



User Manual

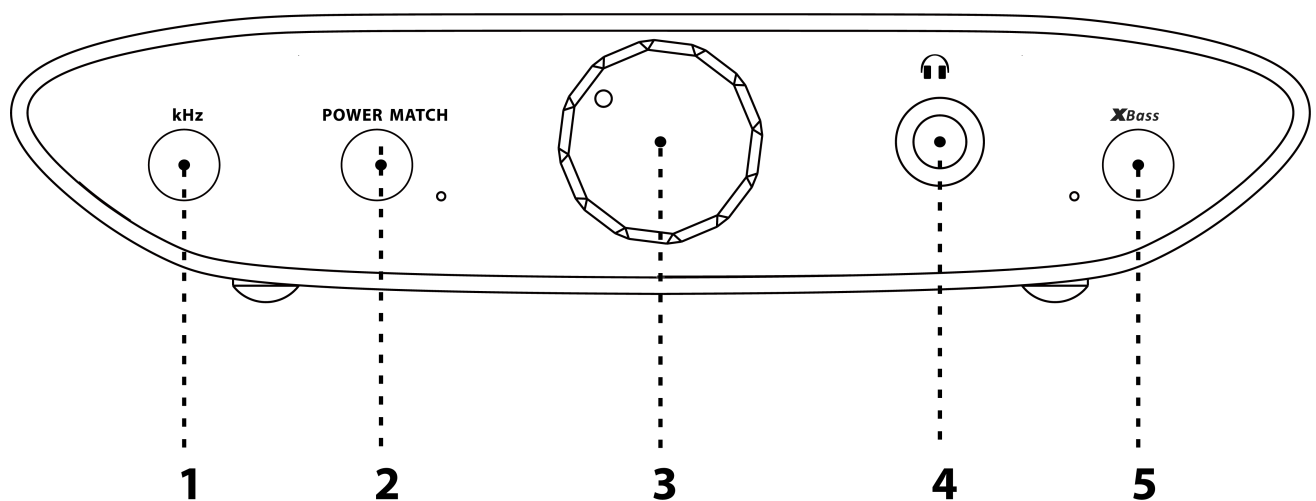
Thank you for choosing the ZEN Air DAC Black 3. It's a USB DAC and headphone amplifier that connects to your device for high-quality sound.

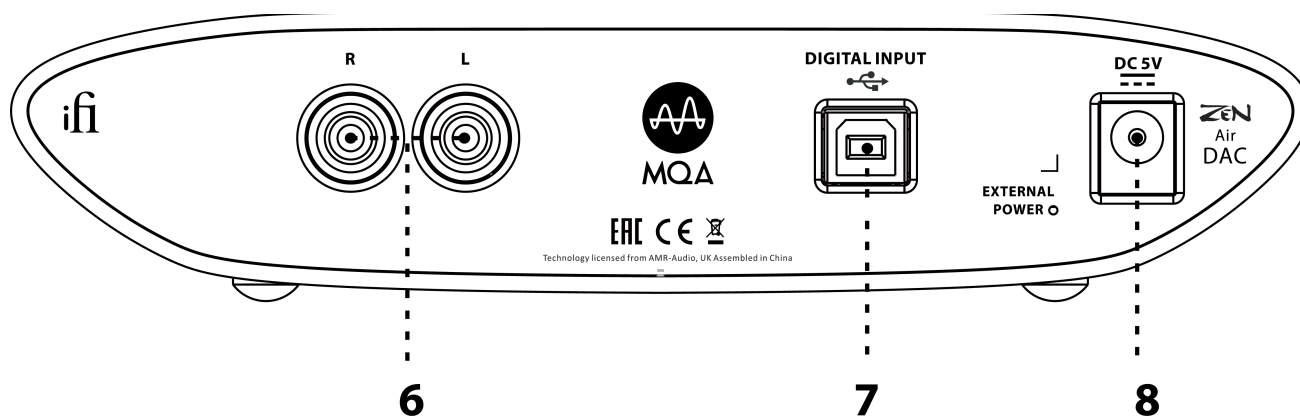
Born from the award-winning ZEN Series, the ZEN Air range distils authentic hi-fi performance into an offering that's even more accessible. Clad in sleek Obsidian

Black, the ZEN Air DAC Black slips effortlessly into any setup whilst unlocking richer, more expressive sound from your PC, Mac, console, and beyond.

