

Sample size: WH-L1 Headphone headphones

Product size and weight	:	W170mm x H190mm x D80mm About 250g (TBD)
Operating temperature range	:	0 °C ~ 45 °C
Storage temperature range	:	-10 °C ~ 55 °C
External connector reveal	:	Type-C for charging and 3.5mm Jack for external input Charging LED (red), Activity indicator (green/orange)
User interface	:	Power on/off, VOL+, VOL-, and CONNECT
Radio department	:	2.4 GHz Hopping/TDMA/FSK modulation
Radio frequency output	:	+10.0 dBm (TYP)
bandwidth	:	2400MHz ~ 2480 MHz
Stable receiving distance	:	3 m
AMP output	:	Max. 6.9mW + 6.9mW (compliant with European sound pressure regulations)
Left and right sound pressure difference	:	Within ±3dB
Analog input	:	3.5mm stereo Jack
Current consumption	:	78mA (TBD) / Duration: approximately 8 hours
Supply voltage	:	3.7V 650mAh (TYP) lithium polymer battery
Charging current	:	450mA CCCV charging (compliant with JEITA temperature control)
Radio authentication	:	Japan /USA/CANADA/EU/ UK /AUZ/NZ
ESD tolerance	:	Contact ±8KV/ air ±15KV
Passive characteristic	:	Rated 10mW+10mW (32 Ω) /MAX 20mW+20mW

Audio specification: WH-L1 Headphone

SNR : 86dB (TYP) I2S Mode

THD+N : 0.06% (TYP) I2S Mode

Pass band : 12.0Hz (-3.0dB) I2S Mode

: 17.0KHz (-3.0dB) I2S Mode

Outside view



Figure 1-1Headphone view - Side view



Figure 1-2Headphone view - Left view



Figure 1-3Headphone view - Look up

Operation buttons, USB TYPE-C, 3.5mm JACK, baseboard, battery, etc. are all concentrated in the left shell. The right enclosure is for speakers only.

Operation method

Turn on/off the power	Perform this by operating the slide switch.
Join	The Connect button must be pressed each time.
Volume UP	Press and press the volume + button continuously to operate.
Volume DOWN	By short press, continuously press the volume - press to operate button.
charging	Connect the USB cable to the USB Type-C port. When USB power is provided to the USB terminal, the system will automatically shut down even if the host power slide switch is in the ON position.
3.5 mm Jack	After the 3.5 mm Plug is inserted, the power supply automatically turns off. Switch the speaker signal to 3.5mm Plug signal.

LED display

The power notification LED (green/orange) and charge notification LED (red) are built into the LED display window.

Indicator light (Green/orange)

When the power is turned on, when the battery voltage is greater than or equal to 3.5V, the LED indicator (green) flashes; When the battery voltage is less than or equal to 3.5V, the LED indicator (orange) flashes

Indicates the connection waiting state. Press the Connect button and switch to light after connection is established. During use, when the battery voltage drops below 3.5V, the indicator light (green) goes off and the indicator light (orange) goes on. When the battery voltage becomes 3.3V, the power is automatically turned off and the LED is extinguished. In the case of automatic power OFF, sometimes even the ON/OFF slide switch operating the power supply can not be connected to the power supply, at this time by charging recovery.

LED indicator (red Colour)	Start charging by connecting the USB power supply to the USB TYPE-C port, and the red indicator lights up. When the battery is fully charged, the charge automatically ends and the LED (red) goes out. When the ambient temperature exceeds the rechargeable temperature range, the LED (red) goes out and the charging current does not flow. When the ambient temperature reaches the rechargeable temperature range, light up again. The charge can be charged in the range of 0 degrees ± 3 to 45 degrees ± 3 . At other temperatures, charging stops automatically.
----------------------------	---

VOLUME Number of steps

10 VOLUME Settings. The GAIN value in each step can be changed in a step of 1dB. (Provisional values are as follows)

STEP	1	2	3	4	5	6	7	8	9	10
GAIN	-25	-20	-15	-12	-10	-8	-6	-4	-2	0

Beep Tone

Inside the MCU is a PIANO TONE Generator that resembles a MIDI sound source.

Chord number: 6, octave: C2~B6, rhythm: 1/4~4note, playback rate 60~120 beats/minute.

Can be used for low battery alarm, pairing tone and more. (If your company provides musical notes, you can use a PIANO TONE Generator)

3.5 mm Plug is supported

Support 3.5mm stereo 3-pole mini plug. 4-pole plugs are not supported.

Check content during manufacturing

1. Confirm the internal voltage and current consumption
- 2, RF frequency calibration
- 3, RF TX POWER measurement
- RF RX receiving sensitivity measurement, AUDIO SIGNAL SNR/THD/LR LEVEL measurement
- 5, LED light, switch action, button action confirmation
- 6, charging action, charging current confirmation
- 7, 3.5mm JACK input confirm, JACK insert automatic OFF confirm, left and right cable confirm
- 8, sound phase, sound pressure, F characteristics, left and right sound pressure difference confirmation
9. Confirmation of RF output POWER inside the radio obscura (actual operation of the antenna)
10. Appearance inspection

Wireless stability

Since it is wireless communication, it is inevitable that communication will be interrupted due to interference. In addition, the 2.4GHz band is used by devices as diverse as microwave ovens, Wi-Fi, Bluetooth, codeless phones, and more. In the event of interference, only keep your distance from those devices.

FCC STATEMENT

1. 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.

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

NOTE: 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.

IC warning

- English:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

- French:

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."