

AI Conference Speakerphone M12 Pro



CATALOG

- 1 Product Introduction
- 2 Main Features
- 3 Product Specifications
- 4 Component Instructions



M12 Scene Image

Product Introduction

AIMIC-M12 Pro is a 360° noise-canceling conference microphone speaker designed specifically for enterprise conference rooms by AISPEECH. It is an intelligent conference microphone speaker that combines sound collection, sound amplification, speech transcription, and subtitle simultaneous transmission. The product uses a 12-element omnidirectional microphone array and achieves 5-meter radius omnidirectional sound collection, intelligent noise reduction, echo cancellation, real-time speech transcription, and other functions through audio algorithms. It solves the conference pain points such as unclear remote calls, noisy environments, and difficulty in organizing meeting minutes for users. The built-in high-fidelity speakers enable users to hear clearly and maintain efficient communication. With the support for cascading up to five units, this product can achieve a wider sound collection range and can be deployed in larger conference rooms.

Applicable scenarios: Conference rooms of various sizes.

Main Features

12-Mic 360° Pickup

With a circular array of 12 omnidirectional analog MEMS mics, M12 delivers stable 360° pickup with strong noise immunity. In typical conference rooms, one unit covers about a 5 m radius, suitable for meetings of around 10 people. In rooms with better acoustics, the pickup radius can extend to approximately 8 m, so distant participants are still heard clearly without raising their voices.

Smart Voice Enhancement

M12 uses intelligent voice locating and Automatic Gain Control (AGC) to track the active speaker and adjust gain within a 5 m radius. As people move or change seats, the output volume remains consistent and natural. Human voices are prioritized and enhanced while preserving detail, ensuring clear speech even near the edge of the 8 m extended pickup range.

Deep Noise & Echo Control

By learning typical conference-room noises, M12 can suppress up to 95% of background noise with a noise reduction depth of up to 35 dB. Air-conditioning hum, keyboard typing, and chair movement are significantly reduced so speech stays clean and natural. A separated mic-speaker design plus intelligent echo cancellation and reverb suppression help eliminate howling and echo, so remote participants hear a clear, easy-to-follow voice signal.

5-Unit PoE Cascade Deployment

Up to five M12 units can be cascaded over PoE in a star topology, synchronizing pickup and playback in real time. This enables flexible deployment: one unit for small rooms (up to ~10 people), two units for medium rooms (10–20 people), and up to five units for larger spaces with more than 20 participants. The result is even coverage from the center of the table to the corners of the room, ensuring reliable audio for meetings of all sizes.

HiFi Sound & Full-Duplex Calls

M12 integrates two 8 W high-performance speakers with an optimized bass chamber to deliver powerful, comfortable HiFi sound in a compact form. Music mode offers a 100 Hz–20 kHz frequency response, while voice mode is tuned to highlight vocals for better intelligibility. With loudness up to about 85 dB, it easily covers small and medium conference rooms. Full-duplex audio lets both sides speak and interrupt freely without clipping, creating a natural, in-person conversation experience.

Product Specifications

Hardware Specifications

Function	Specification	
Basic Specs	• Model	AIMIC-M12 Pro
	• Dimensions	250mm*119mm*39mm
	• Weight	Approx. 500g
	• Material	ABS
	• Color	Gray
Buttons	• Volume + key	Touch Volume Keys
	• Volume - key	
	• Microphone mute key	Touch key; Mutes/Unmutes microphone
	• Bluetooth key	Touch Key; Enable or Disconnect Bluetooth
Indicators	• Button indicator	Supported
	• Status light bar	Supported (Red, Green, or Blue)
Interfaces	• USB interface	USB Type-C port, USB2.0, for computer connection USB Type-A port, USB2.0, for debugging
	• DC power interface	DC power port
	• RJ45 network interface	Wired daisy-chaining
		PoE power input
Acoustics	• Microphone	12 Analog Omnidirectional Microphones Frequency Response: 100Hz - 8kHz
	• Speaker	1 × 8W Full-range speaker 1 × 8W Tweeter 1 x Passive Radiator Speaker Frequency Response: Music Mode: 80Hz - 20kHz Call Mode: 150Hz - 7.5kHz
Power	• DC adapter	12V/2A
	• PoE power	Supports 802.3at, 30W

