

ZEN Blue 3 User Manual_Ver1.0 ()



User Manual

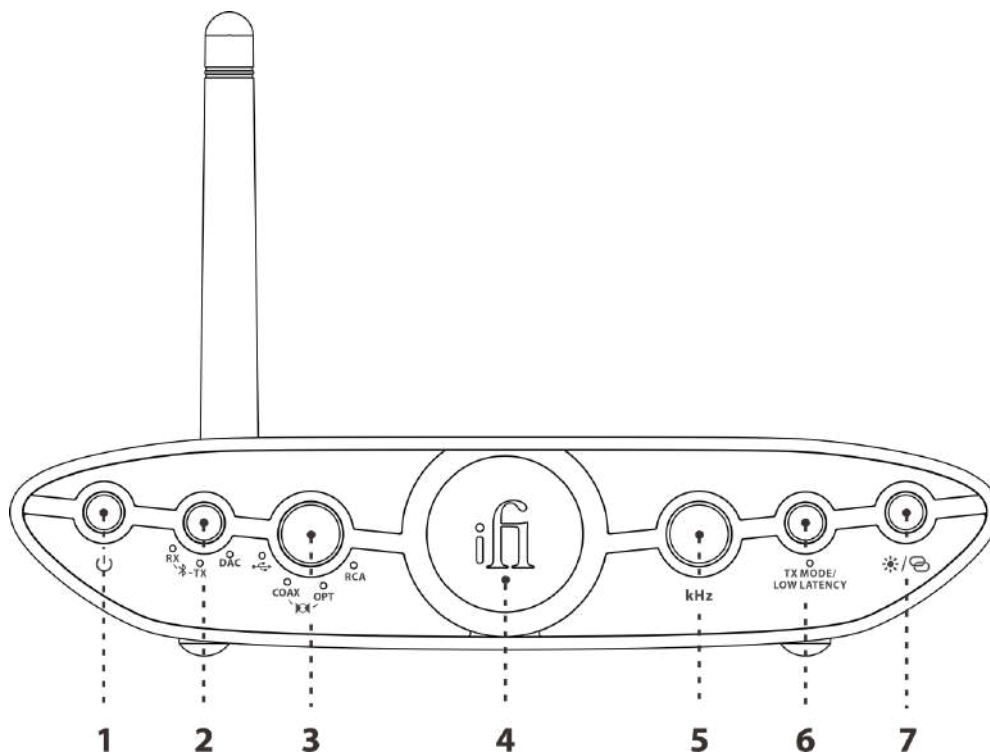
Thank you for purchasing the Blue 3 from the ZEN series. The Blue 3 is a Hi-Res Bluetooth DAC.

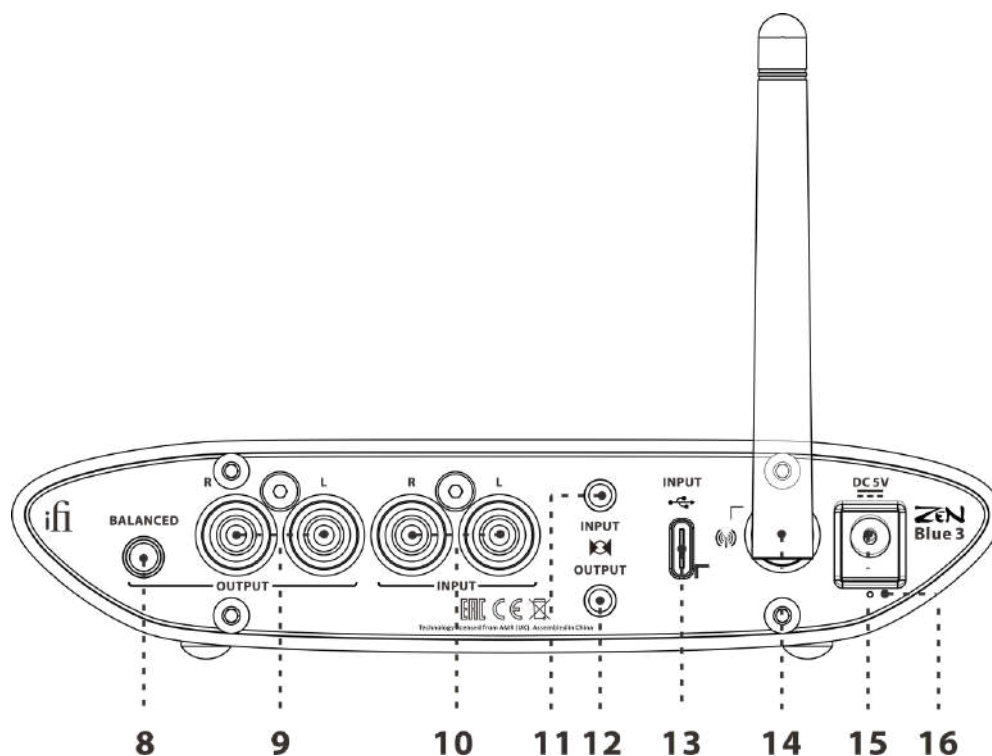
Unlock aptX Lossless and LDAC high-resolution audio transmission for your Bluetooth headphones and Hi-Fi system with our new Lossless Bluetooth transmitter and receiver, the ZEN Blue 3. Featuring three exciting operation modes and unbeatable Bluetooth codecs, you'll never have to settle for lossy codecs again. The ZEN Blue 3 boasts three operation modes: RX mode for receiving Bluetooth signals from your smartphone and outputting to your Hi-Fi system; TX mode for transmitting audio from your TV, set-top box, gaming console, or CD player to your wireless headphones; and DAC mode for high-resolution music playback from USB and S-PDIF connections.

