


Smart Audio Management System


32-Channel Conference Audio Solution



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Smart Audio Management System

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Smart Audio Management System

The system consists of conference unit NMC101D, PoE repeater NMC4, audio switching center NMC16 and conference host NMC100. The system aims to provide an audio management solution that saves wires, is easy to install, easy to debug and efficient in application.



I Conference Unit

The conference unit NMC101D uses an independent pure domestic processor for signal processing, supports high-pass and low-pass filters, 12Band parametric equalizers, segmented compressors and other processing functions, and can achieve consistent volume and consistent timbre over long distances. At the same time, it supports independent software control and management of microphones, and can realize a custom control interface to remotely control and monitor the status of microphones or other sources in the system in conjunction with the NMC100 conference host.

I Network Audio Mixing Console

The NMC100 conference host is designed to help users quickly build a system and apply it without complicated system debugging. The host supports up to 32 audio sources, up to 32 independent outputs or 40 (32 digital channels + 8 analog) group outputs. It provides a high-quality, convenient and fast user experience for small and medium-sized conference applications.

I Audio Exchange Center

NMC8 or NMC16 audio switching center is the core of the entire audio system. It can be installed in the cabinet of the control room or under the conference table to connect NMC4, conference host, debugging computer and management computer, etc.

I PoE Repeater

The PoE repeater NMC4 provides 4 conference unit connection interfaces, which can be used to power, manage and control the conference units through network cable connection.

The "Smart Meeting" audio management system supports dual host hot backup and supports independent adjustment of microphones to achieve volume and timbre consistency for long-distance pickup. The system has up to 40 group outputs, which can achieve higher transmission gain when all microphones are turned on, and is suitable for medium-sized conference venues with 40 sound sources.

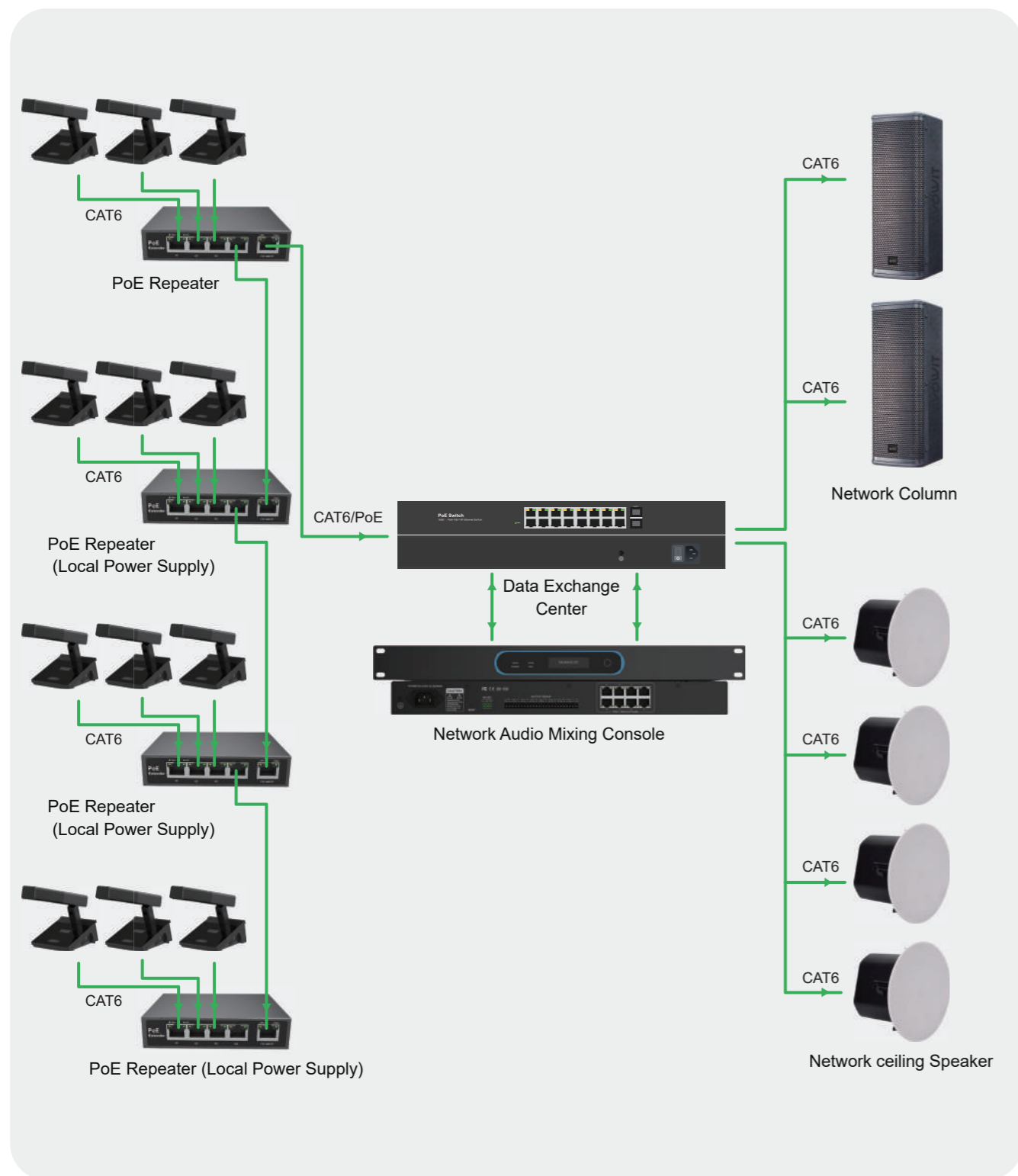
In addition, the system can solve the comb filtering phenomenon in multi-microphone applications and provide clearer pickup effects. It supports control protocol output after the conference unit is turned on for video tracking, further improving the interactivity and efficiency of the meeting.

