Bluetooth audio broadcast transceiver

EWD200-2G4A08(AUX)



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1 Overview

1.1 Product Introduction



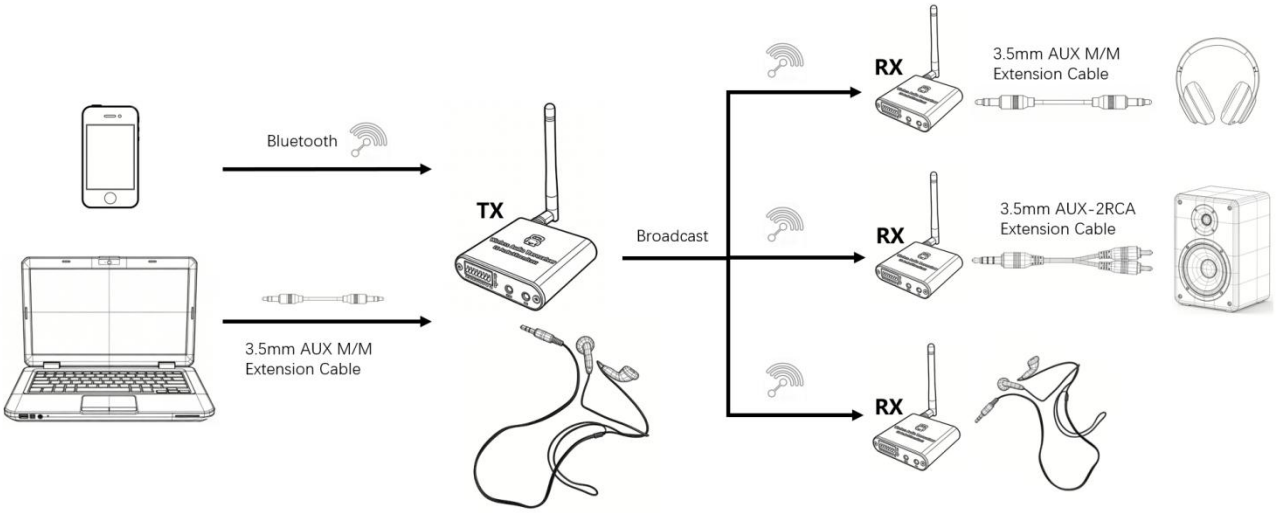
The EWD200-2G4A08(AUX) Bluetooth audio transceiver complies with the Bluetooth 5.4 protocol, supports LE Audio technology, and uses LC3 encoding with a latency as low as 0.02s. It supports broadcasting and can be used with transceiver devices to support one-to-many audio transmission, with a maximum of 100 receivers and theoretically unlimited receivers. It supports switching between audio transmission and reception modes, and features high-efficiency LC3 audio codec technology. Audio data input supports Bluetooth, a 3.5mm AUX interface, and USB input. It also supports 3.5mm AUX output and broadcast audio output.

The product features an alloy shell, industrial design, and is drop-resistant and durable. In open, unobstructed environments, the audio transmission distance can reach 100 meters. The product has a built-in 500mAh lithium battery, which can be used for more than 10 hours on a full charge.

Suitable for indoor audio playback, home theater and other scenarios.

1.2 Functional Features

- **Audio transmission:** Enables one-to-many audio transmission, with no limit on the number of receivers;
- **Audio broadcasting:** A single device can function as both a receiver and a transmitter, and the transmit/receive status can be switched via a DIP switch;
- **Transmission distance:** In an open, interference-free environment, the audio transmission distance can reach up to 100m.
- **Three input methods:** Audio data supports Bluetooth input, 3.5mm AUX interface, and USB input.
- **Optional channels:** Supports 64 channels;
- **USB sound card:** Supports sound card input;
- **500mAh lithium battery** : can be used for more than 10 hours on a full charge;
- **Low latency:** LC3 encoding provides low-latency audio broadcasting;
- **Metal casing:** durable and robust, with efficient heat conduction, adaptable to various environments;



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2 Specifications

Main parameters	describe
Model Specifications	EWD200-2G4A08(AUX)
Main body size	68*63*18mm
Power supply method	USB-C interface 5V/1A
Communication distance	100m (in a clear, open environment, with the antenna at a height of 1.5m)
Sampling rate	16bit/44.1KHz (highest)
Power	8dBm
Operating frequency band	2.4GHz
Antenna gain	3dBi
Product weight	90g±5g
Operating temperature	-40℃ ~ +85℃

