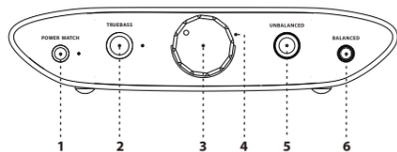


# ifi

## ZEN DAC



Thank you for purchasing the DAC from ZEN series. The DAC is a balanced USB-audio DAC amplifier.

### 1. PowerMatch® (high/low)

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

*Warning: Due to the high power of ZEN DAC, 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.*

### 2. TrueBass® (high/low)

Many headphones lack the correct bass response. TrueBass® is an analogue circuit designed to 'add back' the lost bass response for the most accurate playback.

*Tip: Open-back headphones and some IEMs usually sound better with TrueBass set high. Adjust to suit.*

### 3. Analogue Volume control

The analogue volume control in ZEN DAC is superior to any digital volume control. It can be used to control the headphone volume or the pre-amplifier volume (when set to 'Variable'). If the output at the rear is set to 'Fixed' the volume control is bypassed.

### 4. Audio Format LED (kHz)

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

LED	Mode
Green	PCM 44/48/88/96kHz
Yellow	PCM 176/192/353/384kHz
Cyan	DSD64/DSD128
Blue	DSD256
Magenta	MQA

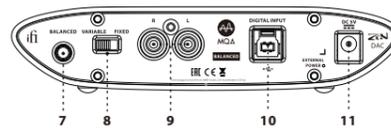
### 5. Single-ended 6.3mm output

Connect single-ended 6.3mm headphones. With single-ended 3.5mm headphones, connect with a 3.5mm to 6.3mm adapter.

### 6. Balanced 4.4mm analogue output

Connect balanced 4.4mm headphones.

*Tip: As ZEN DAC is balanced, we recommend the 4.4mm output.*



### 7. Balanced 4.4mm analogue output

This is an analogue output via 4.4mm > XLR or other balanced interconnects. You could use this for an active speaker or an amplifier.

*Tip: As ZEN DAC is balanced, this is the recommended output.*

### 8. Variable/Fixed switch

When the rear UnBAL/BAL analogue outputs are used, this switch will determine whether or not ZEN DAC analogue volume control is used.

### 9. RCA analogue output

This is an analogue output.

### 10. USB-audio and power input

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

### 11. DC 5V power

ZEN DAC 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 best performance upgrade the USB power supply to a super-low noise power adapter such as iFi iPower or iPower X.*

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

*Tip: It is pre-installed with firmware v5.30 which has been optimised for MQA. This version also handles up to PCM384/DSD256.*

*Tip: For firmware optimised to run PCM768/DSD5 12(non-MQA) please install firmware v5.20.*

*Tip: For all downloads: www.ifi-audio.com*

### Specification

<b>Input:</b>	USB3.0 B Socket (USB2.0 compatible)
<b>Formats:</b>	44,1/48/88.2/96/176.4/192kHz PCM 2.8/3.1/5.6/6.2/11.2/12.4MHz DSD 353/384kHz DXD MQA
<b>DAC:</b>	Bit-Perfect DSD & DXD DAC by Burr Brown
<b>Line Section</b>	
<b>Output:</b>	
Balanced 4.4mm:	2V / 6.2V max. (variable)    4.2V fixed
UnBAL RCA:	1V / 3.3V max. (variable)    2.1V fixed
<b>Zout:</b>	
Balanced:	<= 200Ω
UnBAL:	<= 100Ω
<b>SNR:</b>	<-116dB(A) @ 0dBFS (UnBAL/BAL)
<b>DNR:</b>	>116dB(A) @ -60dBFS (UnBAL/BAL)
<b>THD+N:</b>	<0.0015% @ 0dBFS (UnBAL/BAL)
<b>Headphone Section</b>	
<b>Output:</b>	
Balanced 4.4mm:	2V / 6.2V max.    12 Ohm - 600Ω
UnBAL 6.3mm:	1V / 3.3V max.    12 Ohm - 300Ω
<b>Output Power:</b>	
Balanced:	>380mW @ 50Ω; >70mW @ 600Ω
UnBAL:	>280mW @ 32Ω; >36mW @ 300Ω
<b>Output Impedance:</b>	<1Ω (UnBAL/BAL)
<b>THD &amp; N:</b>	<0.005% (125mW @ 32R)
<b>SNR:</b>	>113dB(A) (3.3V UnBAL / 6.2V BAL)
<b>Power consumption:</b>	No Signal    ~0.5W Max Signal    ~2.5W
<b>Dimensions:</b>	158 x 117 x 35 mm 6.2" x 4.6" x 1.4"
<b>Weight:</b>	491 g (1.08 lbs)
<b>Warranty period:</b>	12 months

*Specifications are subject to change without notice.*

ifi-audio.com

Ver1.4