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### JOHN ATKINSON

# dCS Rossini Transport

# SACD/CD TRANSPORT

he good-sounding products that pass through a reviewer's system fall into three categories: those he liked but felt little sense of loss about when they were sent back to the manufacturer or distributor; those he loved and could afford to purchase; and those he loved but that were financially out of reach. The Rossini Player from British company dCS, which I reviewed along with the Rossini Clock in our December 2016 issue,1 was an example of this last category: the Player costs \$28,499, the Clock \$7499. Even though I summed up my review findings with "The Rossini Player and Clock are a flexible, future-proof, superbly well-engineered, and equally superbsounding complete digital source that, while still expensive, is more affordable than earlier dCS offerings," more affordable didn't mean actually affordable for this scribe.

The Rossini Player's single drawback was that it played only CDs. So when I learned from reports of the 2018 Munich High End show that dCS had premiered its Rossini Transport (\$23,500), which plays SACDs as well, I requested a review sample.

### **Features**

The Rossini Transport looks very similar to the Rossini Player, but unlike the Player, it has no analog output stage. What it does have is a plethora of serial digital audio outputs: three AES/EBU, two of which are dedicated to dual-AES operation for high-resolution PCM and DSD data; and two S/PDIF, one on an RCA jack, the other on a BNC jack. There are also Word Clock input and output BNC jacks, as well as an RS232 port to allow the Transport, when used with a Rossini DAC, to be controlled by a forthcoming release of the Rossini Control iPad app. The Rossini Transport comes





with a large, metal remote control with a prominent rotary volume knob for the DAC, and two arrays of buttons labeled with text a little too small for my aging eyes.

### **Playing Silver Discs**

The core of a transport is its disc mechanism. Three years ago, when dCS launched

the Rossini Player, the Esoteric mechanism they'd used in the Puccini had been discontinued, along with the necessary chipset from Sony. The only mechanism available to them was the CD-only Silverstrike, from StreamUnlimited, in Vienna. However, according to dCS Americas' John Quick, in 2017 the main man at dCS's Japanese distributor, who is also the president of the Tokyo Audio Society, told dCS that both Pioneer and Denon were looking to introduce OEM mecha-

1 See www.stereophile.com/content/dcs-rossini-player-rossini-clock.

### SPECIFICATIONS

Description Upsampling SACD/CD transport. Transport mechanism: dual-laser SACD/CD mechanism. Digital outputs: dual AES/EBU (XLR), single AES/EBU (XLR), 2 S/PDIF (1 RCA, 1 BNC), word clock (BNC). RS232 port. Clock accuracy:

±10ppm. Power consumption: 16W typical, 50W maximum, <0.5W in standby.

Dimensions 17.5" (444mm)
W by 7" (178mm) H by 17.2"
(437mm) D. Weight: 45.3 lb (20.6kg).

Finishes Silver, Black.

Finishes Silver, Black.

Serial numbers of unit reviewed RTT OS2 1D1 1C1 1B2

SO2 0054332. Price \$23,500. Approximate number of dealers: 17. Warranty: 3 years, parts & labor,

from date originally shipped from dCS, to original owner only.

Manufacturer dCS (Data Conversion Systems), Ltd., Unit 1, Buckingway Business Park, Anderson Road, Swavesey, Cambridge CB24 4AE, England, UK. US distributor: Data Conversion Systems Americas, Inc., PO Box 541443, Waltham, MA 02454-1443. Tel: (617) 314-9296. Web: www.dcsltd.co.uk. nisms that would play both SACDs and CDs. dCS tested them and found the Denon mechanism more appropriate, from the standpoints of both performance and interface. But because the Denon was too big to retrofit into the Rossini Player, dCS opted to bring to market the Rossini Transport.

### Listening

Along with the Rossini Transport, dCS sent me a Rossini DAC (\$23,999), which Jason Victor Serinus reviewed in January 2017.2 This sample was fitted with the v1.10 operating-system firmware and the v400 firmware for its StreamUnlimited network board, which is Roon Ready and allows MQA decoding. (IVS will discuss the Rossini's v2.0 firmware,3 released in January 2019, in a future issue.) I connected the Transport to the DAC with twin AES/ EBU links, to allow it to send native DSD data and CD data upsampled to DXD, DSD, or double DSD (these both encrypted). I then used the dCS Rossini iPad app to set the DAC to act as the Master clock, and connected the DAC's Word Clock output to the Transport's Word Clock input. With the app, I then set the DAC's maximum output to 2V (6V, 600mV, and 200mV are also options), and, again using the app, experimented with the different reconstruction filters: four are available for DSD playback, six for PCM playback, as well as MQA. I spent most of my listening time with DSD Filter 1, which gives the widest bandwidth; and PCM Filter 5, a minimum-phase type.

