

LA-120

LEAD AUDIO



Background of LA-120

Lead Audio is committed in making the very best sounding products for listening to music through a computer or other digital devices.

The LA 120 is a DAC (Digital to Analog converter) that connects to a computer (USB), but also to other digital audio sources like TV, Blu-ray DVD players, and CD's.

The Output of the LA120 DAC can be connected to a power amplifier, or used standalone as a headphone amplifier.

It is based on the successful LA-100 that was rewarded as "The Best DAC of the year in 2010/2011" by "Hifi & Musik". LA-120 is an improved version of LA-100 but kept the basic circuitry.

The LA100 is known for being one of the best sounding DACs, so we only made very small improvements in the sound processing.

Characteristics of LA-120

High resolution USB audio is possible at 96khz /24 bit and you can just plug and play. No driver is needed and it works on MAC and Windows. If you want even higher resolution, then the coax input handles 192kHz/24 bit.

This is not a standard product! The use of the best components in selected circuitry is mandatory :

- Jitter is removed using a professional asynchronous sample rate converter normally used in studios. It can handle all sample rates, and at the same time removes jitter more than 1000 times.
- Master clock is a jitter free low noise Collpitts oscillator with 2-step buffering and serial /shunt power clock.

- DC coupled analog signal processing, so no sound degrading capacitors in series with the signal.
- DC coupled headphone amplifier with double output power and low output impedance for driving of low impedance headphones.

Product Specification

LA-120A (Basic Version)



INPUT:

USB 2.0 compatible to PC
 S/PDIF RCA 75ohm input (Coax) to CDP/DVD
 2x S/PDIF Toslink input (Optical) to CDP/DVD

OUTPUT:

Variable or fixed Line out RCA Phono (B and C models also Balanced XLR)
 Headphone

**the specification might be changed without prior notice*

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|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> DA Converter <input type="checkbox"/> USB Jitter Reduction Circuitry <input type="checkbox"/> Digital Input Sampling Frequency <input type="checkbox"/> Frequency Response <input type="checkbox"/> THD at 1KHz <input type="checkbox"/> S/N Ratio <input type="checkbox"/> Residual jitter <input type="checkbox"/> Line Output Level <input type="checkbox"/> Variable lineout (for use as preamp) <input type="checkbox"/> Headphone Output <input type="checkbox"/> Power Consumption | <p>Burr Brown 24Bit/192KHz
 Asynchronous Sample Rate Converter
 Jitter reduction: > 1000 times at >100 Hz
 USB: 96KHz / 24 bit
 Coaxial Input: 20KHz to 216 KHz at 24 bit
 Optical Input: 20kHz to 100 kHz at 24 bit
 DC to 20KHz
 <0.001%
 >120dB (A weighting)
 < 20 ps
 2V RMS max. 600R Load
 0-2VRMS
 4Vrms in 300 ohm
 35mW in 32ohm
 <5W</p> |
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LA-120B (Balanced output)

In addition to LA-120A:

Remote control
 Balanced output : 4V rms in 600 ohm

LA-120C (Clean Power):

In addition to LA-120B:

Power supplied from internal Rechargeable battery (Lithium Ion), when playing.
 Charging from USB or external power adapter (When not playing).

Message from Designer



When designing this DAC, it started just as an upgrade for the LA100 because there was a demand for high resolution USB audio (96khz/24).

But on the development stage, we received more demands such as..

But there were also demands for Variable lineout so the DAC could be used as a preamplifier. And what about a remote control? And our customers and reviewers were so satisfied with the sound that they wondered why we didn't make a more expensive DAC with balanced output, so it could be connected to the highest end amplifiers. And then the external power supply should also be improved. A lot of sensible inputs..

What we didn't want to change was the basic sound quality.

They were sensible inputs so that we decided to apply them in new DAC but wouldn't change basic sound quality.

Our final decision was to make it modular, and upgradeable:

The LA120 is LA100 with 96/24 usb and variable line out.

The LA120 B is with remote control and balanced output

The LA120 C is with "clean power" running from a Lithium Ion battery when playing and charging when not playing.

Our products are for a global market but designed and "Made in Denmark". That is your guarantee for products made with all the passion and know how from one of the leading audio environments in the world . The history of Danish audio industry is more than 90 years and our products are built using the 25+ years of accumulated knowledge and know-how.

So all in all the LA120 ended out as a very innovative product, with useful features and i am proud of this product, and hope you enjoy using it.