



Wired/Wireless Dual-Function Microphone

有线/无线双功能麦克风

BY-PM500W

User Manual

用户手册



General Introduction

Thanks for choosing BOYA!

BOYA BY-PM500W is a dual-function microphone, offering wired or wireless operation for gamers, streamers, podcasters in a variety of applications.

The microphone features selectable cardioid and omnidirectional pickup patterns, allowing you to customize your audio, and supporting 24bit/48 kHz resolution. Built-in 3.5mm headphone jack allows you to monitor and ensure the audio intelligibility during recording.

The headphone volume/gain/mute multi-function control allows you to adjust the volume according to your needs.

The M/S switch on the wireless receiver allows you to select mono or stereo output mode.

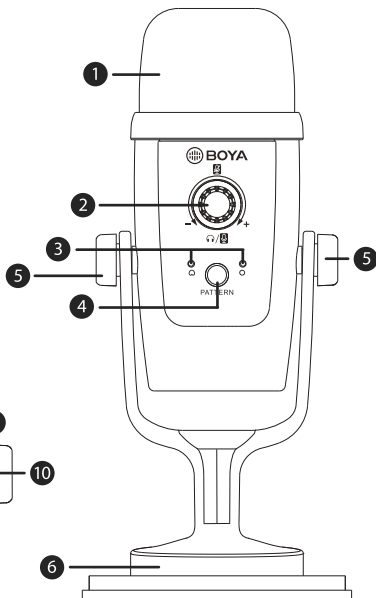
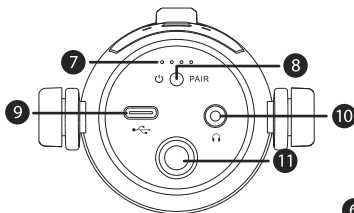
Package Contents

- BY-PM500W Microphonex1
- Wireless Receiverx1
- USB-C Female to USB-A Male Adapterx1
- 3.9'(1.2m) USB-A to USB-C Cablex1
- 3.9'(1.2m) USB-C to USB-C Cablex1

Product Structure

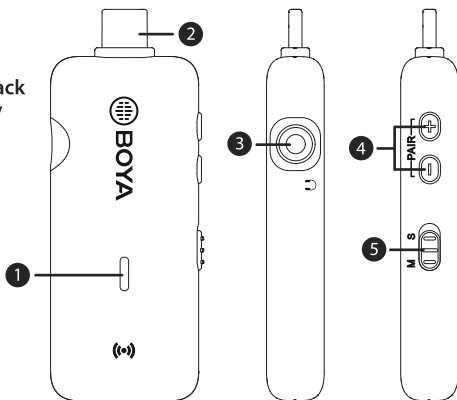
TX

1. Metal mesh windscreen
2. Headphone volume/gain/mute control
3. Polar pattern indicators
4. Polar pattern switch
5. Locking knobs
6. Desk stand
7. Battery level indicator
8. Power/pair button
9. USB-C port
10. 3.5mm headphone jack
11. 3/8" threaded hole



RX

1. Status indicator
2. USB-C connector
3. 3.5mm headphone jack
4. Volume control(+/-) /
Pair button
5. Mono/stereo switch



Accessories



USB-C to USB-C cable



USB-A to USB-C cable

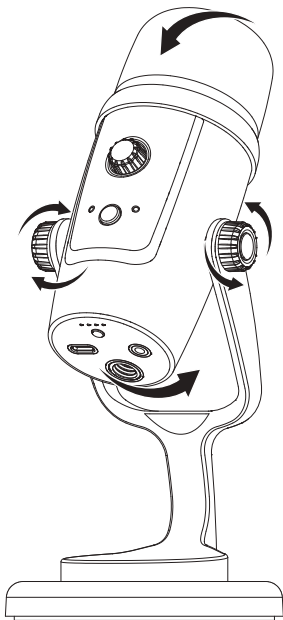


USB-C female to
USB-A male adapter

Functions

Angle Adjustment

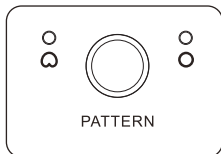
Loosen the knobs of both sides anticlockwise. Adjust the microphone at your desired angle, then tighten the knobs.