The ZEN Blue 3 is the ultimate lossless Bluetooth transmitter and receiver, excelling in lossless/hi-res Bluetooth audio transmission for your wireless headphones and Hi-Fi system.

FEATURES:

- Equipped with Qualcomm's flagship Bluetooth QCC5181 chip featuring Bluetooth 5.4, supports the latest aptX Lossless codec, capable of streaming lossless CD-quality audio without sacrificing quality
- Supports lossless CD quality (44kHz/16bit) and Hi-Res (96kHz/24bit) Bluetooth playback (RX) and transmission (TX)
- Supports aptX Lossless, aptX Adaptive, aptX Low Latency, aptX HD, aptX, LDAC, LHDC (HWA), AAC and SBC codecs
- Three operation modes: Bluetooth RX; Bluetooth TX and USB/S-PDIF DAC mode
- Quick-access button for aptX Low-Latency connection, ideal for gaming and video
- Control your music via Bluetooth with your favourite music app on smart devices or computers and relax
- External antenna for enhanced connectivity and extended range
- Balanced 4.4mm line output

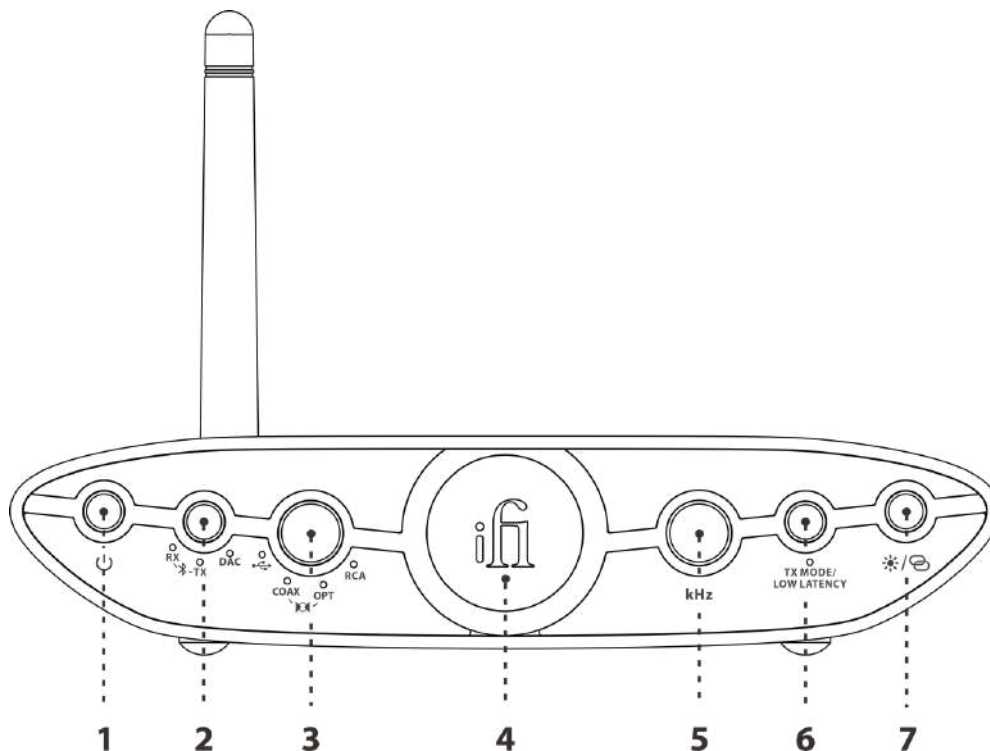




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1. Power switch

Power switch, Long press $\geq 2s$ to switch on/off.

2. Operating mode selector

This button cycles through 3 operating modes:

RX Mode > TX Mode > DAC Mode

RX Mode

In receive Bluetooth signal mode, the ZEN Blue 3 acts as a Bluetooth signal receiver/decoder only, allowing Bluetooth pairing with mobile phones or other devices to transmit audio signals in lossless

CD sound quality.

Connection to back-end devices is possible via (8) Balanced 4.4mm, (9) RCA and (12) S/PDIF (Optical/Coaxial) (See item 8/9/12).

Note: In RX mode, ZEN Blue 3 fully receives and supports codecs such as aptX Lossless, aptX Adaptive, aptX HD, aptX, LDAC, LHDC/HWA, AAC and SBC to receive Bluetooth signals(See item 4).

TX Mode

