## EQUIPMENT REVIEW



# dCS Rossini digital player

by Alan Sircom

s any maker of digital audio devices can verify, the last few years have seen a significant change in the way the digital happens, and the digital landscape has been entirely redrawn. If you think back to our review of the dCS Puccini player from 2009 and look at what's changed in the digital world since then, what was then 'state of the art' looks 'out of the ark' in today's world. Clearly, if you are at the vanguard of digital audio development like dCS, it's difficult to stand still, and the new Rossini is the result of this restlessness.

The Rossini is dCS' 'entry point' to the company's digital ethos (the Debussy DAC is cheaper, but it is essentially 'just' a good DAC). That ethos makes a device like the Rossini a sophisticated digital nexus, accepting virtually any digital audio signal you can squeeze, fire, point, pull, or push at it. However, the company is keen to stress it isn't in the DSD 'arms race'; it supports DSD 128, but it questions the need for even higher grade processing in the light of almost no software availability.

Rossini is the first disc player from dCS not to include SACD in its line-up, although the Rossini supports DoP (DSD over PCM). This is an unfortunate by-product of trying to make a digital multistandard player in 2015 because the lack of SACD comes down to a lack of SACD transport and controller chip availability today. Companies like Esoteric have withdrawn OEM sales of transport mechs, in part because Sony has called time on the chips Esoteric uses to read SACD data off discs. Companies like CH Precision, dCS, and Playback Designs are left out in the cold as a result. While these brands have bought stocks of mechs and chips to supply and service their existing top players, building a new model with finite stocks of a key component is not a good idea. But maybe this lack of SACD replay is not as important today, because the Rossini itself comes in two forms - with or without that built-in CD transport. Only time will tell whether audiophiles go for the 'hub' or 'hub+CD' version in greater numbers.

A problem in writing about dCS products is attempting to edit down the technology inside. The company has always been at the forefront of digital audio development, and that means the technologies involved with a dCS player don't conform to regular descriptions. No off-the-shelf Burr Brown or ESS chipsets here. Instead, dCS rolls its own Digital Processing Platform, which includes its patented Ring DAC, and uses the latest and greatest iteration of that DAC as found in the Vivaldi. This Digital Processing Platform means dCS can implement a multi-stage DXD oversample/DSD upsample schema, allowing the user to experiment with a range of DSD and DSD filter settings.

Connectivity is key for the 21<sup>st</sup> century digital player, and the Rossini is well stocked. There are 'legacy' AES/EBU and S/PDIF inputs, USB inputs (both Type B for a computer, and Type A for a thumb drive), main and loop-through Ethernet connections, as well as a trio of clock connections (two in, one out) and variable balanced and single-ended outputs. Importantly for tomorrow's audio, the Rossini platform is a fully integrated network player. Again not content with an off-theshelf solution, dCS has developed its own Ethernet streaming front end, and this is fully app controlled.

Those last three words – fully app controlled – are easy to roll out when discussing Ethernet streaming, but the Rossini is available as a CD-player version. App control of a CD player is not as easy as it sounds: bringing 1981's technology into 2015 can be a little like trying to fit a turbocharger to a horse, and writing an app that can control the logic chips of a CD player is no mean feat. That it works as seamlessly as it does, so that you can slide effortlessly between player, network storage, and online streaming services like Tidal and Spotify belies a lot of coding. Sadly, no one tends to notice such things when they are done properly because they become effectively invisible.

There is a new dCS sound, which began with the Vivaldi and continues here in the Rossini. It is a hugely complete sound, proving that analysis and enjoyment are not mutually exclusive. What becomes patently clear in the listening is just how rare that complete package is in reality. Most digital devices tend to fall into somewhere on the continuum, but precious few manage to balance these two seemingly opposing forces with such poise.

This 'completeness' of sound is, of course, exceptionally detailed; detail was always a core strength of dCS players. But this detail is now joined to a sense of cogent musical integrity and coherence that simply beguiles the listener. This applies universally; whether you are listening to Led Zeppelin, Leadbelly, or Lizst. The normal musical snippets we roll out seem trite here, because the Rossini's 'completeness' applies, er, completely.

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That 'complete' sound – drawn down from the Vivaldi – would have spelt the death-knell of the Puccini, Paganini, and even the Scarlatti even if the Esoteric SACD transport mech was still freely available. This is because – and I understand this might be of little comfort for owners of those products – the Rossini is a better performer than those previous generation players in almost every respect. The functionality is significantly improved, the connectivity is substantially better, but more importantly, unless you are playing SACD discs the older models just don't sound as good as the Rossini.

