iDSD Diablo Lowdown

iDSD DIABLO

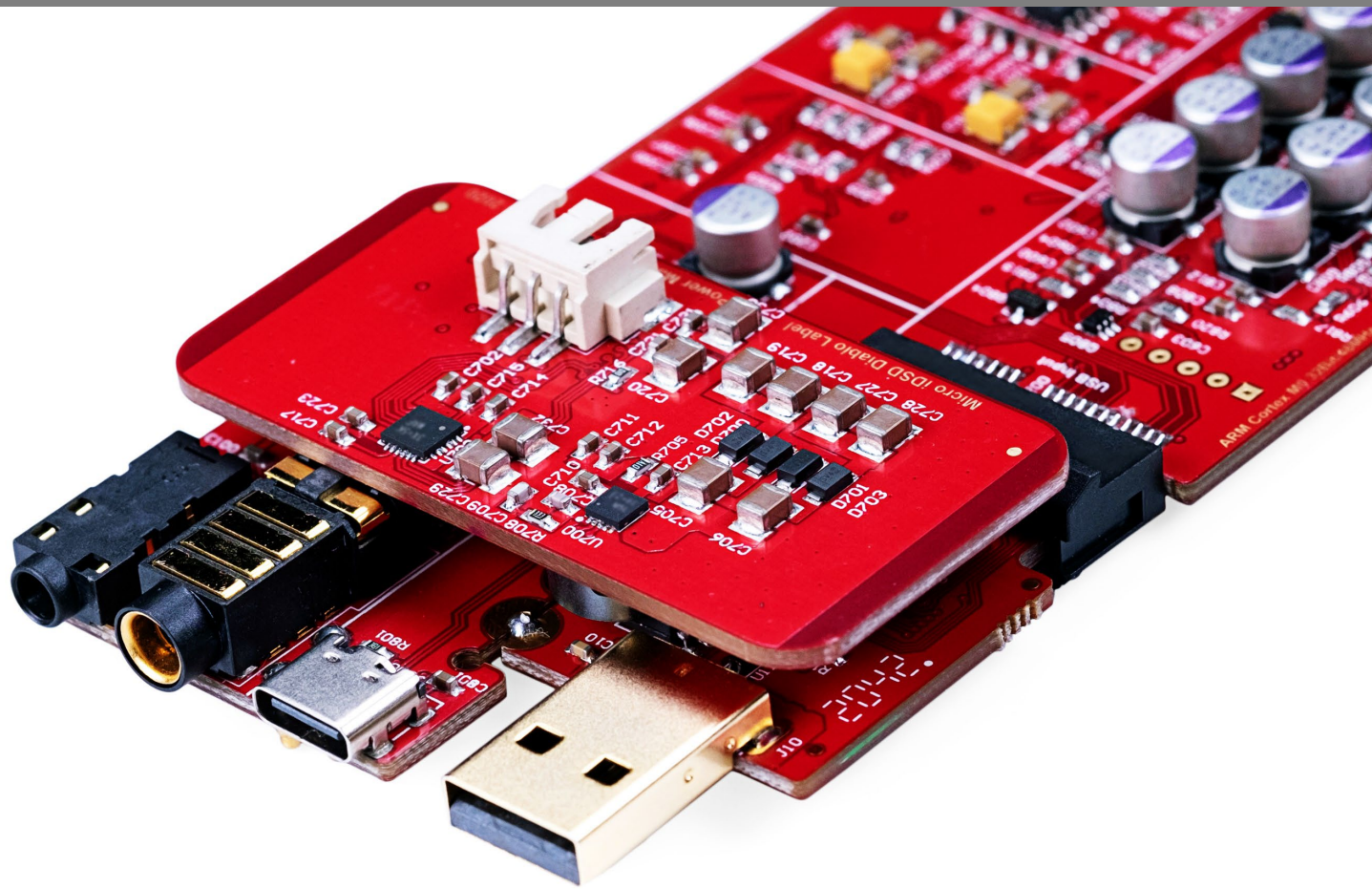
DEVILISHLY GOOD SOUND

- Mobile reference DAC / head amp
- Purist sound
- Fully balanced 4.4mm outputs with 4,100mW
- Devilishly deep bass reproduction and unbelievable resolution
- New PureWave ultra-low THD circuit design - THD 0.002% (BAL), 0.001% (SE)

