PRODUCT DATASHEET

Vivaldi Master Clock Master Clock

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 Master Clock is a powerful yet simple to use Grade 1 master clock based on our pioneering developments in studio and home audio. Featuring two banks of clock outputs capable of outputting different frequencies, Vivaldi Master Clock uses the latest groundbreaking technology from *dCS*.

In a digital audio system samples must be accurate in level and time but jitter, which exists in all digital systems, can result in timing errors in these samples causing the analogue signal to be reconstructed inaccurately. In a *dCS* system our DACs can act as the system master clock, but listening tests have shown that there is no substitute for a high-quality, dedicated master clock.

dCS were pioneers in the use of external clocks in digital audio systems and our clocking technology has been continually refined so that our latest multi-stage Phase-Locked-Loop (PLL) system sets world-beating standards for accuracy and control of troublesome jitter from the incoming audio stream.

All *dCS* Master Clocks are subjected to rigorous in-house testing. The crystal oscillators are pre-aged and selected for long term stability and then individually calibrated over a wide temperature range to ensure consistent optimal performance. Vivaldi Master Clock uses a sophisticated microcontroller system to ensure smooth correction as the temperature changes and this approach gives a more stable result than either oven controlled crystal oscillators or even atomic clocks.

All *dCS* master clocks are designed to generate industry standard Word Clock on 75 ohm co-axial cable. Other manufacturers' equipment that has been designed to accept standard Word Clock can be used with our clocks.

Vivaldi Master Clock may be slaved to an external reference (such as an atomic clock or GPS reference) if increased accuracy is desired. Our sophisticated multi-mode Phase-Locked-Loop (PLL) significantly reduces jitter from the reference source.

The *dCS* 'soft' approach to programmable logic allows the user to easily update Vivaldi Master Clock software, whether this is to add new features, improve performance or adapt to changes in digital formats.

Used as part of the Vivaldi digital audio playback system Vivaldi Master Clock improves on an already spectacular sound and takes it into an entirely new domain. With a clock added to a *dCS* system images snap into sharper focus and the music displays a substantially greater sense of authority and power as well as, most importantly, offering noticably higher resolution of detail.

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TECHNICAL SPECIFICATIONS

Type	Class 1 Master Clock.
Clock Frequencies	44.1, 48, 88.2, 96, 176.4 or 192kHz.
Colour	Silver or Black.
Dimensions (WxDxH)	444mm/17.5" x 435mm/17.2" x 126mm/5.0". Allow extra depth for cable connectors.
Weight	13.6kg/29.9lbs.
Clock Accuracy	Better than +/-1ppm when shipped. Typically +/-0.1ppm when shipped and stabilised.
Word Clock outputs	Two groups of 4 independently buffered outputs on 75Ω BNC connectors. Each group may be set to a different clock frequency.
Reference Input	External Reference Input on 1x 75Ω BNC connector. Accepts either Word Clock or AC coupled signals at 1MHz, 5MHz & 10MHz. Lock range is +/-300ppm.
Start Up Time	Typically 1 minute to rated accuracy.
Software Updates	Loaded from CD-R via reference input.
Local Control	*dCS* Premium Remote handset is supplied with Vivaldi DAC. RS232 (controlled by a third party device). A *dCS*-programmed Nevo Q50 is available for the Vivaldi range as an optional extra.
Power Supply	Factory set for 100, 115, 220 or 230V AC, 49-62Hz.
Power Consumption	10 Watts typical/123 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 as output configuration can be optimised in systems with a variety of digital audio sources.
- Dual crystal oscillators with microcontroller-enhanced temperature correction.
- 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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