Product Specifications

Hardware Specifications

Function	Specification	
Other	• Operating temperature	0°C~40°C
	• Storage temperature	-20°C~+70°C
	• Kensington lock slot	Supported
	• Certification	FCC Certification
		CE Certification

Product Specifications

Software Specifications

Function	Specification	
Compatibility	• Connection methods	USB, Bluetooth, or Bluetooth Dongle
	• Operating systems	Windows, macOS, iOS, Android
	• Conference software	Tencent Meeting, DingTalk Meeting, Feishu, WeCom, WeChat, Zoom, Microsoft Teams, Google Hangouts, etc.
		5m Effective Pickup Radius
		8m Maximum Pickup Radius (in acoustically favorable environments)
Call Algorithms	• Remote pickup	5m Effective Pickup Radius 8m Maximum Pickup Radius (in acoustically favorable environments)
	• 360° Omnidirectional pickup	Supported
	• Automatic gain control (AGC)	Supported
	• Deep noise cancellation (ANC)	Supported
	• Acoustic echo cancellation (AEC)	Supported
	• Full-Duplex	Supports interruption; enables full-duplex conversation
	• Reverberation suppression	Supported
Sound Effects	• Keypad tones	Supported
	• Status tones	Power-on status, USB connection status, etc.
Light Effects	• Booting	Green light circle illuminates sequentially
	• Standby	Green breathing light
	• Not in call	Microphone Unmuted: Solid Green Light Microphone Muted: Solid Red Light
	• In call	Microphone Unmuted: Green DOA indicator for speaker

