MoerDuo™

Bluetooth 5.3 LE / Classic Hybrid audio Transmit & Receive 2 in 1 adaptor
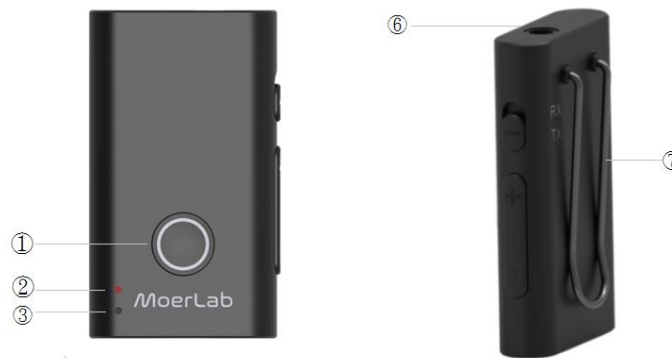## User Manual

Model: AHA02

MoerLab®

Introduction

MoerDuo™ features with Bluetooth wireless transmit (TX) and receive (RX) switching functions, and supports both Bluetooth low energy(BLE) and classic Bluetooth standards, providing your Bluetooth devices with maximum compatibility.

MoerDuo™ leads the industry, providing high-quality, low-energy, low-latency audio wireless broadcast transmission. Its Bluetooth LE Audio technology, adopts the latest LC3 codec chip in Bluetooth 5.3 version, supports broadcast audio, and has passed the latest Bluetooth broadcast audio Auracast™ certification of the Bluetooth SIG (Bluetooth SIG).

Product overview

①Function key
②LED indicator
③Microphone
④Transmit (TX)/Receive(RX) switch
⑤Volume up/down
⑥3.5mm audio line-in/line-out
⑦Back clip
⑧Type-C charging/USB audio interface

Instructions

TX/Transmit mode

1. Switch the switch button ④ to TX/transmit mode
2. Turn on the power: press and hold the function key ① for three seconds until the LED lights up
3. Select audio transmission mode between the following 2 modes
   - **Standard Bluetooth mode (1-to-1):** Double-click the function key ① , the red/blue light flashes alternately to enter the pairing mode, and the blue light flashes slowly after the pairing is completed. (Tip: The factory setting is standard Bluetooth mode, and it will automatically enter pairing mode when powered on for the first time)
   - **Broadcast Bluetooth mode (1-to-N):** Triple-click the function key ① to enter the broadcast transmission mode, and the LED light will flash in purple. (Tip: In broadcast mode, MoerDuo™ is only compatible with LE Audio devices in either TX or RX state. Such as MoerDuo™, MoerLink™ or other LE Audio Bluetooth audio devices).
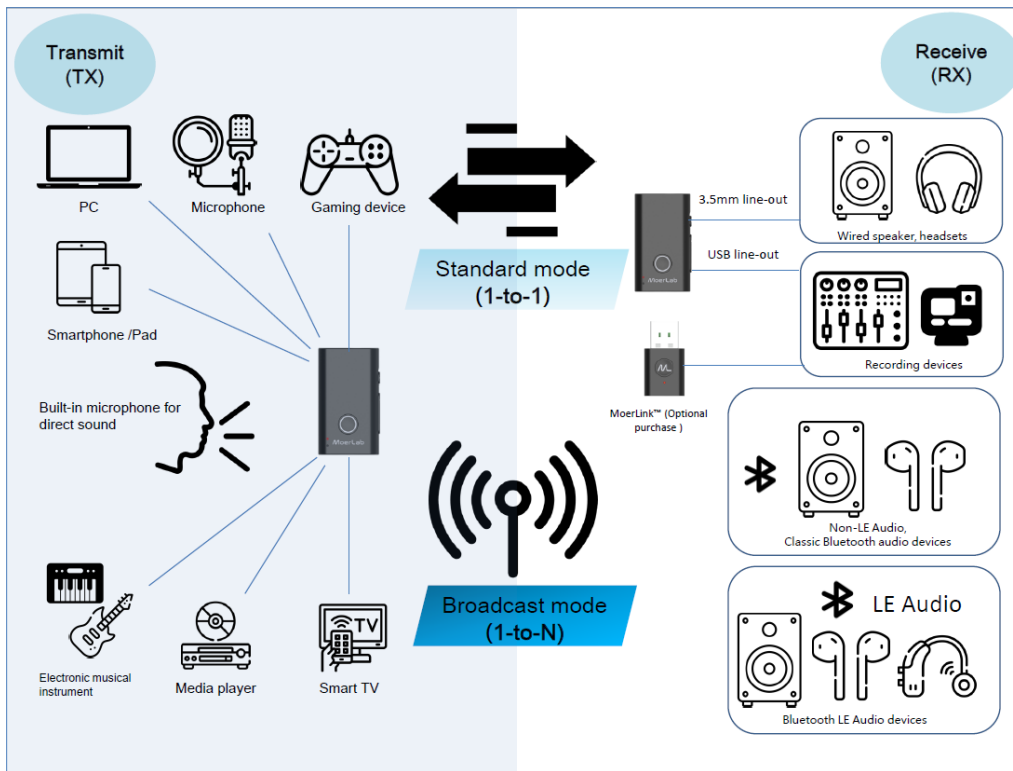
RX/Receive mode

