

# Vivaldi Upsampler

Digital-to-Digital Converter

*dCS*  
ONLY THE MUSIC



The *dCS* Vivaldi range redefines state of the art in digital playback and represents the pinnacle of our 'no compromise' approach to product design and setting a new standard for the future of digital audio by delivering an unrivalled in-home musical experience.

Vivaldi Upsampler is designed to act as the hub of a digital audio system and will transform your listening experience, taking your music collection to levels you have not heard before.

Operating as a digital-to-digital converter Vivaldi Upsampler accesses music from any digital source and converts the audio from its native sample rate to either high resolution DXD (24 bit data at 352.8 or 384 kS/s), DSD (1 bit data at 2.822 or 3.07MS/s) or standard high resolution PCM (24 bit data up to 24/192kS/s). The results gained from Vivaldi Upsampler are extraordinary – a more vibrant, 3-dimensional, transparent and effortless performance.

Vivaldi Upsampler features a wired network connection and can stream high resolution audio files stored on a computer or on network storage via UPnP™. The additional asynchronous USB input on Vivaldi Upsampler also allows direct connection of a PC and

supports high resolution audio up to and including 192kS/s and DSD over USB. The USB interfaces run in an Asynchronous USB mode, which makes Vivaldi Upsampler immune to jitter from the typical computer's noisy clock.

Vivaldi Upsampler is Apple Authenticated and supports playback of iPod/iPhone-stored digital media, bypassing the iPod/iPhone internal DAC to ensure optimal performance. USB memory hardware is also supported.

An array of independently selectable digital inputs (RJ45, USB, AES, SPDIF, SDIF-2, Toslink) completes the versatility of this powerful machine and elevates the performance of Red Book CD from CD Players or high resolution audio from digital streamers to a previously unsurpassed level.

*dCS* were pioneers in the use of external clocks in digital audio systems and the redesigned multi-stage Phase-Locked-Loop (PLL) system

used in Vivaldi Upsampler sets world-beating standards for accuracy and control of troublesome jitter from the incoming audio stream.

Control of such a versatile product is extremely simple with the user having the choice of using the full colour front panel menu, Vivaldi Controller App or the premium *dCS* remote control. The Vivaldi Controller App also allows users to change DAC inputs and volume, simplifying the control experience further.

The *dCS* 'soft' approach to programmable logic makes it extremely easy for users to update Vivaldi Upsampler software, whether adding new features, installing performance upgrades or adapting to changes in digital formats.

Used as part of a complete Vivaldi digital audio playback system Vivaldi Upsampler gives a performance of effortless realism each and every time.

# Vivaldi Upsampler

Digital-to-Digital Converter

## TECHNICAL SPECIFICATIONS

Type	Digital-to-Digital Converter.
Colour	Silver or Black.
Dimensions (WxDxH)	444mm/17.5" x 435mm/17.2" x 125mm/5.0". Allow extra depth for cable connectors. Allow space for air flow around the unit.
Weight	14.2 kg/31.3lbs.
Converter Type	<i>dCS</i> proprietary Ring DAC™ topology.
Digital Inputs	Network interface on an RJ45 connector – Acts as UPnP™ renderer and streams digital music from a NAS or local computer over a standard Ethernet network, decoding all major lossless formats including FLAC, WAV, AIFF, WMA up to 24 bit 192kS/s native sample rate. Other supported file formats include ALAC, MP3, M4a, AAC and OGG. Some formats are limited to lower sample rates. USB 2.0 interface on a type B connector. Operates in Asynchronous USB mode, Audio Class 1 or Class 2. Class 2 mode will accept up to 24 bit PCM at 44.1, 48, 88.2, 96, 176.4 or 192kS/s and DSD in DOP format. USB-on-the-go interface on A-type connector, streams audio files from a USB flash drive or iPod/iPhone. Will accept up to 24 bit PCM at 44.1, 48, 88.2, 96, 176.4 or 192kS/s. Operates in asynchronous USB mode. AES3 on a 3-pin female XLR connector. 4x SPDIF on 2x RCA Phono, 1x BNC connectors and 1x TosLink optical connector. 1x SDIF-2 PCM interface on 2x BNC connectors + Word Clock. All electrical digital inputs will accept PCM data at up to 24 bit PCM at 32, 44.1, 48, 88.2, 96, 176.4 or 192kS/s. The Toslink input and SDIF-2 interface are limited to a maximum of 96kS/s.
Digital Outputs	2x AES3 on 3-pin female XLR connectors. Each outputs 24 bit PCM at 32, 44.1, 48, 88.2 or 96kS/s, OR as a Dual AES pair at 88.2, 96, 176.4, 192, 352.8 or 384kS/s or <i>dCS</i> -encrypted DSD. 2x SPDIF on RCA Phono and BNC connectors. Each outputs 24 bit PCM at 32, 44.1, 48, 88.2, 96, 176.4 or 192kS/s.
Conversions	Data from any input may be converted to 24 bit PCM at 32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8 or 384kS/s or DSD (1 bit data at 2.822MS/s). The output sample rate must be equal to or greater than the input sample rate.
Word Clock I/O	Word Clock input on 2x BNC connector. Accepts standard Word Clock at 32, 44.1, 48, 88.2, 96, 176.4 or 192kHz. Sensitive to TTL levels. Word Clock output on 1x BNC connector. Outputs standard Word Clock at a frequency equal to the (single wire) output data rate, or 44.1kHz when set to output DSD.
Spurious Responses	Better than -100dB0 @ 20Hz-20kHz for Fs> 32kS/s, 20Hz-14kHz for 32kS/s.
Filters	A choice of filter responses give different trade offs between Nyquist image rejection and the phase response.
Software Updates	Loaded from CD-R via PCM audio input or via USB.
Local Control	<i>dCS</i> Premium Remote handset is supplied with Vivaldi DAC. RS232 (controlled by a third party device). <i>dCS</i> -programmed Nevo Q50 or the Premium Remote are available as an optional extra. Vivaldi Controller App available for iOS, Android, Mac OSX & Windows.
Power Supply	Factory set for 100, 115, 220 or 230V AC, 49-62Hz.
Power Consumption	15 Watts typical/18 Watts maximum.

## KEY FEATURES

- Utilising the latest generation *dCS* Digital Processing Platform which offers state-of-the-art measured performance and unrivalled musical experience.
- Designed for maximum flexibility, both input and output configuration can be optimised for systems with various digital sources.
- New auto clocking mode used in the Vivaldi range improves ease of use and minimises jitter.
- Improved power supplies give lower running temperature and improved tolerance to AC supply variations.
- Multi-stage regulation ensures sensitive analogue circuitry is not affected by digital interference.
- Aerospace grade machined aluminum chassis fitted with tuned acoustic damping panels reduces magnetic effects and vibration.

## ABOUT *dCS*

Since 1987 *dCS* has been at the forefront of digital audio – creating world beating, life-enhancing products that are a unique synthesis of exact science and creative imagination. Each of our award winning product ranges sets the standard within its class for technical excellence and musical performance. As a result our digital playback systems are unrivalled in their ability to make great music.

All *dCS* products are designed and manufactured in the UK using only materials and components that are of the highest quality. A carefully judged balance of our unique heritage and world class engineering ensures there is a rich history of groundbreaking innovation inside every *dCS* system.

## CONTACT *dCS*

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