⋀ Solutions

User Guide

MS-MC6

Cascade Array Microphone

Contents

Notices

- This MSolutions product contains electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection is highly recommended in order to protect and extend the life of your equipment.

- The transmission distances of HDMI over CAT cables are measured using TE CONNECTIVITY 1427071-6 EIA/TIA-568-B termination (T568B) of cables is recommended for optimal performance. To minimise interference of unshielded twisted pairs in the CAT5e/6 cable, do not run the HDBaseT / CAT5e/6/6a cabling with or in close parallel proximity to mains power cables.

- Do not substitute or use any other power supply other than the enclosed unit, or an MSolutions approved replacement. Do not disassemble either the Transmitter or Receiver units for any reason. Doing so will void the manufacturer's warranty.

- MSolutions reserves the right to change the specifications of this unit without prior notice. As a result of this, physical representations or graphical elements contained within this user guide may not be accurate.

Introduction

The MS-MC6 cascade digital array microphone adopts advanced technologies, including blind beamforming adaptive fast pickup algorithm, intelligent voice tracking, intelligent noise reduction, echo cancellation, automatic gain and de-reverberation. It features a built-in powerful audio processing unit, with ultra-low signal processing latency, and is equipped with infrared remote control. Up to five additional microphones can be cascaded using the MC6B Digital Audio Processor Box to achieve even coverage over larger conference rooms.

Key Features

- Digital microphone array, clear long distance pickup. High signal-to-noise ratio ring microphone array design enables long distance pickup, allowing the speaker to move around the room freely in a wider range, free from constraints.

- Blind beamforming, automatically aimed at the speaker. With blind beamforming technology, accurate positioning and adaptive sound field environment, it can achieve voice enhancement and better anti-interference ability.

- Intelligent audio algorithm, clear and natural sound quality. Built-in powerful audio processing unit, ultra-low signal processing latency, adaptive fast convergence algorithm, intelligent voice tracking, intelligent noise reduction, echo cancellation, automatic gain, de-reverberation, duplex communication without suppression, enables easy listening in a noisy environment.

- POE cascade to evenly cover the conference room. Flexible setting of master-slave devices, multiple cascades through POE network cables, distributed pickup and interaction allows even covering of medium and large conference rooms.

- Standard interface, plug and play. Standard USB2.0 and AUX audio interfaces with plug and play enables the dual-mode application of digital and analog audio.

- Flexible installation. Supports desktop, ceiling, suspended to ceiling or wall installation, allowing flexible and quick deployment, while reducing operation and maintenance costs.

Quick Start Guide

1 Packing List

Name	Quantity	Name	Quantity
Microphone	1	Remote Control (optional)	1
USB Cable	1	Mounting Bracket (optional)	1
Audio Cable	1	Quick Start Guide	1
Network Cable	1	-	-

2 Appearance and Interface
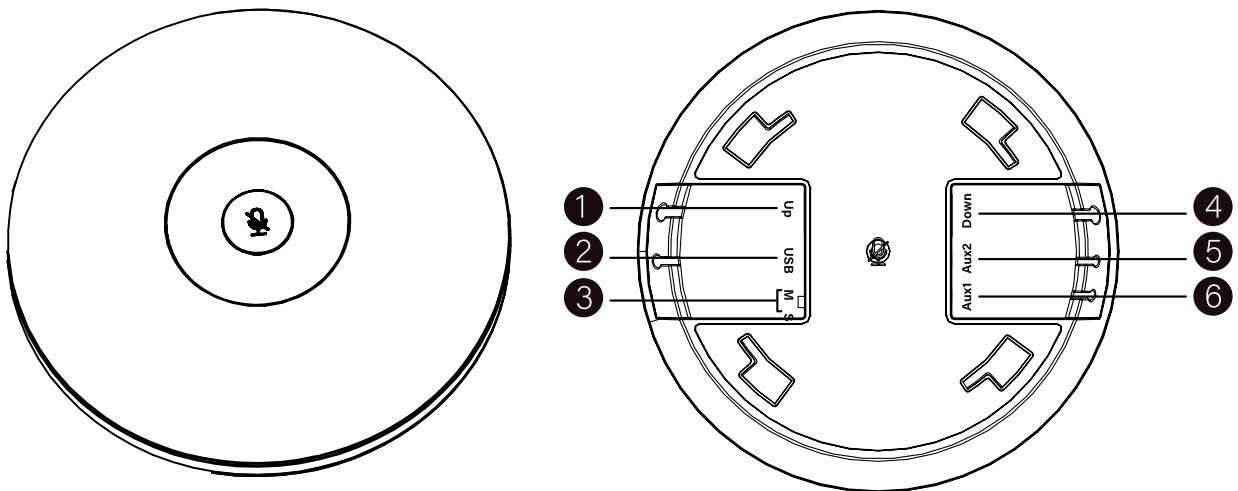
No.	Interface	Function
1	Up	Up cascade network interface, cascading up devices through PoE network cable
2	USB	USB audio interface for connecting to the USB host or powering the microphone
3	M/S	Disable
4	Down	Down cascade network interface, cascading down devices through PoE network cable
5	Aux2	Audio input and output interface, sound collected by the local microphone can be output to the terminal or recording host
6	Aux1	Audio input and output interface, the audio reference signal sent from the remote classroom can be output to the local player

