

M390

Audio processor + microphone set

Rich interface / ANS AGC AEC



Features

● Product portfolio

The M390 package is a product developed for classroom or meeting room scenarios with interactive needs, and is also suitable for courtroom, prison meeting, bank and other scenarios.

● Professional audio processing

The audio processor uses a dedicated chip, embedded architecture, independent digital potential adjustment, precise volume control, and low latency.

● Smart audio algorithm

The audio processor has built-in high-definition audio algorithms, ANS, AGC, AEC, automatic equalization, smart microphone mixing, and digital audio technology.

● Rich interfaces and simple transmission

The digital audio processor supports 3 channels of hanging microphone input, 4 channels of stereo linear input (including 1 built-in), supports extended wireless microphones, 4 channels of stereo linear output, and standard 3.5mm audio interface connection. The audio processor supports power supply to the dome microphone, and the RJ45 interface connection.

● Omnidirectional pickup, flexible expansion

The ball microphone picks up the sound and supports up to 3 levels of cascade. A single ball microphone has a pickup radius of >6 meters, and two microphones can cover a 120 square meter classroom or meeting room.

● Suspended ceiling installation

The ball microphone supports suspended ceiling installation, away from the floor and desktop.

● Safe and convenient operation

The device parameters can be remotely controlled through the network, which takes effect immediately, and supports one-key restoration of factory settings for software and hardware.

● Intelligent voice broadcast

Support intelligent voice broadcast, the sound is clear and full.

● High fidelity sound quality

The spherical microphone uses a highly sensitive omnidirectional condenser microphone, 48kHz sampling, and a wide acquisition frequency response.

● Easy to customize

Fully open API, support customization, easy to secondary development of third party applications.

Product specifications

Audio characteristics

Frequency response (20Hz~20kHz @ +4dBu):	
Microphone channel	±3dB
Line input channel	±2dB
THD +N (1kHz @ +4dBu):	
Microphone channel	< 0.006%
Line input channel	< 0.002%
Equivalent noise	< -92dBu(40Hz~20kHz@5dB)
Dynamic Range	> 105dB(40Hz~20kHz@0dB)
Maximum input level:	
Microphone channel	-1dBu
Line input channel	10dBu
Maximum output level (balanced)	10dBu
Maximum gain:	
Microphone channel	66dB
Line input channel	12dB
input resistance:	
Microphone channel	2.2kΩ
Line input channel	175kΩ
Output impedance	37 Ω
Sampling Rate	48kHz
A/D-D/A converter	24BIT
Microphone index	
sensor type	Electret condenser pole
Circuit characteristics	HD differential access
Directivity	Omnidirectional
Frequency response	50Hz~20kHz
Sensitivity	-42±3dB (0dB=1V/Pa@1kHz)
Rated output impedance	2.2KΩ
Minimum load impedance	1kΩ
Signal to noise ratio	71dB(S:(f=1kHz@1Pa) N:(A-Weighted curve))
Maximum sound pressure level	115dB(f=1kHz, THD < 1%)
Power supply/current consumption	VS=1.5V@2.2kΩ
Output connection method	High quality shielded parallel network cable



Hardware interface

Hanging MIC input	Ball microphone input, audio processor power supply, RJ45 interface, network cable transmission, maximum 3-level cascade;
Audio input	3.5mm linear audio input interface, such as: connect to computer audio output, stereo;
AEC-REF input	AEC-REF input 3.5mm linear audio input interface,
Wireless microphone input Wireless (optional)	3.5mm linear audio input interface and built-in wireless multiplexing; It can be used for wireless microphone signal access, and can also be used for signal input of other audio equipment as a reference. Hand-held microphone or lavalier microphone signal input port, support local amplification or send to interactive remote. Support wireless microphone and wired microphone dodge function to ensure that the wireless microphone sound is highlighted when the wireless microphone and wired microphone have voice input;
SPK output	3.5mm power amplifier line output interface.
MIX output	3.5mm linear audio output interface, the default configuration is reference and original local mixed output;
AEC-OUT	3.5mm linear audio output interface, output the local signal after echo, noise and automatic gain processing to the remote device;
MON output	3.5mm linear audio output interface, easy to monitor audio. Connect to the recording and broadcasting host for audio recording;
Audio transmission	Standard network cable, digital audio transmission.
Transmission cable	8-core standard network cable
Network Interface	1 x RJ45: 10/100 Base-T ;
Electrical characteristics	Working voltage: AC 100V ~ 240V, DC 12V Working frequency: 50Hz/60Hz Maximum power consumption: 12W