

# BOYA

## 2.4GHz Dual-Channel Wireless Microphone System

2.4GHz无线双通道麦克风系统

BY-WM3T

User Manual  
用户手册

## General Introduction

The BY-WM3T is an ultra-compact and portable 2.4GHz wireless microphone system. It is ideal for content creation, live streaming, vlogging, mobile journalism and much more.

This series has 3 different receiver options: 3.5mm TRS, iOS Lightning or USB-C output included in the kits, compatible with a camera, smartphone, tablet, computer and more. The USB-C receiver and iOS Lightning receiver are device powered and have USB-C charging ports, which support charging and powering of devices while in use.

The included charging case allows you to charge the transmitter(s) and 3.5mm TRS receiver anywhere, making the kit easy to carry on.

## Features

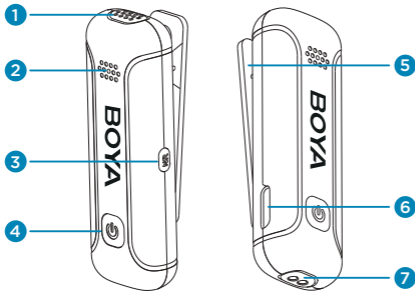
- The units will be paired automatically as soon as they are switched on
- Also available in 48kHz HD audio when noise cancellation enabled
- Wide-range 20-20,000Hz frequency response - deliver exceptional high-quality sound
- Transmitter's built-in rechargeable lithium-ion battery provides 10+ hours of recording
- Up to 100m wireless operating range

## Cautions

1. Non-professional teardown is strictly prohibited.
2. Please keep it away from heat sources such as radiators or spotlights.
3. Do not remove the battery without professional's help.
4. Please clean the device with only a soft, dry cloth.
5. When using and storing, please keep away from dust and moisture.
6. For the best pick-up pattern, do not hold your hand against the microphone capsule cover.

## Product Structure

### BY-WM3T-TX: Wireless Transmitter



## 1. Built-in microphone

## 2. Status indicator

Status	Indicator
Unpaired	Blinking red and blue alternately
Paired successfully	Static blue
Mute	Blinking blue slowly
Noise cancellation enabled	Static green
Low battery	Blinking red slowly
Charging	Static red (in shutdown mode)
Fully charged	Red light off

**Note:** If charging the unit when it is ON, the indicator will display the current working status instead of charging status.

## 3. NR button

Press to enable or disable noise cancellation.

**Note:** Pressing the NR button will not change the current state of noise cancellation when the transmitter is muted.

## 4. Power button

- Press and hold for 2 seconds to power on or off.
- Press to mute or unmute the microphone.

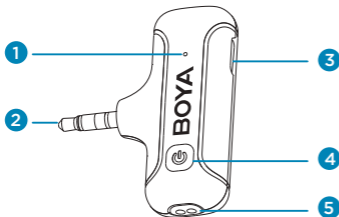
## 5. Belt clip

## 6. USB-C charging port

For charging the transmitter.

## 7. Charging contacts

## BY-WM3T-RX35: 3.5mm TRS Receiver



### 1. Status indicator

Status	Indicator
Unpaired	Blinking red and blue alternately
Paired successfully	Static blue
Low battery	Blinking red slowly
Charging	Static red (in shutdown mode)
Fully charged	Red light off

**Note:** If charging the unit when it is ON, the indicator will display the current working status instead of charging status.

### 2. 3.5mm TRS connector

It can be connected to cameras, recorders, mixers or other devices with a 3.5mm TRS jack.

### 3. USB-C charging port

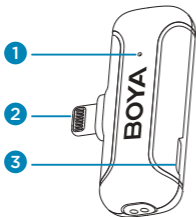
For charging the receiver.

### 4. Power button

Press and hold for 2 seconds to power on or off.

### 5. Charging contacts

**BY-WM3T-RXD:**  
**iOS Lightning Receiver**



**1. Status indicator**

Status	Indicator
Unpaired	Blinking blue
Paired successfully	Static blue

**2. MFi certified lightning connector**

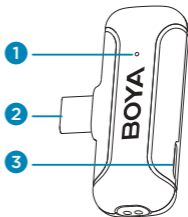
It can be connected to an iOS Lightning device.

