



Audiophile 192kHz/24bit Digital to Analog Converter with USB in/out

amazingly natural sound • precise imaging and soundstage • high detail resolution and dynamics
true balanced • single-ended advanced Class-A • Class-A headphone amplifier • USB-interface

Features

- Outstanding price/quality ratio
- Excellent sound
- True balanced circuitry throughout complete signal path
- Dual mono digital-to-analog-converter (2 x BurrBrown PCM1796 Delta-Sigma 24-bit converter)
- Single-ended advanced Class-A, no cross-over distortion, no overall-feedback (no NFB), pristine signal quality
- Fully discrete amplifier stages (no OP-amp devices, but single transistors) designed with proprietary specifications
- 192kHz/24bit Upsampling including JitterEx high-precision reclocking for jitter reduction (can be switched off)
- Adaptable sound characteristic by selectable digital filters
- Oversampling rates selectable: 32, 64 and 128 fs
- Digital inputs: - COAX, TOSLINK, AES/EBU (no transformer) - USB 1.1 (2.0 compatible) in-/output
For all sound file formats: WAV, MP3, FLAC, OGG many more.
- Analog outputs: balanced XLR and unbalanced RCA (Cinch)
- High-end headphone amplifier, fully discrete Class-A design
- Ultra clean power supply: multiple filter stages, insensitive to contaminated AC-power
- Machined all-alu case Color: black or silver, blue LED's
- 19" rack-mounts available
- Designed in Germany

Accessories: **AQVOX CONNECTIONS** - High-End Audio Cables
NF: RCA, XLR • Digital: COAX, Toslink, AES/EBU, USB
Phono: RCA, XLR, 5-pole • Customization

AQVOX SOFTWARE Win + Mac - Audiophile Audio Driver Musicplayer • Musikdatabase • Ripping • Music Manager

Technical Specifications

Digital inputs:

COAX-S/PDIF : 16bit/32kHz - 24bit/192kHz (electrical)
AES/EBU : 16bit/32kHz - 24bit/192kHz (balanced)
TOSLINK : 16bit/32kHz - 24bit/ 96kHz (optical)
USB1.1(2.0) : 16bit/11kHz - 16bit/ 48kHz (In/Out to PC)
Input Impedance: COAX: 75 Ohm, AES/EBU: 110 Ohm

Analog outputs:

Cinch/RCA unbalanced: 2 Vrms Output Voltage
XLR balanced: 2 Vrms Output Voltage
Frequency Range: 20 Hz to 20 kHz + - 0,3dB
Output Impedance: 120 Ohm at 1kHz
Output Level: Cinch/RCA: +8 dBu, XLR: +14dBu
Microphone Input: Front level control and plug socket

Headphone Output:

For Headphones with an Impedance from 10 Ohm - 600 Ohm
Frequency Range: 20 Hz to 20 kHz + - 0,5dB
THD+Noise: <0.03% at 32 Ohm / <0.008% at 100 Ohm
Signal-to-Noise Ratio: 110dB at max. volume

Upsampling/Reclocking (asynchronous):

192kHz/24bit - Passive Filter

Settings:

UPSAMPLING: 192kHz and Reclocking / or OFF
DITHER: ON / OFF
DIGITAL FILTER: PULSE, FLAT
PHASE: 0°, 180°
OVERSAMPLING: 32fs, 64fs, 128fs

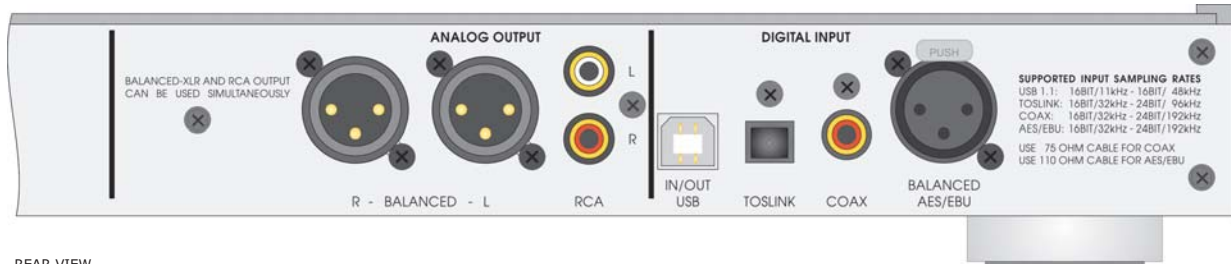
Measurements:

Signal/Noise: 117dB at XLR-Output
110dB at RCA-Output
Dynamic Range: 115dB at XLR-Output
105dB at RCA-Output
0.003% at XLR (32fs), 0.010 at RCA
THD: 110ps over all Toslink - peak to peak
Jitter: 40ps over all TOSLINK-RMS, 3ps rms intern.

