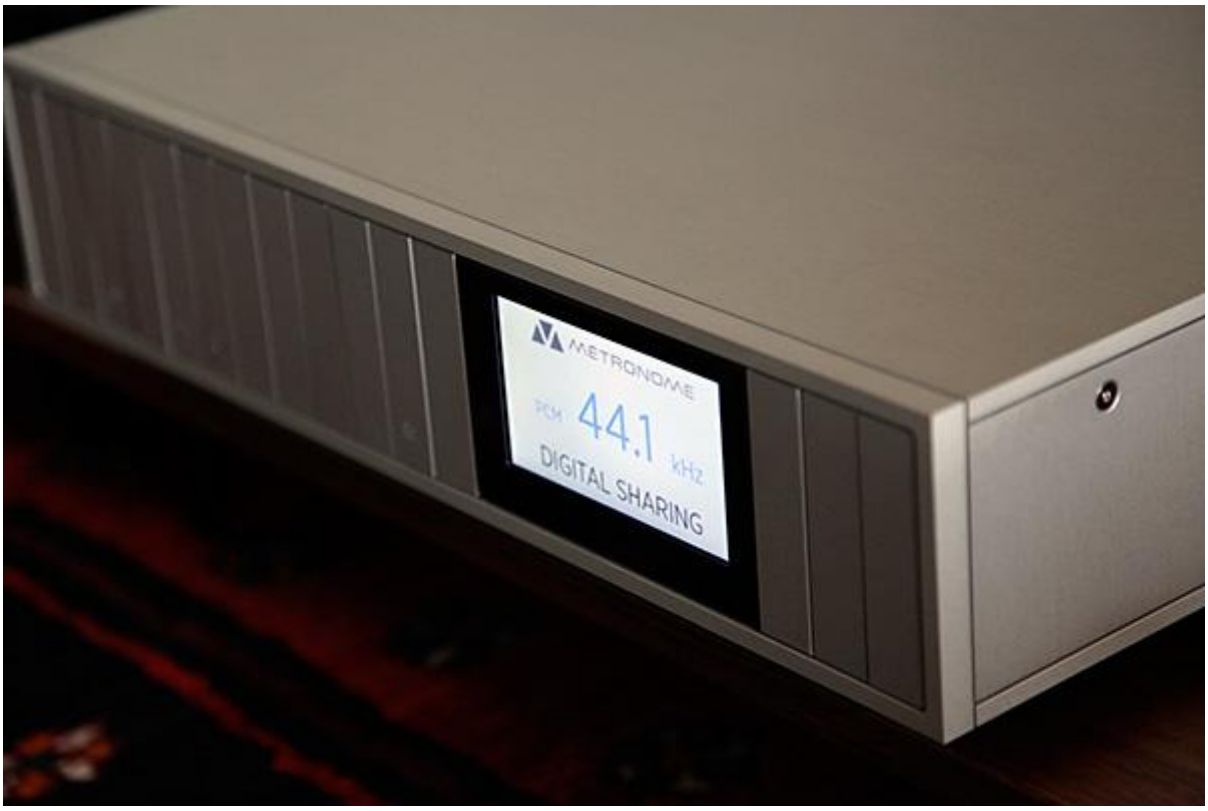
Metronome DSC1 Digital Sharing Converter Review

