



User Manual

Thank you for choosing the ZEN Air DAC 2. The ZEN Air DAC 2 is a USB DAC & Headphone Amp for Home Listening.

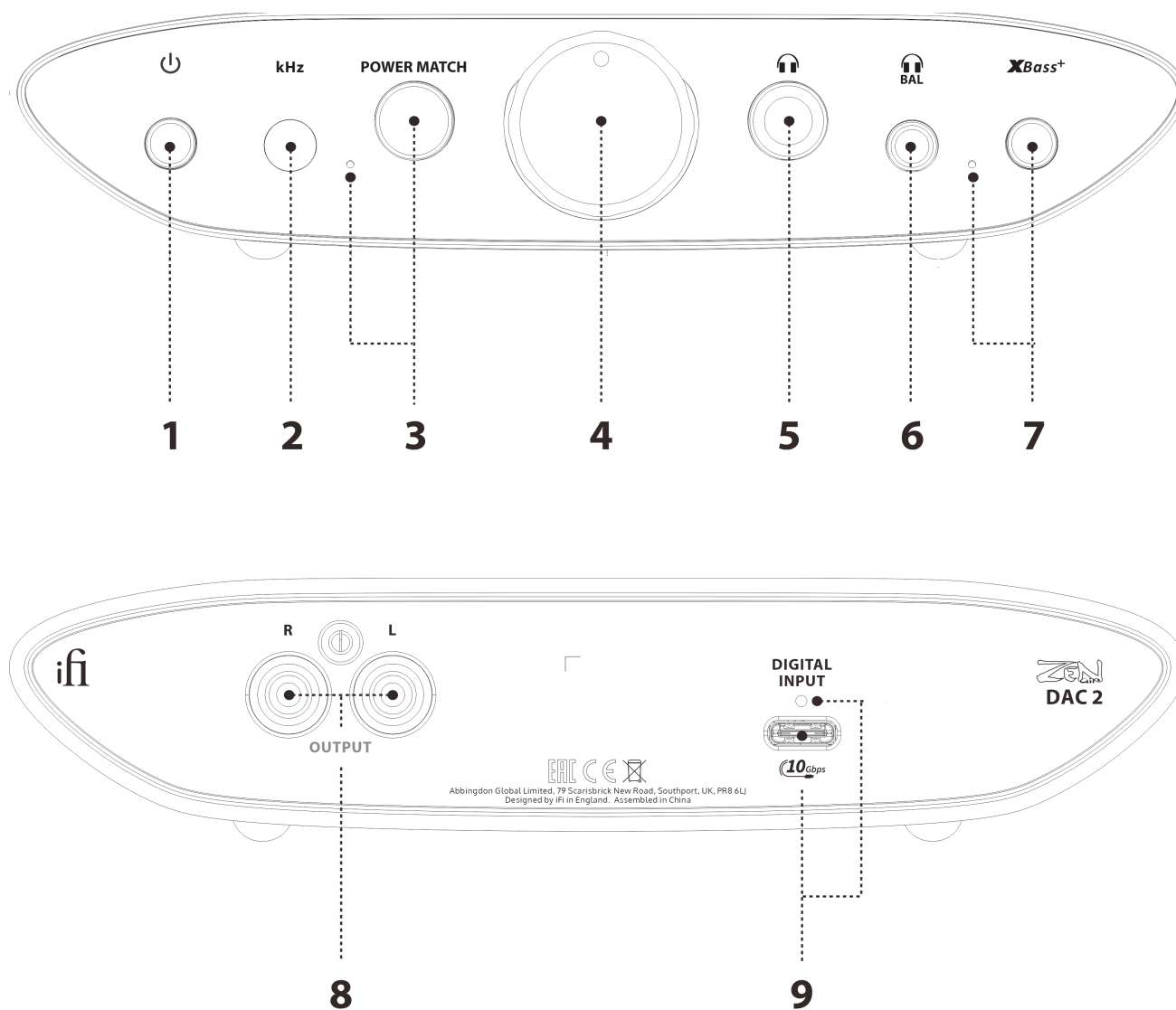
Made for Listening.

The ZEN Air DAC 2 is your key to more involving music listening at home, bringing our emotionally engaging house sound to yours with little cost and complexity.

Finished in midnight blue, Generation 2 introduces a more premium look and feel, a more expressive headphone listening experience, and a newly chosen DAC - selected for its natural ability to connect you with your music, not the technology behind it.

