

ZEN DAC V2



Tech Lowdown



GET THE BEST OUT OF YOUR HEADPHONES

The ZEN DAC is a USB DAC/headphone amplifier that connects to PCs, Macs and smart devices via USB to take your audio experience to a higher plane.

Now we present our upgrade to get even more out of your headphones.



AUDIO FORMAT LEDS



PCM 88.2/96/176.4/
192/352.8/384kHz



Original Sample Rate



DSD 64/128



MQA Studio



MQA



PCM 44.1/48kHz



DSD 256

HI-RES DAC

- NEW! 16-core XMOS chip
- Now a FULL MQA decoder
- Completes all 3 unfolds to deliver the highest possible sound quality
- Handles up to PCM 384kHz and DSD256



PCM
Pulse Code Modulation

DSD
Direct Stream Digital

DXD
Digital eXtreme Definition

Double-DSD128 Quad-DSD256

5.6^{MHz} 6.2^{MHz} 11.2^{MHz} 12.4^{MHz}

176.4^{kHz} 192^{kHz} 352.8^{kHz} 384^{kHz}

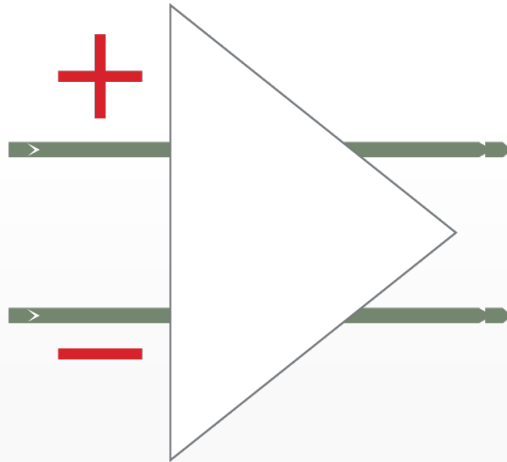
UPGRADED GMT



- NEW! Upgraded Global Master Timing (GMT) clock circuitry
- Even lower jitter performance
- Improved sonics

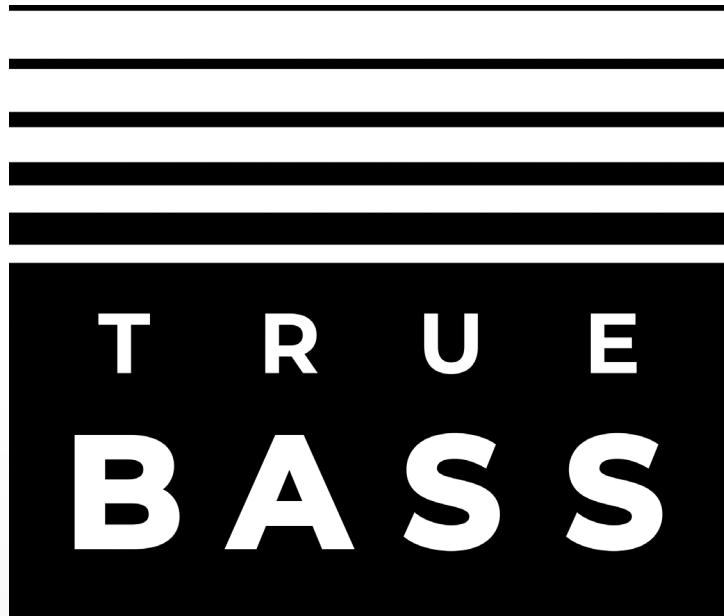
BALANCED ANALOGUE STAGE

Balanced



- Balanced analogue circuitry design
- Outstanding components – including C0G capacitors from TDK
- Plus PowerMatch – a choice of output levels for varying headphone sensitivities

TRUEBASS



- Sophisticated, user selectable 'bass boost'
- Subtly enhances low frequencies without muddying the midrange
- Operates in the analogue domain
- Perfect for earphones and open-back headphones lacking deep bass



Computer-matched pair complementary planar
Ultra-low noise bi-polar input transistors



Precision low-noise power supply



Precision Low Jitter
Audio-Grade Oscillators



Burr-Brown Native DSD DAC



Fully MQA Decoding
XMOS 16-Core controller with iFi optimised firmware

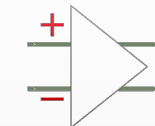


Murata Low-ESR High Q Multilayer Capacitor



Low noise/distortion OV2637 (0.0001%)
Performance equals/surpasses many high-end headphone amplifiers

Balanced



Balanced circuit



ZEN DAC v2

CONNECTION GUIDE



SE HP - 6.3mm



Balanced HP - 4.4mm



Balanced Output
4.4mm



RCA Output



USB Input
Phone/PC



Power input
DC 5V*



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**Do not use a power supply higher than 5V*

SPECIFICATIONS

Input	USB3.0 B socket (USB2.0 compatible)
Format	44.1/48/88.2/96/176.4/192/384kHz PCM
	2.8/3.1/5.6/6.2/11.2/12.4MHz DSD 353/384KHz DXD
DAC	Bit-Perfect DSD & DXD DAC by Burr Brown

Line Section:			
Output	Audio RCA (UnBAL)	2.1V fixed	1V / 3.3V max. (variable)
	4.4mm Pentaconn (BAL)	4.2V fixed	2V / 6.2V max. (variable)
Zout	<= 100 Ohm (UnBAL)	<= 200 Ohm (BAL)	
SNR	< -116dB(A) @ 0dBFS (UnBAL/BAL)		
DNR	> 116dB(A) @ -60dBFS (UnBAL/BAL)		
THD + N	< 0.0015% @ 0dBFS (UnBAL/BAL)		



SPECIFICATIONS

Headphone Section:			
Output	6.3mm (UnBAL)	1V / 3.3V max. (variable)	12 Ohm - 300 Ohm Headphone
	4.4mm Pentaconn (BAL)	2V / 6.2V max. (variable)	12 Ohm - 600 Ohm Headphone
Output Power	UnBAL: > 280mW @ 32R, > 36mW @ 300R	BAL: > 380mW @ 50R, > 70mW @ 600R	
Output impedance	< 1 Ω (UnBAL/BAL)		
THD & N	< 0.005% (125mW @ 32R)		
SNR	> 113dBA (3.3V UnBAL / 6.2V BAL)		
Power Consumption	<1.5W		

Dimensions	117(l) x 100 (w) x 30 (h) mm
Weight	491g (1.08 lbs)





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