3: Product Description

3.1 External Description



Serial Number	label	name	illustrate
1	D1~D6	DIP switch	Dial up for 1 and dial down for 0, resulting in 64 possible combinations. Communication is only possible when the settings on both the sending and receiving sides are consistent.
	SW		**In transmit mode, when connecting to a Bluetooth device** such as a mobile phone/computer for the first time via Bluetooth , please follow these steps to confirm: ①Please set SW to 0 first; the Bluetooth name "soundbox" that appears in the search results on your phone ; ③ After the phone displays a pairing request pop-up, switch SW to 1; ④ Finally, click "Pair" in the pop-up window on your phone to complete the pairing process;
	TX/RX		Switching up to 1 activates transmit mode, and switching down to 0 activates receive mode.
2	OUT	Audio	3.5mm AUX output, can be used to connect headphones or output to

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		output	loudspeakers and other speaker devices driven by an amplifier.
3	IN	Audio input	3.5mm AUX input, compatible with computers, mobile phones, music players, and other devices.
4	USB-C	Power input	USB Type-C interface, 5V/1A input
5	POWER CHARGE	Charging indicator light	The red light illuminates while charging and turns off when fully charged.
6	STATE	Status indicator lights	Power on/off: Stays lit for 2 seconds; Transmission mode: The indicator light cycles on and off in a pattern of flashing twice after 3 seconds of inactivity. In receive mode, the indicator light flashes continuously when no transmitter is matched. If a transmitter is connected, the indicator light flashes in the same way as the transmitter's indicator light.
7	POWER	power switch	Press and hold for 3 seconds to turn on/off
8	ANT	Antenna Interface	Connect the matching antenna

4 Quick Use

4.1 Connection



① Insert the USB power cable and 3.5mm extension cable (TX connects to IN, RX connects to OUT).

② Connect the other end of the 3.5mm extension cable to the audio source/speaker: Connect the TX transmitter to an audio source device such as a computer/mobile phone or connect the device via Bluetooth (Bluetooth name: "soundbox"). Connect the RX receiver to a speaker device such as a speaker with an amplifier, or connect it directly to headphones.

4.2 Power on (Please charge the device before first use)

Press and hold the POWER button for 3 seconds, the green light will stay on for 2 seconds, the device will power on and enter transmit/receive mode;

4.3 Frequency

the receiver's TX/RX to the top (1) and the transmitter's TX/RX to the bottom (0); ensure that D1~D6 on both the transmitting and receiving sides are set the same (taking all 1s as an example) to enable communication.

TX transmission mode (converts wired audio to wireless, such as TV → EWD200)

① Switch the DIP switch to the TX/RX position at the top (TX) to enter transmit mode;

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② Combine the D1~D6 positions of the DIP switch as needed to adjust the channel;

③ Connect the device's 3.5mm audio port to the audio output port of the TV/computer/mobile phone using a 3.5mm audio cable ;

④ The device will automatically turn on audio broadcasting . The indicator light will cycle on and off in a pattern of flashing twice after being off for 3 seconds . At this time, RX devices on the same channel will be able to hear the audio broadcasting from the TX device.

RX Receiver Mode (converts wireless audio to wired , e.g., EWD200 → speaker)

① Switch the DIP switch from TX/RX to RX to enter receive mode .

② Adjust the D1~D6 positions of the DIP switch to the same combination as the TX mode device to align the channels;

③ Connect the device's 3.5mm audio port to the audio input port of the wired headphones/wired speakers using a 3.5mm audio cable.

④ The device automatically turns on audio broadcasting . The same channel indicator light cycles on and off in a pattern of flashing twice after being off for 3 seconds, indicating that communication has been established .

4.4. Connecting the mobile phone

In TX transmission mode, it supports connecting to a mobile phone via Bluetooth to play music locally as a Bluetooth receiver, and can also forward music to other RX mode devices on the same channel.

When connecting a Bluetooth device such as a mobile phone or computer for the first time, please follow the steps below to confirm.

1. Please set SW to 0 first;
2. Then tap the Bluetooth name "soundbox" that appears in the search results on your phone ;
3. After the phone displays a pairing request pop-up, switch SW to 1;
4. Finally, click "Pair" in the pop-up window on your phone to complete the pairing process;

When a pairing request pops up, you need to dial 0→1 once to authorize the phone connection. After the connection is established, it can automatically reconnect later.