In TX mode, the ZEN Blue 3 acts as a decoder only, you can use outputs from your phone/laptop/TV/set-top box/game console or CD player, including (13) USB, (10) RCA, (11) S/PDIF (optical/coaxial), etc. to transmit Bluetooth signals to wireless headphones, another Bluetooth receiver, Bluetooth speakers, or other Bluetooth devices.

Note: In TX mode, ZEN Blue 3 fully transmits codecs such as aptX Lossless, aptX Adaptive, aptX HD, aptX, LDAC and SBC (See item 4) to compatible devices.

Please set your Bluetooth receiving device to Bluetooth pairing mode and bring your device as close as possible to ZEN Blue 3 (avoid connecting to other Bluetooth products). ZEN Blue 3 will automatically pair and connect to your Bluetooth product. If the connection fails, re-set ZEN Blue 3 and your Bluetooth product to Bluetooth pairing mode, and try to pair again (Remarks: The time of successful auto-pairing will be a little different each time).

If the connection keeps failing, please check if ZEN Blue 3 has been paired with other devices or select the reset setting in GAIA APP

DAC Mode

In DAC mode, the ZEN Blue 3 acts as a D/A converter (when the input channels are (13) USB, (11) S/PDIF (Optical/Coaxial) and (10) RCA inputs) to output via (8) Balanced 4.4mm and (9) RCA and (12) S/PDIF (Optical/Coaxial) (See item 8/9/12) Output.

Note: In DAC mode, ZEN Blue 3 supports up to S/PDIF (Optical/Coaxial) 192kHz, USB 96kHz.

3. Input channel selection and Volume control

I) Input channel selection

Use the button to choose between the following 4 input options:

Input 1: USB (See item 13)

Input 2: S/PDIF (Coaxial) (See item 11)

Input 3: S/PDIF (Optical) (See item 11)

Input 4: RCA (See item 10)

II) Volume Control (TX mode only)

To increase the volume, long press (3), to decrease the volume, short press (3) <1s, then long press (3). When the volume control button is pressed to adjust the volume, (5) will blink and indicate the current volume level by the colour of the different LED.