Headphone Volume/Gain/Mute Control

Mode	Indicator	Operation
Headphone volume control		Default setting: headphone volume control Short press the knob to mute the microphone. Long press the knob to switch between gain control and headphone volume control. Turn the knob to adjust mic gain/ headphone volume.
Gain control		
Mute ON		

Polar Pattern Switching



Press the button to switch between Cardioid and Omnidirectional polar pattern.



Cardioid

Maximizes the rejection of sound coming from the sides and rear of the mic and can be used as a directional microphone to capture full, rich, natural-sounding audio for podcast, speech, dialog, instrument, etc.



Omnidirectional

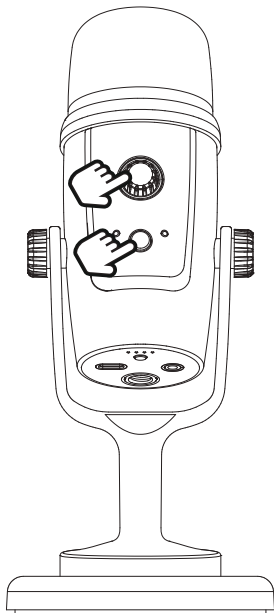
Pick up sound equally from all directions, capturing a natural blend of voice and ambiance with low sensitivity to wind and handling noise, as well as to vocal plosives.

Factory Reset

For optimum sound, please press and hold the headphone volume/gain/mute control knob and the polar pattern switch simultaneously to restore factory setting. The indicator will blink red three times.



