



**CATM700**

# CEILING TILE MICROPHONE



## **Key Features:**

### **High Efficiency & Ultra-Wide Pickup Range:**

129 Microphone Array: Enables up to 17PA zone and 33pick up zones suitable for spaces, from small rooms accommodating 30 people to large Auditoriums for 800+ attendees.

### **Clear Voice AI Algorithm:**

Detects & picks Human Voice only, automatically suppresses background noises such as keyboard clicks and air conditioning, enhancing speech clarity.

### **Dynamic Beamforming & Intelligent Zone Radio:**

Tracks and focuses on the active speaker, ensuring their voice is captured precisely during discussions.

### **Low Latency & Natural Sound:**

Provides real-time audio with minimal delay with in the room through speaker and online, making remote conferencing feel as natural as face-to-face communication.

### **Discreet and Elegant Design:**

Installed seamlessly in the ceiling, eliminating the need for multiple microphones and maintaining room aesthetics.

### **Enhanced Meeting Concentration:**

Clear and consistent audio quality improves focus and engagement during meetings.

### **Look At Me**

Built-in Look at Me which control the PTZ camera to Zoom & Focus on the active speaker

### **Remote Control**

Equipped with Mute/Unmute, Microphone Volume Control +/-, & Restore Function.

## **Product Interface**

**DANTE/LAN/PoE+RJ45:** Dante signal transmission interface/control network port/PoE power supply network port

**LINK IN:** Cascade analog link input network port

**LINK OUT:** Cascade analog link output network port

**USB:** Type C Firmware upgrade interface, USB2.0 audio transmission audio transmission

**RS485:** Standard control RS485 protocol

**WL :** Wireless microphone analog input

**LINE IN:** External audio source ( PC )Analog Input

**AEC IN 1&2:** Far-end audio (reference signal) analog input

**SPK OUT 1&2 :** Speaker analog audio output

**AEC OUT 1&2 :** Remote analog audio output

**DC 12-48V :** Working voltage interface ( DC range 12~48V)

- **Pickup**

CATM700 consists of 129-unit omnidirectional microphone array. Having amplification distance 4 meters & pickup sound distance of 8 meters, allows users to talk moving around or sitting bit away providing true seamless sound amplification.

- **Loud volume**

Acoustic feedback gain  $\geq 15$ dB, allows higher volume through speakers within the room, reducing whistling, so users speak freely.

- **Clean Sound**

Clear Voice AI which detects and picks only Human voice and have large model deep algorithm sound, accurately identify the lines, remove various noises, and enhance the voice signal.