FEATURES:

- Hi-res DAC (Digital-to-Analogue Converter) and headphone amp
- Elevates the sound quality of digital sources to a higher plane
- Use as a headphone amp, or as a pure DAC with an amp and speakers
- Connect to PCs, Macs, smartphones, tablets, games consoles and more via USB
- Supports 32-bit/384kHz PCM, fully native DSD256 and MQA
- Convenient desktop size, powered by USB or mains
- Powerful amp drives all headphones/earphones with ease
- PowerMatch and XBass controls – adjust to suit your headphones
- High-performance circuitry delivers smooth, detailed and dynamic sound





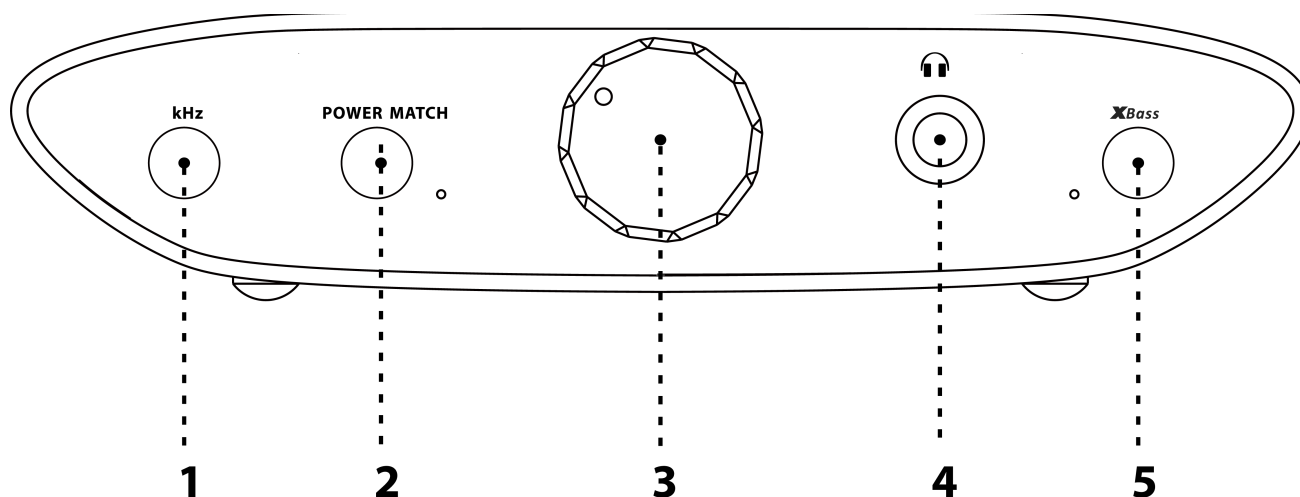
Contents

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SPECIFICATIONS:



1. Audio Format LED (kHz)

The LED colour scheme indicates the audio format and sampling frequency received by ZEN Air DAC Black from the music source.

LED	Mode
Green	PCM 44.1/48/88.2/96kHz
Yellow	PCM 176.4/192/352.8/384/768kHz
Cyan	DSD 64/128
Blue	DSD 256
Magenta	MQA

2. PowerMatch (High/Low)

PowerMatch setting should be on low for IEMs and on high for on/over headphones.

LEDStatus

White High

Off Low

WARNING: Due to the high power of ZEN Air DAC Black, before changing the PowerMatch setting, always start off at a low volume level so that there is no risk of damage to your headphones, speakers or your hearing. iFi audio is not responsible for any hearing or equipment damage from misuse.

3. Analogue volume control

Turn the dial to control the volume. The analogue volume control in ZEN Air DAC Black is superior to any digital volume control.

Tip: In normal use, the volume should be controlled at around the 12 o'clock position, and then adjusted appropriately if this does not meet your needs; also, when using brand new headphones, it is recommended that the initial volume is controlled at no higher than the 9 o'clock position, and that PowerMatch (1) is set to "Low" to avoid damage your hearing or equipment.

WARNING: Due to the high power of the ZEN Air DAC Black, always start off at a low volume level so that there is no risk of damage to your headphones or your hearing. iFi audio is not responsible for any hearing or equipment damage from misuse.

