

## HAL DIY AK4490EQ HiRez DAC

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The HAL Do It Yourself HiRez DAC is an asynchronous USB input DAC with resolutions up to 32bit/352.8KHz DXD. The parts are readily available on line and at the local Radio Shack and hardware store.

To use the DAC, a computer with a USB port that is compatible with the Amanero USB driver or native ASIO support is needed. I have an ASUS Netbook PC running Windows 10 OS for the music player. It was a refurbished unit with Windows 7 Home 64bit OS that was upgraded to Windows 10 Home.

Parts List:	Cost:
1) AK4490EQ DAC PC Board from Ebay	\$28.00
1) Amanero USB to I2S Bus converter	\$106.00
1) PE Avel-Lindeburg dual winding 9VAC, 60VA	\$30.00
1) Radio Shack 25.2VAC CT 450mA E-I core	\$12.99
1) Radio Shack perforated board	\$3.99
8) Radio Shack square rubber feet	\$6.49
1) Ebay IEC socket with 5x20mm fuse holder	\$3.00
1) Ebay 0.1" push on 6 wire cable harness	\$2.00
5) 0.1" socket holders	\$2.00
4) Hardware store 0.25" fast on connectors	\$1.50

Misc. screws, nuts, flat washers, split washers, wire ties and electrical tape.

Tools:

Hand crank drill with various US size drill bits, black Sharpie, small #1 Phillips screw driver.

Most of these parts were in my parts bin, so only the AK4490EQ board and some hardware was purchased to build the system.

Here is what the finished DAC board looks like:



The Amanero USB and AK4490EQ DAC boards have silk screened names next to the connectors for the I2S Bus interface. The only odd one is LRCLK is FSCK on the two different boards, the others are the same including ground (GND).

The two transformers AC outputs are connected to the two sets of screw down terminals on the PC Board rear.

Hope folks get to hear this at CAF2016 or decide to build one to use with their music player or music server for HiRez DAC playback.

Best regards,

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