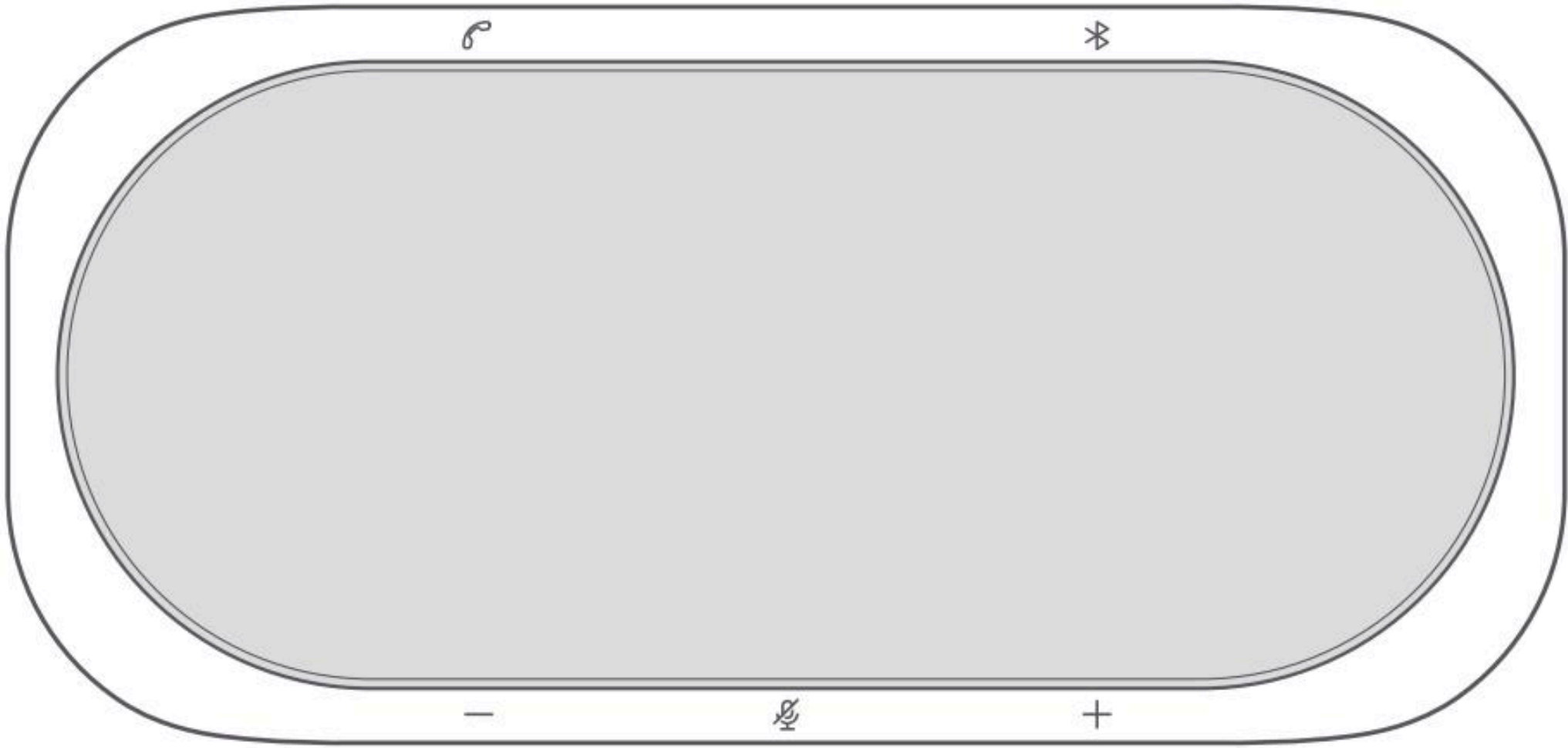
Product Specifications

Software Specifications

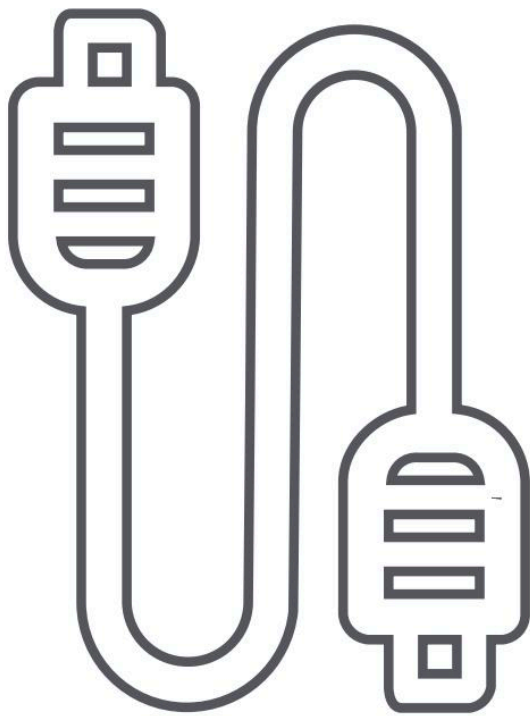
Function	Specification	
		Microphone Muted: Solid Red Light
	• Sleeping	Lights Off
	• Updating	Blue breathing light
Cascading	• Wired	Category 6 Ethernet Cable
	• Maximum cascading quantity	5 units
Device Management	• Firmware upgrade	Supported