HI-RES USB DAC / HEAD AMP

Dual Core DSD/PCM Burr Brown chipset provides Bit-Perfect:

- PCM - 48/44.1, 96/88.2, 192/176, 384/352.8, 768/705.6kHz
- DSD - 128/64 , 512/256 Single-Speed DSD/Double/Quad/Octa
- DXD - 384/352.8, 768/705.6kHz Single-Speed DXD/Double
- MQA Decoder



FEATURES

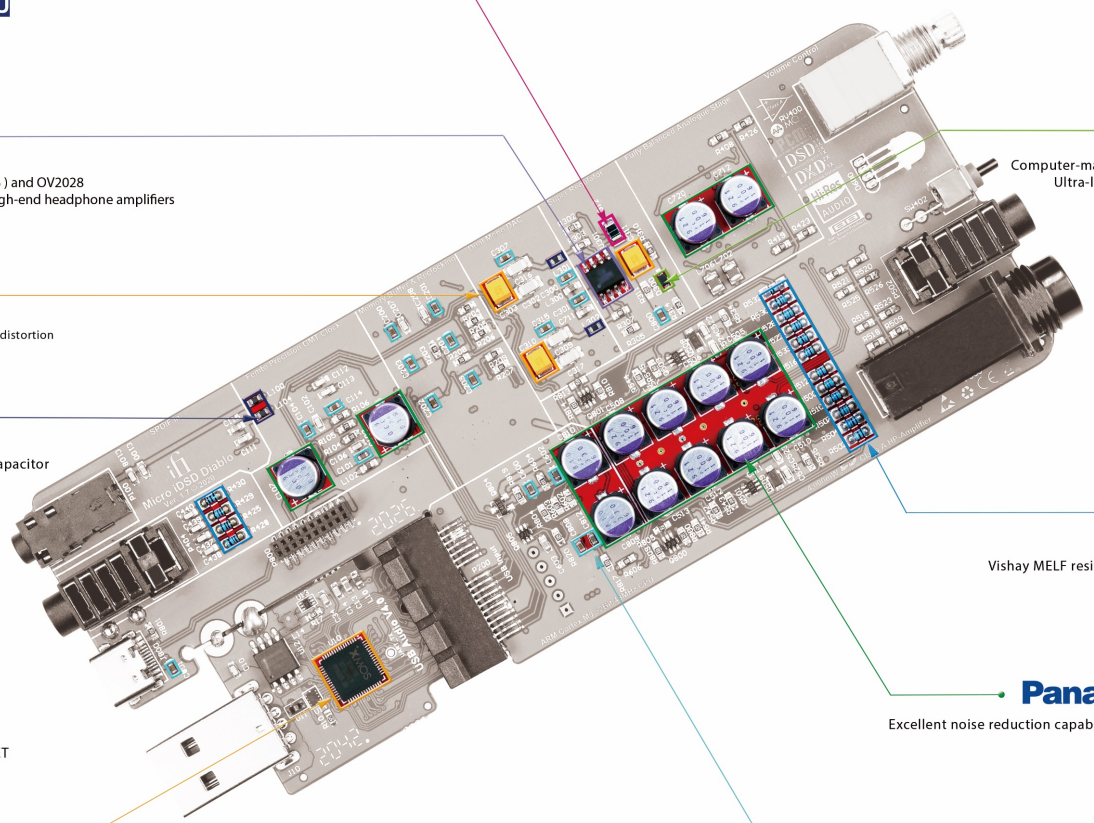
- Fully balanced 4.4mm output
- Performance boosting Direct Drive and Headamp Turbo
- Zero Jitter / Femto clock system upgraded for lower phase noise/jitter
- Digital engine upgraded with iFi custom ultra-low noise Op-Amp Ov2028
- Analogue section upgraded with iFi custom ultra-low noise Op-Amp Ov2627
- Ultra-low impedance OS-CON polymer capacitors and Panasonic audio-grade ECPU film capacitors