**3. USB-C charging port**

When the BY-WM3T-RXD is plugged into an external device, the external device can be powered via this charging port.

**Note:** iPad and iPhone can be charged through this port, which also supports up to 3A fast charging.

**BY-WM3T-RXU:**  
**USB-C Receiver**



**1. Status indicator**

Status	Indicator
Unpaired	Blinking blue
Paired successfully	Static blue

**2. USB-C connector**

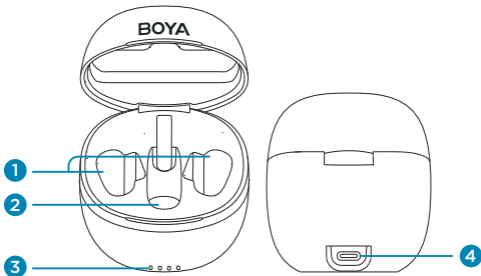
It can be connected to an Android phone, table or other USB-C devices.

**3. USB-C charging port**

When the BY-WM3T-RXU is plugged into an external device, the external device can be powered via this charging port.

**Note:** Most USB-C desives can be charged through this port.

## BY-WM3T-CC: Charging Case



### 1. Slot for transmitter(s)

### 2. Slot for receiver

### 3. Charging indicator

Status	Battery Level	Indicator
Low battery	<10%	● ○ ○ ○
Charging	≤25%	● ○ ○ ○
	26≤50%	● ● ○ ○
	51≤75%	● ● ● ○
	76≤99%	● ● ● ●
Fully charged	100%	● ● ● ●

### 4. USB-C charging port

## How to Use

### For the kit of BY-WM3T-M2

1. The transmitter(s) and receiver will be turned on automatically as soon as it is taken out of the charging case (Or press the power buttons for 2 seconds to power on).
2. The transmitter(s) and receiver will be automatically paired. Their indicators are all static blue.
3. Plug the BY-WM3T-RX35 receiver into a device with a 3.5mm TRS jack.
4. You are ready to record.

### For the kit of BY-WM3T-D2/ BY-WM3T-U2

1. The transmitter(s) will be turned on automatically as soon as it is taken out of the charging case (Or press the power button for 2 seconds to power on).
2. Plug the BY-WM3T-RXD receiver into an iOS Lightning device or the BY-WM3T-RXU receiver into a USB-C device.
3. The transmitter(s) and receiver will be automatically paired. Their indicators are all static blue.
4. Launch a video or audio recording app.
5. Select external microphone, if applicable (app dependent).
6. You are ready to record.

- Tips:**
1. It is recommended to record a sample and play it back to check if the audio level is acceptable before recording.
  2. After recording, put the transmitter(s) and BY-WM3T-RX35 receiver back into the case for charging.
  3. 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 Wi-Fi antennas, radios, etc.



## Troubleshooting

If you encounter problems when using the unit, please refer to the following checklist before contacting technical support. If the problem cannot be solved, please contact the dealer's after-sales service department.

- **If there is no sound from the unit or no sound when connected to an external device**

- ① Make sure the connector on the receiver is well-connected to your device.

- ② Make sure the transmitter(s) is not muted.

- **Current noise or other abnormal noise appears during monitoring**

- ① In order to improve the recording effect in a noisy environment, it is recommended to enable noise cancellation.

- ② Make sure there is no interference near the unit. If the noise still exists after changing the unit's position, please contact our customer service.

- **The operating range of the unit is limited and the sound is frequently intermittent**

Make sure there is no interference between the transmitter(s) and the receiver. If the intermittent sound still occurs frequently, please contact our customer service.

- **Failed to charge the transmitter(s) or receiver via the charging case**

- ① Make sure the charging contacts of both are in full contact. Wipe the charging contacts with a clean cloth and try again.

- ② If you want to check whether the magnetic force is aging or whether the charging contacts of the two are not in sufficient contact, press the transmitter/receiver placed in the charging box to check whether it is in a charging state. If the transmitter(s) or the receiver is still failed to be charged, please contact our customer service.