Press and hold the knob and the button simultaneously



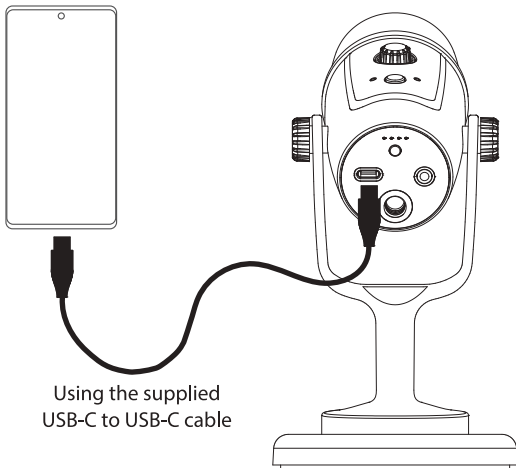
Operation Guide

Wired Operation

1. Connect the microphone to your smartphone/computer.



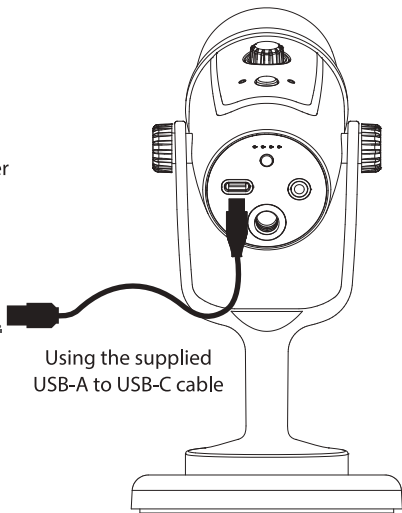
USB-C devices



Using the supplied
USB-C to USB-C cable

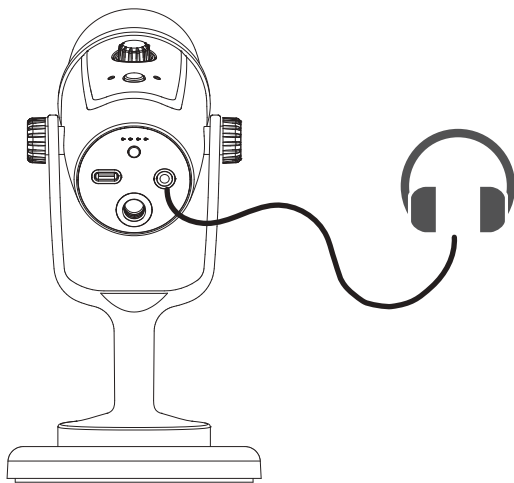
B

Mac/Windows Computer



Using the supplied
USB-A to USB-C cable

2. Connect headphones for audio monitoring.



3. Adjust the headphone volume/gain/mute control knob according to your needs.

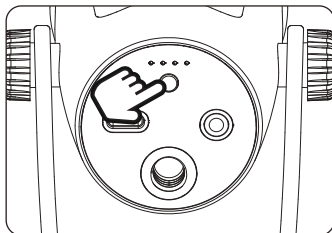
4. You are ready to record.

Wireless Operation

1. Turn on the transmitter



Press and hold the power/
pair button

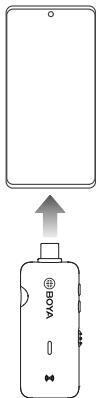


Note:

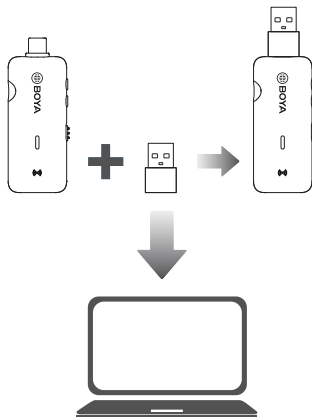
When using wired function, short press the power/pair button to enable wireless function simultaneously. Double-click the power/pair button to enter pairing mode. Press again to disable wireless function.

2. Connect the Receiver to an external device

Connect to a USB-C device



Connect to a USB-A device

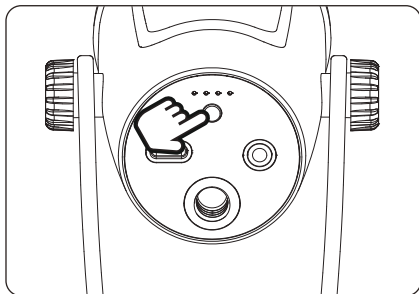


3. TX & RX Pairing

Before leaving factory, the transmitter and the receiver is pre-paired. Therefore, the connection will be established once they are powered on. If they are disconnected, please follow below steps:



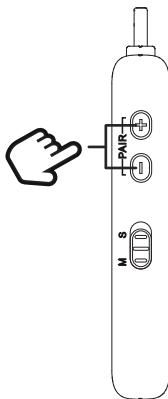
- ① Double-click the TX's pair button to enter pairing mode.



- ② Press the RX's pair(+ and -) button to enter pairing mode.



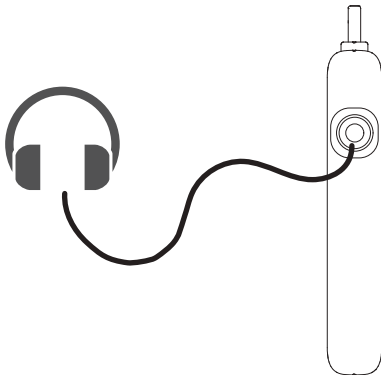
Press + and - buttons
simultaneously



4. The transmitter and the receiver will be successfully paired within 10 seconds.

Mode	Indicators (of both TX and RX)
Unpaired	Slowly flashing blue light
Pairing	Quickly flashing blue light
Paired Successfully	Solid blue light

5. Connect headphones for audio monitoring.



6. You are ready to record.



Note:

Due to 2.4GHz wireless frequency, signal can be easily attenuated. Please try to avoid obstacles, such as walls and buildings, and avoid close proximity to devices with 2.4GHz signal, such as high-power wifi antennas, smartphones with wifi in use, radios, etc.

