PRODUCT DATASHEET

Scarlatti Master Clock Master Clock

dCS
ONLY THE MUSIC

Possesses the ability to unravel music like no other digital system – resulting in a performance that is simply stunning.

Scarlatti needs no introduction and since its launch has been the recipient of awards across the world for its extraordinary performance both in terms of objective measurements and the subjective musical experience it offers.

Clocking is very important in an audio system because any timing errors that occur in the DAC will be converted directly into errors in the analogue output. 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.

Used as part of the Scarlatti digital audio playback system it 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 noticeably higher resolution of detail.

Scarlatti Master Clock is based on our professional studio master clocks and the highly successful Verona clock. All *dCS* Master Clocks are subjected to rigorous in-house testing and the crystal oscillators are pre-aged as well as being selected for long term stability.

Scarlatti Master Clock now features an asynchronous USB input which allows direct connection of a PC, supporting high resolution audio. In this mode the Master Clock synchronises the audio by providing a feedback pipe to the PC/Mac.

The computer then is effectively locked to the Master Clock, which can have a much more accurate clock and much lower jitter. The Master Clock will automatically switch output clock frequency to match the incoming audio stream resulting in a simple yet extremely accurate performance.

dCS equipment is designed to generate and accept industry standard Word Clock on 75 ohm co-axial cable. Other manufacturers' equipment designed to accept standard Word Clock can be used with our clocks. Non-standard clock formats must be assumed to be proprietary to that manufacturer.

All of the Scarlatti products benefit from our 'soft' approach to programmable logic that allows new software to be loaded from a *dCS* update disc to add new features and adapt to changes in digital formats.

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TECHNICAL SPECIFICATIONS

Type	Class 1 Master Clock.
Clock Frequencies	44.1, 48, 88.2 & 96kHz.
Colour	Silver or Black.
Dimensions (WxDxH)	465mm/18.3" x 405mm/16.0" x 75mm/3.0". Allow extra depth for cable connectors.
Weight	10.0kg/22.0lbs.
Clock Accuracy	Better than +/-1ppm when shipped (guaranteed for 12 months from shipping). Typically +/-0.1ppm when shipped and stabilised.
Digital Inputs	External Reference Input on 1x 75Ω BNC connector. Accepts Word Clock (with the Coupling menu page set to TTL) or AC coupled signals (with the Coupling menu page set to Bipolar) at 32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 1MHz, 5MHz & 10MHz. Lock range is +/-300ppm. 1 x USB 2.0 interface on Type B connector.
Digital Outputs	6x Word Clock outputs, independently buffered, may be set to 44.1, 48, 88.2 or 96kHz*. 2x SPDIF on 1x RCA Phono and 1x BNC, carry data from the USB input.
Start Up Time	Typically 1 minute to rated accuracy.
Operating Systems	Tested on Windows XP/Vista/7 and Mac OSX. Operates in "Audio Class" mode. Class 1 mode (limited to 96kS/s) is available and does not require special drivers to be installed. Class 2 mode requires the *dCS* drivers (supplied) to be installed on Windows PCs. Not required on OSX 10.6.3 or later.
File Formats	Packetised PCM at 32, 44.1, 48, 88.2, 176.4 & 192kS/s.
Software Updates	Loaded from CD via Reference Input or USB.
Local Control	Nevo Q50™ programmable remote control is supplied with the Transport, or RS232.
Power Supply	Factory set for 100, 115, 220 or 230V AC, 49-62Hz.
Power Consumption	8 Watts typical/12 Watts maximum.

KEY FEATURES

- A powerful yet simple to use Grade 1 master clock with additional USB-SPDIF conversion based on our pioneering developments in studio and home audio. Featuring six Word Clock outputs and two SPDIF outputs for transmitting high resolution audio up to 24 bit data up to 192kS/s.
- All *dCS* products use a sophisticated multi-mode Phase-Locked-Loop (PLL), which significantly reduces clock jitter.
- Higher capacity FPGAs (Field Programmable Gate Arrays) give more logic capacity and increase the scope for additional features and enhancements.
- Improved power supplies give lower running temperature and increased tolerance to AC supply variations.
- 16 bit micro-controller for a generally improved control system.
- Aerospace grade aluminium chassis and laminated acoustic damping panels, reduce magnetic effects and vibration.
- The Scarlatti range features a low-power LCD display that makes the user interface easier to read, keeps the power requirements down and minimises electrical noise.
- Our 'soft' approach to programmable logic allows *dCS* products to adapt to changes in digital formats and add new features by loading new software from a CD.

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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