

**Features**

- Dirac Live® Room Correction
- 32bit/96 kHz processing
- Floating point DSP
- Flexible I/O connectivity

**Hardware**

- 450MHz SHARC DSP
- Multicore XMOS Controller
- Quad Core ARM
- Stereo digital inputs and outputs (AES-EBU/SPDIF/Optical)
- Balanced and unbalanced analog I/O (two in, four out)
- Front panel volume control and OLED display
- IR control with learning feature

**Software Control**

- Real time live control from Dirac Live Calibration Tool Stereo for miniDSP
- Volumio Network Audio player
- Firmware upgradeable
- 4 onboard preset memories

**Power**

- Built in universal mains supply

**Applications**

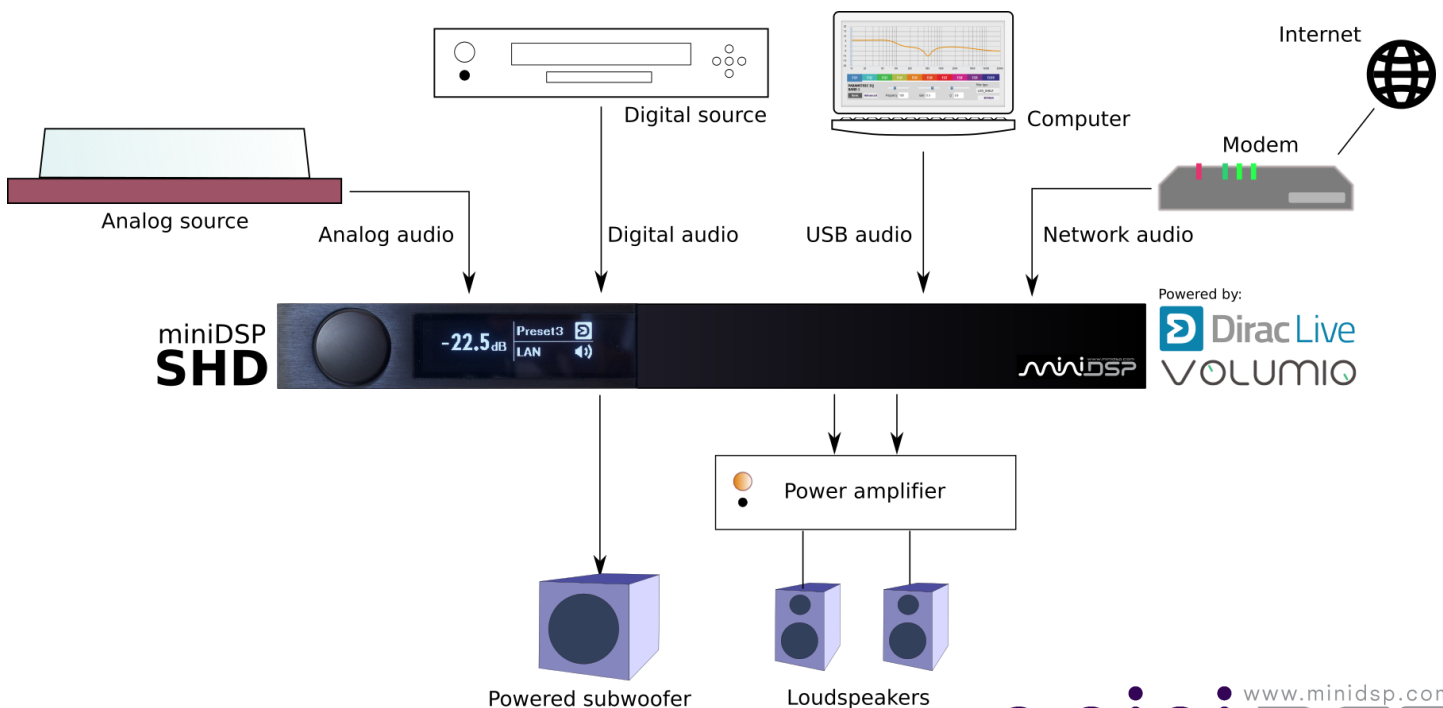
- Stereo room correction
- Subwoofer integration
- Studio tuning

miniDSP is proud to introduce the SHD (“Streaming High Definition”) digital audio processor incorporating Dirac Live®, the world’s premier room correction solution. A natural evolution and extension of our considerable experience with Dirac Live implementation, the miniDSP SHD heralds a new era in affordable yet powerful DSP-based network streamers.