FEATURES:

- Transforms everyday listening from your PC, laptop, or tablet
 - Unlocks Hi-Res music from Apple Music, Tidal, Spotify, and more
 - Newly chosen DAC brings out greater clarity and dynamics
 - Balanced headphone output for a cleaner, more expressive experience
 - 300% more headphone drive to reveal the full emotion of your music
 - XBass restores weight and warmth at the press of a button
 - PowerMatch adapts output for different headphones
 - Premium metal fascia and a midnight blue finish
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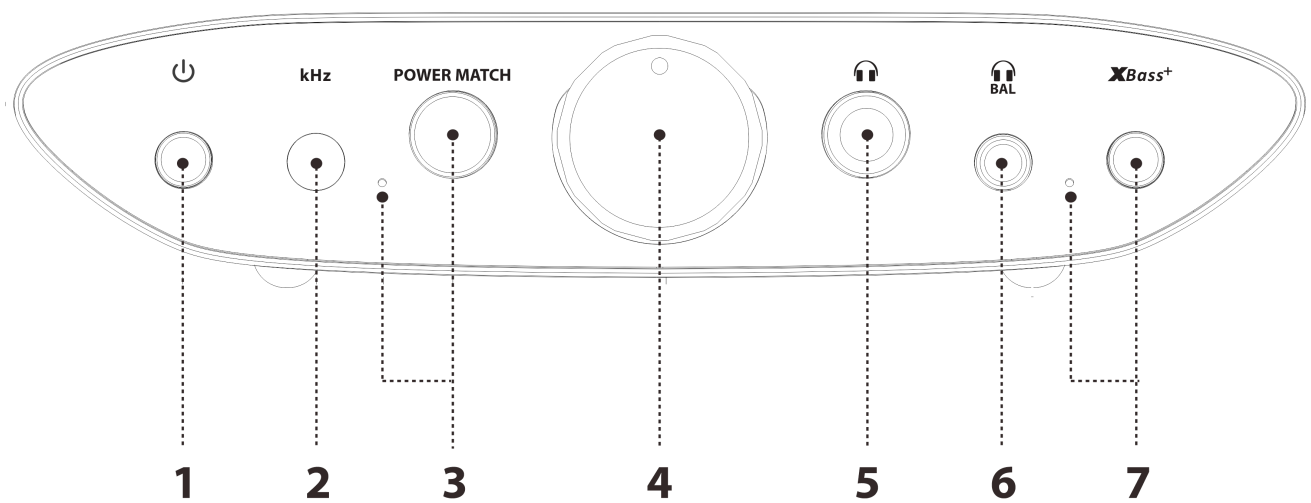
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SPECIFICATIONS:



1. Power ON/OFF

Short press $\geq 2s$ to switch the ZEN Air DAC 2 on or off.

2. Audio Format LED (kHz)

The LED colour scheme indicates the audio format and sampling frequency received by ZEN Air DAC 2 from the music source.

LED	Mode
Yellow	PCM 44.1/48kHz
White	PCM 88.2/96/176.4/192/352.8/384kHz

Cyan	DSD 64/128
Red	DSD 256

3. PowerMatch and iEMatch Button & LED

- PowerMatch (Short press)
- iEMatch (Long press $\geq 2s$)

PowerMatch (Short Press)

Short press to turn PowerMatch on or off.

For standard headphones, try PowerMatch off. For headphones with high impedance and/or low sensitivity, try PowerMatch on. When on, the gain increases by +4.6dB.

LED	Status
Yellow	On +4.6dB
Green	Off 0dB

WARNING: Due to the high power of ZEN Air DAC 2, 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.

iEMatch (Long Press $\geq 2s$)

Long press for 2 seconds to turn iEMatch on or off.

iEMatch reduces the output level, so that even the most sensitive In-Ear-Monitors (IEMs) can be matched to the ZEN Air DAC 2.

LED	Status
Blue	On -6dB

Green

Off 0dB

4. Analogue Volume Control

Turn the dial to control the volume. The analogue volume control in ZEN Air DAC 2 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 is initially disabled to avoid damage your hearing or equipment.

WARNING: Due to the high power of the ZEN Air DAC 2, 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.

5. Single-Ended 6.3mm Output

Connection for 6.3mm unbalanced headphones. Please use a 3.5 to 6.3mm adaptor for 3.5mm Single-Ended headphones.