4. Bluetooth codec and PCM display

The colour of the 'iFi' logo in the centre of the front display represents the file format received:

RX Mode

LED	Format
Off	SBC
Yellow	AAC
Blue	aptX
Magenta	aptX HD
Green	aptX Adaptive
White	aptX Lossless
Cyan	LDAC
Red	LHDC/HWA

TX Mode

LED	Format
Off	SBC

Blue	aptX
Magenta	aptX HD
Green	aptX Adaptive
White	aptX Lossless
Cyan	LDAC

DAC Mode

LED	Format
White	PCM

5. Audio Format (kHz) and Volume LED

I) Audio Format LED (kHz)

The LED colour scheme indicates the audio format and sampling frequency received by the ZEN Blue 3 from the music source.

LED	Mode
Yellow	PCM 44.1/48kHz
White	PCM 88.2/96/176.4/192kHz

II) Volume LED

The LED colour scheme indicates the current volume level.

LED	Volume
Blue	Mute to 24
Magenta	25 to 44
Cyan	45 to 59
Green	60 to 74
Yellow	75 to 89

6. TX MODE/LOW LATENCY

RX MODE/DAC MODE:

Low Latency and Bluetooth transmission codecs cannot be adjusted when using ZEN Blue 3 in RX or DAC mode

TX MODE:

- 1) In this mode, tap this button to switch the Bluetooth codec.
- 2) Long press $\geq 2s$ to enter the low latency state of aptX Adaptive/Low Latency.

7. Bluetooth pairing and LED display ON/OFF and BT voice prompt

- **Bluetooth pairing (long press $\geq 3s$)**
- **LED display ON/OFF (Single tap)**
- **BT voice prompt ON/OFF (Double tap)**

I) Bluetooth Pairing (long press $\geq 3s$)

From switch on, the ZEN Blue 3 will blink blue as it searches for a previously paired device. If a stored device is not found, it will automatically enter pairing mode and blink blue/red.

To enter pairing mode, press and hold the front rightmost button until the 'Bluetooth mode LED' is blinking blue/red. To pair, on your handset, look for 'iFi Lossless Audio' in the list of available Bluetooth devices.

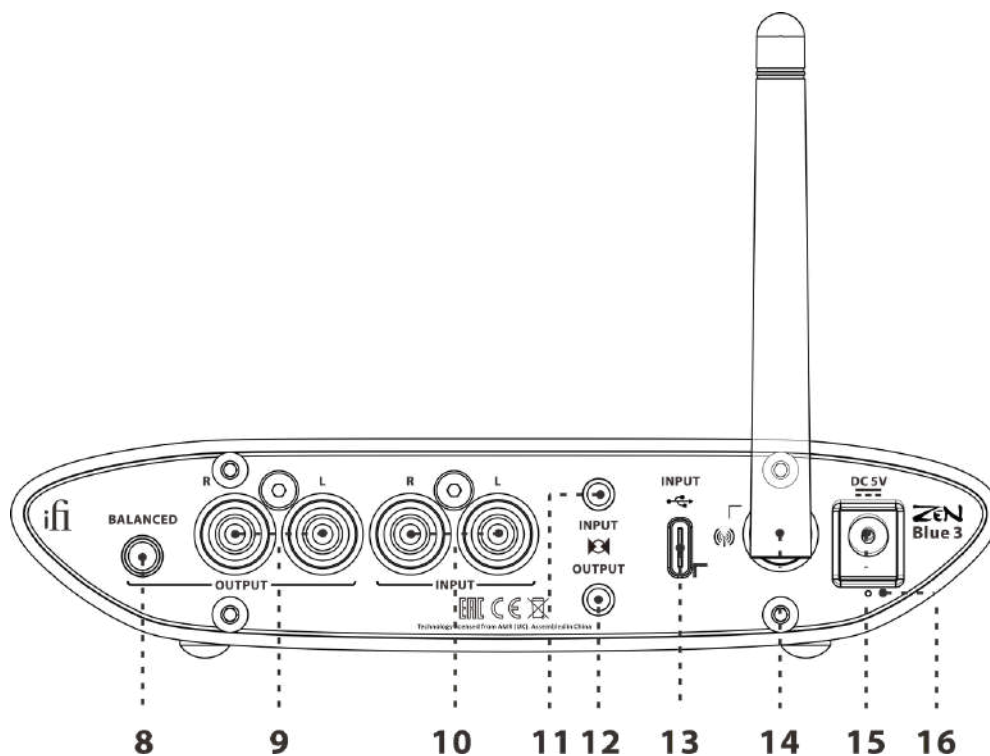
The ZEN Blue 3 is able to store up to 8 paired Bluetooth devices. When the 9th device is paired, the initially paired Bluetooth device will be removed from the pairing list and you may need to manually reconnect it when using it.

