

BOYA

Ultracompact 2.4GHz Four-channel Wireless Microphone System

2.4GHz迷你四通道无线麦克风系统

BY-W4

User Manual
用户手册



General Introduction

Thanks for choosing BOYA!

BY-W4 is an ultra-compact and portable 2.4GHz four-channel wireless microphone system, compatible with cameras, smartphones, tablets, PC and more, supporting up to 7 hours of runtime. There are two patterns (one RX-to-four TX/ one RX-to-two TX), which can pick up sounds from one or up to four people. The BY-W4 is ideal for content creation, live streaming, vlogging, mobile journalism and much more.

Packing List

4× BY-W4 TX Transmitter

1× BY-W4 RX Receiver

1× 3.5mm TRRS to TRS Output Cable for Cameras

1× 3.5mm TRRS to TRRS Output Cable for Smartphones

1× 3.5mm TRRS Male to Dual TRRS Female Cable

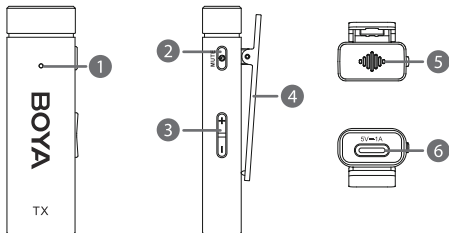
3× USB-C Charging Cable

4× Fur Windshield

1× Carrying Pouch

Product Structure

Wireless Transmitter BY-W4 TX



1. Status Indicator

Status	Indicator
Unpaired	Blinking blue(green) slowly
Pairing	Blinking blue(green) rapidly
Paired Successfully	Static blue(green)
Mute ON	Blinking red slowly
Maximum/ Minimum Gain	Blinking blue(green) twice rapidly
Low Battery	Blinking red rapidly
Charging	Static red
Fully Charged	Red light off

- Blue: One RX-to-four TX pattern (Default setting)
- Green: One RX-to-two TX pattern

Note:



- 1) Please charge the transmitter when TX indicates low battery status, or it will automatically shut off within 10 minutes.
- 2) The transmitter will automatically return to the last pattern when next turned on.

2. Power/ Mute Button

Function	Operation
Power ON/ OFF	Press and hold for 2.5 seconds
Mute ON/ OFF	Press once
Enter/Exit pairing status	Press twice
Patterns toggle	Press and hold for 10 seconds in shutdown mode

Note:



If the pairing is not completed within 2 minutes, the transmitter will automatically exit the pairing status.

3. Gain Control (+/- Button)

- Press the "+" or "-" button to adjust mic gain. (The setting is retained even after the power is turned off.)
- If the maximum/ minimum level is reached, the indicator will blink blue(green) twice rapidly.

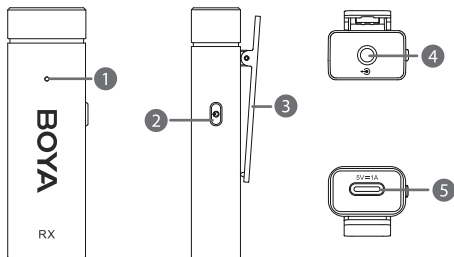
4. Belt Clip

5. Built-in Microphone

6. USB-C Charging Port

For charging the transmitter using the included USB-C charging cable.

Wireless Receiver BY-W4 RX



1. Status Indicator

Status	Indicator
Unpaired	Blinking blue(green) slowly
Pairing	Blinking blue(green) rapidly
Paired Successfully	Static blue(green)
Low Battery	Blinking red rapidly
Charging	Static red
Fully Charged	Red light off

- Blue: One RX-to-four TX pattern (Default setting)
- Green: One RX-to-two TX pattern

Note:



- 1) Please charge the receiver when RX indicates low battery status, or it will automatically shut off within 10 minutes.
- 2) The receiver will automatically return to the last pattern when next turned on.

2. Power Button

Function	Operation
Power ON/ OFF	Press and hold for 2.5 seconds
Mute ON/ OFF	Press once
Enter/Exit pairing status	Press twice
Patterns toggle	Press and hold for 10 seconds in shutdown mode

Note:



If the pairing is not completed within 2 minutes, the receiver will automatically exit the pairing status.

3. Belt Clip

4. 3.5mm TRRS Output

For audio output to a camera, mixer, smartphone, tablet or computer, etc. Or plug in a 3.5mm headphone to monitor the recording.