- **High flexibility**

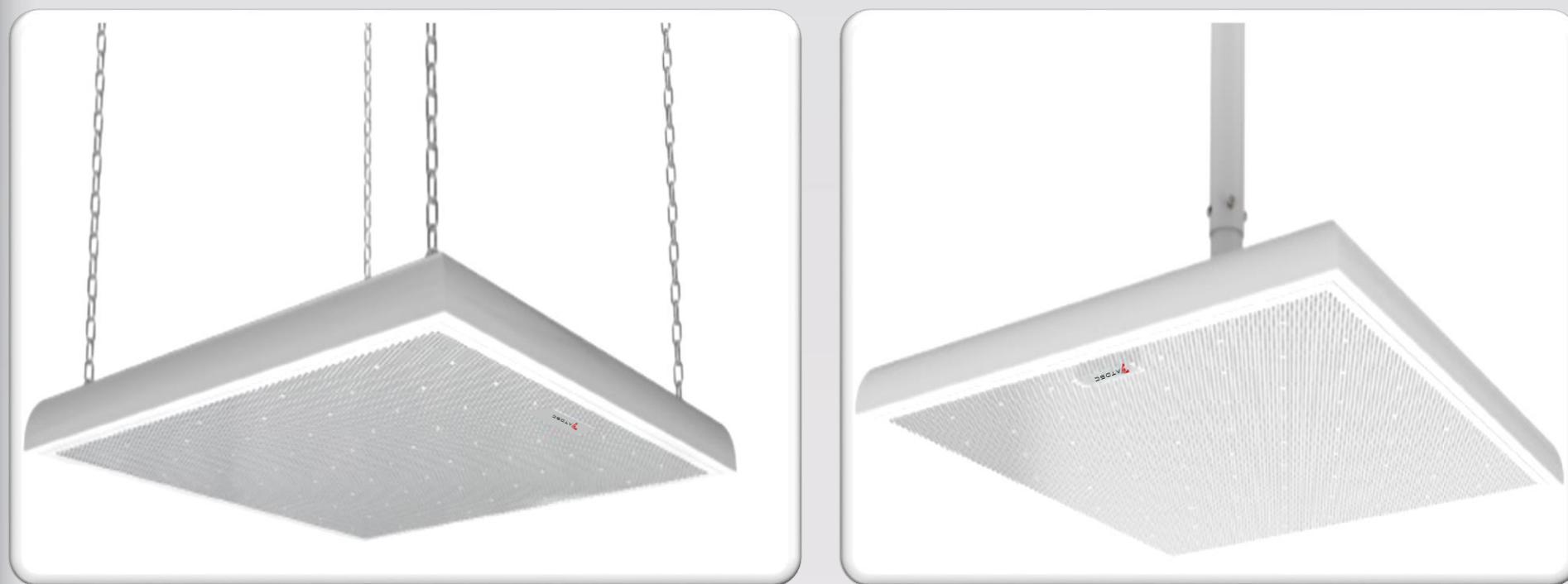
Supports custom settings for positioning pickup, supports 33 pickup areas, 17 expansions Audio area mode settings, and can support multiple cascades to adapt to different scene.

- **Easy to expand**

Rich Analog and Digital (Dante, USB) audio interface, can be independent. Gives option to connect with wireless microphones, etc., without the need for an additional audio processor.

- **Easy to manage**

Loaded with Infrared, 485, Network and other external controls to meet different needs and make the system more flexible and compatible.



# Technical Specifications

Ceiling Tile Microphone		Model :- CATM 700	
Module	Function	Specific parameters	
Algorithm Specifications	Supported algorithms	*AFC, ANS, AEC, AGC, ARR	
	Acoustic feedback gain	≥18dB	
	Noise reduction	≥30dB	
	Echo cancellation amplitude	≥90dB	
	Echo cancellation length	≥1s	
	Reverberation Reduction (ARR) : support	≥18dB	
	Maximum gain	≥30dB	
	AI noise reduction	Yes	
	Automatic mixing	Yes	
	Beamforming	Yes	
Microphone Specifications	Sound source localization	Yes	
	Number of microphones	129	
	Sensitivity	-32±2dB	
	Signal-to-noise ratio	70dB Dynamic	
Hardware Specifications	Frequency response	75-20KHz	
	Sampling rate	48K Hz/24 Bit	
	Frequency response	20Hz~20KHz, ±0.5dB	
	Ratio	100dB	
	Distortion	≤0.1%	
	Input impedance (balanced)	20KΩ	
	Output impedance (balanced)	200Ω	
	Maximum input level (balanced)	4dBu	
	Maximum output level (balanced)	10dBu	
	Cascade function	Yes in Dante & Analog	
	Number of Cascade	Unlimited	
	485 Central control interface	Yes	
	Input power	DC 12V-48V/POE power supply	
Other Specifications	Power	25W	
	Dimensions (L x W x H)	600×600×42.8mm	
	Net weight of equipment	6.03 kg	
	Operating temperature	0°C~40°C	
	Storage temperature	-20°C~60°C	
Sound	Color	Pearl White	
	In Room & Online Output		
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Basic Parameters	Microphone type: MEMS Silicon Microphone		
	Installation method: Ceiling embedded/suspended		
Dante Protocol	Dante Audio : support Dante Input channels : 2-way Dante Output channels : 2-way		

\* AFC- Automatic Frequency Control

\* ANS- Active Noise Suppression

\* AEC- Acoustic Echo Cancellation

\* AGC- Automatic Gain Control

\* ARR- Audio Reverberation Reduction

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