4. Single-Ended 6.35mm output

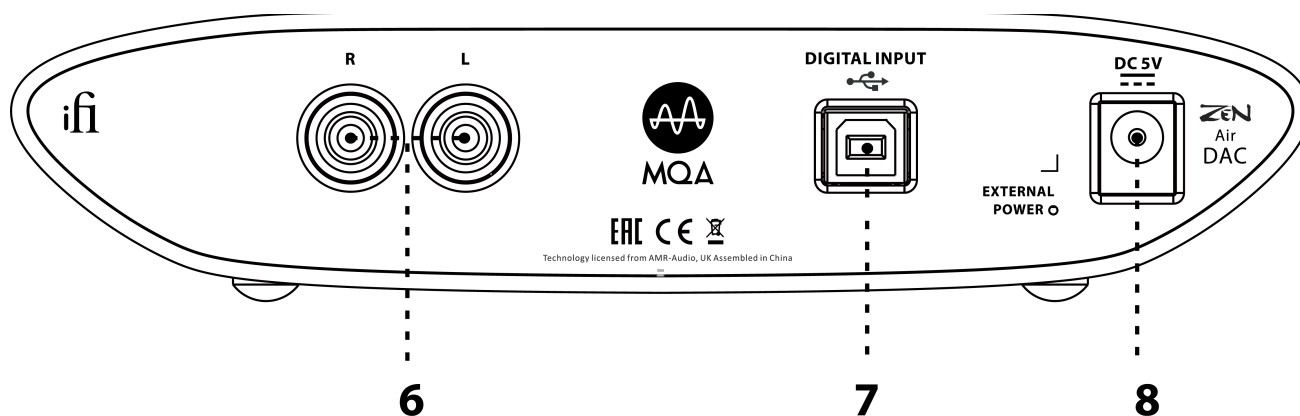
Connection for 6.35mm unbalanced headphones. Please use a 3.5 to 6.35mm adaptor for 3.5mm Single-Ended headphones.

5. XBass+ On/Off

Many headphones lack the correct bass response. XBass+ was uniquely designed as an analogue circuit designed to 'add back' the lost bass response for the most accurate playback.

Tip: Open headphones (lack of bass due to structural design) and some highly sensitive earbuds (lack of bass due to unit size limitations) sound better when XBass+ is on, or can be adjusted to suit personal preference.

Tip: Sonically-hindering DSP is NOT used for XBass. They use the highest-quality discrete components and operate purely in the analogue domain. Hence all the clarity and resolution of the original music is retained.



6. 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.

7. USB-B audio and power input

This is a USB-B input. It connects ZEN Air DAC Black to the computer audio source and provides the power supply.

8. DC 5V Power Supply Connection

ZEN Air DAC Black is powered by 5 volts, either via the enclosed USB cable (for connection to laptop or PC) or DC power supply (not included).

Tip: For optimal performance, it is recommended to upgrade from being powered by USB-C to being powered by an ultra-low noise power adapter such as the iFi iPower 2 5V or iPower X 5V.

Note: For use with PC it is necessary to download drivers.

Tip: For the required driver and all the latest firmware updates please visit our website:

www.ifl-audio.com/download-hub/

Cautions

1. Avoid extreme heat, cold and humidity.
2. Avoid dropping or crushing the **ZEN Air DAC Black**.

Prolonged Heat Exposure

During normal use, your **ZEN Air DAC Black**. may become quite warm. This is normal and not a cause for concern. However, it is highly recommended to ensure good ventilation while using this device.

SPECIFICATIONS:

Digital Input:	USB-B 2.0
Formats:	DSD 256 / 11.3MHz PCM 384kHz MQA Renderer
DAC Chipset:	Bit-Perfect DSD & DXD DAC by Burr Brown

Line Output Section

Line Output:	Single-Ended RCA
Output Voltage	1V / 3.3V max.
Output Impedance:	$\leq 100\Omega$
SNR:	$\geq 113\text{dB}$ @ 0dBFS
DNR:	$\geq 113\text{dB}$ @ -60dBFS
THD + N:	$\leq 0.04\%$ @ 0dBFS

Headphone Output Section

Headphone Outputs:	6.35mm
Output Level:	1V / 3.3V max.
RMS Output power:	>280mW @ 32Ω; >36mW @ 300Ω
Output impedance:	≤1Ω
SNR:	≥113dB(A) (3.3V)
DNR:	≥113dB(A) (3.3V)
THD + N:	≤0.04% (100mW @ 16Ω)
Power supply requirement:	USB-C or DC 5V/0.5A (centre +ve)
Power consumption:	
No Signal	~0.5W
Max Signal	~2.5W
Dimensions:	158 x 117 x 35 mm (6.2" x 4.6" x 1.4")
Net Weight:	315 g (0.69 lbs)
Limited Warranty:	12 months*

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

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