First and foremost, the SHD is a stereo Dirac Live room correction processor. Three digital inputs, two analog inputs and USB Audio enable the SHD to fit right into any modern audio system, while processed outputs are available as unbalanced and balanced analog as well as digital. Dirac Live calibration uses our popular UMIK-1 microphone and Dirac’s easy-to-use calibration tool.

We have also added network streaming over Ethernet, using a dedicated quad-core ARM processor. Out of the gate, we are shipping with Volumio, a popular open-source network streamer. Volumio gives you access to music files from sources as diverse as a USB stick, to files stored on your local network, to Internet Radio and Spotify.

Finally, we’ve added a second pair of outputs and a suite of our powerful but user-friendly DSP audio tuning software - ten-band parametric EQ per channel, crossovers up to 48 dB/octave, compressor/limiter, and a 2x4 matrix mixer — for powerful audio system tuning in applications ranging from integrating a single subwoofer to a two-way active speaker.

**TYPICAL APPLICATION**

## HARDWARE SPECIFICATIONS

Item	Description
Digital Signal Processor	32-bit Floating point Analog Devices SHARC ADSP21489 / 450MHz Internal sample rate: 96kHz
Control	Driverless USB 2.0 control interface for Windows environments A computer is only required for the initial configuration and for USB audio streaming
Network Audio Streamer	Quad Core ARM processor, Gb Ethernet, USB 2.0 for external Hard drive Volumio Audiophile player,
Bidirectional USB Audio	XMOS asynchronous USB audio up to 192 kHz, USB Audio Class 2 compliant <ul style="list-style-type: none"> <li>ASIO drivers for Windows</li> <li>Driverless for Mac OS X</li> <li>Bidirectional audio / 2ch playback (PC to SHD), 4ch recording post processing (SHD to PC)</li> </ul>
Digital Audio Inputs	Digital audio source selectable from IR remote or Front panel, up to 216 kHz sample rate: <ul style="list-style-type: none"> <li>AES/EBU on Neutrik 3pin female XLR / Isolated with digital audio transformer</li> <li>SPDIF on RCA connector / Isolated with digital audio transformer</li> <li>TOSLINK on Optical connector</li> </ul>
Digital Audio Outputs	Four channels of digital output. <ul style="list-style-type: none"> <li>2 x SPDIF on RCA connector / Isolated with digital audio transformer.</li> </ul>
Analog Audio inputs	2-channel audio input, balanced XLR Neutrik connector, unbalanced on RCA 32bit AKM AK5574 ADC / 120dB SNR measured / 0.0003% THD+N (Balanced Analog to Digital) Max input level: 2V RMS unbalanced, 4V RMS balanced Input impedance: 47k Ohms (RCA) / 48k Ohms (XLR)
Analog Audio outputs	4-channel audio output, balanced XLR Neutrik connector, unbalanced on RCA 32bit AKM AK4490EQ DAC / 120dB SNR measured / 0.0003% THD+N (Digital to balanced analog) Max output level: 2V RMS unbalanced, 4V RMS balanced Output impedance: 100 Ohms (RCA) / 200 Ohms (XLR)
miniDSP DSP Processing	Volume, Parametric Equalizer banks, Crossovers, Matrix mixer, Compressor/Limiter, Mute
Dirac Live Correction Suite for miniDSP	Plug&Play control and configuration from Dirac Live Correction Suite
FIR filter storage	Up to 4 filter configuration filters stored on unit
USB port	USB port type B for audio streaming, real time control and firmware upgrade
Power supply	110-240V AC
Dimensions (H x W x D) mm	41.5 x 429 x 236 mm

## MECHANICAL SPECIFICATIONS

