

# EXPLORER<sup>2</sup>

## HIGH-RESOLUTION USB DAC



## OVERVIEW

Meridian's Explorer<sup>2</sup> is the successor to the popular and widely acclaimed Explorer pocket USB DAC. Portable, compact and rugged with a dramatically increased complement of DSP, Explorer<sup>2</sup> incorporates the full suite of Meridian audio enhancement technologies to provide a more realistic, natural sound than ever before.

Like its predecessor, Explorer<sup>2</sup> includes premium audiophile-grade components and an elegant all-metal enclosure, with digital clocking derived from Meridian's award-winning Reference Series and decoding and rendering for the MQA Master Quality Authenticated process. Explorer<sup>2</sup> delivers an exceptional Meridian audio experience from virtually any computer – whatever you listen to, Explorer<sup>2</sup> makes it sound its best.

## PRODUCT HIGHLIGHTS

True Meridian quality from a pocket digital to analogue converter, hand made in the UK.

- Includes USB DAC and headphone amplifier.
- MQA decoding and rendering with LEDs to indicate authenticated master-quality replay.
- Full range of Meridian Resolution Enhancement technologies.
- Asynchronous USB Audio Class Compliant 2.0 HS 480Mb/s for best-in-class performance.
- Exceptionally high resolution (24-bit/192kHz).
- 6-layer circuit board with audiophile-grade components throughout.
- Auto-sensing headphone and 192kHz-derived fixed analogue outputs.
- Advanced headphone volume control: 0 to -100dB, ideal for sensitive headphones.
- Bus-powered; plugs into any computer with a USB port.
- Cable connection to avoid motherboard stress.
- Ultimate playback performance limited only by the source material – makes any file sound its best.
- Compact, elegant and rugged metal enclosure.

# USER FEATURES

- Explorer<sup>2</sup> connects to virtually any computer that has a USB port.
- Connects via USB mini B connector and a cable, minimising risk of damaging the PC motherboard if the product is accidentally knocked or the headphone cord is pulled.
- Plug and play operation for Macintosh and Linux operating systems, with drivers provided for Windows.
- On Apple Macs, the Audio MIDI Setup utility is used to set the output sample rate; on Windows, the Sound control panel is used.
- The volume control is an advanced design with an extended range of 0 to -100dB, suiting even the most sensitive of headphones.

# TECHNOLOGIES

Explorer<sup>2</sup> includes significantly more DSP power than its predecessor, allowing the full suite of Meridian audio enhancement technologies to be included.

## MERIDIAN RESOLUTION ENHANCEMENT

Explorer<sup>2</sup> upsamples all input signals to 176.4/192kHz (4x standard sample rates) – 4x streams are played at full resolution with no downsampling. It includes Meridian's proprietary "apodising" upsampling filter, which minimises pre-ringing for a clearer, more transparent sound, and removes digital filter artefacts from earlier digital recordings.

## DUAL AUTO-SENSING OUTPUTS

Two outputs are provided. Explorer<sup>2</sup> automatically senses which is in use and deactivates the headphone amplifier when the line output is connected, reducing noise.

## SUPERIOR CLOCKING

Explorer<sup>2</sup> is completely asynchronous – it does not rely on the computer's clock for timing, but uses precision on-board low-jitter crystal oscillators for the base sample rates, developed from those used in Meridian's premium home entertainment systems. These eliminate all USB interface jitter.

## MQA - MASTER QUALITY AUTHENTICATED

Explorer<sup>2</sup> includes a powerful decoder and audio renderer for MQA; a technology that captures the full magic of an original studio performance in a file that's small enough to stream or download.



FRONT AND REAR

# CONSTRUCTION

Explorer<sup>2</sup> is designed and built in the UK, in exactly the same way and with the same attention to detail and quality as any other Meridian product. Housed in a rugged and elegant extruded aluminium shell with moulded plastic endcaps and rubber feet, Explorer<sup>2</sup> embodies Meridian DNA. The USB socket input and headphone output are easily accessible.

- The design features a sophisticated six-layer circuit board with audiophile-grade components utilised throughout, including resistors, sockets and music grade electrolytics, and polypropylene filter capacitors.
- The use of direct-coupled outputs further maximises audio quality.

# SPECIFICATION

<b>INPUTS</b>	<ul style="list-style-type: none"> <li>• 1 x USB2 B socket</li> </ul>
<b>OUTPUTS</b>	<ul style="list-style-type: none"> <li>• 3.5mm analogue line out, fixed 2v RMS</li> <li>• 3.5mm headphone jack with variable-level output, impedance 0.47Ω</li> </ul>
<b>INDICATORS</b>	<ul style="list-style-type: none"> <li>• Three white LEDs (1x, 2x, 4x) show connected state and audio stream rate</li> <li>• 1x LED glows white for PCM, green to indicate MQA playback and blue to indicate MQA Studio playback. MQA indications will not show if the bitstream is altered in any way</li> <li>• 1x LED glows white for PCM, green to indicate MQA playback and blue to indicate MQA Studio playback</li> <li>• MQA indications will not show if the bitstream is altered in any way</li> </ul>
<b>PROCESSING</b>	<ul style="list-style-type: none"> <li>• Dual Tile XMOS DSP with 16 cores and 1000 MIPS</li> </ul>
<b>IMPLEMENTATION</b>	<ul style="list-style-type: none"> <li>• USB audio class compliant 2.0 HS 480Mb/s bandwidth</li> <li>• Asynchronous: device is the clock source for high quality</li> <li>• Firmware upgrade via USB</li> <li>• Drivers provided for Windows 7 and 8; no drivers required for Windows 10, Macintosh OS X or Linux</li> <li>• Analogue volume control for headphone output, controlled from PC, control law modified to match connected OS</li> </ul>
<b>OPERATING SYSTEM REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>• Macintosh OS X 10.6.4 (Snow Leopard) or later</li> <li>• Windows XP SP3, Windows 7 SP1, Windows 8 or later</li> <li>• Linux kernel 2.6.37 or later and ALSA version 1.0.32 or greater</li> </ul>
<b>DIMENSIONS/WEIGHT</b>	<ul style="list-style-type: none"> <li>• HEIGHT: 18mm [0.7in]      • WIDTH: 32mm [1.25in]</li> <li>• DEPTH: 102mm [4.0in]      • WEIGHT: 50g (1.76oz)</li> </ul>
<b>POWER</b>	<ul style="list-style-type: none"> <li>• USB, nominal 5V at &lt;500mA</li> </ul>