Long-Distance Wireless Voice Transceiver
EWD201-470A20 (AUX)



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Chapter 1 Overview

1.1 Product Introduction



The EWD201-470A20(AUX) long-range wireless voice transceiver is a radio device that integrates voice transmission and reception. It requires one transmitter and one receiver for operation. Utilizing long-range wireless transmission technology, the transmitter/receiver can input/output voice via a 3.5mm AUX interface. The transceiver employs a 16-bit/8kHz audio sampling rate, enabling the transmission of voice-quality audio. It supports one-to-many voice broadcasting, operates in the UHF band, requires no network, and with the included antenna, achieves a communication range of up to 2km in open environments. It also boasts strong anti-interference capabilities. Suitable for outdoor long-range voice broadcasting, forest fire prevention, parks, schools, factories, restaurants, and other similar scenarios.

1.2 Functional Features

- **Voice broadcast:**It can achieve one-to-many voice broadcasting, with no limit on the number of receivers;
- **Integrated transceiver:**A single device can function as both a receiver and a transmitter, and the transmit/receive state can be switched via a DIP switch.
- **Channel configuration options:**128 channels can be configured via DIP switches; communication is possible as long as the channels are the same, making it simple and convenient.
- **Ultra-long distance:**It has strong penetration capabilities and can cover a range of up to 2km in open environments;
- **Volume knob:**When receiving, the volume can be adjusted;
- **Metal casing:**Durable and robust, with efficient thermal conductivity, suitable for various environments including outdoor and industrial settings;

Chapter Two Specifications

Main parameters	Describe
Model Specifications	EWD201-470A20(AUX)
Main body size	68*63*18mm
Power supply method	5V/1A
Communication distance	2km (in a clear, open environment, with the antenna at a height of 1.5m)
Sampling rate	16bit/8kHz
Power	20dBm
Operating frequency band	470MHz
Antenna gain	2.5dBi
Product weight	81±5g
Operating temperature	-40℃ ~ +85℃

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Chapter Three: Product Description

3.1 External Description



Serial Number	Label	Name	Illustrate
1	VOL+/-	Volume knob	The volume control knob: turn counter-clockwise to decrease volume, and clockwise to increase volume. Effective in receiver mode.
2	USB 5V	Power input	USB Type-C interface, 5V/1A input
3	IN	Voice input	3.5mm AUX input, compatible with microphones, computers, and other devices.
4	OUT	Voice output	3.5mm AUX output, can be used to connect headphones or output to loudspeakers and other speaker devices driven by an amplifier.
5	RX/TX	DIP switch	Dial up for receive mode, dial down for transmit mode. Only one device is allowed to transmit broadcast voice at any given time on the same channel.
	D1~D7		Dial up for 1, dial down for 0, resulting in 128 possible combinations. Communication is only possible when the settings on both the transmitting and receiving sides are consistent.
6	POWER	Power indicator light	Red, always on when powered.
7	STATE	Status indicator lights	Green light indicates it's on during communication and off at other times.
8	ANT	Antenna Interface	Connect the matching antenna

3.2 Mechanical Dimensions



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Chapter 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 (TX end connects to the microphone/computer/mobile phone and other audio source devices, RX end connects to...).Speaker devices such as speakers driven by power amplifiers can also be directly connected to headphones.

4.2 Frequency Pairing

The receiving end Switch RX/TX to the top (1).transmitter Set RX/TX to 0 at the bottom; at the same time, ensure that D1~D7 on both the transmitting and receiving sides are set the same (taking all 1s as an example) to enable communication;

4.3 Use

When the transmitter uses the computer output as input, please turn the computer volume up to 20 or above. At this time, the transmitter will be activated and the green indicator light will stay on, indicating that the voice communication between the two sides is normal.

When the transmitter uses the microphone as input, please raise your voice to activate transmission. A solid green indicator light indicates normal voice communication between the two sides.

If there is no sound input from the transmitter for a period of time, it will automatically enter sleep mode.

Chapter 5 Frequently Asked Questions

1. Indicator light not on: If the red light is not on, please try replacing the power supply; if the green light is not on, please ensure that the D1~D7 DIP switches are set to the same channel and that the RX/TX positions correspond to the transceiver.
2. No sound received: Increase the input volume, check that the transmitter and receiver are on the same channel, and when testing at close range, ensure that the green indicator lights on both sides are constantly on, and turn on the volume knob on the receiver.
3. Short communication distance: Please check the installation location. Placing it inside a metal enclosure such as a power distribution cabinet will significantly attenuate the signal. Placing it too low will also directly affect the remote control distance.Avoid metal obstructions to achieve the optimal distance..

Chapter Six Important Statement

1. Ebyte reserves the right to the final interpretation and modification of all contents in this manual.

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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.

Revision History

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

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