Product Instruction

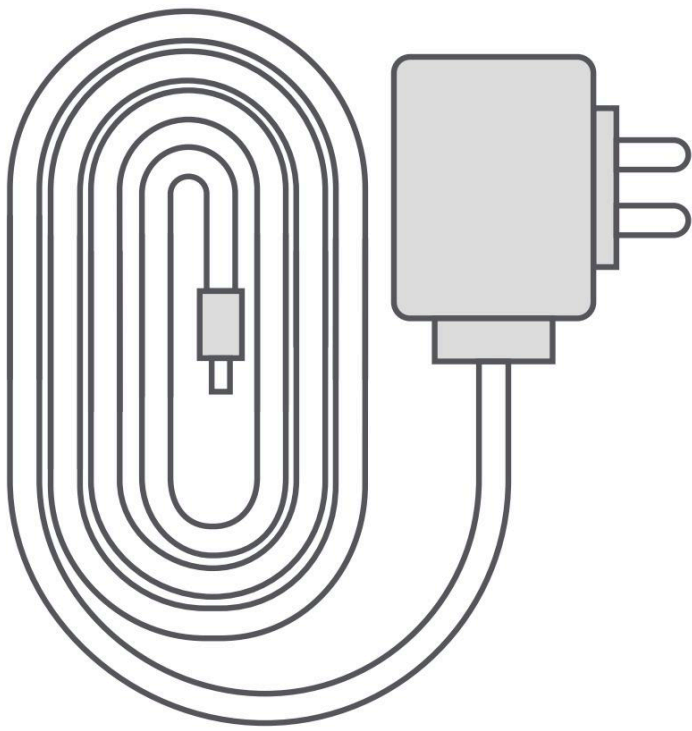
Accessories List



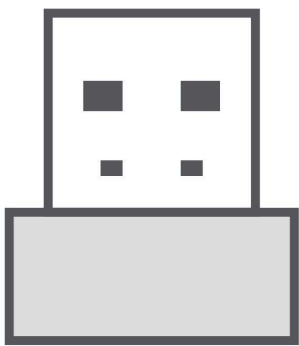
AIMIC-M12 Pro



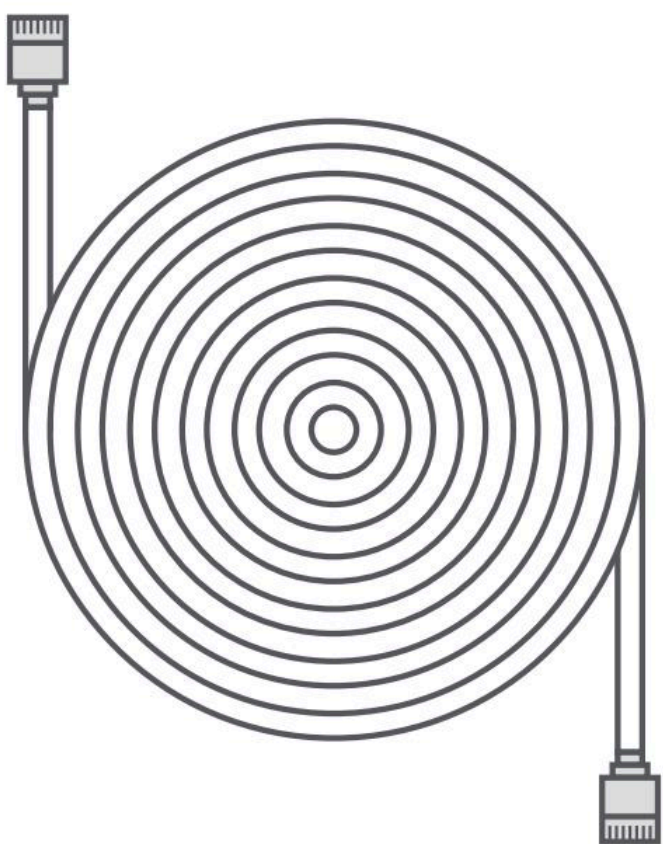
USB cable