1. Switch the switch button ④ to RX/receive mode
2. Turn on the power: Press and hold the function key ① for three seconds until the LED lights up
3. Select audio transmission mode between the following 2 modes
   - **Standard Bluetooth mode (1-to-1):** Double-click the function key ①, the red/blue light flashes alternately to enter the pairing mode, and the blue light flashes slowly after the pairing is completed. (Tip: The factory setting is standard Bluetooth mode, and it will automatically enter pairing mode when powered on for the first time)
   - **Broadcast Bluetooth mode (1-to-N):** Triple-click the function key ① to enter the broadcast receiving mode, and the LED light will flash in purple.

RX/Record mode

In addition to making traditional audio devices wireless through Bluetooth audio wireless transmission, you can also use the Type-C USB interface⑧ to connect a recording device for digital recording. It is recommended to record in the broadcast Bluetooth mode, because the broadcast Bluetooth mode adopts the latest LC3 decoding technology, and the recording quality is the best.

Please repeat the above steps of [RX/Receive Mode] to enable the broadcast Bluetooth mode to record.

Introduction to Bluetooth modes

1. Classic Audio (1-to-1)
MoerDuo™ is backward compatible with non-LE Audio Bluetooth receivers. When the receiver is not a LE Audio device, it will connect using the traditional Bluetooth mode pairing method.

2. LE Audio (1-to-1)
If the receiver is a Bluetooth device that supports LE Audio (including Bluetooth receivers, Bluetooth headsets, Bluetooth speakers, etc.), it will automatically use lossless/high-resolution decoding technologies to play music.

3. Broadcast audio (Auracast™) (1-to-N).
Broadcast mode is only compatible with LE Audio devices, and there is no limit on the number of receiver-end devices. No pairing is required in broadcast mode, as long as MoerDuo™ broadcast mode is enabled, the receiver-end devices can search and connect by themselves (operating range up to 30~50 meters).

Instructions of LED indicator

Mode	Function	Status	LED indicator
Transmit(TX)	Power	Low battery/Mute	Red light flashes quickly
		Charging	Red light stays on
		Charging completed	Blue light stays on for about 5 seconds and then turns off
	Standard Bluetooth	Pairing	Red/blue lights flash alternately
		Pairing completed/ Playing	Blue light flashes slowly
		Disconnect	Red light flashes slowly
	Broadcast Bluetooth	Broadcasting	Purple light flashes
		Pause/ Mute	Red light stays on
Receive(RX)	Power	Low battery	Red light flashes quickly
		Charging	Red light stays on
		Charging completed	Blue light stays on for about 5 seconds and then turns off
	Standard Bluetooth	Pairing	Red/blue lights flash alternately
		Pairing completed/ Playing	Blue light flashes slowly
		Disconnect	Red light flashes slowly
		Pause	Red light stays on
	Broadcast Bluetooth	Searching	Purple light flashes
		Successfully connected/receiving	Purple light stays on
		Pause /Mute	Red light stays on

Specification

Model: AHA02
Bluetooth version: BT 5.3 LE Audio BIS, CIS
Bluetooth protocol: A2DP/AVDTP/ AVCTP/ AVRCP/HFP
Support audio decoding formats: SBC / AAC / LC3 / MACH
Operation Mode: Pairing Mode (A2DP/CIS) & Broadcast Mode (BIS)
Output power: 30mW@32Ω
Transmit power <= 10dbm
Audio input (transmitter): 3.5mm line in, USB, MIC (only a single audio source can be used at a time)
Audio output (receiver): 3.5mm line out
Latency < 60ms
Battery capacity/charging time: 150 mA/ 2H
DC input: 5V/100mA
Operation time: 11 hours in TX mode / 22 hours in RX mode (the above time is measured at 50% medium volume).
Transmission distance: 50 m (open space)
Weight: 10g
Dimensions: 26mm X 47mm X 10mm

Extensive compatibility

Compatible with Android, iOS , Windows, Mac, Linux operating
software, and it can be used in PC, MAC, mobile phone, Nintendo
Switch, Sony PS5, Smart TV (with USB audio function) and other devices.

Package Contents

MoerDuo™ Bluetooth 2 in 1 adaptor
TYPE-C charging cable x 1
TRS 3.5 mm audio cable x 1
Pouch x 1
User Manual x 1

FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

* RF warning for Portable device:
The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.