## Specifications

### Transmitter & Receiver

Transmission Type	2.4GHz digital frequency
Modulation	GFSK
Polar Pattern	Omnidirectional
Antenna	Ceramic antenna
Operating Range	Up to 100m (without obstacle)
RF Output Power	<10dBm
Distortion	≤0.1%
Frequency Response	20Hz-20kHz
Sensitivity	-40dB±2 (1V/Pa)
Sampling Rate	48kHz
Bit Rate	16bit
Signal-to-Noise Ratio	85dB
Audio Input	Built-in microphone capsule
Audio Output	RX35: 3.5mm TRS analog output RXD: iOS Lightning digital output RXU: USB-C digital output
Power Requirements	TX/ RX35: Built-in lithium-ion battery/ Charging contacts/ USB-C charging port RXD/RXU: Powered by an external device
Battery Capacity of TX/ RX35	TX: 95mAh; RX35: 95mAh
Battery Life of TX/ RX35	TX: Approx. 10 hours RX35: Approx. 5.5 hours
Charging Time of TX/ RX35	Approx. 2 hours
Weight	TX: 9.5g; RX35: 10g; RXD: 7g; RXU: 6g
Dimensions	TX: 53.0x18.4x16.8mm RX35: 47.4x38.9x11.6mm RXD: 47.4x26.7x11.6mm RXU: 47.4x26.6x11.6mm
Operating Temperature	0°C to +50°C
Storage Temperature	-10°C to +50°C

## Charging Case

Battery Capacity	600mAh
Charging Time	Approx. 2 hours
Charging Connector	USB-C port
Times for Charging Microphone	2 times (2*TX)
Weight	74.5g
Dimensions	65.8x52.8x72 mm
Operating Temperature	0°C to +50°C
Storage Temperature	-10°C to +50°C

## In the Box

### BY-WM3T-M2

- 2× BY-WM3T-TX Transmitter
- 1× BY-WM3T-RX35 Receiver
- 1× BY-WM3T-CC Charging Case
- 1× USB-C Charging Cable
- 2× Foam Windscreen
- 1× Carrying

### BY-WM3T-U2

- 2× BY-WM3T-TX Transmitter
- 1× BY-WM3T-RXU Receiver
- 1× BY-WM3T-CC Charging Case
- 1× USB-C Charging Cable
- 2× Foam Windscreen
- 1× Carrying

### BY-WM3T-D2

- 2× BY-WM3T-TX Transmitter
- 1× BY-WM3T-RXD Receiver
- 1× BY-WM3T-CC Charging Case
- 1× USB-C Charging Cable
- 2× Foam Windscreen
- 1× Carrying

## 概述

博雅BY-WM3T是一款迷你便携的2.4GHz无线麦克风系统,适用于内容创作、直播、Vlog拍摄、移动新闻等应用场景。

本系列有3.5mm TRS、iOS Lightning、USB-C三种端口套装可供选择,兼容相机、智能手机、平板、电脑等设备。iOS Lightning接收器和USB-C接收器由外接设备供电,并带有USB-C充电口,支持一边录制一边给设备充电。充电盒可为发射器和3.5mm TRS接收器提供移动电源,便于出行携带。

## 特点

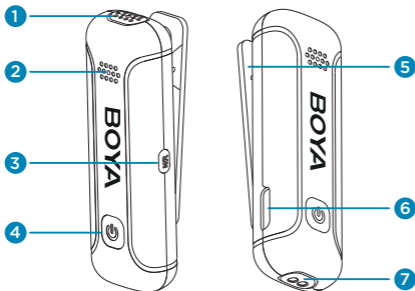
- 开机即自动配对
- 全频段无损降噪
- 20-20,000Hz频响范围,高品质还原真实声音
- 发射器内置可充电锂电池,续航长达10小时
- 无线操作距离达100米

## 注意事项

1. 请勿擅自拆开机壳;
2. 请勿将本机靠近热源,如散热器、聚光灯或其他产生热量的设备;
3. 电池不可自行更换;
4. 请使用柔软的干布清洁本设备;
5. 在使用和储存时,请注意防尘和防潮。
6. 为获得最佳拾音效果,请勿将手放在麦克风咪头上。

# 产品结构

## BY-WM3T-TX:无线发射器



1. 内置麦克风

2. 状态指示灯

状态	指示灯
未联机	红蓝灯交替闪烁
联机成功	蓝灯常亮
静音状态	蓝灯慢闪
降噪开启	绿灯常亮
低电量	红灯慢闪
充电中	红灯常亮(关机状态下)
充满电	红灯熄灭

