ifi

iDSD DIABLO-X

xMEMS
Turbo
Normal

BAL   MODE
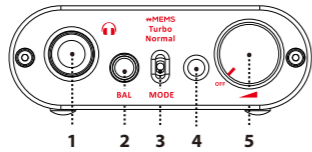
1   2   3   4   5

1. Single-ended 6.3mm output
Connection for 6.3 single ended headphones . Please use 3.5 to 6.3 mm adaptor for 3.5 single ended headphones.

2. Balanced 4.4mm analogue output
Connect balanced dynamic headphones to this output when in Normal or Turbo mode. When in xMEMS mode, connect xMEMS IEMs to this output only.

Tip: As iDSD Diablo-X is balanced, we recommend the 4.4mm output.

3. Power Mode
There are two different types of power output levels to drive different headphones from the sensitive in-ear monitors (IEMs) to the most demanding over-ear headphones, and one mode specifically designed for xMEMS headphones.

Approximate listening time (in Battery mode with typical headphones):

xMEMS up to a maximum of 6 hours (4)

Normal up to a maximum of 9 hours (8)

Turbo up to a maximum 6 hours (4)

Tip: xMEMS transducers are a piezoelectric technology that has specific drive requirements, and can only be used with the Power Mode switch in the xMEMS position.

4. Audio Format LED (kHz)
The LED colour scheme indicates the audio format and sampling frequency received by the iDSD Diablo-X from the music source.

LED	Mode
Yellow	PCM 48/44.1kHz
White	PCM 768/705.6/384/352.8/192/176.4/96/88.2kHz
Cyan	DSD 128/64
Red	DSD 512/256
Green	MQA
Blue	MQA Studio
Magenta	Original Sample Rat e*

*MQ8

Warning: Installing GTO enabled firmware may result in the LED's on this device no longer changing in accordance with the above table

5. ON/OFF and Analogue Volume Control
The analogue volume control in iDSD Diablo-X is sonically superior to any digital volume control.

Warning: Due to the high power of iDSD Diablo-X, 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.
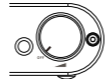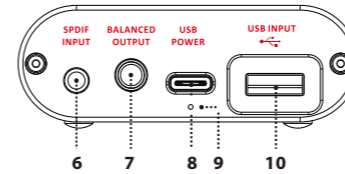
Power ON.
Step 1 ON

Power OFF.
Step 2 OFF

Tip: For Apple iOS and Android devices, please use the Diablo-X on battery power, otherwise you may receive error messages from your device.

Tip: For connection to Apple devices, an Apple Lightning to a USB Camera Adapter is required. For connection to Android devices, a USB On-The-Go (OTG) cable and appropriate OS support are required.

For more information, please refer to www.ifi-audio.com.

SPDIF INPUT   BALANCED OUTPUT   USB POWER   USB INPUT

6   7   8   9   10

6. S/PDIF 3.5mm Coaxial/Optical input
When USB is not used, connect to a Coaxial/Optical cable (through a Toslink Mini-Plug).

Tip: a Toslink Mini-Plug to Toslink adaptor is included for connecting a Toslink optical cable.

Tip: The SPDIF standard supports PCM only up to 192kHz.

7. Balanced 4.4mm fixed level 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.

Warning: Do not insert 4.4mm headphones to this source as the full volume is likely to damage your headphones or your hearing.

8. USB-C (5V) battery charge input
For charging only. Due the very high-power nature of iDSD Diablo-X, it will take ~12 hours and ~6 hours for a standard and high-powered charger respectively to fully recharge the iDSD Diablo-X.

9. LED for Battery Status

LED	Status
White*	> 75%
Green*	> 25%
Red*	> 10%
Red (flashing)	≤ 10%

*Battery LED will flash when it is charging.

10. USB3.0 'Type A' input port
For data transfer only. Connect your phone to the iDSD Diablo-X with a Lightning to a USB Camera Adapter (Apple) or USB On-The-Go (OTG) cable (Android). When using other audio sources, please connect with a USB cable.

Tip: It is preferable to use a USB 3.0 over using a USB 2.0 port on the PC.

Tip: The iDSD Diablo-X comes with a pre-installed firmware optimised for MQA. This version also handles up to PCM384/DSD256.

Tip: For firmware optimised to run PCM768/DSDS 12(non-MQA) please install corres ponding firmware.

Tip: For all latest firmware updates please refer to our website here: www.ifi-audio.com/downloads/

Technologies
- Octa-DSD512/PCM768 and 2X DXD.
- Native DSD/PCM Burr-Brown® chipset.
- 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*.
- Ultra-low noise power supply*.
- **Diablo-X** edition

Specifications

Digital Inputs:	USB 3.0 type 'A' (USB2.0 compatible)/ S-PDIF (3.5mm coaxial/optical)
Formats supported:	DSD 512 / 22.6MHz PCM 768kHz MQA Full Decoder
DAC:	Bit-Perfect DSD & DXD DAC by Burr Brown
Frequency Response:	10Hz-80kHz(-3dB)

SNR:
Balanced:	-120dB
UnBAL:	-114dB

Dynamic range:
Balanced:	-120dB
UnBAL:	-114dB

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

Headphone Max Output:
Balanced:	>28Vpp (@ xMEMS)
	>19.2V/611 mW (@ 600Ω)
	>12.6V/4,980 mW (@ 32Ω)
UnBAL:	>9.6V/153 mW (@ 600Ω)
	>8.8V/2,417 mW (@ 32Ω)

Fixed Audio utput:	Balanced 4.4mm

Power consumption:
xMEMS:	8W
Turbo:	12W
Normal:	5W

Battery:	Lithium-polymer 4800mAh approx.
Power System:	Charging via USB-C BC V1.2 compliant up to 1000mA charging current
Dimensions:	166 x 72 x 25 mm (6.5" x 2.8" x 1.0")
Net weight:	330g (0.73 lbs)
Limited Warranty:	12 months*

*12 months typical or as permitted/required by local reseller laws.
**Specifications are subject to change without notice.