ACCESSORIES

Comes with the following all packed in the new iTraveller carry case:

- Square to round fibre conversion head
- USB3.0 cable
- USB-Type A to Type-C cable
- 6.35mm to 3.5mm converter
- 5.5* 2.1 female to Type-C power cable
- 4.4mm to Twin XLR cable
- iPower 5v
- iPower's accessories
- *iPurifier3-A Type C - Specially included for the first production run only!*

SPECIAL CIRCUIT DESIGN & COMPONENTS
PREMIUM AUDIOPHILE GRADE



Panasonic ECPU
Panasonic film capacitors

Precision analogue volume control

Low Jitter GMT clock system

Low noise/distortion OV2627 (0.0001%) and OV2028
Performance equals/surpasses many high-end headphone amplifiers

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

KEMET CHARGED.
Tantalum Polymer Capor ultra-low noise/ distortion

Balanced
Balanced circuit

muRata INNOVATOR IN ELECTRONICS
Murata Low-ESR high Q multilayer capacitor

Vishay MELF resistors – precise, costly but superior

Burr-Brown Products from Texas Instruments
Burr-Brown Native DSD DAC

Panasonic OS-CON
Excellent noise reduction capability and frequency characteristics

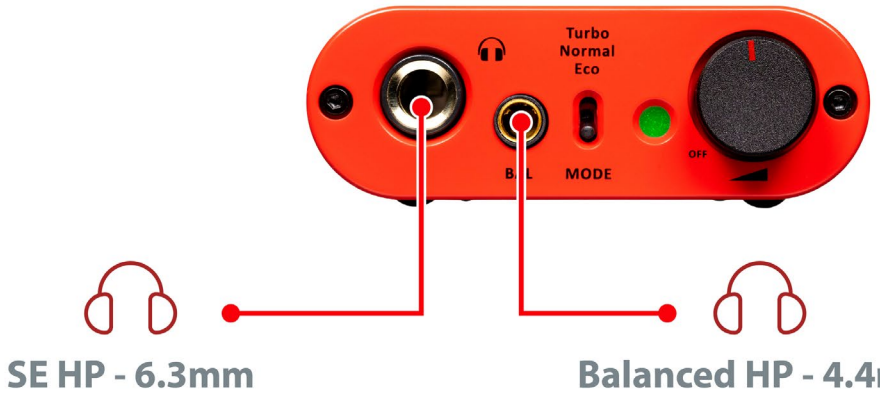
MOSFET
Advanced trench technology MOSFET

XMOS 16x
XMOS 16-Core controller with iFi optimised firmware

Texas Instruments
Precision low-noise power supply

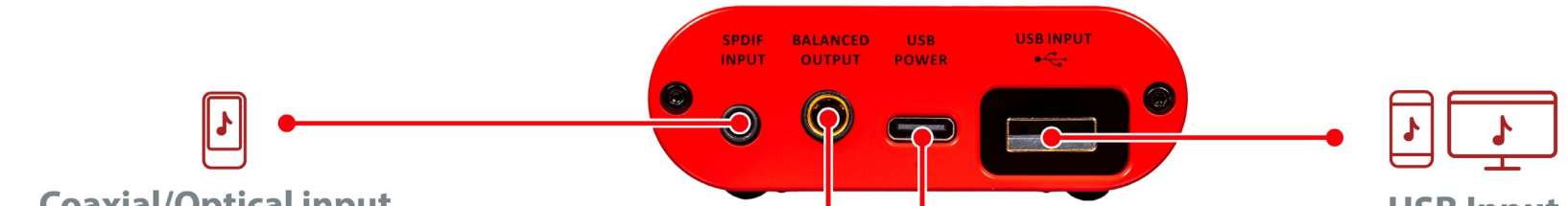
TDK
COG capacitors
For audio use with extremely low distortion