Features

- Ideal for gaming, streaming, podcasting and more
- Compatible with Android devices, iOS devices with USB-C connector and Mac/Windows computers
- Supports wired or wireless operation
- Selectable cardioid and omnidirectional polar patterns
- All-in-one knob for gain & volume control & muting function
- 3.5mm headphone monitoring jack
- 10m wireless operation range (Indoors with obstacles)
- Switchable mono/stereo output mode on wireless receiver
- Rugged integrated microphone desktop stand

Specifications

Wired Operation

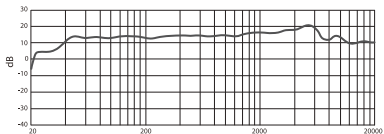
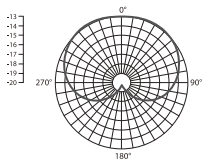
Mic Capsule	14mm Condenser Capsule
Polar Pattern	Cardioid /Omnidirectional
Frequency Response	20Hz-20kHz
Sensitivity	-36dB (0dB=1V/Pa, 1kHz 1Pa)
Signal-to-Noise Ratio	80dB
Maximum SPL	110dB
Sampling Rate	48kHz
Bit Rate	24bit
Mic Gain	0~54dB
Working Voltage	5V/100mA
Audio Output Connector	3.5mm Headphone Jack
	USB-C Port
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to +55°C

Wireless Operation

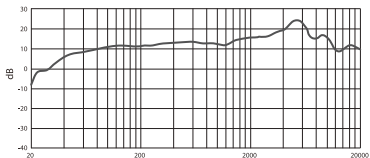
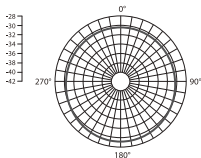
Mic Capsule	14mm Condenser Capsule
Polar Pattern	Cardioid /Omnidirectional
Frequency Response	35Hz-18kHz
Sensitivity	-36dB (0dB=1V/Pa, 1kHz 1Pa)
Signal-to-Noise Ratio	80dB
Maximum SPL	110dB
Transmission Type	2.4GHz
Modulation	GFSK
Antenna	Dipole Antenna
Operating Range	10m (Indoors with obstacles)
RF Output Power	<10mW
Distortion	< 0.05%
Battery Life	8 Hours
Charging Time	1.5 Hours
Battery Capacity	800mAh
Dimensions	TX: 226.7×100×100mm
	RX: 71.6×27.1×10.55mm
Weight	TX: 660g
	RX: 12.5g

Polar Pattern

Cardioid Polar Pattern



Omnidirectional



概述

感谢您选择BOYA!

博雅BY-PM500W 是一款双功能麦克风，支持有线、无线操作，适用于游戏、直播、播客等各种应用场景。

麦克风具有心型和全向型拾音模式切换功能，支持24bit/48 kHz音质分辨率，允许用户根据不同环境，录制高质量音频。内置 3.5 mm耳机插孔，可进行音频监听并确保音频清晰度。耳机音量/增益/静音多功能旋钮，可根据录音实况进行音量调节。此外，无线接收器上具有 M/S 切换键，可自由切换单声道或立体声输出模式。

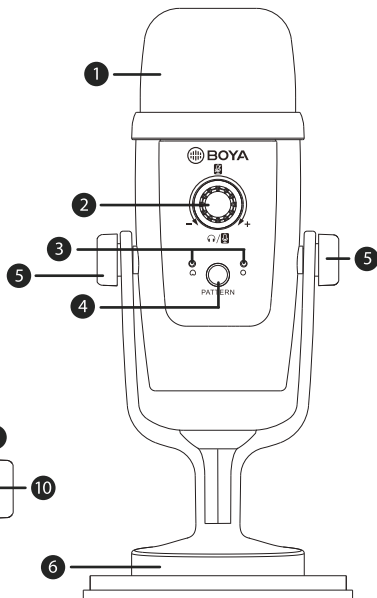
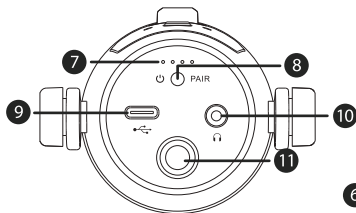
包装清单