5. USB-C Charging Port (DC 5V)

For charging the receiver using the included USB-C charging cable.

How to use

1. Connect the receiver to the mic input of a camera, recorder or mixer with the included 3.5mm TRRS to TRS cable. Or connect the RX to a smartphone, tablet, or computer with the included 3.5mm TRRS to TRRS cable.

2. If there was a need of monitoring audio in real-time, the included 3.5mm TRRS male to dual TRRS female cable should be used to connect the RX receiver to your device, and the other jack can be connected to your headphones.

3. Press and hold the power button for 2.5 seconds to turn on the transmitter(s) and receiver.

4. Pairing

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

① When both the transmitter(s) and receiver are in the one-to-four (one-to-two) pattern press the transmitter(s)' power button twice to enter the pairing status, and its indicator blinks blue (green) rapidly.

② Press the receiver's power button twice to enter the pairing status, and its indicator blinks blue (green) rapidly.

③ Transmitter(s) and receiver will be successfully paired within 3 seconds. The indicators of both will turn static blue(green).

5. You are ready to record.

Hints:

- ① Make sure the transmitter(s) and receiver that need to be paired are in the same pattern.
- ② When pairing, please operate the transmitter(s) first, and then the receiver.
- ③ If any transmitter fails to pair, press the power button of all transmitters and the receiver in turn to re-enter the pairing status.

Note:

Due to the 2.4GHz wireless frequency is widely used, the signal may be easily attenuated or interfered. Please try to avoid obstacles while using, such as walls and buildings. And keep away from the devices with 2.4GHz frequency, such as high-power Wi-Fi antennas, radios, etc.

Specifications

BY-W4 TX

Transmission Type	2.4GHz ISM
Modulation	GFSK
Poplar Pattern	Omnidirectional
Operating Range	Up to 30m (without obstacles)
RF Output Power	<10mW
Frequency Response	50Hz-16kHz
SNR	> 78dB
Sensitivity	-42dB
Built-in Li-ion Battery Specifications	3.7V/ 110mAh
Charging Port	USB-C
Charging Time	Approx. 2 hours
Battery Life	Approx. 7 hours
Weight	Approx. 12.5g
Dimensions	17.7×59×10mm

BY-W4 RX

Transmission Type	2.4GHz ISM
Modulation	GFSK
Operating Range	Up to 30m (without obstacles)
RF Output Power	<10mW
Audio Output	3.5 mm TRRS Output Jack
Built-in Li-ion Battery Specifications	3.7V/ 200mAh
Charging Port	USB-C
Charging Time	Approx. 2 hours
Battery Life	Approx. 7 hours
Weight	Approx. 18g
Dimensions	20.2×65×12.8mm

概述

感谢您选择BOYA!

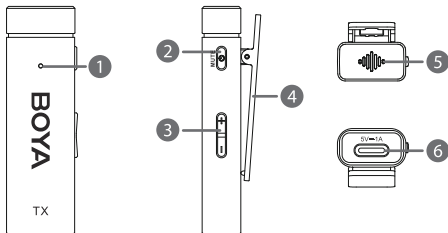
BY-W4是一款迷你便携的2.4GHz四通道无线麦克风系统，兼容相机、智能手机、平板电脑等设备，支持7小时超长工作续航。产品有一拖四和一拖二两种搭配模式可供选择，可实现单人或多人无线拾音，适用于内容创作、直播、Vlog拍摄、移动新闻等应用场景。

包装清单

- 4× BY-W4 TX发射器
- 1× BY-W4 RX接收器
- 1× 3.5mm TRRS转TRS相机输出线
- 1× 3.5mm TRRS转TRRS手机输出线
- 1× 3.5mm TRRS公头转TRRS双母头转接线
- 3× USB-C充电线
- 4× 防风毛套
- 1× 收纳袋

产品结构

无线发射器BY-W4 TX



1. 状态指示灯

状态	指示灯
未联机	蓝灯（绿灯）慢闪
配对中	蓝灯（绿灯）快闪
联机成功	蓝灯（绿灯）常亮
静音	红灯慢闪
最大/最小增益	蓝灯（绿灯）快闪两次
低电量	红灯快闪
充电中	红灯常亮
充满电	红灯熄灭