CONNECTION



SE HP - 6.3mm

Balanced HP - 4.4mm



Coaxial/Optical input
DAP (Digital Audio Player)

USB Input
Phone/PC

Balanced Output
4.4mm

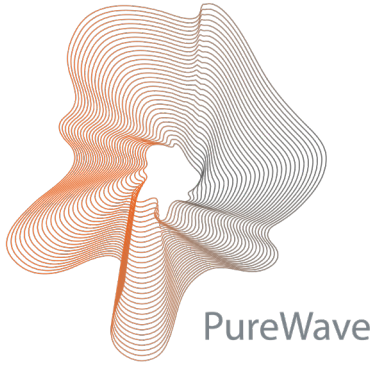
Power input
DC 5V

SPECIAL TECH

OptimaLoop | NEGATIVE FEEDBACK THAT'S PURELY POSITIVE

'Negative feedback' is used in amplifier circuits to compare the output signal with the input signal and correct errors, in order to control gain and reduce distortion. For sound quality, this is positive; but commonly applied, one-size-fits-all 'global negative feedback' can highlight different problems whilst solving others – corruption of the error signal, phase shifts, group delay and so on can all have a negative impact on sound quality.

Recognising that different parts of a circuit benefit from specifically optimised feedback loops, iFi has developed a negative feedback system that is much more accurate than the usual approach. This incorporates multiple feedback paths instead of a global loop, each path optimised for a particular function and working synergistically with the others to deliver optimal overall performance. iFi calls this new configuration OptimaLoop.



PureWave | BALANCED CIRCUIT DESIGN FOR THE PUREST SOUND

Balanced, differential analogue circuit design has long been championed for its ability to reduce noise and cross-talk within the signal path by fully separating the left and right channels. The iDSD Diablo benefits from further refinement of balanced, symmetrical dual-mono topologies with short, direct signal paths. iFi calls this circuit concept 'PureWave', referring to the sonic purity it achieves thanks to exceptional linearity anc infinitesimally low levels of noise and distortion.

SPECIFICATIONS

Digital Inputs	USB 3.0 type 'A' (USB2.0 compatible)/S/PDIF (3.5mm coaxial/optical)
Formats	PCM - 768/705.6, 384/352.8, 192/176, 96/88.2, 48/44.1kHz DSD - 512/256, 128/64 - Octa/Quad/Double/Single-Speed DSD DXD - 768/705.6, 384/352.8kHz - Double/Single-Speed DXD MQA

SNR:	
Balanced:	120dB
SE:	114dB

THD+N:	
Balanced:	0.002%
SE:	0.001%

Dynamic range:	
Balanced:	120dB
SE:	114dB

POWER CONSUMPTION:	
Turbo:	12W
Normal:	5W
Eco:	2W

SPECIFICATIONS

HEADPHONE MAX OUTPUT POWER:	
Balanced:	> 19.2V/611 mW (@600 Ohm)
	> 12.6V/4,980 mW (@ 32 Ohm)
SE:	> 9.6V/153 mW (@600 Ohm)
	> 8.SV/2,417 mW (@320hm)

Frequency Response:	10Hz-80kHz (-3dB)
Audio Output:	Balanced 4.4mm
Battery:	Lithium-polymer 4800mAh

POWER SYSTEM:
Charging via USB-C (iFi iPower included)
BC V1.2 compliant up to 1900mA charging current

Dimensions:
166x72x25mm
6.5"x2.8"x1.0"

Net Weight:	330g (0,73 lbs)
Warranty period:	12 months

ABOUT iFi

iFi audio is part of AGL and is headquartered in Southport, UK. It owns the hifi brand Abbingdon Music Research (AMR). They respectively design and manufacture portable and desktop 'ultra-fidelity' audio products and high-end audio 'home-based' components. The combined in-house hardware and software development team enables iFi audio and AMR to bring to market advanced audio products.

For further information, please contact

comms@ifi-audio.com

+44 (0) 1704 543 858

ifi