

D5831AI

AI Digital Conference Microphone



System Solution_D5831AI AI
Digital Conference Microphone
for Conference Rooms



AI
Algorithm



Dynamic Noise
Reduction



Extended Pickup
Range



Real-time
Feedback Suppression



High-Fidelity
Audio



Easy
Installation

System Solution Overview

- The D5831 AI Condenser Conference Microphone features an extended pickup range, high acoustic gain, and mute functionality, delivering a highly integrated and stable audio processing solution. It ensures natural voice reproduction in various meeting environments, accurately capturing every speaker's voice. This microphone is particularly well-suited for large-scale conferences, video conferencing, remote teaching, and international meetings.



Project Requirements

- **Ultra-long Pickup Range and High Acoustic Gain:** Ideal for scenarios requiring wide coverage, such as large conference rooms, auditoriums, and lecture halls, ensuring clear voice transmission even from distant speakers.
- **Intelligent Noise Reduction and Filtering:** Effectively suppresses background noise, maintaining a clean audio environment and ensuring speech clarity throughout the meeting.
- **Real-time Gain Control and Feedback Suppression:** Supports real-time audio adjustments to eliminate echo and howling issues, delivering a smooth and comfortable listening experience.
- **Highly Directional Microphone Array:** Minimizes the pickup of ambient noise and focuses on the speaker's voice, making it ideal for critical events such as executive meetings, presentations, and academic discussions.
- **Easy Installation and User-Friendly Operation:** Designed for quick deployment without complicated setup, saving time and effort in installation and configuration.

D5831AI Configuration for Individual Speaking

System Configuration

Training Room: 50–100m²

System Composition:

- Microphone: 1 × D5831AI Condenser AI Conference Microphone.
- Audio Interface Box: 1 × AI audio interface box supporting 12V input voltage, equipped with 2 × RCA (unbalanced input) connectors and 1 × XLR (balanced output) connector.
- Amplifier and Mixer: Connected to the output of the AI audio interface box to transmit audio signals to speakers or the sound system.

Application Configuration:

- Audio signals are transmitted from the microphone to the amplifier or mixer via the RCA connectors on the audio interface box, then routed to the speaker system.
- When using the D5831AI microphone, its built-in intelligent gain and feedback suppression functions help eliminate howling and noise, ensuring clear and natural speech reproduction during meetings.
- A red light indicator is activated when speaking, helping prevent overlapping speech from multiple users.

System Advantages

- **Ultra-long Pickup Range:** Captures the speaker's voice clearly from all areas of a small to mid-sized room without blind spots.
- **High Acoustic Gain:** Delivers strong audio output, ensuring clear transmission through the connected sound system.
- **Intelligent Noise Reduction:** Effectively filters out background noise, enhancing overall voice quality.
- **Easy Installation:** Integrated mic rod and precision cabling simplify wiring and installation.



No.	Model	Product Name	Quantity
1	D5831AI	AI Digital Microphone	1
2	/	AI Audio Interface Box for D5831AI	1
3	DMX12	12 Channel Audio Mixer	1
4	D6675	Digital Audio Processor	1
5	DX2500	Professional Amplifier	1
6	D6564	Two-way Full Range Cabinet Speaker	2