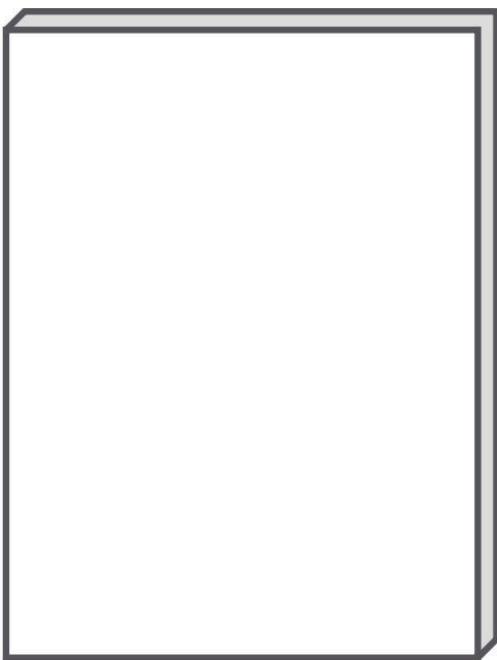
Power adapter



Dongle



Ethernet cable



User manual

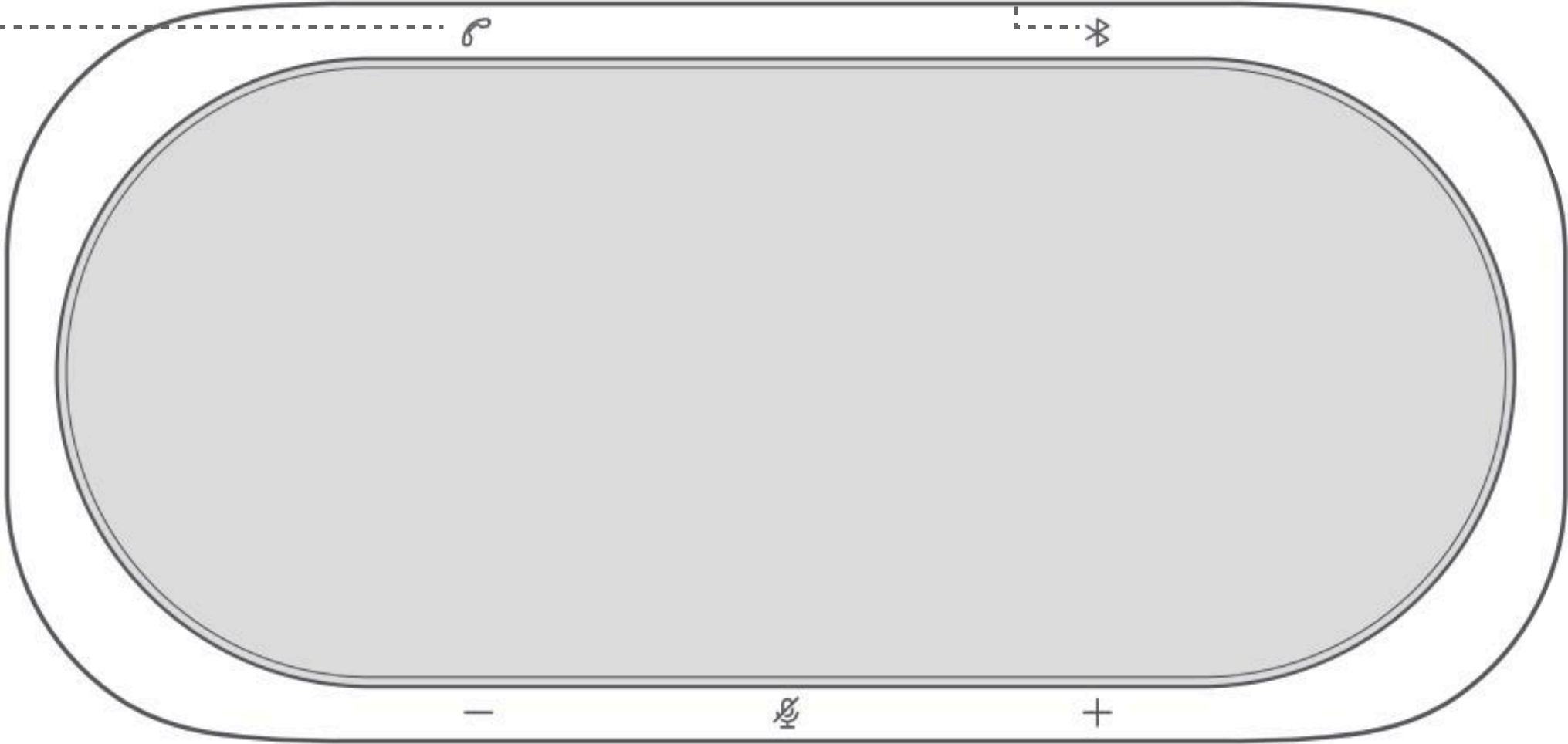
Product Instruction

Buttons and indicator lights instructions

Hang up/ Answer (TBD)