In summary, the Smart Meeting audio management system has the advantages of advanced technology, stable performance, flexible and fast configuration, and easy management. It can provide users with high-quality audio processing and management services and is an ideal choice for small, medium and large conference venues.

I System Advantages

- Individual channel microphone processing
- Fully digital conference system
- Up to 32 channels of independent input and 40 group outputs
- Dual host hot backup
- Conference units can all be turned on
- Customizable control interface
- Device status monitoring and conference unit remote management
- Optimizing the proximity effect of microphones

Solution



Conference Unit NMC101D



Domestic conference unit, independent unit processing, support high and low pass filter, 12Band parametric equalizer, adaptive feedback suppressor, segmented compressor, etc., to achieve long-distance volume consistency and timbre consistency pickup. Support independent software control and management of microphones, and cooperate with conference host to realize remote control and status monitoring of software interface.

Product Features

- Domestic: product design, manufacturing and R&D are all completed in China, in line with relevant national standards.
- Independent processing unit: using an independent processor for signal processing, it can control the volume consistency and timbre consistency pickup, ensuring the stability and clarity of the sound.
- Multiple processing functions: supports high and low pass filters, 12Band parametric equalizer, adaptive feedback suppressor, segmented compressor and other processing functions, which can meet the needs of sound effects in different environments.
- Independent software control and management: supports independent software control and management of microphones, which can easily perform remote control and status monitoring, and cooperate with the conference host to realize remote control of the software management interface.
- Modular design: adopts modular design.

Software Interface



Specifications

Microphone	Capacitive	Sound Pressure Level (SPL)	98 dB (0.4% THD/1kHz)
Diaphragm	14mm Diameter Gold-Plated	Sensitivity	-31 dB (±1.5 dB, 1kHz, 1V/Pa)
Microphone Boom Length	215mm	Sampling Rate	48 kHz
Polar Pattern	Supercardioid	THD+N	≤0.002% (1kHz, +4 dBu, A-weighted)
Dante Output Channel	1	Signal-to-Noise Ratio	≥106 dB (A-weighted)
Pure domestic main control chip		Equipment Noise	≤-88 dBu (A-weighted)
Microphone Preamp Gain	0-42 dB (1 dB Accuracy)	Microphone Cable	1 m Length (Standard RJ45 Female Connector)
Power Supply	PoE (IEEE 802.3af)	Net/Gross Weight	1.15Kg/1.7Kg
Frequency Response	20Hz-20kHz (0/-0.3 dB)	Dimensions	Boom: 224*36*29 mm
Maximum Level	+9 dBu		Base: 140*109*59mm

