clarity. Compared with conventional ceiling microphone solutions that rely on mixers and audio processors for mixer-based cascading, the D7712 avoids excessive reverberation and degraded audio quality commonly associated with large-scale system deployments. With distributed voice pickup technology, whether used individually or in cascaded deployment, the D7712 consistently maintains clear and natural voice reproduction while eliminating hollow or muddy sound.

The D7712 features highly adaptive intelligent noise reduction technology capable of suppressing over 300 types of environmental noise. It effectively removes various meeting, classroom, and factory noises such as air conditioning noise, fan noise, keyboard typing, desk tapping, chair movement, pen tapping, placing cups, and paper-turning sounds. This ensures clean and comfortable voice communication while minimizing distractions during meetings.

The D7712 ceiling array microphone integrates 20 built-in microphones with an optimal voice pickup distance of up to 8 meters. It supports AI-powered voice pickup, AI dereverberation, and full-duplex acoustic echo cancellation for enhanced speech intelligibility and conferencing performance.

A single D7712 ceiling array microphone is ideal for small and medium-sized business meeting rooms, executive conference rooms, and classrooms. Through IP cascading technology, the D7712 can be easily expanded for larger-scale applications.

Features

- The device features a built-in Tencent Tianlai network protocol and USB audio compatibility with Tencent Meeting audio processing, delivering an exceptional conferencing audio experience.
- Fully compatible with Tencent Meeting functions, including volume control, microphone mute/unmute, and meeting answer/end operations. LED indicators visually display different meeting statuses, enabling intuitive and efficient user interaction.
- Certified to Tencent Tianlai technical standards and fully compatible with Tencent Meeting, the system leverages Tencent ecosystem integration to deliver a consistent and intelligent conferencing experience across all scenarios.
- Supports Tencent Meeting control via physical buttons, including joining meetings, exiting meetings, and microphone mute functions, with LED status indication for enhanced usability.
- Supports intelligent noise reduction with suppression of over 300 types of environmental noise, effectively eliminating common sounds in meeting rooms, classrooms, and similar environments.
- Enables direct cascading of two or more ceiling microphones without requiring external audio processors or mixers, based on distributed cascading technology.
- Whether used as a standalone unit or in a cascaded configuration, the system maintains consistently clear voice pickup, effectively eliminating hollow or muddy audio characteristics through distributed voice pickup technology.
- Adopts distributed intelligent voice processing technology, enabling multiple devices to collaborate and dynamically determine the speaker's position. The optimal microphone beam is automatically selected to precisely capture the speaker's voice, ensuring clearer and more natural audio with extended pickup distance.
- Supports IP audio technology, PoE power supply, and IP cascading with up to 8 units.
- Requires only a single Ethernet cable for operation, simplifying wiring, extending transmission distance, and improving installation aesthetics.
- PC-based configuration and control are supported via dedicated software.
- Supports PoE-based power and data transmission for long-distance deployment.
- Built-in 20 digital microphones with an effective pickup distance of up to 8 meters, providing 360° omnidirectional voice pickup.
- AI-based voice pickup enhances speech capture while suppressing non-target voices.

- AI dereverberation effectively reduces hollow reverberation in challenging acoustic environments such as glass rooms, improving voice clarity by capturing direct sound components.
- Provides DOA (Direction of Arrival) speaker localization for integration with camera tracking systems, enabling enhanced video conferencing performance.
- Supports full-duplex acoustic echo cancellation, dynamic noise suppression, and automatic gain control.
- Supports USB communication.
- Infrared remote control for easy microphone on/off and speaker volume adjustment.
- LED indicators show operating status and microphone mute status.
- RS232 serial communication interface for UART communication with external devices
- Dual 3.5mm interfaces supporting audio input and output
- Matte white metal finish, supporting pendant and ceiling-mounted installation.
- Optional power adapter available for additional requirements