I'm going to have to contort a term from photography. What the Rossini offers that is so extremely rare in digital players irrespective of price is what I'd call 'depth of field control'. A photographer might want the whole scene sharp from nearest subject matter to infinity, or just want the subject matter in focus and nothing else. Moreover, they talk about 'bokeh' – the nature of those out-of-focus components, and pay handsomely for lenses with the right number of aperture blades to make sure the scene looks just right. If you transfer that control over the depth in the picture to control over the soundstage, you get what sets the Rossini apart. Other good players 'scale' according to the size of the recording, but the Rossini is one of the very few that has this sense of 'depth of field control' over the soundstage that adds a level of precision that is hard to live without once heard. The best way I can

describe this is it's about absolute integrity to the recording, without adding the word 'slavish' into the mix. Make the jump from some lo-fi recording like 'I See A Darkness' from the album of the same name by Will Oldham in his 'Bonnie 'Prince' Billy' guise [Palace] and you have a claustrophobic small ball of sound that can only be described as "diffuse at the edges"; change that for 'Excuse Me Mr.' from Ben Harper's *Fight For Your Mind* album [Virgin] and you have a tight zone of image precision around the singer, guitar, and bass, but more soft-focus to the drum kit. This sort of depth differentiation is something I've only encountered in a tiny handful of components.

Here's the thing, though. Despite making one of the best streaming front-ends I can think of, despite the excellence of the USB input, and the sublime performance of DSD playback under DoP (as you might expect from the company that first minted the concept), I still prefer the sound the Rossini makes when spinning a disc. I don't think I'm channelling my inner luddite here, and this conclusion isn't that dCS doesn't know how to do streaming – if anything, I'd put dCS' network and online streaming performance at the top of what is currently possible. Rather, it's that CD replay is just more 'organic' sounding than file-based versions of the same. Even the like-for-like WAV file ripped from the disc doesn't sound quite as 'there' as the CD. The problem is the dCS CD replay



#### dCS Rossini Master Clock

The matching Master Clock to the Rossini is a logical upgrade to the 'basic' Rossini. For the longest time, dCS has recommended and supplied Class 1 clocks for its players, and for good reason. This one features two entirely separate phase locked looped crystal oscillators running at 44.1kHz and 48kHz, temperature controlled by microprocessor, and the handshake between Rossini and Clock switches in the correct clock for the sampling frequency of the digital signal (they all run to multiples of those two clock frequencies). Its aluminium design continues and extends the style of the Rossini and when bedded in offers clock accuracy to  $\pm 0.1$ ppm, thanks to a lot of internal multi-stage regulation.

Connecting it couldn't be simpler. There are three BNC sockets on the rear of the clock. Hook up inputs 1 and 2 to the corresponding clock outputs on the Rossini. Strangely, given this is basically just a pair of timing signals and not in the analogue or digital audio chain, the choice of cables makes a difference, although it comes with good basic 75 ohm coax connectors as a fine starting place.

What the Rossini Clock does for the sound is simple. Describing what it does is difficult. Not as difficult as designing the thing, I grant you, but the difficulty in description is in part discussing the scale of the effect, as well as the effect itself. The Rossini is one of the best-sounding standalone digital hubs I know of in sound quality terms, and the Clock improves on that. When you put it in the path of the Rossini, you can hear the enhancement, and when you take it out your very next action will be to call the dealer to buy one.

Put simply, what the Clock does is bring a greater sense of authenticity to an already authentic sound. Sounds in the soundstage are more solidly placed: whether that placement is through natural ambience and careful recording or judicious use of the pan pot, you'll notice the instrument is rock solid in its own physical space in the soundstage. Reverb tails are more clearly delineated, and



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there is a palpable sense of being in the presence of music and musicians. This is something that the Rossini excels at in its own right, but this 'thereness' is strengthened under the power of the Clock.

Curiously, what might seem like the most obvious benefit of having a precision external clock – improvements to the temporal nature of music, its timing and rhythm – are not uppermost. There is slightly more temporal focus, but the Rossini was already an excellent rhythmic performer in its own right, and as such don't expect big changes to the beat.