Network Audio Mixing Console **NMC100D**

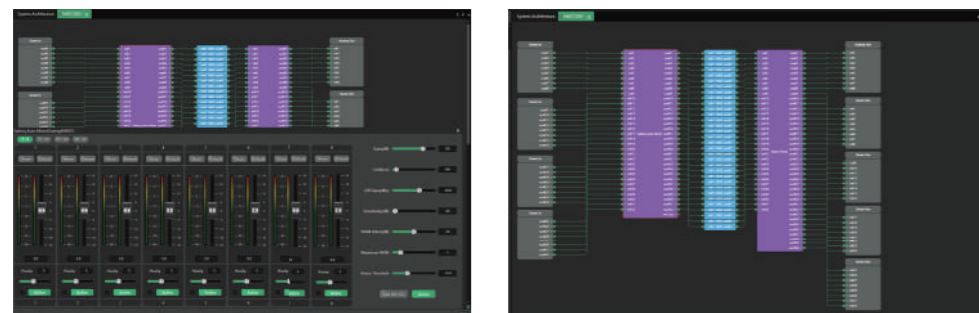


NMC series conference system is designed to help users achieve rapid system construction. It is a conference system that can be quickly applied without complex system debugging. It supports small and medium-sized conference applications with up to 32 microphones, supports host hot backup, independent microphone adjustment, and achieves long-distance volume and timbre consistency pickup. The system can have up to 40 group outputs to enable all microphones to be turned on. It solves the comb filtering phenomenon of dual microphones and provides clearer pickup effects. It supports control protocol output after microphone voice activation for video tracking.

Product Features

- 32-channel bus input / 40-channel bus output processing capability
- 8-channel analog group output
- Bidirectional RS-232
- Supports host dual backup function
- Supports full microphone activation, voice activation, and ATS comb filter control
- Unit channels can be output independently or in groups (up to 40 groups)
- Supports remote management of the control interface
- The host supports signal processing such as ATS threshold automatic mixer and independent channel feedback suppressor

Software Interface



Specifications

Processor	ADI SHARC 21569	Output Dynamic Range	113 dB
Sampling Rate/Quantization Bit Depth	48K/24bit	Equipment Noise	≤-95 dBu (A-weighted)
Dante Channels	32x32	Common Mode Rejection Ratio (CMRR)	>50 dB @1kHz
Number of Analog Group Output Channels	8	Output Impedance (Balanced Connection)	600Ω
PoE++ Power Supply Interfaces	8 (RJ45)	System Delay	<4 ms
Maximum Single-port PoE Power	95W	Operating Power Supply	AC110-240V, 50Hz/60Hz
Frequency Response	20Hz-20kHz (+0.1/-0.4 dB)	Dimensions (W×D×H)	482×260×45 mm
Maximum Analog Output Level	+18 dBu	Shipping Weight	4KG
THD+N	≤0.001% (1kHz, +4 dBu, A-weighted)		

Audio Exchange Center **NMC16**



Product Features

- Supports full Gigabit access and Gigabit optical port uplink, which is convenient for users to flexibly network.
- Intelligent PoE power supply function, automatically identifies PoE devices for power supply, and meets the needs of ultra-high-power PoE power supply in scenarios such as security monitoring, teleconferencing systems, and wireless coverage.

The equipment is stable and reliable, with low power consumption and fanless silent design of the host, providing long-term stable PoE power output. Simple operation, plug and play, no configuration required, simple and convenient.

Specifications

Port Characteristics	16 10/100/1000Base-T PoE (Data/Power)	Power supply pin	Support 1/2,4/5(+)&3/6,7/8(-) 8-core power supply
	2 1000Base-X SFP Uplink optical port slot (Data)		95W, standard IEEE802.3af/at/bt,
Network port characteristics	1-16 10/100/1000Base-T (X) Automatic detection,	PoE Port	When 16 ports are used simultaneously, the average maximum power per port is 71W
	Full/half duplex MDI/MDI-X auto-sensing		
Backplane bandwidth	52Gbps (non-blocking)	Supporting power supply	AC:100~240V 50-60Hz 6.6A) x 2
Packet forwarding rate@64byte	26.78Mpps	Operating temperature/humidity	-20~+55°C; 5%~90% RHwithout condensation
MAC address	8K	Storage temperature/humidity	-40~+80°C; 5%~95% RHwithout condensation
LED Indicator	Power indicator:PWR(Green); Data indicator: Link (Yellow)	Dimensions (WxDxH)	440x290x44.5mm
	PoE indicator:PoE(Green); Uplink port speed indicator:SPEED(Green)	Net /gross weight	<5.0kg / <5.8kg
LED Indicator	Ports 1-16 support IEEE802.3bt and are backward compatible	Installation	Desktop, 1U/19-inch cabinet installation
	IEEE802.3af/at standard PoE power supply		

4-port full Gigabit PoE repeater **NMC4**



Product Features

- Provides 5 ports of 10/100/1000Base-T RJ45 to meet the networking power supply and transmission requirements within 200 meters
- Supports IEEE 802.3x full-duplex flow control and Backpressure half-duplex flow control
- 4 10/100/1000Base-TX RJ45 ports support PoE power supply (IEEE 802.3af /at PoE power supply standard)
- The maximum PoE output power of the whole machine is 60W, and the maximum PoE output power of a single port is 30W
- Ultra-high power receiving port (60W) relay power supply, supports 8 cores at the same time, effectively reduces line loss plug and play
- No configuration required, simple and convenient to use and maintain