Rafe Arnott | Mar 20, 2019



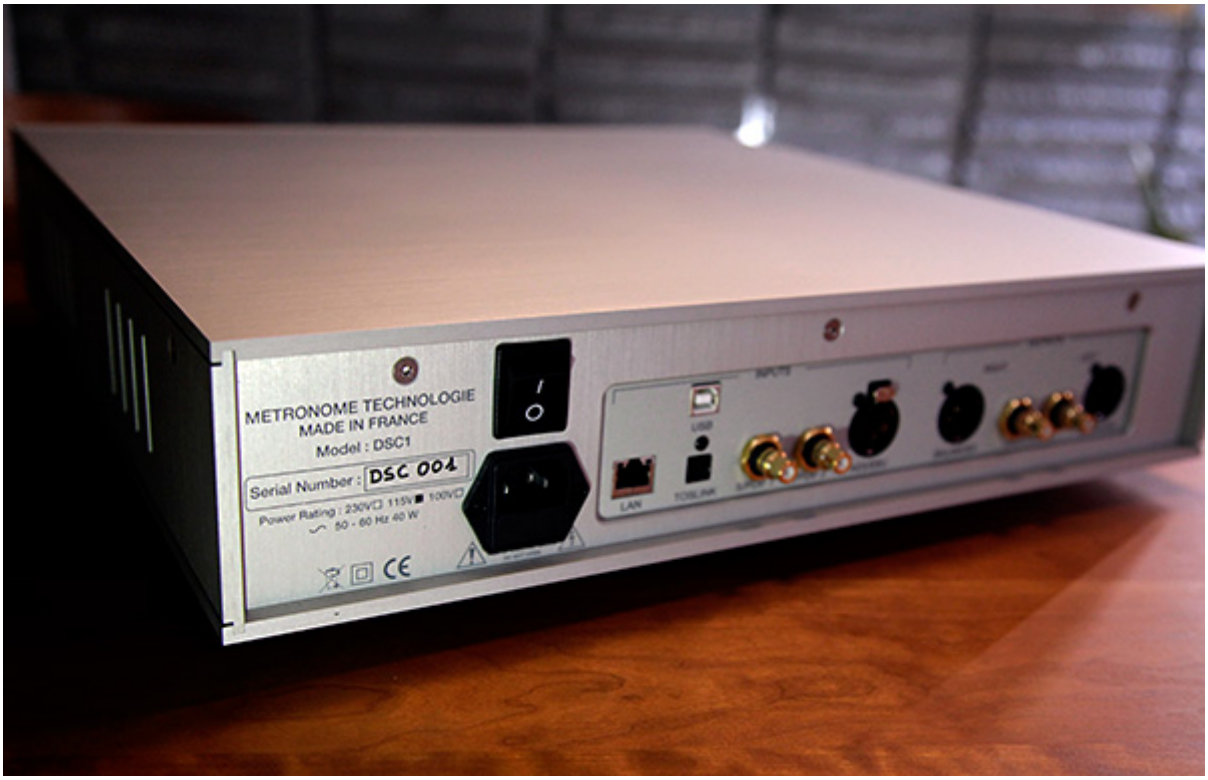
Introduction

Like 18th-century French naval explorer Nicolas Thomas Baudin, there is more to the Metronome than just one story. Baudin may have made a name for himself as a captain of a number of military and transport vessels sailing to far-flung ports around the world, but his tendency to indulge the cartographer and naturalist in him led to expeditions of a more scientific nature focused on bringing back to France what he found and *sharing* it with others.

So too has Metronome made a name for itself for a number of decades as a manufacturer of CD transports and players, yet on this journey they have found expertise in D/A convertors, digital servers and now *Digital Sharing* in the guise of the DSC1 being reviewed here and they're taking the 'sharing with others' part seriously.

The DSC1

The $21,000 USD DSC1 is the company's first foray into hybridizing a classic DAC with DLNA/Airplay compatibility for streaming from network-connected devices. The DSC1 can take digital signals from disparate sources for analog conversion via SPDIF, AES-EBU, optical or USB-B inputs – or use it as a dedicated network player via LAN. The unit comes equipped with a dual-mono circuit topology consisting of two 32-bit/384kHz PCM capable (DSD 512 – 8x) AK4497 DAC chipsets which are floated on independent PCBs plugged into the main board. Sample rate conversion features a 175dB dynamic-range capacity with a THD+N of -140dB, and a frequency bandwidth of 10Hz~20kHz +/- 0.1dB. A Class-A analog output stage with four operational amplifiers and 10 independent regulation lines "for each critical part of the convertor providing inter-stage EMI/RF radiation protection" are also part of the focused attention on the noise-critical power supply chain and keeping any AC-related sound quality issues at bay.