The Rossini player isn't hobbled without the Clock. Instead, what the Rossini (on its own) does over lesser players, the Rossini+Clock does to the Rossini. It's not subtle, and there is no going back to a Rossini on its own, even though the Rossini on its own is better than most digital front ends out there, regardless of price.



doesn't just out-perform dCS's take on 'next-gen' audio; it's a universal thing, and using the Rossini as transport to the other DACs in this test (and more besides) pointed to the same conclusion. Every time. As someone who was early to adopt file-based music, this comes as something of a shock.

There is another thing about the Rossini that is a bit of a joy, mindful that I recently negotiated the monumental box-fest that is writing about systems: it's incredibly consistent. The dCS Rossini is instantly recognisable and a similar force for audio good whether it's going into a decent mid-range audio system or something really mighty. And while I'm still not entirely won over by dCS' 'you don't need a preamp' claims, the Rossini does sound good hooked directly to a power amp. OK, so it's unlikely that a player that costs close to £20,000 will front an £800 amp and £1,000 loudspeakers, and that it is expected to be seen in systems costing nearer £50,000 and beyond; but regardless, the Rossini character is stamped across the system. App control makes the player a worthwhile addition to any portfolio, and because it can process virtually any digital format you can think of (SACD discs notwithstanding).

I've not logged enough Vivaldi hours to see where the jumps in performance lie between Rossini and its bigger brother. I'll hand that one over to my colleague Chris Thomas in a long-term listening follow-up in a later edition of Hi-Fi+ because he has extensive experience with both systems. It seems, however, that although the Rossini is very good in all the ways the Vivaldi stack is good, the full Vivaldi experience raises that naturalness and completeness to another level. The dCS Rossini is more than just a scaled-down Vivaldi, though, and has a beguiling property of its own. What's more, in systems that aren't at the extreme limit of what's currently possible from audio, the Rossini's consistency might make for a better overall performance. Remember that in some of the systems that show what the Vivaldi can do to its best, the cost of connecting those four boxes with audio cable commensurate with its performance is more than a Rossini!

That, in essence, encapsulates what is so good about the Rossini, and it is an encapsulation as I feel I've barely scratched the surface of what this player can do. To better it – especially when partnered with the matching clock (see box) – doesn't just need a serious financial boost to the digital audio stages of your system, it probably needs a better system. The dCS Rossini sets a high standard for digital audio of all kinds today. You may find 'different' but you won't find 'better' at anything even close to this level. The dCS Rossini is a powerful, confident player in all its guises and highly recommended for those fortunate enough to be able to take digital audio to the next level.

#### **TECHNICAL SPECIFICATIONS**

Type: Upsampling CD/UPnP media renderer Digital Inputs: 2x AES/EBU, 3× S/PDIF (1× RCA, 1× BNC,

- 1× Toslink), USB A and USB B, 2× RJ45 (one network loop out). Accepts data streamed from an iPod, iPhone or iPad via Apple AirPlay
- Digital input precision: RJ45: FLAC, WAV, AIFF to 24/384, DFF/DSF formats to DSD 128. USB A: PCM to 24/384 or DoP to DSD 64, Asynchronous, USB B: PCM to 24/384 or DoP to DSD 128, Asynchronous, Class 1 or 2 mode. AES/EBU: Singly, PCM to 24/192 or DoP to DSD 64. Used as a Dual AES pair, PCM to 24/384kS/s, DoP or dCS-encrypted DSD to DSD 128. S/PDIF coaxial: PCM to 24/192 or DoP to DSD 64. S/PDIF Toslink: PCM to 24/96

Supported formats: PCM, DSD (DoP/DFF/DSF), FLAC, WAV, AIFF, WMA, ALAC, MP3, AAC & OGG

Analogue outputs: 1× RCA pair, 1× XLR pair. 2V or 6V rms for full-scale input, set in the menu

Upsampling Rates: DXD as standard or optional DSD upsampling

Filters: PCM mode: up to 6 filters. DSD mode: 4 filtersl Crosstalk: Better than –115dB0, 20Hz–20kHz Finish: Silver or Black

Dimensions (W×H×D): 44.4×43.5×15.1cm Weight: 15.6kg (17.4kg with CD)

Price: £15,500 (network DAC alone), £18,000 (with CD transport)

#### **Rossini Master Clock**

Type: Class 1 Master Clock Clock Frequencies: 44.1kHz/48kHz Accuracy: Typically + /-0.1ppm Start up time: Typically 1 minute to rated accuracy Word Clock I / O: 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 Finish: Silver or Black Dimensions (W×H×D): 44.4×43.5×6.4cm

Weight: 8.2kg Price: £TBC

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