注:若在开机状态下进行充电,

指示灯将优先显示当前工作状态而非(非充电状态)。

3. NR键

短按开启/关闭降噪功能。

注:当发射器静音时,按NR键不会改变当前降噪状态。

4. 电源键

长按2秒开/关机;短按开启/关闭静音模式。

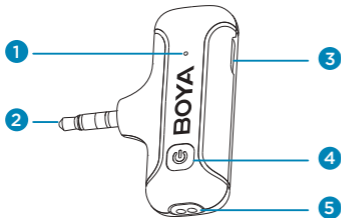
5. 背夹

6. USB-C充电接口

用于给发射器充电。

7. 充电触点

## BY-WM3T-RX35:3.5mm TRS接收器



### 1. 状态指示灯

状态	指示灯
未联机	红蓝灯交替闪烁
联机成功	蓝灯常亮
低电量	红灯慢闪
充电中	红灯常亮(关机状态下)
充满电	红灯熄灭

注:若在开机状态下进行充电,指示灯将优先显示当前工作状态(而非充电状态)。

### 2. 3.5mm TRS接头

可连接至相机、录音机、混音器或其他带3.5mm TRS接口的设备。

### 3. USB-C充电接口

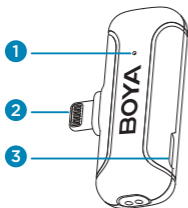
用于给接收器进行充电。

### 4. 电源键

长按2秒开/关机

### 5. 充电触点

## BY-WM3T-RXD: iOS Lightning接收器



### 1. 状态指示灯

状态	指示灯
未联机	蓝灯闪烁
联机成功	蓝灯常亮

### 2. MFi认证Lightning接头

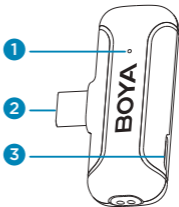
可接入带Lightning接口的iOS设备。

### 3. USB-C充电接口

当BY-WM3T-RXD接收器插入外部设备时,可通过此充电端口为外部设备充电。

注:此充电口支持给iPad、iPhone充电,且支持最大3A快充。

## BY-WM3T-RXU: USB-C接收器



### 1. 状态指示灯

状态	指示灯
未联机	蓝灯闪烁
联机成功	蓝灯常亮

### 2. USB-C接头

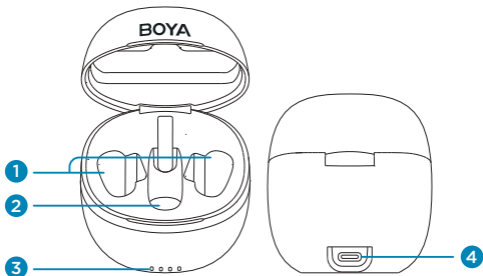
可连接至安卓手机、平板或其他USB-C设备。

### 3. USB-C充电接口

当BY-WM3T-RXU接收器插入外部设备时,可通过此充电端口为外部设备充电。

注:此充电口支持给大部分USB-C设备充电。

## BY-WM3T-CC: 充电盒



1. 发射器定位槽

2. 接收器定位槽

3. 充电指示灯

状态	电量	指示灯
低电量提示	<10%	● ○ ○ ○
充电中	≤25%	● ○ ○ ○
	26≤50%	● ● ○ ○
	51≤75%	● ● ● ○
	76≤99%	● ● ● ●
充满电	100%	● ● ● ●

4. USB-C 充电接口



## 使用方法

### BY-WM3T-M2套装

1. 将发射器和接收器从充电盒中取出将自动开机(或长按电源键2秒开机)；
2. 发射器和接收器将自动完成配对,其指示灯均呈蓝灯常亮；
3. 将BY-WM3T-RX35接收器插入带有3.5mm TRS插孔的设备；
4. 开始录音。

### BY-WM3T-U2/ BY-WM3T-D2套装

1. 将发射器从充电盒中取出将自动开机(或长按电源键2秒开机)；
2. 将BY-WM3T-RXD接收器插入带Lightning接口的iOS设备或将BY-WM3T-RXU接收器插入带USB-C接口的设备；
3. 发射器和接收器将自动完成配对,其指示灯均呈蓝灯常亮；
4. 启动视频或音频录制应用程序；
5. 若应用程序适用,请选择外置麦克风；
6. 开始录音。

