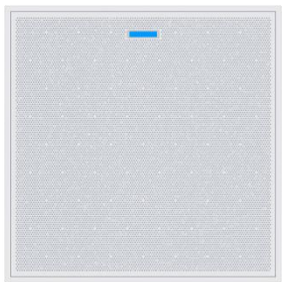
AI Ceiling Array Microphone

VM-C900





Functional description:

1. Super Long-Distance Voice Pickup (>10m)
   Supports ultra-long-distance voice capture beyond 10 meters, ensuring clear audio collection in large spaces.
2. 33 Adjustable Pickup & Sound Reinforcement Zones
   Features 33 configurable pickup zones for flexible sound reinforcement, enabling full-room amplification or targeted area coverage.
3. 129-Microphone Omnidirectional Array Pickup
   Equipped with 129 built-in microphones for comprehensive audio capture, collecting more voice details and delivering more natural, realistic sound for both local reinforcement and remote interaction.
4. Interaction + Sound Reinforcement
   Supports multi-microphone combination for interactive communication, local sound reinforcement, or simultaneous interaction and amplification applications.
5. Strong External Compatibility
   Supports PC IN, AEC IN, AEC OUT, and SPK OUT interfaces, with RJ45 network debugging and control for flexible system integration.
6. High-Performance Array Microphone Algorithms
   Integrated with advanced audio processing algorithms including:

- AFC (Automatic Feedback Cancellation)
- ANS (Automatic Noise Suppression)
- AEC (Automatic Echo Cancellation)
- AGC (Automatic Gain Control)
- ARR (Acoustic Reverberation Reduction)
- Steady Noise Suppression
- Transient Noise Suppression
- Beamforming Technology

Technical Parameters:

Category	Specification
Algorithm Specifications	
Supported Algorithms	AFC, ANS, AEC, AGC, ARR
Acoustic Feedback Gain	≥15dB
Noise Reduction Depth	≥36dB
Echo Cancellation Depth	≥90dB
Echo Cancellation Length	≥1s
Reverberation Suppression	≥18dB
Hardware Specifications	
Sampling Rate	48kHz
Frequency Response	75Hz–20kHz (±0.5dB)
THD	≤0.1%
Signal-to-Noise Ratio	≥89dB
Input / Output Level	2.1Vrms
Input / Output Impedance	20kΩ
DC Power Input	DC 12–36V / 2A
Dante / Eth / PoE+ Port	Dante Audio Transmission / Control Network / PoE Power Supply
WL / LINE IN	External Audio Input (Typically for PC Audio Source)
AEC IN	Echo Reference Signal Input (Remote Audio Input)
AEC OUT	Echo Signal Output (To Terminal Devices)
SPK OUT	Local Sound Reinforcement Output
Link OUT	Cascade Analog Link Output Port
Link IN	Cascade Analog Link Input Port
RS485	RS485 Interface + Reserved One-Key Mute Interface
General Specifications	

Category	Specification
Power Supply Voltage	12–48V, 0.75A, 50/60Hz
Operating Voltage	DC12V–36V
Dimensions (L×W×H)	600 × 600 × 42 mm
Weight	6.23kg
Operating Temperature	-10°C ~ 50°C
Storage Temperature	-20°C ~ 70°C
Color	White
Feature	**Description**
Long-Distance Pickup	Supports ultra-long-distance voice pickup over 10 meters
ClearVoice AI Noise Reduction	Exclusive low-latency AI algorithm automatically detects voice and suppresses footsteps, keyboard taps, fan noise, and environmental interference
33 Pickup & Reinforcement Zones	Supports 33 pickup zones and 33 reinforcement zones for flexible area-based audio coverage
129-Microphone Array	129 omnidirectional microphones capture more sound details for natural local reinforcement and remote collaboration
Low-Latency Cascading	Supports cascading up to 20 devices with ultra-low latency for seamless pickup and amplification coverage
Simultaneous Interaction + Reinforcement	Supports local sound reinforcement and remote conferencing simultaneously without switching modes
AFC (Automatic Feedback Cancellation)	Increases reinforcement gain and effectively suppresses acoustic feedback and howling
AEC (Automatic Echo Cancellation)	Eliminates echo leakage and ensures clear two-way communication without affecting local reinforcement
ANS (Automatic Noise Suppression)	Reduces ambient noise and enhances speech intelligibility
AGC (Automatic Gain Control)	Automatic gain adjustment up to ≥15dB for conferencing and dynamic suppression during loud multi-speaker scenarios
ARR (Automatic Reverberation Reduction)	Effectively reduces reverberation and improves speech clarity
Multi-Beam DOA Technology	Supports sound tracking linkage between multiple ceiling microphones and cameras
External Audio Input Support	Supports external audio sources such as PCs and displays without affecting local reinforcement
RGB Status Indicator Light Strip	Customizable LED status indicators with different colors for different working states
Type-C Audio Interface	Supports audio input and output through Type-C connection
Flexible Device Control	Supports Infrared, Network, and RS485 control
Multiple Power Supply Options	Supports DC12–48V adapter power supply and PoE, with dual power redundancy

Recommended Application Scenarios

Smart Classrooms | Conference Rooms | Lecture Halls | Training Rooms | Hybrid Meeting Spaces | Government & Education Projects