

CYGNUS/ digital player / DAC




Quad 32-bit/192-kilohertz DACs in balanced configuration

State-of-the-art Line Stage Gain Module for perfect signal balance

Separate power supply and superior mechanical isolation of analog circuits

Available in versions for use with computers and with USB drives/sticks

USB file player version allows browsing of content through iPhone/iPod

Today's audiophiles tend to be source-agnostic. They're as likely to play music from a hard drive as they are to play it from a CD or vinyl record. It's for them that we designed the Cygnus, a digital-to-analog converter that accesses a wide variety of digital audio sources and plays them all with unmatched fidelity.

Although the Cygnus delivers state-of-the-art sound quality, it is as easy to use as an iPod. Through its front 432 x 230-pixel screen—or through an iPod touch, iPhone, iPad or Android smartphone or tablet—you can browse FLAC, WAV and AIFF files stored on a USB hard drive or a USB memory stick. You can browse by artist, album, song and genre, just as you can on an iPod.

Through AES/EBU, RCA coax and Tos-Link inputs, you can also connect digital audio devices such as CD, DVD and Blu-ray players, satellite radio receivers, and cable and satellite TV boxes. Through the Cygnus, all will sound better than you have ever heard them sound before, in resolution up to 32 bit/192 kilohertz.

State-of-the-art digital-to-analog conversion

To get the best possible sound quality from your digital sources, we start with high-resolution 32/192 digital-to-analog conversion chips. While most DACs contain only one such chip, the Cygnus contains four. Each channel uses two DACs in a fully complementary configuration, with one DAC providing the positive half of the signal and the other providing the

negative half. Through the use of four separate DACs, we achieve superior channel separation and lower noise, because any interference is cancelled by the balanced configuration.

Rather than rely on a generic digital filter chip, we perform digital filtering in a DSP (digital signal processing) chip. Using a DSP allows us to design our own filters to get optimum performance from the 32/192 DAC. It also allows us to offer four user-selectable filter profiles: minimum-phase, phase-perfect, Bessel and Butterworth. Don't worry, you don't need to understand how the different filters work. Through the front LCD screen, you can easily audition the different filters and choose the one that best suits your system or the music you're hearing.

A truly outstanding analog stage

Designing the analog output stage of the Cygnus was easy—why would we use anything else but the same Line Stage Gain Module found in the Vega preamp? Like the Cygnus' stereo balanced DACs, the Line Stage Gain Module is fully complementary, with mirror-imaged circuits for the positive and negative halves of the signal. In addition to the superior noise rejection of the balanced circuit, the Line Stage Gain Module provides a faster slew rate and wider frequency response than conventional unbalanced audio circuits. We built the module entirely from discrete components, with no ICs in the analog signal path.

Through the use of carefully selected parts and servo circuits, the Line Stage Gain Module maintains essentially perfect balance of the positive and negative halves of the audio signal. This perfect balance assures maximum interference rejection, the lowest possible noise and a level of fidelity no other DAC (except our Reference Series Sirius HD digital music source).

Unmatched construction quality

We have gone to extraordinary lengths to assure that interference and vibration from the outside world do not affect the performance of the Cygnus' pristine audio circuitry.

The circuitry is built on a thick metal "raft," with the analog circuitry on top and the digital and control circuitry underneath. The entire assembly floats on an elastomeric suspension that completely isolates it from external vibration that could negatively affect fidelity. The raft assembly is mounted in a machined aluminum enclosure with a minimum thickness of 8.2mm, thick enough to block even 50/60 Hz electromagnetic interference from AC lines and appliances.

To protect the audio circuits from electromagnetic interference, we isolated the Cygnus' dual power supplies in a separate enclosure machined to the same minimum thickness as the main enclosure. Inside, there is a high-quality linear power supply with an R-core transformer that feeds power to the analog circuits, and a second power supply optimized for the digital and control circuits. Two separate Hypertronics cables, originally designed for demanding aerospace applications, convey the clean power from the dual supplies to the Cygnus' audio circuitry.

The Cygnus is truly a digital source for the coming decades—one that works as effortlessly and effectively with the latest digital audio technologies as it does with CDs and set-top boxes. No matter what your chosen digital audio source, the Cygnus will make it sound better than you ever thought possible.

SPECIFICATIONS

Supported digital file formats	FLAC, WAV, AIFF, DSD
DAC inputs	1 AES/EBU, 2 RCA SPDIF, 2 TosLink, 1 USB
DAC outputs	RCA and XLR stereo analog audio
Supported sampling rates/bit depth	Up to 192 kHz/32 bits on AES/EBU Up to 96 kHz/32 bits on coax/TosLink
Available filter profiles	minimum-phase, phase-perfect, Bessel, Butterworth
THD+N	<0.01%
Frequency response	20 Hz to 22 kHz, ±0.2 dB
Output noise	≤100 dB
Output impedance, B & UB	<50 ohm
Weight, digital file player	22 lbs/10 kg
Weight, power supply	12 lbs/5.5 kg
Dimensions, digital file player	5.50 x 17.00 x 15.75 in (hwd) 140 x 432 x 400mm (hwd)
Dimensions, power supply	5.00 x 6.00 x 14.50 in (hwd) 127 x 152 x 368mm (hwd)

Constellation reserves the right to change designs, and / or specifications

**constellation**

Audio That Inspires

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