

Features

- In-Line DSP headphone amplifier
- DSP + AMP combo
- PCM/DSD USB audio streaming

Hardware

- XMOS XCore200 Multicore CPU
- CS43130 Headphone Amplifier
- Embedded microphone
- USB powered

Software Control

- DSP tuning from GUI
- Win/Mac/Android compatible
- Firmware upgradeable

Applications

- High-fidelity headphone amplifier
- Headphone correction and EQ

miniDSP is pleased to announce the latest merger of miniDSP's trademark digital processing with high quality headphone amplification. Featuring a full ten bands of powerful, flexible parametric EQ in a tiny bus-powered package, the **IL-DSP** is the mobile audiophile's perfect companion for laptop, tablet, or smartphone (macOS, Windows and Android supported). The inbuilt microphone for voice-calling ensures maximum mobile flexibility.

Housed in a light-weight aluminum enclosure, the **IL-DSP** sports impeccable audio specifications of 120 dB signal-to-noise ratio and 0.0007% THD+N (mid-gain). 30 mW power output per channel is ample for IEMs and most portable headphones. High-resolution PCM and DSD formats are both supported.

The ten bands of parametric EQ are configured with miniDSP's easy-to-use computer interface. The fully adjustable peaking and shelving filters allow adjustment of the audio band from the narrowest to the broadest control ranges, with up to 16 dB boost or cut in each band. This combination of DSP power, careful selection of high-quality components and a 32-bit audiophile DAC combine to create an unparalleled portable headphone experience.

HARDWARE SPECIFICATIONS

Item	Description
USB Controller / Multicore Controller	XMOS xCORE-200 / USB 2.0 asynchronous audio transfer / UAC2 class
Headphone amplifier chip	Cirrus Logic CS43130 / Up to 130dB SNR @ 32bit
Audio sample rate / Resolution	Input PCM Sample rate: 44.1/48/88.2/96/176.2/192 kHz @ up to 32bit DSD modes: DSD64/DSD128 (DSP bypassed under DSD mode) DSP sample rate: Matching the sample rate of playback
Analog audio specifications	Frequency response: 20 Hz to 20 kHz +/- 0.05 dB, 20Hz to 96kHz @ 192k. S/N ratio: 120 dB (32 Ω, 1 kHz, A-weighted, digital in 0 dB) Maximum output: 30 mW + 30 mW (32 Ω, 1 kHz, digital in 0 dB) THD+N: 0.0007% (32 Ω, 1 kHz, 30 mW + 30 mW, mid gain) Supported headphone impedance: 16 – 600 Ω
Input/Output interface	USB Audio class 2 for PC-Mac-Linux-Android OS / 3.5mm stereo Jack
Features	Volume Up/Down in 0.5dB steps, Play, Pause, DSP bypass, In-line microphone
DSP GUI control	Up to 10 bands of fully parametric equalization (PEQ) with live control (Mac/Win)
Dimensions (H x W x D) mm	53 x 17 x 9 mm, 14.5grams
Accessories	USB-C cable 150mm, USB-C cable 700mm, USB-A cable 150mm, 1 x cable clip

MECHANICAL SPECIFICATIONS

