

# Yealink CP50 Datasheet

## Introduction

Yealink CP50 is a professional-grade conference room speaker that integrates noise reduction, echo cancellation, and reverberation removal. It features Yealink's audio solutions and is equipped with an upgraded 8-unit omnidirectional microphone array for 360 ° pickup. It effectively eliminates conference room noises, including reverberation, echo, air conditioning vibration, and keyboard typing. Paired with high-quality full-frequency speakers, it delivers a clearer and more natural human voice. It supports daisy-chaining for expanded conference spaces and flexible deployment, ensuring stable calls and clear video conferences, providing an immersive audio communication experience.



## Key Features and Benefits

### High-quality sound, smooth calls

Equipped with Yealink audio algorithms and an 8-unit omnidirectional microphone array, CP50 provides 360° sound pickup and effectively eliminates environmental noise. The high-quality full-frequency speakers make the sound clearer and more natural.

### Full-duplex

Full-duplex allows for clear bidirectional communication, ensuring smooth and clear conversations during meetings.

### Multi-unit cascading for distributed scenarios

Up to 8 devices can be cascaded via POE cable, meeting the pickup and amplification needs of

different sizes of conference rooms, effectively avoiding sudden changes in sound volume and ensuring smooth communication (When cascading 4 or more CP50 devices with CPE40, it is necessary to choose the optional DC 48V/2A power adapter).

### Integrated meeting control

Features integrated mute, volume +, volume -, and Bluetooth physical buttons, synchronizing with meeting software status for easy control of the meeting.

### Multiple connectivity options

USB port for connecting to PC; internet port for connecting to video conferencing endpoint hosts; Bluetooth for connecting to mobile devices.

### Wired content sharing/BYOD

When used with MeetingEye 500 and other devices, it can directly connect to a PC via Type-C for instant content sharing. When used UVC85 and other devices, it can directly connect to a PC via Type-C for utilizing conference room audio-visual peripherals during computer-based meetings.

## Specifications

| Specification<br>s | Description                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply       | <ul style="list-style-type: none"><li>• Average power consumption: 7.2W</li><li>• Power input:<ul style="list-style-type: none"><li>- DC power adapter: DC48V/0.7A or DC48V/2A</li><li>- PoE power: Not supported</li></ul></li><li>• Power output:<ul style="list-style-type: none"><li>- USB external power: Not supported</li></ul></li></ul>                                                       |
| Microphone         | <ul style="list-style-type: none"><li>• Built-in 8-microphone array</li><li>• Pickup distance: 6m</li><li>• Signal-to-noise ratio: 71.8dB SPL @1kHz, A-wighted</li><li>• Maximum sound pressure level: 122dB SPL @1KHz, THD&lt;1%</li><li>• Sensitivity: -38dB±1dB @ 1KHz (0dB = 1V/Pa)</li><li>• Frequency response: 100Hz~12KHz</li><li>• Sampling rate: 48KHz</li><li>• Bit depth: 16-bit</li></ul> |
| Speaker            | <ul style="list-style-type: none"><li>• Built-in 1 x 4W speaker</li><li>• Frequency Response: 100-20kHz</li><li>• Sensitivity: 100dB SPL ± 3dB @0.1m, 1W</li></ul>                                                                                                                                                                                                                                     |

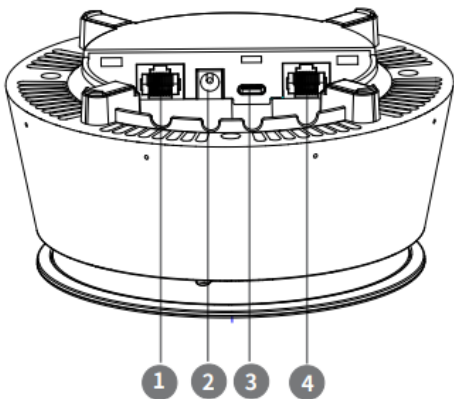
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <ul style="list-style-type: none"> <li>• Maximum Power: 6W</li> <li>• Rated Power: 4W</li> <li>• Sampling Rate: 48kHz</li> <li>• Sound Emission Angle (-6dB Attenuation): 120° @2kHz</li> <li>• Total Harmonic Distortion (THD): THD at 1W, 1kHz &lt; 1%</li> <li>• Rated Impedance: 4ohms</li> </ul>                                                                                                                                                                                                         |
| Audio Cascading     | <ul style="list-style-type: none"> <li>• When equipped with a standard 48V0.7A power supply, the CP50 can cascade up to 3 CPE40 units.</li> <li>• With an optional 48V2A power supply, the CP50 can cascade up to 7 CPE40 units.</li> </ul>                                                                                                                                                                                                                                                                   |
| Audio Technology    | <ul style="list-style-type: none"> <li>• 360° omnidirectional pickup</li> <li>• Full-duplex technology</li> <li>• Automatic gain control</li> <li>• Second-generation AI intelligent audio technology: <ul style="list-style-type: none"> <li>- Intelligent noise cancellation</li> <li>- Intelligent echo cancellation</li> <li>- Intelligent reverberation cancellation</li> </ul> </li> </ul>                                                                                                              |
| Hardware Interfaces | <ul style="list-style-type: none"> <li>• Interface <ul style="list-style-type: none"> <li>- 1×DC48V power interface</li> <li>- 1×Codec port: Connects to UVC cameras (e.g., UVC85) or VC main units (e.g., MeetingEye 500)</li> <li>- 1×Audio port: Connects to CPE40</li> <li>- 1×Type-C port: Connects to a computer</li> </ul> </li> <li>• Wireless <ul style="list-style-type: none"> <li>- Wireless Bluetooth 5.0, stable transmission distance of 10m (unobstructed environment)</li> </ul> </li> </ul> |
| Environmental       | <ul style="list-style-type: none"> <li>• Operating humidity: 10~95%, non-condensing</li> <li>• Operating temperature: 0~40°C</li> <li>• Storage temperature: -30°C~70°C</li> </ul>                                                                                                                                                                                                                                                                                                                            |
| Package Features    | <ul style="list-style-type: none"> <li>• Package includes: <ul style="list-style-type: none"> <li>- CP50</li> <li>- DC power adapter(standard 48V/0.7A, optional 48V/2A)</li> <li>- 7.5m Ethernet cable</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                |