### 注:

1. 建议在正式录音前做个简短的录音测试,检查音频水平是否可以接受。
2. 录制结束后,可将发射器和BY-WM3T-RX35接收器放入充电盒中进行充电。
3. 由于在2.4GHz频谱下,信号很容易受干扰,请尽量避开墙壁和建筑物等障碍物,避免接近2.4GHz频率的设备,如大功率Wi-Fi天线、收音机等。

## 故障排除

在使用本机的过程中出现任何问题，请参照以下内容加以解决。如果此手册仍然无法解决您遇到的问题，请与我们当地的经销商售后服务部联系。

### • 产品无声音

- ① 检查产品是否连接正常以及接头是否有松动。
- ② 请验证发射器是否开启了静音模式。

### • 监听时有不干净的电流声或异常噪音等

- ① 若录音环境嘈杂，建议开启麦克风降噪模式，提高录制效果。
- ② 请检查本机附近是否有干扰源；若本机更换使用位置后还是有噪音，请联系客服咨询。

### • 产品的使用距离受限且声音频繁断续

查看发射器、接收器之间是否有干扰源，将产品更换使用位置再次确认，若声音还是频繁断续，请联系客服咨询。

### • 充电盒无法给发射器/接收器充电

- ① 检查充电触点是否接触不到位，可用干净的布擦拭充电触点后再次进行验证。
- ② 检查磁力是否老化、充电触点是否接触不到位，可通过手按压发射器/接收器验证能否进入充电状态。若仍然无法充电，请联系客服咨询。

## 参数

### 发射器&接收器

传输方式	2.4GHz数字频段
信号调制	高斯频移键控
极性模式	全向型
天线类型	陶瓷天线
操作距离	100米(无障碍)
射频输出功率	<10dBm
失真	≤0.1%
频率响应	20Hz-20kHz
灵敏度	-40dB±2(1V/Pa)
采样率	48kHz
位深度	16bit
信噪比	85dB
音频输入	内置咪头
音频输出	RX35: 3.5mm TRS模拟输出 RXD: iOS Lightning数字输出 RXU: USB-C数字输出
供电方式	TX/ RX35: 内置锂电池供电/ 充电盒触点充电/ USB-C充电孔 RXD/ RXU: 外接设备供电
TX/ RX35电池容量	TX: 95mAh; RX35: 95mAh
TX/ RX35续航时长	TX: 约10小时; RX35: 约5.5小时
TX/ RX35充电时长	约2小时
重量	TX: 9.5g; RX35: 10g RXD: 7g; RXU: 6g
尺寸	TX: 53.0x18.4x16.8 mm RX35: 47.4x38.9x11.6 mm RXD: 47.4x26.7x11.6 mm RXU: 47.4x26.6x11.6 mm
工作温度	0°C ~ +50°C
贮存温度	-10°C ~ +50°C

## 充电盒

电池容量	600mAh
充电时长	约2小时
充电接口	USB-C接口
可供循环充电次数	2次 (2*TX)
重量	74.5g
尺寸	65.8x52.8x72 mm
工作温度	0°C ~ +50°C
贮存温度	-10°C ~+ 50°C

## 包装清单

### BY-WM3T-M2

- 2× BY-WM3T-TX 发射器
- 1× BY-WM3T-RX35 接收器
- 1× BY-WM3T-CC 充电盒
- 1× USB-C 充电线
- 2× 防风海绵
- 1× 收纳袋

### BY-WM3T-U2C

- 2× BY-WM3T-TX 发射器
- 1× BY-WM3T-RXU 接收器
- 1× BY-WM3T-CC 充电盒
- 1× USB-C 充电线
- 2× 防风海绵
- 1× 收纳袋

### BY-WM3T-D2

- 2× BY-WM3T-TX 发射器
- 1× BY-WM3T-RXD 接收器
- 1× BY-WM3T-CC 充电盒
- 1× USB-C 充电线
- 2× 防风海绵
- 1× 收纳袋

**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**