3 Product Features

Digital Array Microphone, Long

High SNR ring microphone array design, clear pickup from long distance. Let the speaker move around more freely in the room and get rid of the constraints.

Blind Beamforming, Automatic Alignment to Speaker

Blind beamforming, precise positioning, adaptive sound field environment can achieve voice enhancement and better anti-interference ability.

Smart Audio Algorithms, Clear Natural Sound

Built-in powerful audio processing unit, ultra-low signal processing delay; Adaptive fast convergence algorithm, voice intelligent tracking, intelligent noise reduction, echo cancellation, automatic gain, de-reverberation and other advanced technologies, double-talk without suppression, you can easily listen in noisy environments. For ordinary users, there is no need for professional tuning, and it can be used for regular conference applications when it is turned on. For enthusiast users, you can also open the EQ interface and enter the professional tuner mode for personalized high-end tuning.

PoE Cascading, Even Coverage of Conference Room Pickup

Flexible setting of master and slave devices, multiple cascades through PoE network cables, distributed pickup and interaction, evenly covering medium and large conference room spaces.

Standard Interface, Plug and Play

Equipped with standard USB and Aux audio interfaces, the device is plug and play, and can meet the dual-mode application of digital and analog audio.
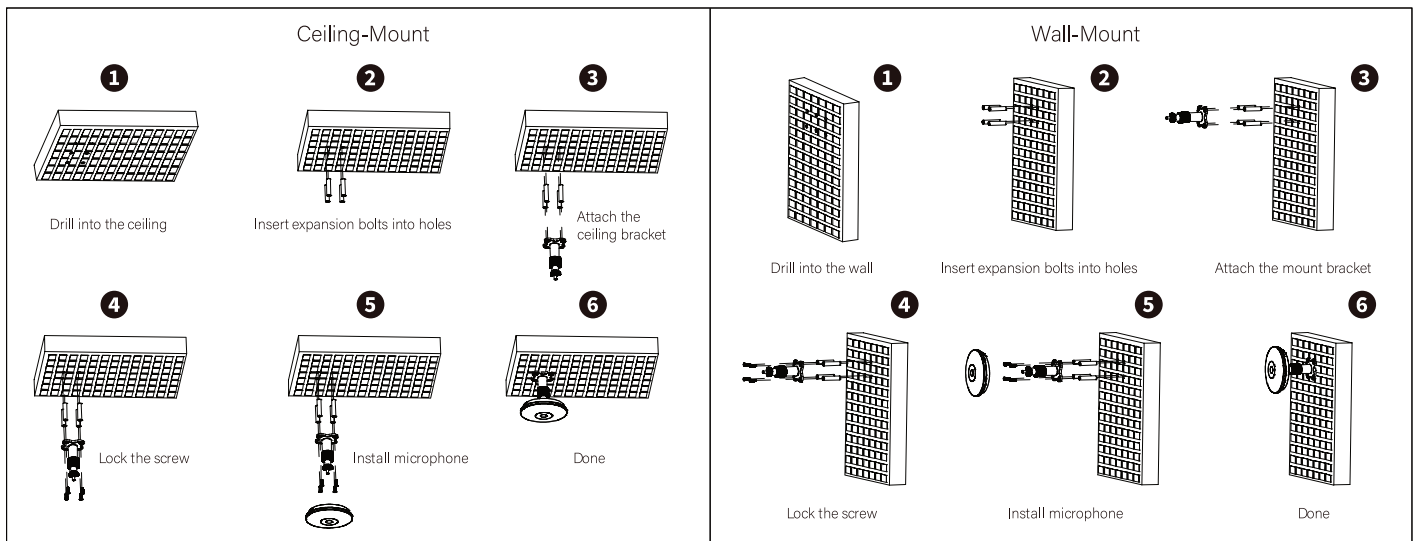
Desktop/Ceiling/Wall Mounting, Simple and Flexible Deployment

