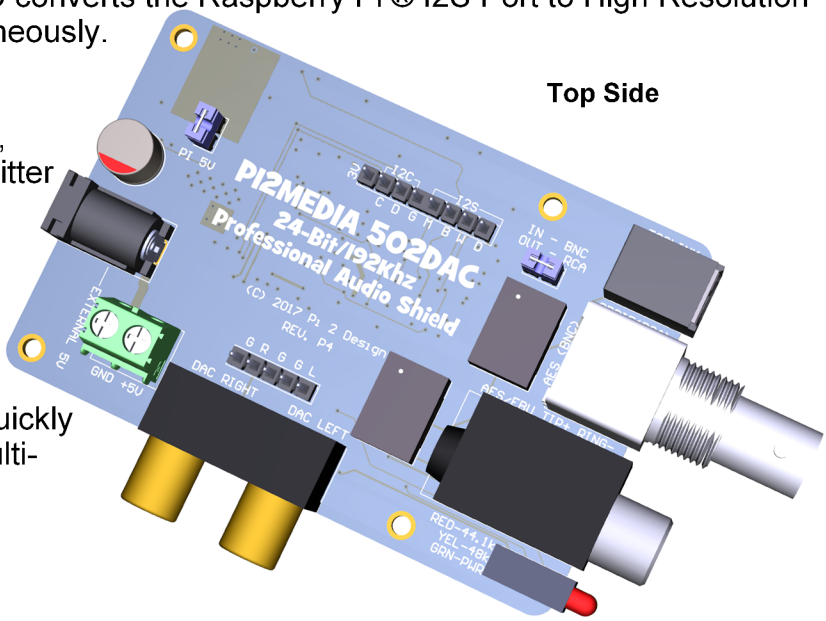
PI2MEDIA 502DAC Pro-Audio Shield

Introduction and Overview

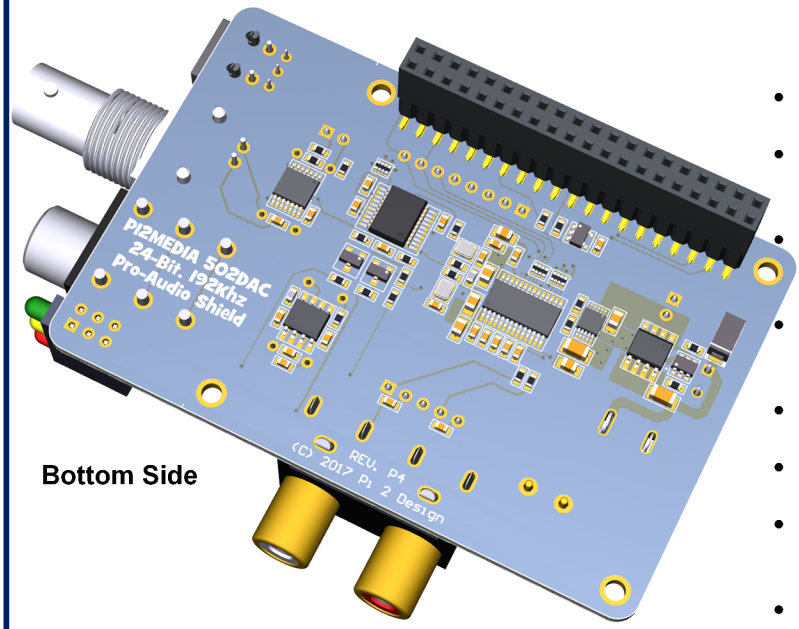
The 502DAC, designed and manufactured by Pi2Media (a division of PI 2 Design), is a professional I/O Shield designed to bring audiophile quality to the Raspberry PI ® family of Single Board Computers. The 502DAC converts the Raspberry Pi ® I2S Port to High Resolution Pro-Audio, Analog and Digital Simultaneously.

The 502DAC combines the Audiophile grade 24-Bit@192Khz PCM5122 DAC, WM8804 Digital Audio S/PDIF Transmitter along with two Ultra-Low Jitter NDK Oscillators for Highest Quality Analog and Digital Audio.

When combined with our 502SSD Multi-Function shield with 802.11b/g/n WiFi, up to 512GB Storage, you can quickly Create low cost, high performance, multi-room streaming Pro-Audio servers.



Top Side



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Specifications and Features

- **FORM FACTOR –** Raspberry Pi ® Full Size w/40-Pin mating Connector.
- **24-Bit DAC –** Highly regarded -112db THD PCM5122 running in Master Mode converts the I2S Stream to Analog at 24-Bit up to 192Khz Frame Rate
- **DIGITAL AUDIO** – Industry standard WM8804 converts the I2S stream to Pro-Audio Standard AES/SPDIF formatted data at 24-Bit up to 192Khz Frame Rate
- **ULTRA-LOW NOISE CLOCKS** – Two NDK NZ2520SD Oscillators feed the PCM5122 and WM8804 to insure the lowest possible Jitter and Phase Noise.
- **ANALOG OUT –** 2Vrms Stereo Line Out is available via Dual RCA Gold Plated Jacks
- **BALANCED OUT –** Isolated Balanced AES/EBU Pro-Audio is via ¼" Connector (XLR Male Adapter included)
- **COAX OUT -** A BNC COAX connector provides single ended, isolated S/PDIF with selectable Output levels for both Pro and Consumer (RCA Adapter included)
- **OPTICAL OUT** – Via TX179 TOSLINK Transmitter
- **HIGH-PSRR LDO** – A Low-Noise Linear Tech LT3042 delivers 3.3V to all sections and provides 88db+ PSRR over the entire audio band
- **EXTERNAL 5V** – This option allows the 502DAC to be powered from an external low noise supply if desired.

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