

# Rossini Master Clock

Master Clock



The new *dCS* Rossini range makes superlative sounding music from a wide range of digital sources, simply integrating your digital music and setting the performance standard for digital playback.

Rossini Master Clock is a simple to use Grade 1 master clock, based on our pioneering developments in studio and home audio. Featuring three separate clock outputs capable of outputting different frequencies, Rossini Master Clock allows Rossini DAC or Player users to benefit from the auto clocking mode in Rossini and optimise audio from various digital sources in a simple, fuss free way.

In a digital audio system, samples must be accurately transferred at the correct time. Instability in the sample timing is called jitter – this exists in all digital systems. Severe jitter results in timing errors in the delivery of data to the DAC, causing the analogue signal to be reconstructed inaccurately.

In a *dCS* system, the DAC 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* pioneered the use of external clocks in digital audio systems. 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, selected for long term stability and then individually calibrated over a wide temperature range to ensure consistent optimal performance. Rossini Master Clock uses a sophisticated microcontroller system to ensure smooth frequency 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 over a 75 ohm coaxial cable. Other manufacturers' equipment that has been designed to accept standard Word Clock can be used with our clocks.

When listening to digital music through a Rossini system, Rossini Master Clock improves on an already spectacular sound and takes it into an entirely new domain. Listeners are immediately struck by its natural musicality and faithfulness to the original recording. It delivers a powerful and visceral sound yet is highly transparent too, making for an immersive and realistic listening experience.

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## TECHNICAL SPECIFICATIONS

Type	Class 1 Master Clock.
Clock Frequencies	44.1kHz or 48kHz.
Colour	Silver or Black.
Dimensions (WxDxH)	444mm/17.5" x 435mm/17.2" x 64mm/2.6". Allow extra depth for cable connectors.
Weight	8.3kg/18.3lbs.
Clock Accuracy	Better than +/-1ppm when shipped, over an ambient temperature range of 10°C to 30°C. Typically +/-0.1ppm when shipped and stabilised.
Word Clock Outputs	3 independently buffered outputs on 75Ω BNC connectors. Output 1: fixed at 44.1kHz Output 2: fixed at 48kHz Output 3: 44.1kHz, RS232 controllable.
Start Up Time	Typically 1 minute to rated accuracy.
Local Control	RS232 (limited to Power and Clock 3 output frequency).
Power Supply	Factory set to either 100, 115/120, 220 or 230/240V AC, 49-62Hz.
Power Consumption	3 Watts typical/4 Watts maximum.

## KEY FEATURES

- Designed for maximum flexibility as output configuration can be optimised in systems with a wide variety of digital audio sources.
- Dual crystal oscillators with microcontroller-enhanced temperature correction.
- New dual frequency output and auto-clocking mode used in the Vivaldi and Rossini range improves ease of use and minimises jitter, particularly with computer audio sources.
- Multi-stage regulation ensures sensitive clock and PLL circuitry is unaffected by digital interference.
- Aerospace-grade machined aluminium chassis fitted with tuned acoustic damping panels reduces magnetic effects and vibration.

## ABOUT *dCS*

*dCS* has been at the forefront of digital audio since 1987. Its unique expertise in digital signal processing means that it has played a vital innovating role in digital music recording and playback over the years, and makes its products sound like no others.

The company has won numerous awards for its range of class-leading digital converters, all of which use the bespoke, custom-designed Ring DAC™ architecture – created during the company's time working on specialist radar applications for military aviation.

*dCS* products are unrivalled in their class – not only for sonic performance, but also for build quality. Designed and manufactured in the United Kingdom using only the best materials and components, they offer state-of-the-art sound, superlative reliability and are uniquely upgradeable as new formats appear.

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