6. Balanced 4.4mm Headphone Output

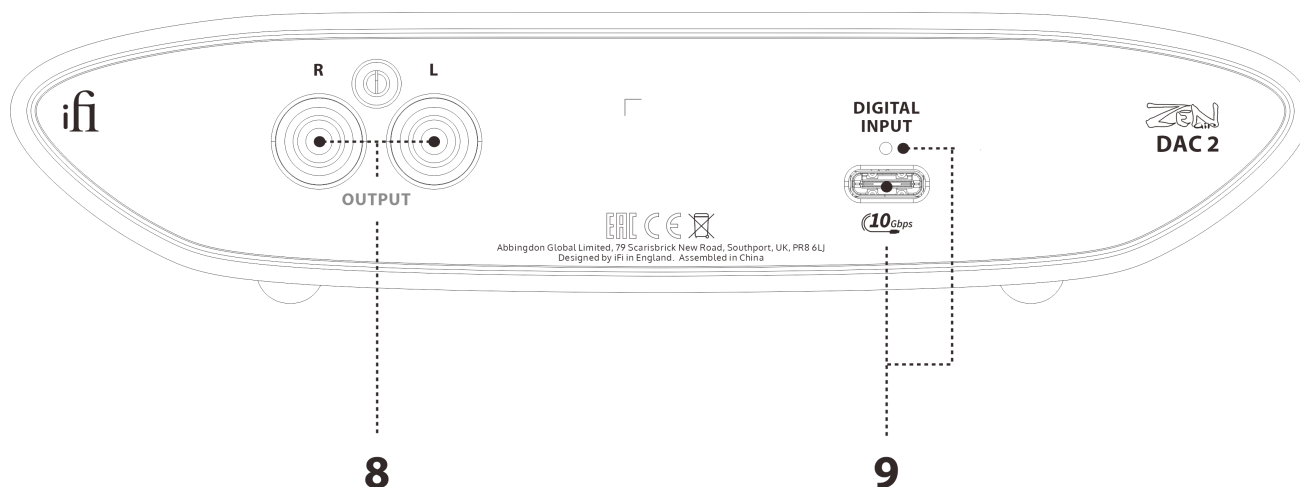
Use this connection for balanced 4.4mm headphones.

7. XBass+ Button & LED

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.



8. RCA Analogue Line Output (Variable)

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.

The volume output level of the RCA analogue line output port is adjustable via the Analogue volume control knob (Item 4).

9. USB-C Audio and Power Input & LED

This is the USB-C input. It connects the ZEN Air DAC 2 to your computer audio source and also supplies power.

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.ifi-audio.com/download-hub/

Cautions

1. Avoid extreme heat, cold and humidity.

2. Avoid dropping or crushing the ZEN Air DAC 2.

Prolonged Heat Exposure

During normal use, your ZEN Air DAC 2 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-C
Formats:	DSD 256 (11.3MHz) PCM 384kHz
DAC Chipset:	Bit-Perfect DSD & DXD DAC by Burr Brown

Line Output Section

Line Output:	Single-Ended RCA
Output Voltage	2V / 3.4V max. (Variable)
Output Impedance:	$\leq 100\Omega$
SNR:	$\geq 118\text{dB}$ @ 0dBFS
DNR:	$\geq 118\text{dB}$ @ -60dBFS
THD + N:	$\leq 0.0008\%$ @ 0dBFS

Headphone Output Section

Headphone Outputs:

Balanced 4.4mm

Single-Ended 6.3mm

Output Level:

Balanced 4V / 6.78V max.

Single-Ended 2V / 3.45V max.

Max.^ Output power:

Balanced $\geq 6.78\text{V}/76.6\text{mW}$ @ 600 Ω

$\geq 4.87\text{V}/741\text{mW}$ @ 32 Ω

Single-Ended $\geq 3.45\text{V}/19.8\text{mW}$ @ 600 Ω

$\geq 3.14\text{V}/308\text{mW}$ @ 32 Ω

RMS Output power:

Balanced $\geq 5.57\text{V}/484\text{mW}$ @ 64 Ω

Single-Ended $\geq 3.02\text{V}/286\text{mW}$ @ 32 Ω

Output impedance:

Balanced $\leq 1.4\Omega$

Single-Ended $\leq 0.7\Omega$

SNR:

Balanced $\geq 118\text{dB(A)}$ (6.75V)

Single-Ended $\geq 118\text{dB(A)}$ (3.4V)

DNR:

Balanced $\geq 118\text{dB(A)}$ (6.75V)

Single-Ended $\geq 118\text{dB(A)}$ (3.4V)

THD + N:

Balanced $\leq 0.0015\%$ (2.4V @ 32 Ω)

Single-Ended $\leq 0.0011\%$ (1.27V @ 16 Ω)

Frequency Response: 20Hz-90kHz (-3dB)

Power supply requirement: USB-C 5V/1A

Power consumption:

No Signal $\sim 0.55\text{W}$

Max Signal $\sim 3.55\text{W}$

Dimensions: 158 x 100 x 35 mm (6.2" x 3.9" 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.*