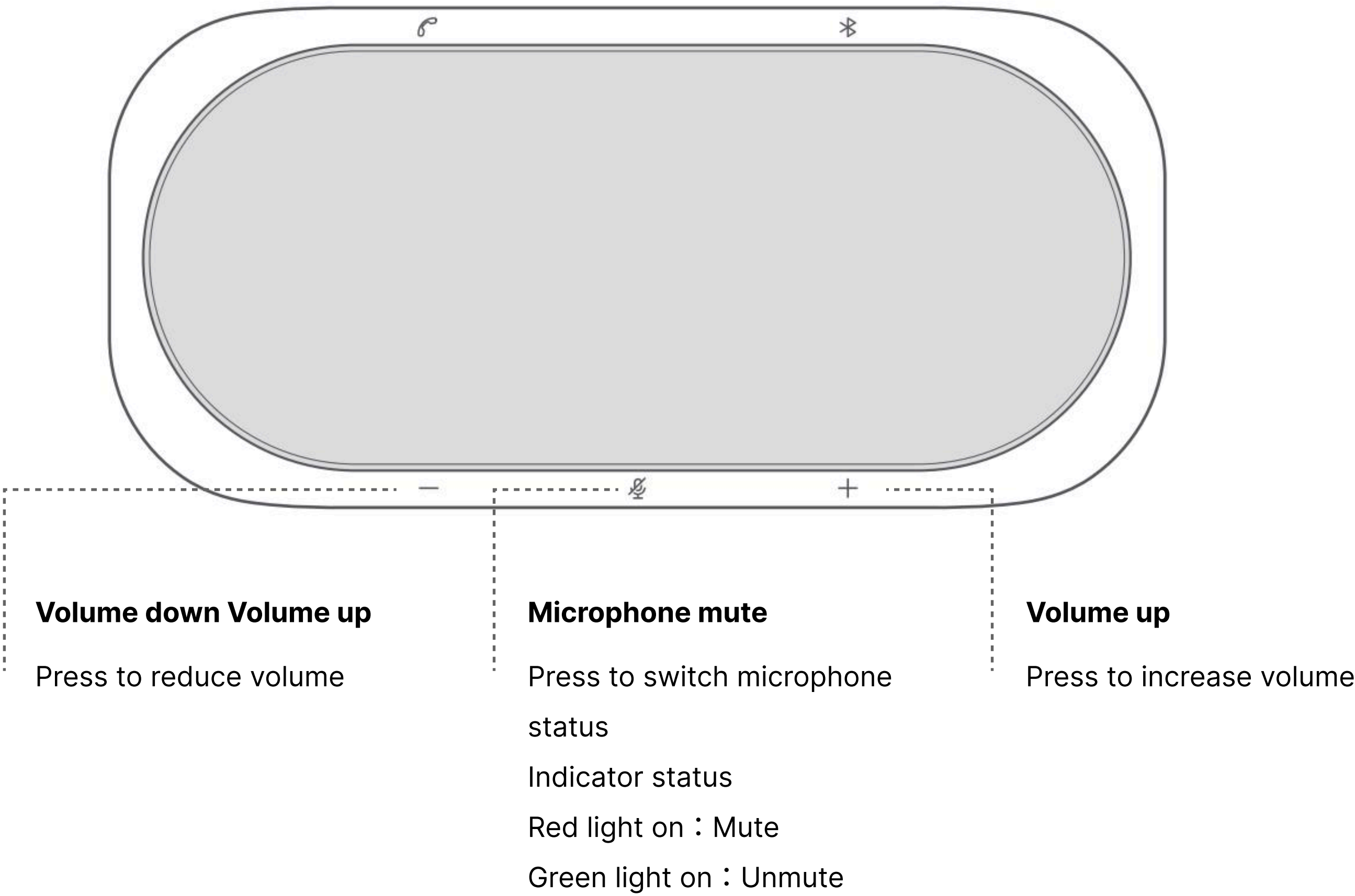
Bluetooth

Press and hold 2 seconds to enable or disable
Indicator status :
White light on: Bluetooth connected
White light flashing: Bluetooth pairing
Light off:bluetooth disabled
* Only for AIMIC-M12 Pro version