II) LED display ON/OFF (Single tap)

Single tap to switch off (4) Bluetooth codec and PCM display and (5) Sampling frequency LED (kHz) LED. It is on by default.

III) BT voice prompt ON/OFF (Double tap)

Double tap to turn the BT voice prompt on / off. It is on by default.



8. Balanced 4.4mm analogue line output

This is an analogue output via 4.4mm > XLR or other balanced interconnects. You can use this to connect to active speakers or amplifiers that have a volume control.

Tip: As ZEN Blue 3 is balanced, this is the recommended output.

9. RCA analogue line output

This is an analogue output via RCA > RCA or other single-ended interconnects. You can use this to connect to active speakers or amplifiers that have a volume control.

10. RCA analogue line input

This is an analogue input. Connect analogue RCA interconnects to an RCA Line output.

11. S/PDIF (Optical/Coaxial) input

Connect a S/PDIF source such as Apple TV, Google Chromecast, PS5, Xbox, a high-end CD transport, etc.

Note: S/PDIF coaxial is implemented by 3.5mm jack (Tip - Signal; Sleeve - GND).

12. S/PDIF (Optical/Coaxial) output

Connect to a DAC or amplifier's S/PDIF input.

13. USB-C audio and power input

This is a USB-C input. It connects ZEN Blue 3 to the computer audio source and provides the power supply.

14. Antenna

Please attach the enclosed antenna for maximum reception quality.

15. DC 5V Power Supply Connection

ZEN Blue 3 is powered by 5 volts, either via the enclosed USB-A to USB-C cable (for connection to laptop or PC) or DC power supply.

Tip: For best performance upgrade the power supply to a super-low noise power adapter such as iPower2 5V or iPower X 5V.

16. DC 5V Power LED

The LED lights up when powered from a DC 5V supply.

SPECIFICATIONS:

DAC Chipset

Qualcomm QCC518x
Series

Input	RX MODE	TX MODE	DAC MODE
		USB	USB
Digital	Bluetooth 5.4 (aptX Lossless, aptX Adaptive, aptX HD, aptX, LDAC, LHDC(HWA), AAC and SBC)	Optical Coaxial	Optical Coaxial
Analogue		RCA L/R	RCA L/R
Output	RX MODE	TX MODE	DAC MODE
Digital	Optical Coaxial	Bluetooth 5.4 (aptX Lossless, aptX Adaptive, aptX Low Latency, aptX HD, aptX, LDAC, SBC)	Optical Coaxial
Analogue	RCA L/R Balanced 4.4		RCA L/R Balanced 4.4
Maximum supported sampling rate	96kHz/24Bit	96kHz/24Bit	Optical/Coaxial 192kHz/24Bit USB 96kHz/24Bit
Line Output			
Output Voltage			
Balanced 4.4mm		4.1Vrms (0dBFS@1kHz)	
Single-Ended RCA		2.05Vrms (0dBFS@1kHz)	

Output Impedance:

Balanced 4.4mm $\leq 102\Omega$

Single-Ended RCA $\leq 51\Omega$

SNR: 109dB

DNR: 109dB (0dBFS @ 1kHz) +A

THD + N: < 0.005% (10K Load)@(20-20kHz)

Frequency Response:

RX MODE 20Hz-41kHz (LDAC)

TX MODE 20Hz-42kHz (LDAC)

DAC MODE 20Hz-42kHz (96kHz @ 0dBFS) @ USB输入
20Hz-90kHz (192kHz @ 0dBFS) @ S-PDIF输入

Power supply requirement: USB-C or DC 5V/ $\geq 0.5A$ (centre +ve)

Power consumption: < 1W

Dimensions: 158 x 106 x 35 mm (6.2" x 4.5" x 1.4")

Net Weight: 447 g (0.99 lbs)

Limited Warranty: 12 months*

**12 months typical or as permitted/required by local reseller laws.*

***Specifications are subject to change without notice.*

^See FAQ at ifi-audio.com for more information.