I began my auditioning with an SACD I love but hadn't played for a while, a reissue of Patricia Barber's Companion (Premonition/Blue Note/Mobile Fidelity Sound Lab UDSACD 2023). Wow! Michael Arnopol's double bass in "Black Magic Woman" sounded full-bodied but with

well-defined leading edges to the notes. And when Barber switches the speed of her organ's Leslie loudspeaker from slow to fast in "Use Me," the change in the instrument's sound was palpable, from "fat mono" to a throbbing stereo spread. The subtle repeat echo on John McLean's acoustic guitar in "Let It Rain" was audible without being exaggerated in level, as was the ambient glow of the reverb that engineer Jim Anderson had added to Barber's voice and McLean's instrument.

I dug out other SACDs I hadn't played recently, such as Daniele Gatti's performance of Tchaikovsky's Symphony 6 with the Royal Philharmonic Orchestra (Harmonia Mundi HMU 807394). The sound was always sweet and natural, as far from the usual rather flat presentation of even well-recorded CDs as you can imagine. The soundstage on this recording was richly detailed—the dialog between the bassoon and the clarinet about five minutes into the first movement, and the quiet repeat of the big tune on the clarinet before the big orchestral explosion at 10:00, were deliciously clear, yet with the solo instruments remaining back behind the upper strings, not pushed forward at the listener.

I recently said in a seminar at an audio show that while SACD may have disappeared as a mainstream music medium, it triggered a new Golden Age of classical music recording, as with this Gatti-LPO disc. At the end of the symphony's tragic final movement, in which the quiet rasp of muted trombones presages first a solemn brass chorale, then passionate descending lines in the violins and violas, followed by the cellos and basses over a throbbing low-fre-

### MEASUREMENTS

here are only two meaningful measurements of a disc transport's output quality: how well it copes with disc errors, and the amount of timing uncertainty or jitter there is in the datastream it outputs. To assess the latter, I used my Audio Precision SYS2722 as a digital oscilloscope, overlaying successive snapshots of the dCS Rossini Transport's datastream to show what's called an "eye pattern." With an ideal transmission system, all the pulse transitions in the datastream will overlay one another to produce an image of a wide-open "eye," with apparently just one trace visible.1

Fig.1 shows the eye pattern of the dCS Rossini SACD transport's single AES/EBU output, plotted over one "unit cycle" as it fed the Audio Precision a 16-bit AES/EBU datastream comprising the Miller/Dunn J-Test Signal for 60 seconds. The transport was clocked from the Rossini DAC, which is how I performed all my auditioning. The eye is indeed wide open, and the

multiple traces overlay exactly.

To make this a worst-case situation, the AES/EBU link was a 45' length of Canare 110 ohm balanced interconnect, which results in a somewhat lengthened risetime compared with the Audio Precision's own AES/EBU output using the same 45' datalink (fig. 2). This behavior won't affect sound quality, other than with a D/A processor having a pathologically poor serial data input.

I tested how well the Rossini Transport coped with disc errors by playing

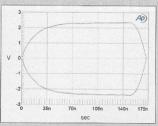


Fig.1 dCS Rossini Transport, eye pattern of AES/ EBU data output carrying 16-bit, 44.1kHz J-Test data (±3V vertical scale, 175ns horizontal scale).

the Pierre Verany Digital Test CD, which has calibrated gaps in its data spiral. The Rossini's error correction was excellent—no glitches in the 500Hz tone were audible until the gaps reached 2mm in length, though the player stumbled at the start of track 31, which has 1mm gaps. (The Compact Disc standard, the so-called "Red Book," requires only that a player cope with gaps of up to 0.2mm.)—John Atkinson

1 For a poor example of an eye pattern, see fig.2 at https://tinyurl.com/y4h2gvah.

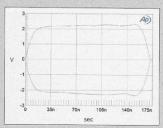


Fig. 2 Audio Precision SYS2722, eye pattern of AES/ EBU data output carrying 16-bit, 44.1kHz J-Test data (±3V vertical scale, 175ns horizontal scale).

<sup>2</sup> See https://tinyurl.com/y4cbxj8b.

<sup>3</sup> See www.dcsltd.co.uk/reviews/rossinis-return.

quency pulse, the combination of the dCS Rossini Transport and Rossini DAC left me sitting quietly in my chair, not

needing to play any more music that evening.

I finished my formal auditioning of the Rossini Transport with a five-CD set Sasha Matson had sent me as a Christmas present (belated thanks, Sasha): Count Basie & His Atomic Band's Complete Live at the Crescendo 1958 (Phono 870245). Upsampling this CD to double DSD, I was transported to this Los Angeles night club—the sense of palpable realism was superb, and the dynamics—oh, the dynamics! Years ago, I played bass in what used to be called a "rehearsal band," with a lineup similar to Basie's on this recording; even without any amplification, a big band is LOUD. The way the trumpets and snare drum punctuate Joe Williams's vocal in "Every Day I Have the Blues" on CD 3 had me pinned me back in my chair.

I've been living and working with hi-rez PCM for more than 20 years, but my experience of the dCS Transport upsampling CD data to DSDx2 has me wondering if I should have paid more attention to DSD encoding.