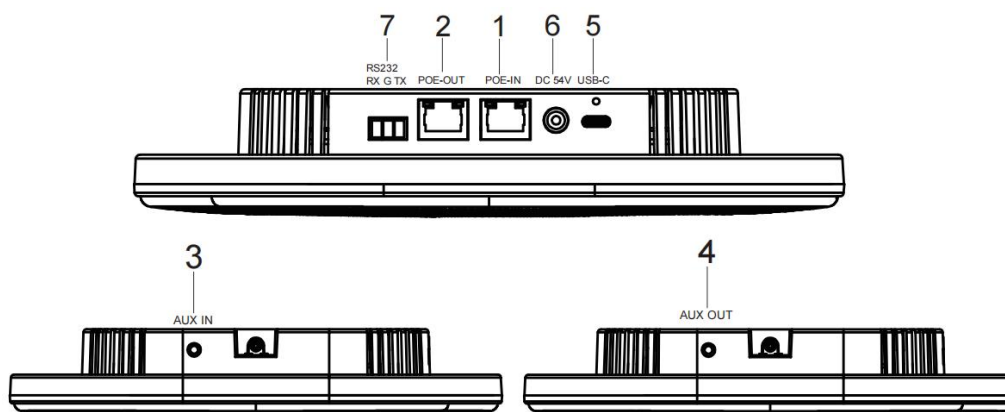
Specifications

Model	D7712	
Voice Processing Parameters	3A Algorithm	AEC / ANS / AGC
Audio Parameters	Audio Feature	Distributed Intelligent Sound Pickup
	Sampling Rate	16kHz
	Max. Background Noise Suppression	40dB
MIC	Sensitivity	-26 dBFS
	Microphone Type	Digital MEMS Microphone
	Microphone Quantity	20 Units
	SNR	>95dB(A)
Pickup Distance	8 m (Clear Voice Pickup)	
Frequency Response	50Hz-22kHz	
Sampling Rate	8 kHz High-Definition Wideband Audio	
USB Protocol	Support UAC	
Interfaces	Type-C Port ×1 , RS232 Communication Port ×1 RJ45 Port ×2 , DC 54V / 1A Power Input ×1 AUX Headphone Jack ×2	
Indicator Lights	Microphone Mute Indicator	Red Steady Light When Muted; Green Steady Light During Operation
	Tencent Meeting Indicator	Green Steady Light
	Operating Status Indicator	White Steady Light
Operating Temperature	0°C-50°C (Operating State)	
Storage Temperature	-10-50°C	
Product Color	Elegant White	
Product	238.6×238.6×43mm	

Dimensions	
Package Dimensions	345×300×133mm
Net Weight	735g
Installation Method	Suspended Installation / Ceiling-mounted Installation
Accessories	Remote Controller ×1 User Manual ×1 USB-C cable ×1 (Locking Type, 1.5 m) RJ45 Cable ×1 (10 m)

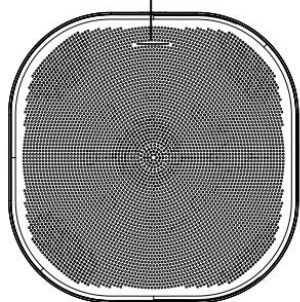
Front / Rear Panel

Interface Description



1. POE IN: Supports long-distance power supply and data transmission; connects to the network port of the switch.
2. POE OUT: Supports long-distance power supply and data transmission; connects to the POE IN of the next device.
3. AUX IN: Audio input for connection to recording and broadcasting devices.
4. AUX OUT: Audio output for connection to amplifiers, mixers, and recording and broadcasting devices.
5. USB-C: USB data transmission port for connection to a PC.
6. DC54V: 54V DC power socket.
7. RS232: Controls external cameras and enables UART serial communication with external devices.

All Indicator Light Statuses

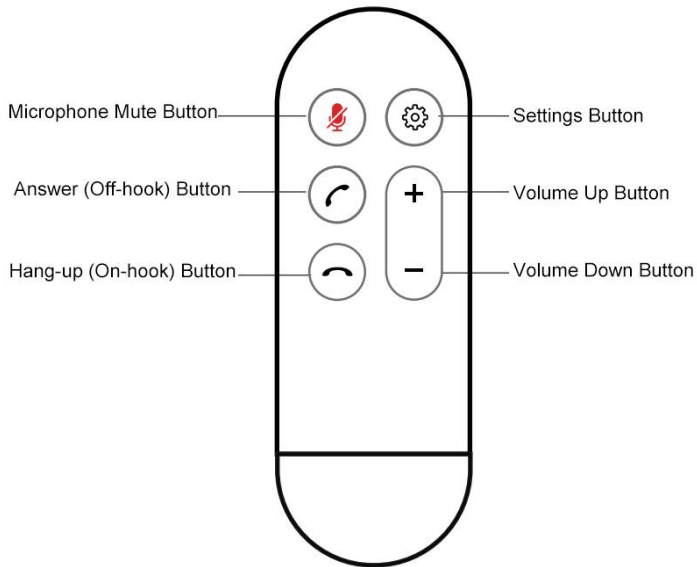


Standard Mode	The device enters standard mode by default upon startup. The white indicator stays on steadily. When USB is not connected, the white indicator flashes.
Mute Mode	The red indicator stays on steadily in mute mode.
Tencent Meeting Status	The green indicator flashes during incoming calls. When the call is answered and the device enters Tencent Meeting mode, the green indicator stays on steadily. When the call is hung up, the device exits Tencent Meeting mode and returns to standard mode with the white indicator on steadily.

Firmware Upgrade (OTA)

The purple indicator flashes during the upgrade process. After a successful upgrade, the white indicator stays on steadily.

Remote Controller Instructions



Microphone Mute Button	Toggles microphone mute on/off.
Answer (Off-hook) Button	In Tencent Meeting mode, short press to enter Tencent Meeting.
Hang-up (On-hook) Button	In Tencent Meeting mode, short press to exit Tencent Meeting.
Volume Up Button	Increases speaker volume.
Volume Down Button	Decreases speaker volume.