4.5 Input Selection

In TX mode, the device supports selecting three channels as input: Bluetooth wireless input, USB sound card input, and 3.5mm AUX analog signal input.

The power-on status varies depending on the interface and connection state, with different default input sources, as shown in the table below:

USB-C interface	3.5mm AUX	Default mode	illustrate
Unanswered	Unanswered	Bluetooth mode	Default playback Bluetooth audio input
Connect the power adapter	Unanswered	Bluetooth mode	Default playback Bluetooth audio input
Connect to computer USB port	Unanswered	Slave mode	The default audio input is the USB sound card.
Unanswered	Access extension line	Audio input mode	The default audio input is a 3.5mm AUX port.
Connect the power adapter	Access extension line	Audio input mode	The default audio input is a 3.5mm AUX port.
Connect to computer USB port	Access extension line	Audio input mode	The default audio input is a 3.5mm AUX port.

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In all the connection states shown in the table above, Bluetooth can be connected, and Bluetooth input has the highest priority, allowing other audio sources to be interrupted.

If Bluetooth audio input is connected while playing music, the music will pause. Simply click play again. If you need to play computer audio via wired connection, please unplug and replug the USB cable/3.5mm AUX extension cable.

When switching inputs, you need to wait a few seconds before sound output occurs;

4.6 Charging Operation

① When the device is low on battery, disconnect all connections and connect the device to a 5V/1A power adapter (phone charger or computer USB port is acceptable) using the standard Type-C charging cable.

② The device can be used normally during charging. The red light will turn off when the device is fully charged. It is recommended to unplug the charging cable in time to avoid overcharging.

4.7 Shutdown

With the device powered on, press and hold the POWER button for 3 seconds. The green light will stay on for 2 seconds and then turn off, powering off the device .

4.8 Prompt tone

The product has a default prompt sound during operation:

state	Prompt content
When turning on and off	Power on/off
When the battery is low	Low battery (recurring reminder)
When the broadcast is turned on	Broadcast speaker mode
When switching input sources	Bluetooth mode (default) / Audio input mode / Slave mode
Bluetooth connection disconnection time state	Bluetooth connected/Bluetooth disconnected

5 Frequently Asked Questions

Fault phenomenon	Possible reasons	Solution
Unable to power on	1. Equipment has no power. 2. The button was not pressed fully.	1. Try again after charging for 10 minutes. 2. Press and hold the power button for more than 3 seconds to ensure the button is fully pressed.
The receiver has no sound and the	1. Too far from the transmitter 2. Inconsistent with	1. Keep the distance between the device and the paired device within 1 meter , and first confirm whether normal communication is possible.

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indicator light keeps flashing slowly.	transmitter channel	2. Confirm that the D1~D6 DIP switches on the receiver are in the same order as those on the transmitter, and that they are on the same channel ;
Pairing successful but no sound	1. The audio cable is not plugged in properly. 2. Source device volume is 0 3. Mode switching error	1. Re-plug the 3.5mm audio cable, ensuring both ends are firmly plugged in. 2. Increase the volume of the source device such as the TV/mobile phone. 3. Confirm that the current mode matches the usage scenario (TX for transmitting, RX for receiving).
Audio stuttering and disconnection	1. Too many obstructions 2. Near a strong magnetic field 3. Low equipment power	1. Reduce obstructions between the device and its paired device (such as walls, metal). 2. Keep away from strong magnetic devices such as routers, microwave ovens, and refrigerators. 3. Charge the equipment promptly.
The indicator light does not light up while charging.	1. Poor contact in the charging cable. 2. Power adapter malfunction	1. Re-plug the charging cable and replace it with an original Type-C charging cable. 2. Replace with a 5V/1A power adapter or charge via a computer's USB port.

6 Important Statement

1. Ebitech reserves the right to the final interpretation and modification of all contents in this manual.
2. As the hardware and software of the product continue to improve, this instruction manual may be subject to change without notice. The latest version of the instruction manual shall prevail.
3. Users of this product should visit the official website to follow product updates so that they can get the latest information about the product in a timely manner.

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Revision History

Version	Revision Date	Revision Notes	maintainer
1.0	2026-01-15	Initial version	Lei

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