Product Instruction

Buttons and indicator lights instructions



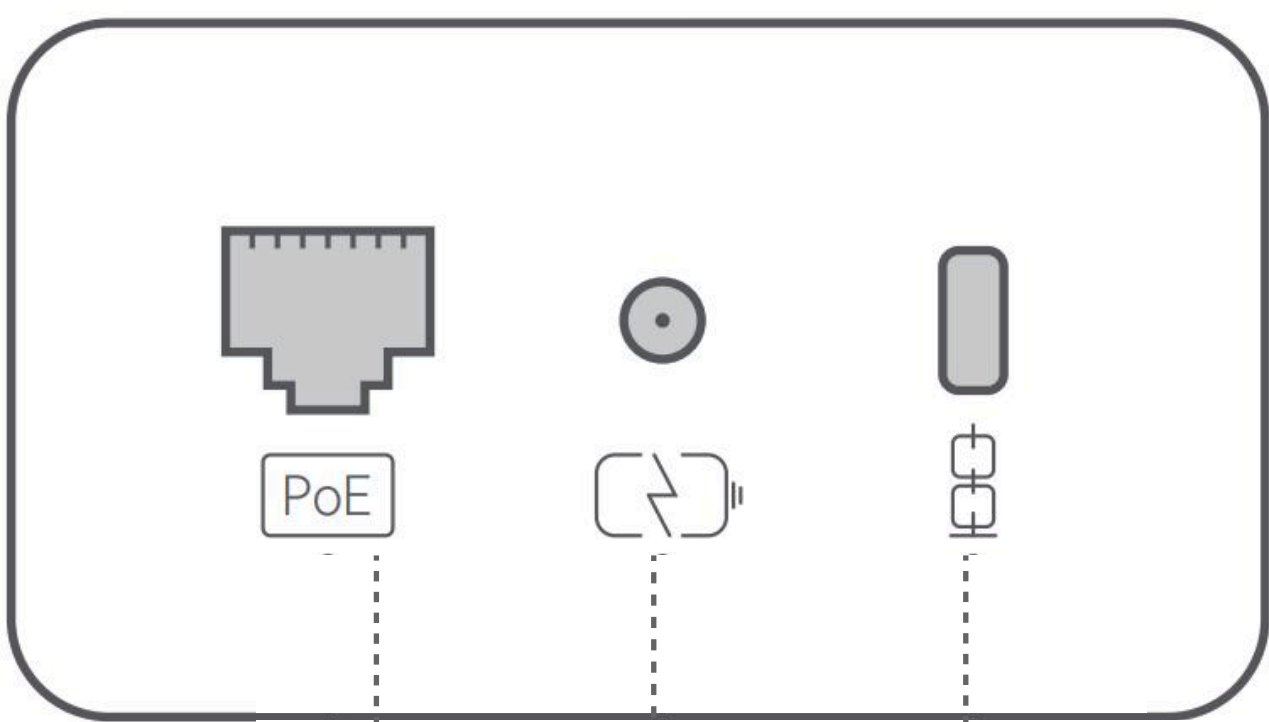
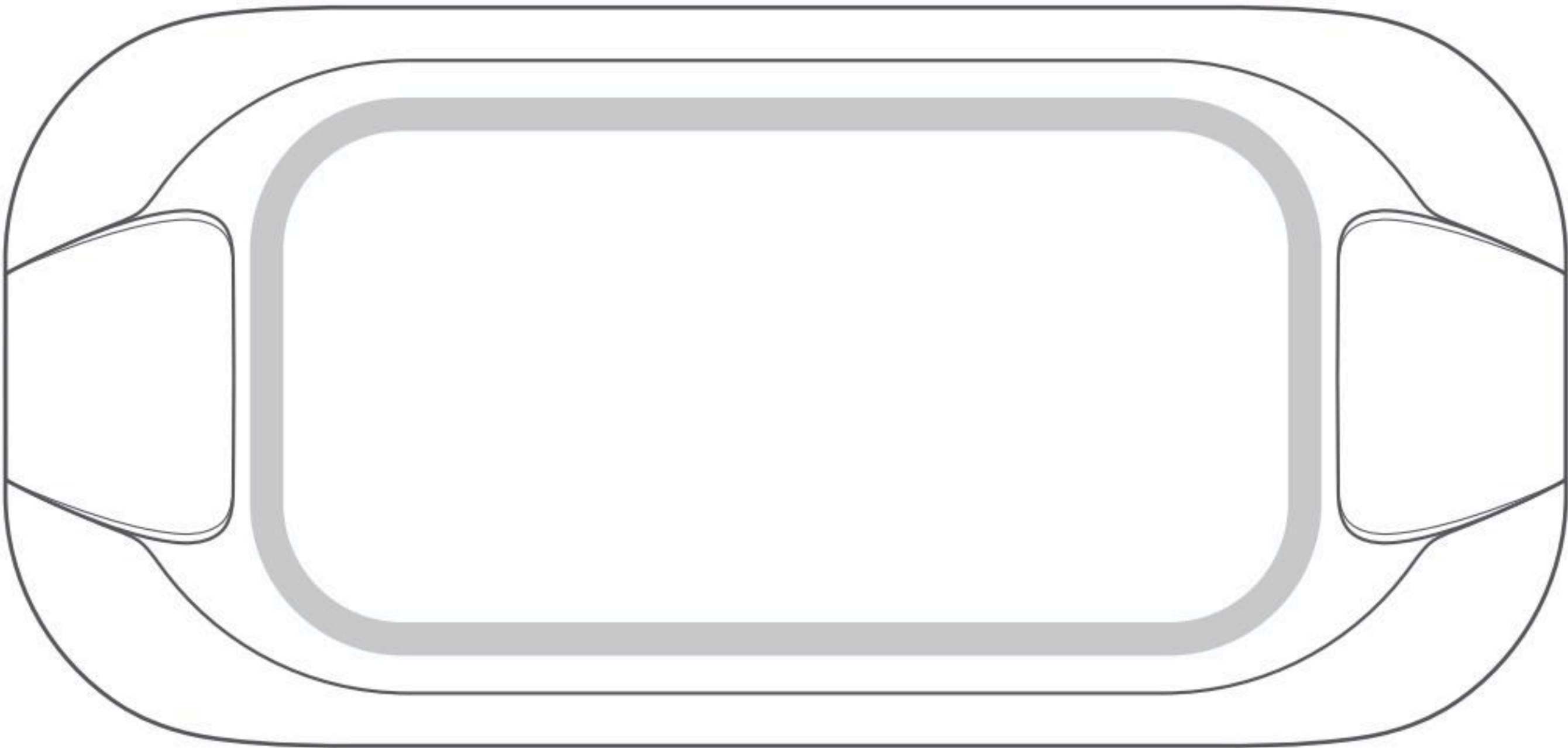
Product Instruction