|  |                                                                                                                                                                                                                                                                                                                                                                                                   |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <div><div><div>- 1.2m dual-head USB-C cable</div><div>- Cable ties × 2</div><div>- Cable cover × 1; Screw × 2</div><div>- Quick Start Guide</div></div><div><div>• Quantity: 4</div><div>• N.W/CTN: 6.1 kg</div><div>• G.W/CTN: 6.7 kg</div><div>• Dimensions: 151.8 × 151.8 × 75.3 mm</div><div>• Giftbox Size: 241 × 216 × 162 mm</div><div>• Carton Size: 665 × 221 × 252 mm</div></div></div> |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Device Compatibility

[Room Accessories Compatibility Lists](#)

## Hardware Introduction

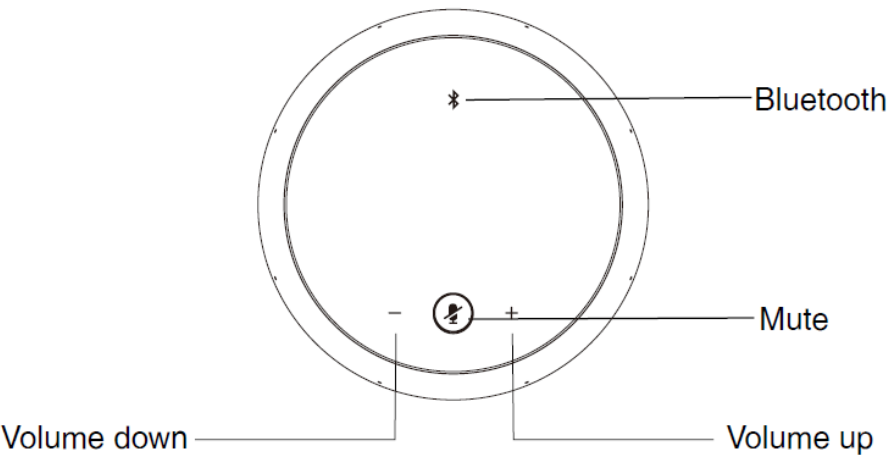


| No | Item       | Description                                                                                                                                      |
|----|------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| •  |            |                                                                                                                                                  |
| 1  | Codec Port | Connect to a UVC Camera (such as UVC85) or VC Host (such as MeetingEye 500).                                                                     |
| 2  | DC48 V     | Connect to the power adapter.                                                                                                                    |
| 3  | Type-C     | Connect to PC.                                                                                                                                   |
| 4  | Audio Port | Connect to CPE40. The standard power adapter(48V 0.7A) can support up to 3 CPE40. The optional power adapter (48V 2A) can support up to 7 CPE40. |

# Mute/Unmute Microphone

- 1. Press the **Mute** button to mute the microphone. The mute LED indicator turns red.
- 2. Press the **Mute** button again to unmute the microphone.
- 3. When the device is in standby mode, the mute LED indicator is off.
- 4. When the device is on a call/in a meeting, the mute LED indicator turns green.

## LED Indicator



| LED Status | Description                                                                                                                                                                                                                                     |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mute       | Off - Non-call status<br>Solid red - Muted<br>Flashing red - Upgrade abnormality<br>Solid green - Call status/Call status<br>Flashing green - Incoming call status<br>Solid orange - Restart/Abnormality<br>Flashing orange - Upgrading         |
| Bluetooth  | Off - Bluetooth function deactivated<br>Flashing blue - Entering pairing mode (pairing time limit: 10 minutes)<br>Blue light flashes quickly and then turns off- Pairing failed, Bluetooth turned off<br>Solid blue light - Bluetooth connected |