D5831AI Configuration for Small to Medium-Sized Conference Rooms

System Configuration

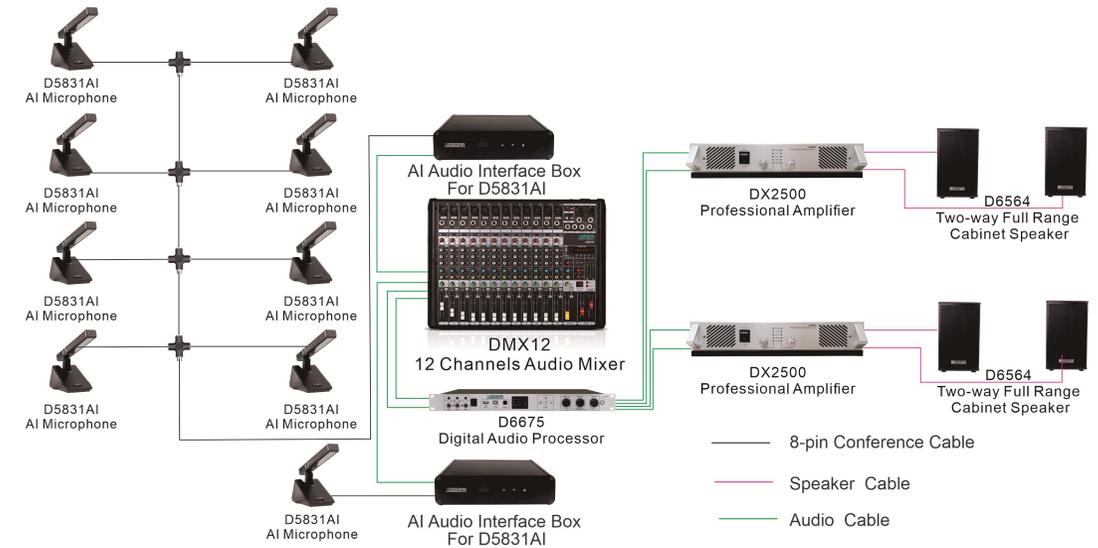
Conference Room: 100-150m²

System Composition:

- **Audio Input:** Configure 10 units of the D5831AI conference microphone based on room size. (Each audio interface box supports up to two microphones; for more microphones, a customized power module is required.) This ensures full coverage of the meeting space without overlapping pickup ranges or voice interference.
- **Audio Processing Equipment:** Each microphone is connected to a mixer via the audio interface box for signal processing and routing. This ensures balanced, clear audio output from all microphones.
- **Amplifier/Speaker System:** The final audio signals are sent to the amplifier and speaker system, providing clear sound reinforcement throughout the entire room, ensuring every participant can hear the speaker clearly.

System Advantages:

- **Omnidirectional Pickup:** Ensures that every speaker in large-scale meetings can be heard clearly, while minimizing interference between microphones.
- **High Scalability:** The number of microphones can be flexibly expanded based on the size of the meeting, adapting to various application needs.
- **High-Quality Audio:** Each microphone delivers high-fidelity audio transmission with intelligent processing, ensuring natural and clear voice reproduction from all participants.
- **Efficient Management:** With the use of a mixing console, volume, sound effects, and mixing for each microphone can be precisely adjusted to deliver an optimal audio experience.



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■ Product Introduction_D5831 AI Digital Microphone



Feature Highlights

- **Extended Pickup Range:** Equipped with a 240mm integrated microphone rod and cardioid pickup pattern, offering a 30% increase in acoustic gain.
- **Intelligent Noise Reduction:** AI-powered algorithm effectively filters out ambient noise such as air conditioning and keyboard sounds (SNR \geq 70dB).
- **Feedback Suppression:** Real-time acoustic processing eliminates howling and ensures clear audio.
- **Integrated Design:** Built-in red speaking indicator light and 2-meter dedicated 8-pin DIN cable.
- **Versatile Connectivity:** Audio interface box supports RCA (unbalanced input) and XLR (balanced output) connections.
- **Safe Power Supply:** 12V low-voltage input minimizes electrical interference and ensures reliable operation.

Product Introduction_D5831 AI Digital Microphone

Even with an audio processor, do you still encounter issues with microphone noise?



Clapping



Coughing



Tapping



Dropping

Key Highlights



AI
Algorithm



Dynamic Noise
Reduction



Extended Pickup
Range



Real-time
Feedback Suppression



High-Fidelity
Audio



Easy
Installation



Pickup range: about 1m

Key Features

- Ultra-long-range pickup, full-scenario voice capture.
- High-performance feedback suppression algorithm, instantly eliminating feedback and preventing howling.
- AI dynamic noise reduction, precisely separating various types of noise.
- Plug-and-play, no debugging required.

■ Application Scenarios



Training Room



Conference Room



Multifunctional Hall



Seminar Room

As the core device of a conference audio system, the D5831AI Condenser AI Conference Microphone delivers outstanding pickup performance and intelligent noise reduction, significantly enhancing overall audio quality. With proper system configuration and precise audio processing, it ensures clear and natural sound transmission even in complex meeting environments, meeting the needs of various meeting scales and audio application scenarios.



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