Light color instructions

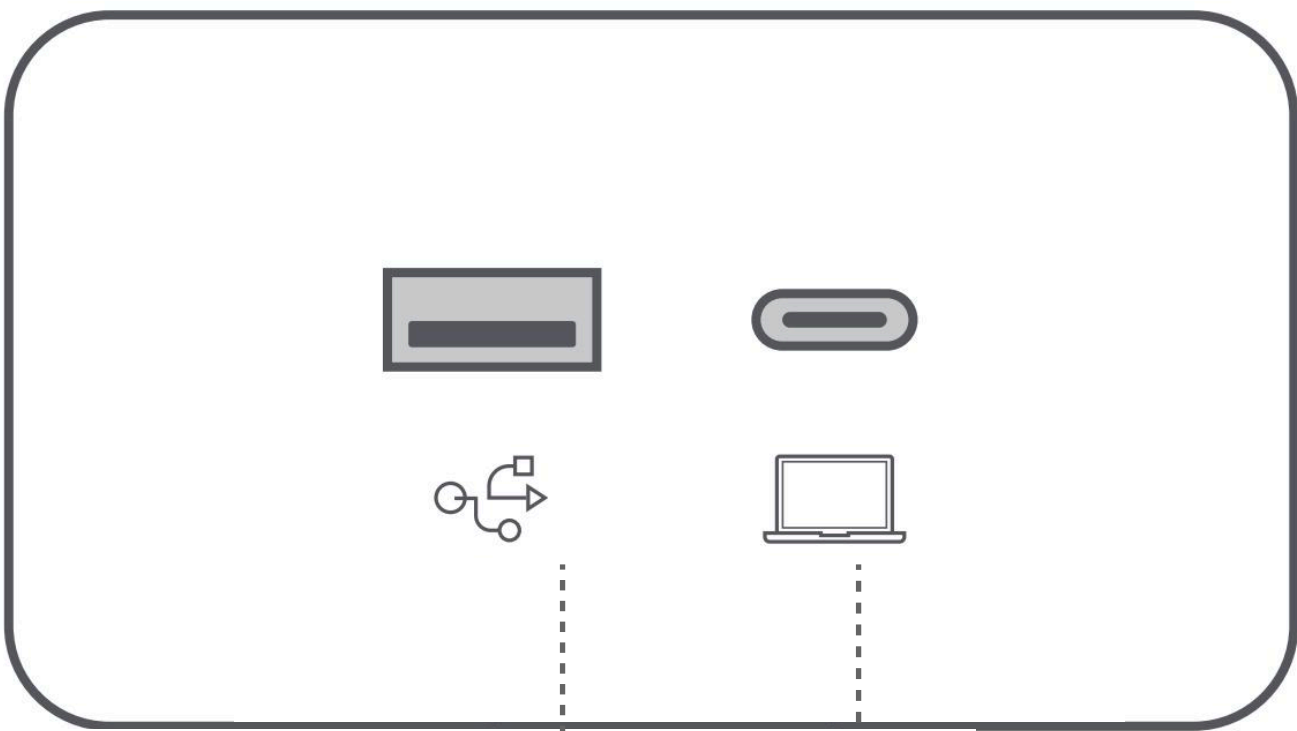
Status	Indicator status
Power on	Green light on
Standby	Green light breathing
Unmute	Green light
Mute	Red light on
Sleep	Light off
Upgrading	Blue light breathing

Product Instruction

Interface instructions



- Cascade port**
For PoE power supply and cascading
- DC power port**
12V/2A power supply
- Lockhole**
Security lock port



- USB Type-A**
For debugging
- USB Type-C**
For connecting to PC