- BY-PM500W麦克风×1
- 无线接收器×1
- USB-C母头转USB-A转接头 ×1
- 1.2m USB-A转USB-C数据线×1
- 1.2m USB-C转USB-C数据线×1

产品结构

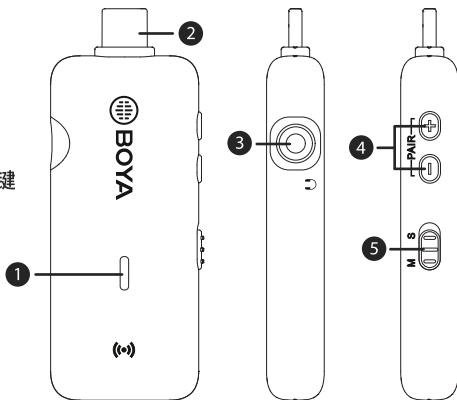
TX

1. 麦克风金属网罩
2. 耳机音量/增益/静音控制旋钮
3. 拾音模式指示灯
4. 拾音模式切换键
5. 锁紧旋钮
6. 麦克风桌面支架
7. 电量指示灯
8. 电源/配对键
9. USB-C供电孔
10. 3.5mm耳机孔
11. 3/8英寸螺纹孔



RX

1. 状态指示灯
2. USB-C接口
3. 3.5mm耳机孔
4. 音量调节(+/-) / 配对键
5. 单声道/立体声切换键



配件



USB-C转USB-C数据线



USB-A转USB-C数据线

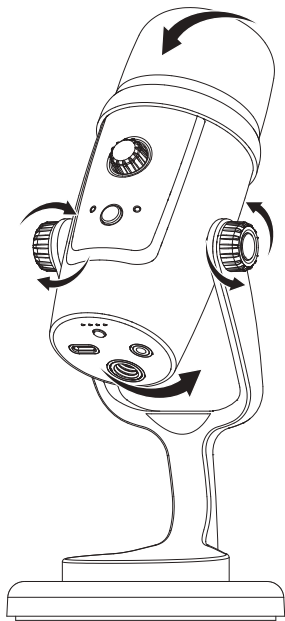


USB-C母头转
USB-A转接头

功能

麦克风角度调节

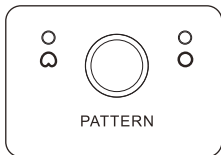
逆时针松开两侧的旋钮，将麦克风调整到所需角度，然后拧紧旋钮。



耳机音量调节/增益调节/静音功能

模式	指示灯	操作
耳机音量调节		默认设置：耳机音量调节功能； 短按旋钮进入静音模式； 长按旋钮可切换增益调节和耳机音量调节功能； 转动旋钮调节麦克风增益/耳机音量。
增益调节		
静音模式		