Support desktop/ceiling/wall mounting, flexible and fast deployment, and reduce operation and maintenance costs.

4 Product Specifications

Audio Features	
Microphone Type	Omnidirectional Microphone
Array Microphone	Built-in 6 mics to form ring array microphone, 360° omnidirectional pickup
Sensitivity	-38 dBFS
Signal Noise to Ratio	65 dB(A)
Frequency Response	50Hz ~ 16kHz
Pickup Range	3m
Automatic Echo Cancellation (AEC)	Support
Automatic Noise Suppression (ANS)	Support
Automatic Gain Control (AGC)	Support
Hardware Interfaces	
Network Interface	1 x Up: Up cascade network interface
	1 x Down: Down cascade network interface
USB Interface	1 x USB: USB audio interface
Audio Interface	1 x Aux1: 3.5mm audio input and output interface
	1 x Aux2: 3.5mm audio input and output interface
General Specifications	
Cascade Method	PoE network cable
Power Supply	PoE cascade, 48V, support IEEE 802.3at
Dimension	Φ170mm x H 40mm
Net Weight	About 0.4Kg

5 Product Installation

Ceiling-Mount

❶ Drill into the ceiling
❷ Insert expansion bolts into holes
❸ Attach the ceiling bracket
❹ Lock the screw
❺ Install microphone
❻ Done

Wall-Mount

❶ Drill into the wall
❷ Insert expansion bolts into holes
❸ Attach the mount bracket
❹ Lock the screw
❺ Install microphone
❻ Done

Note: The installation diagram is for reference only. The bracket is not standard. Please refer to the actual product for the packing accessories.
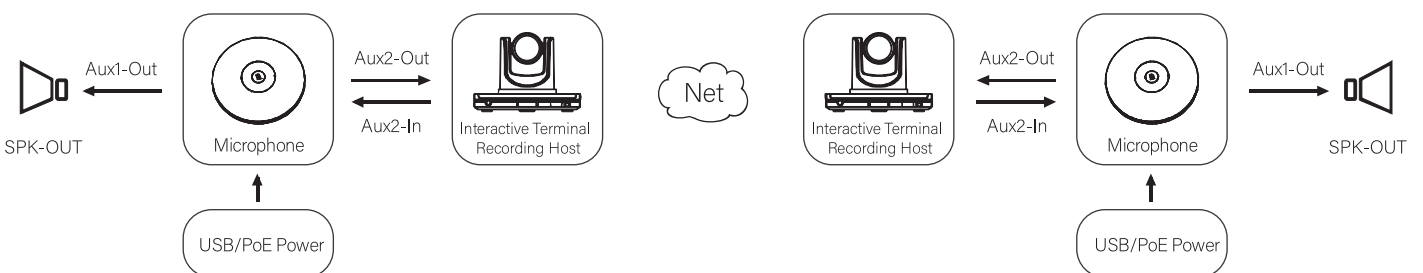
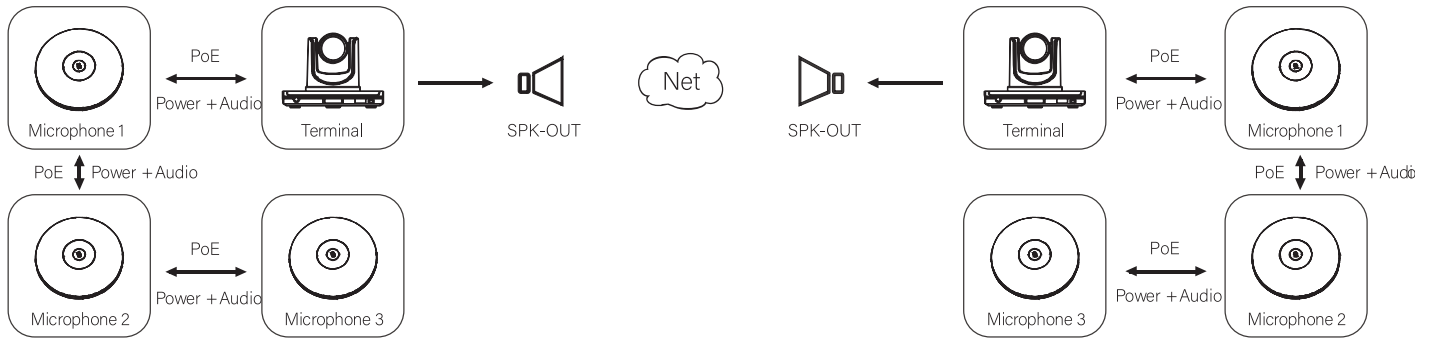# 6 Network Application