- 蓝灯——一拖四模式（默认设置）
- 绿灯——一拖二模式



注意：

- 1) 发射器处于低电量时请及时充电，否则发射器会在10分钟内关机；
- 2) 发射器再次开机时会自动回到上一次的模式设定。

2. 电源/静音键

功能	操作
开/关机	长按按键2.5秒
开启/取消静音	短按按键
进入/退出配对状态	双击按键
一拖二/一拖四模式切换	关机状态下长按按键10秒



注意：若进入配对状态2分钟后未联机，发射器将自动退出配对状态。

3. 音量+/-键

- 短按“+”或“-”键可调节麦克风增益。（即使在电源关闭后，该设定仍然保留。）
- 当麦克风增益调节至最大或最小时，指示灯呈蓝灯（绿灯）快闪两次。

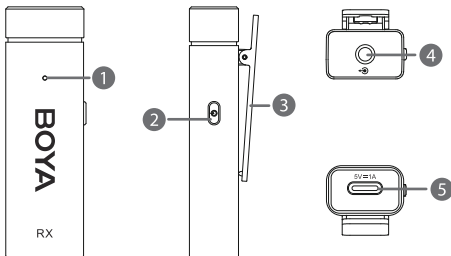
4. 背夹

5. 内置麦克风

6. USB-C充电口

使用随附的USB-C充电线进行充电。

无线接收器BY-W4 RX



1. 状态指示灯

状态	指示灯
未联机	蓝灯（绿灯）慢闪
配对中	蓝灯（绿灯）快闪
联机成功	蓝灯（绿灯）常亮
低电量	红灯快闪
充电中	红灯常亮
充满电	红灯熄灭

- 蓝灯——一拖四模式（默认设置）
- 绿灯——一拖二模式



注意：

- 1) 接收器处于低电量时请及时充电，否则接收器会在10分钟内关机。
- 2) 接收器再次开机时会自动回到上一次的模式设定。

2. 电源键

功能	操作
开/关机	长按按键2.5秒
开启/取消静音	短按按键
进入/退出配对状态	双击按键
一拖二/一拖四模式切换	关机状态下长按按键10秒



注意：若进入配对状态2分钟后未联机，接收器将自动退出配对状态。

3. 背夹

4. 3.5mm TRRS输出接口

用于将音频输出到相机、混音器、手机、平板或电脑等设备，或接入3.5mm耳机进行音频监听。

5. USB-C充电口

使用随附的USB-C充电线进行充电。

使用方法

1. 使用随附的3.5mm TRRS转TRS音频线将接收器连接至相机、录音笔或混音器等设备；或使用3.5mm TRRS转TRRS音频线将接收器连接至手机、平板、电脑等移动设备。

2. 若有实时监听音频的需求，可以使用随附的3.5mm TRRS公头转TRRS双母头转接线将RX接收器连接至设备，另一端则可以连接耳机。

3. 长按电源键2.5秒，依次将发射器、接收器开机。

4. 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在发射器和接收器均处于一拖四（一拖二）模式时，双击发射器电源键进入配对状态，其指示灯呈蓝灯（绿灯）快闪；

②双击接收器电源键进入配对状态，其指示灯呈蓝灯（绿灯）快闪；

③发射器和接收器将在3秒内完成配对，其指示灯均呈蓝灯（绿灯）常亮；

5. 开始录制。

提示：

①确保需要配对的发射器与接收器处于相同的搭配模式下。

②进行配对时，请先操作发射器，再操作接收器。

③若有一台发射器未能成功配对，则依次双击所有发射器和接收器电源键，重新进入配对状态即可。

注意：

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。

参数

BY-W4 TX

传输方式	2.4GHz ISM
信号调制	高斯频移键控
极性模式	全向型
操作范围（无障碍）	最远至30米
射频输出功率	<10mW
频率响应	50Hz~16kHz
信噪比	>78dB
灵敏度	-42dB
内置锂电池规格	3.7V/ 110mAh
充电接口	Type-C
充电时间	约2小时
续航时间	约7小时
重量	约12.5g
尺寸	17.7×59×10mm

BY-W4 RX

传输方式	2.4GHz ISM
信号调制	高斯频移键控
操作距离（无障碍）	最远至30米
射频输出功率	<10mW
音频输出接口	3.5mm TRRS输出孔
内置锂电池规格	3.7V/ 200mAh
充电接口	Type-C
充电时间	约2小时
续航时间	约7小时
重量	约18g
尺寸	20.2×65×12.8mm

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