拾音模式切换功能



注意：短按按钮可切换心型模式和全向型模式。

心型拾音模式

最大程度地剔除从两侧和后方的声音，通常当作指向型麦克风使用，适合捕捉饱满圆润的自然声，可用于播客、演讲、访谈、乐器弹奏等场合。

全向型拾音模式

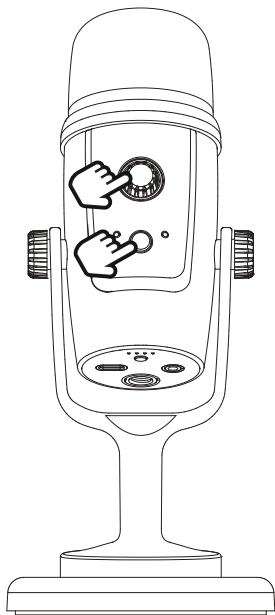
全方位拾音，适合于收录自然混合的周围音，对风和手持噪音以及爆破音的敏感度较低。

恢复出厂设置

为获得最佳声音效果，请同时长按旋钮和拾音模式切换键以恢复出厂（最佳）设置，指示灯呈红灯闪烁三次。



注意：同时长按



操作指南

有线操作

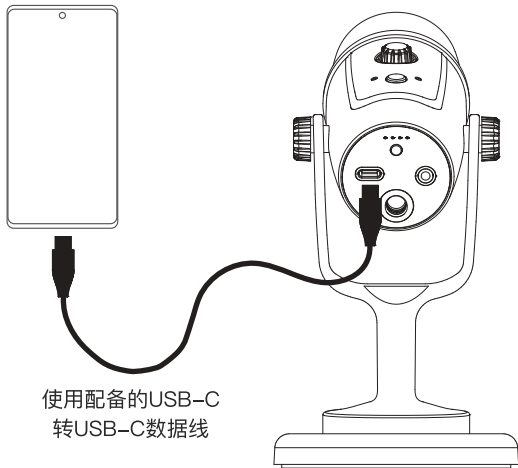
1. 将麦克风连接至手机/电脑

A

USB-C设备



使用配备的USB-C
转USB-C数据线



B

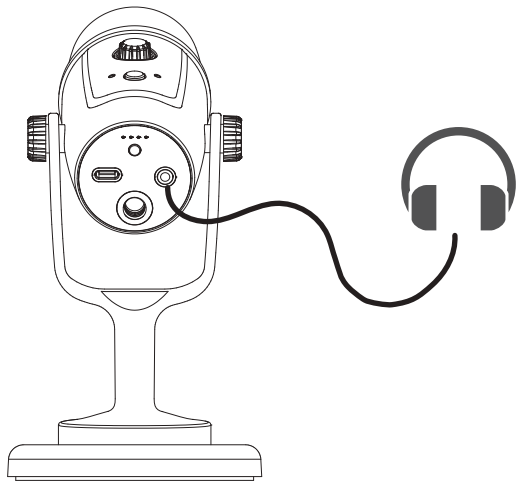
Mac/Windows电脑



使用配备的
USB-A转USB-C
数据线



2. 接入耳机进行音频监听



3. 根据录制需要，调节耳机音量/增益/静音控制旋钮。

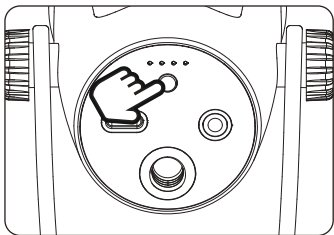
4. 开始录制

无线操作

1. 发射器开机



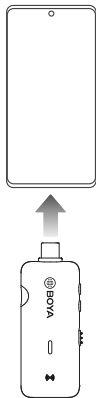
注意：长按电源键



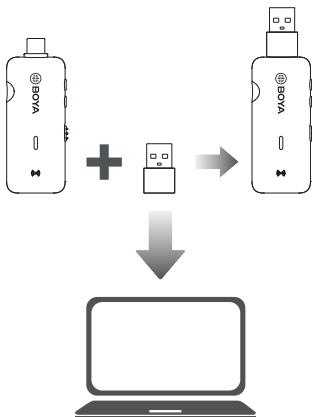
注意：使用有线功能时，短按电源键可同时开启无线功能，设备进入回连状态；双击电源键进入对码状态；再次短按退出无线模式。