Supply Voltage:

90-140V-AC or 220-240V-AC / 50-60 Hz
Dimensions: (B / H / T) ca. 435 x 59 x 290 mm
Weight: ca. 2.8 kg **Power Consumption:** 5 W

Technical features and design may be altered for the benefit of improvements without prior notice. No responsibility is taken for the correctness of this information.



REAR VIEW

"Sound Lift" for your Audio Player

The USB2D/A DAC is ideal for music lovers who would like to bring their older high-end or midfi CD-, DAT- or DVD-player to the latest high-end level. COAX, Toslink or AES/EBU output is required.

Enjoy Broadcasts the High-End Way

Turn the sound of webradio or video broadcasts, including satellite or terrestrial DVB, into a true high-end experience by combining your receiver with the USB2D/A.

Please note: Due to losses caused by data reduction, some broadcasts do not exactly reach high-end quality, however those broadcasts still sound improved when listened to via the USB2D/A.

Turn your PC, Laptop or Mobile Player into a High-End Jukebox

Reexperience the sound of your music files or Web-Radio via the USB connection of the AQVOX DAC.

A bit-accurate signal output can be achieved by using an ASIO driver. More information at www.aqvox.com

Please note: Due to losses caused by data reduction, MP3 and other data reduced audio file formats do not exactly reach high-end quality, however those formats still sound improved when played back via the USB2D/A. Formats like WAV, FROG, or AIFF are lossless without reduction. FLAC preserves the original data hundred per cent while compressing them to roughly 1/2 to 1/3 the size of uncompressed WAV files.

Compatible with Pro Audio Equipment

Featuring an AES/EBU digital input and a balanced XLR analog output, the USB2D/A is an ideal monitoring device for recording and mastering.

Fine-tune the Sound

Use digital filters to optimize your sound for linearity or dynamics. The switchable dither function resolves the subtlest signal information and the selectable oversampling rates add flexibility.

Audiophile Headphone Amplifier

A fully discrete (no OP-amp) Class-A headphone amplifier makes the USB2D/A even more versatile. Enjoy finest audio quality from all your digital sources directly through your headphones.

Analysis of Room Acoustics

An integrated microphone amplifier with an analog-to-digital converter allows you to use a measurement microphone with corresponding software to carry out analysis of room acoustics or to tune your speakers for sound optimization.

Single-Ended Advanced Class-A No Overall Negative Feedback

In the discrete assembly of the analog output stages a special circuitry prevents the transistors from passing through their voltage and current characteristics. Furthermore the Single-Ended Advanced Class-A principle prevents transistor from cross-over distortion. Thereby, the production of dynamic distortions is being avoided throughout the whole signal processing, so that an application of overall negative feedback (NFB) is not necessary. The achievement is a pristine signal quality.

Direct Output Coupling

Via just one current amplifier stage per channel, the analog output of the USB2D/A is quasi directly coupled to the two stereo PCM1796 BurrBrown DAC chips. Thus, the signal path of the output stage is extremely short, resulting in an amazingly natural and dynamic sound reproduction.

192kHz/24bit Upsampling JitterEx High-Precision Reclocking

All incoming digital signals are being resampled to 192kHz/24bit and reclocked by a high-precision master clock (function can be switched off). After the "Upsampling" the signal is passively filtered and @downsampled@ to the original value. Upsampling allows the application of a noise shaping filter with a threshold far beyond human hearing. Furthermore the reclocking circuit reduces digital jitter to a minimum. Despite the high quality of this upsampler-solution, AQVOX does not recommend to use it for high-quality sources. For HighEnd sources the bypass switch should be enabled. Sources below highend do sound better with upsampling enabled.

Excellent Sound Quality

The construction details of the USB2D/A altogether result in a never fatiguing, very smooth and natural, yet superbly transparent and dynamic sound, with a tight bass and precise imaging.

More information and reviews at: www.aqvox.com