6.1 Single Mode

USB Connection

Aux1-Out · SPK-OUT · Microphone · USB · Power + Audio · PC · Net · PC · USB · Power + Audio · Microphone · Aux1-Out · SPK-OUT

PoE Connection

Microphone · PoE · Power + Audio · Terminal · SPK-OUT · Net · SPK-OUT · Terminal · PoE · Power + Audio · Microphone

Analog 3.5mm Connection

Aux1-Out · SPK-OUT · Microphone · Aux2-Out · Aux2-In · Interactive Terminal Recording Host · Net · Interactive Terminal Recording Host · Aux2-Out · Aux2-In · Microphone · Aux1-Out · SPK-OUT · USB/PoE Power · USB/PoE Power

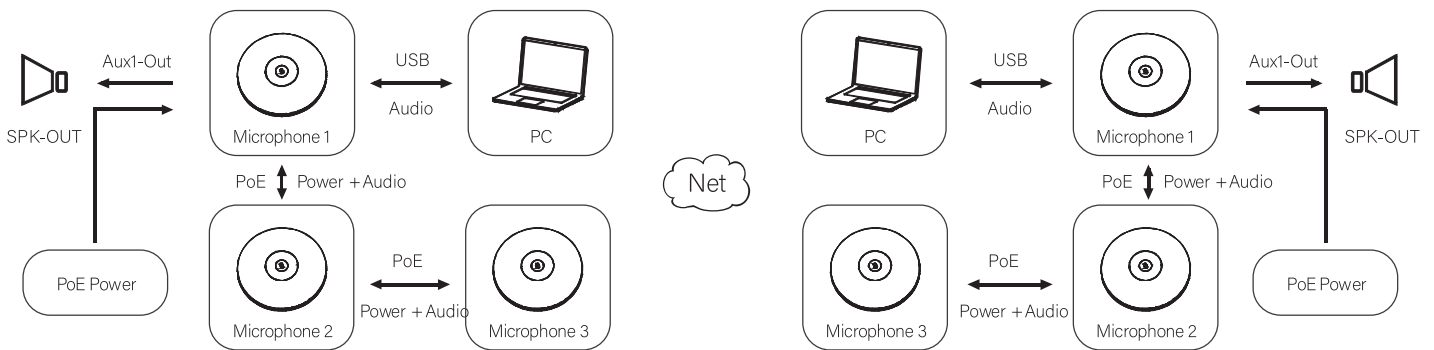## 6.2 Cascade Mode

PoE Connection

USB Connection

Analog 3.5mm Connection

M Solutions