2. 接收器接入外部设备

连接USB-C设备



连接USB-A设备

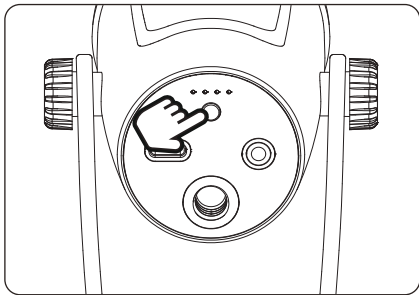


3. 发射器与接收器配对

发射器和接收器出厂前已配对成功。因此，产品开机之后会自动联机。若无成功连接，请进行如下配对操作：



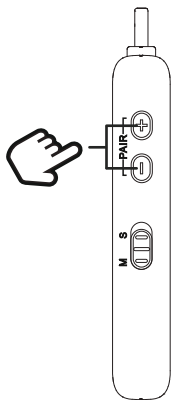
① 双击发射器配对键进入配对模式



② 单击接收器配对键(+ -键同时按)进入配对模式



注意：同时按下+ -键



4. 发射器和接收器将在10秒内完成配对。

模式	发射器、接收器指示灯
未联机状态	蓝灯慢闪
对码中状态	蓝灯快闪
联机成功状态	蓝灯常亮

5. 接入耳机进行音频监听



6. 开始录制



注意：由于在2.4GHz频谱下，信号很容易受干扰，在室内使用时，请尽量避免接近2.4GHz频率的设备，如大功率WIFI天线、收音机等。

特点

- 适用于游戏、直播、播客等场景
- 兼容安卓设备、带 USB-C接口的iOS 设备以及Mac/Windows电脑
- 有线模式、无线模式随意选择
- 心型和全向型拾音模式自由切换
- 音量控制/增益控制/静音多合一旋钮
- 3.5mm耳机监听插孔
- 10米无线操作范围（室内有障碍）
- 无线接收器，可自由切换单声道/立体声模式
- 集成式耐用麦克风桌面支架

参数

有线操作

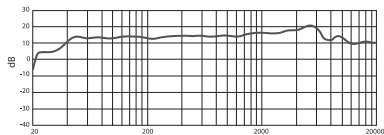
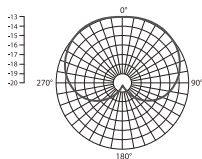
拾音器	14mm电容咪头
极性模式	心型/全向
频率响应	20Hz~20kHz
灵敏度	-36dB (0dB=1V/Pa, 1kHz 1Pa)
信噪比	80dB
最大声压级	110dB
采样率	48kHz
比特率	24bit
麦克风增益控制	0~54dB
工作电压	5V/100mA
音频输出接口	3.5mm耳机插孔
	USB-C接口
工作温度	0°C~50°C
储存温度	-20°C~+55°C

无线操作

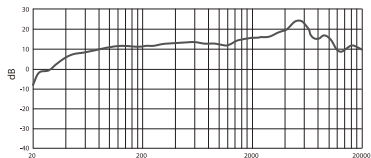
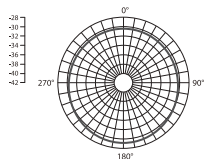
拾音器	14mm电容咪头
极性模式	心型/全向
频率响应	35Hz–18kHz
灵敏度	–36dB (0dB=1V/Pa, 1kHz 1Pa)
信噪比	80dB
最大声压级	110dB
传输方式	2.4GHz
调制方式	高斯频移键控
天线	偶极天线
工作范围	10米（室内有障碍）
射频输出功率	<10mW
失真	<0.05%
续航	8小时
充电时间	1.5小时
电池容量	800mAh
尺寸	TX: 226.7×100×100mm
	RX: 71.6×27.1×10.55mm
重量	TX: 660g
	RX: 12.5g

极性模式

心型拾音模式



全向型拾音模式



SHENZHEN JIAYZ PHOTO INDUSTRIAL., LTD.

The BOYA logo is a trademark which is registered and owned by
Shenzhen Jiayz Photo Industrial., Ltd.

深圳市长丰影像器材有限公司

地址:广东省深圳市龙华区观澜街道大富社区硅谷动力智能终端产业园A16栋

TEL: 400 6131096

Email: sales@boya-mic.com

www.boya-mic.com / www.jiayz.com