### Disc vs Network

These days I mostly listen to music streamed via my network from a Roon Nucleus+ server, so I needed to find out if playing a physical disc in the Rossini Transport sounded better or worse than sending the Rossini DAC the same data via Ethernet. One recording I have on both SACD and DSD64 files is Patricia Barber's Café Blue UN-mastered (SACD/CD, Premonition 90760-5). I placed the SACD in the Transport's drawer, and cued up the album in Roon on my iPad mini. (An operational problem raised its head: Pressing Pause on the dCS remote paused both disc and network playback.)

Playback levels and the spatial aspects of the sound were identical with the two media. However, to my surprise, the double bass in "Too Rich for My Blood" sounded fuller from the SACD played in the Rossini Transport than from Roon via the network. The same was true for the next track,

"A Taste of Honey."

I repeated the comparisons with another recording I have as both an SACD and DSD64 files, the Dave Brubeck Quartet's *Time Out* (Columbia/Legacy CS 65122). Again the sounds were almost identical, except when it came to the double bass: the SACD sounded a little more full-bodied, more robust.

Color me puzzled. I'm sure the mastering of the versions of these two albums was consistent, but as the data are the same, the sound should be the same. Perhaps, as Jason Victor Serinus has surmised in these pages, an AES/EBU connection for serial data sounds better than an Ethernet or USB connection. I'm not going to give up my Roon Nucleus—playing physical discs involves me getting up from my chair and crossing the room to the equipment rack—but these comparisons made me think.

SACD player vs SACD player

Ayre Acoustics' C-5xe falls into the second product category I defined at the beginning of this review—after it was reviewed by the late Wes Phillips in July 2005, I bought the review sample. I had the C-5xe updated in 2009 with Ayre's MP (for Minimum Phase) reconstruction filter, and ever since have been playing SACDs with the Ayre and using it as a CD transport. Comparing it with the Rossini Transport and DAC were complicated by the fact that the

## ASSOCIATED EQUIPMENT

Digital Sources Roon Nucleus+ media server, iPad mini running Roon 1.6; dCS Rossini, PS Audio DirectStream D/A processors, Ayre Acoustics CX-5MP SACD/CD player. Integrated Amplifiers Ayre Acoustics EX-8 Digital Hub, Cambridge Audio Edge A.

Preamplifier NHT PVC.

Power Amplifiers Lamm M1.2 Reference monoblocks. Loudspeakers Joseph Audio Perspective, KEF LS50. Cables Digital: AudioQuest Vodka (Ethernet), Transparent (AES/EBU, word clock). Interconnect: AudioQuest Wild Blue, Canare (balanced). Speaker: AudioQuest K2, Cardas. AC: AudioQuest Dragon Source & High Current, manufacturers' own.

Accessories Target TT-5 equipment racks; Ayre Acoustics Myrtle Blocks; ASC Tube Traps, RPG Abffusor panels; Shunyata Research Dark Field cable elevators; AudioQuest Niagara 5000 Low-Z Power/Noise-Dissipation Systems. AC power comes from two dedicated 20A circuits, each just 6' from breaker box.—John Atkinson

dCS combination has a digital-domain volume control, the Ayre a fixed output. I therefore pressed into service my NHT PVC balanced passive volume control for the C-5xe<sup>MP</sup>, using the same AudioQuest balanced interconnects for both players but with short lengths of balanced Canare cables to connect the output of the NHT to my Lamm power amplifiers. (The NHT's outputs are on ½ TRS jacks, and the Canare cables were the only suitable ones I had on hand.) Before playing music, I matched levels to within 3mV at 1kHz with the -20dBFS tone on Editor's Choice (CD, Stereophile STPH016-2)—or I thought I had. I'd forgotten, in the years since I'd measured the Ayre, that its output is 6.6dB lower with SACDs than with CDs.

The D/A stages and digital filters of the dCS and Ayre players are different, of course, as are the prices: \$47,500 for the dCS vs \$5950 for the Ayre, before the latter was discontinued in 2013. But once I'd correctly matched levels, the sounds were relatively similar. The reverberation surrounding Joe Morello's drum kit at the start of "Take Five" on Time Out placed the drums the same distance behind the plane of the speakers, and Paul Desmond's alto saxophone sounded equally palpable. However, Eugene Wright's double bass sounded more polite, less forceful, through the Ayre. The same was true with the double bass in Patricia Barber's "Too Rich for My Blood." The dCS combo's low frequencies simply sounded more compelling.

Gatti's Tchaikovsky 6 still sounded excellent through the Ayre, but again, a bit too polite in comparison with the dCS. The symphony's wonderful second movement, a 5/4 waltz, still made me want to dance—but unlike when I'd played this SACD in the dCS, I didn't get up from my chair.

### **Summing Up**

At \$23,500, the dCS Rossini Transport falls into the third of my product categories. I loved how, in combination with the Rossini DAC, it made both SACDs and CDs sound. But once these words have been laid out on the pages of this issue, I'll have to return it to dCS. It breaks my heart.

<sup>4</sup> See www.stereophile.com/hirezplayers/705ayre/index.html.