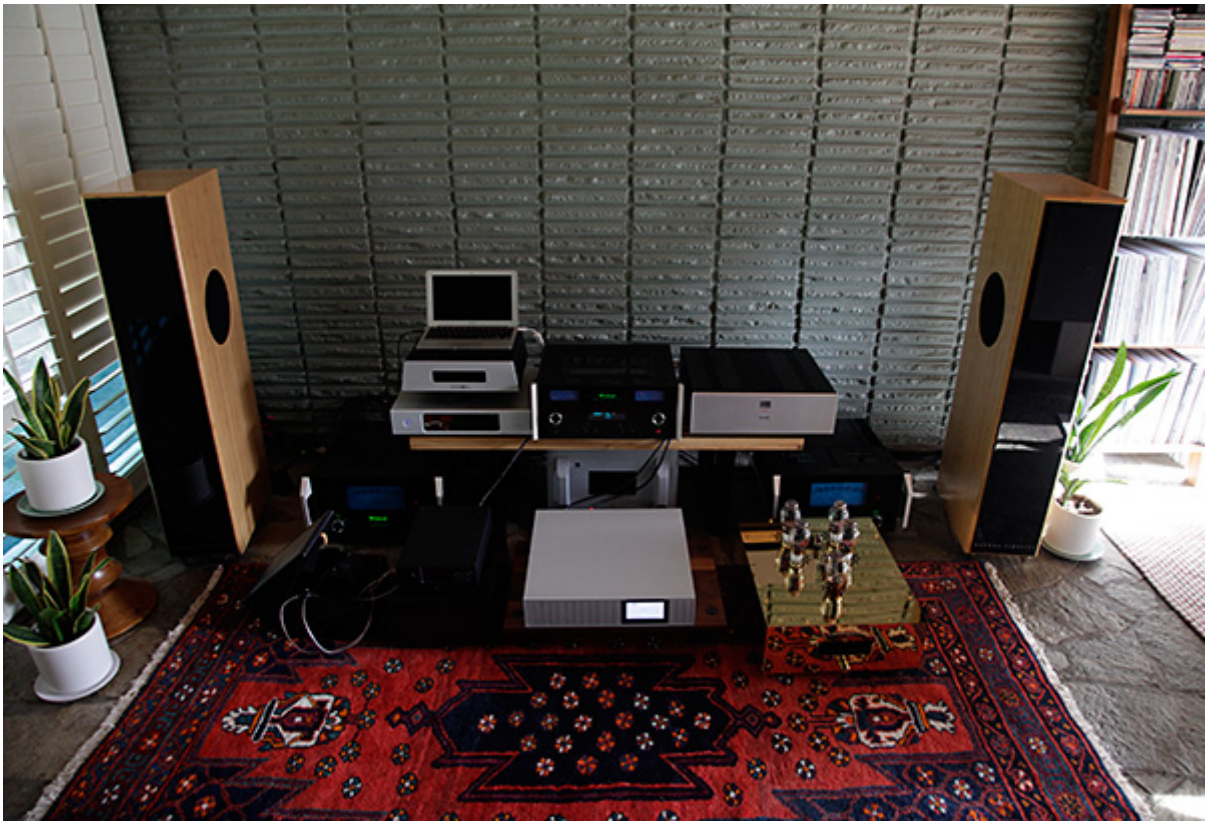


The DSC1 comes in black or silver finish, with my silver unit looking the business (and weighing it too at just under 40 pounds) with solid and chunky aluminum-alloy construction and three heavy-duty machined and thread-adjustable cone-spiked feet. The large 5-inch LED display screen is a bit *too* bright for me (even turned down) but is easily legible, with a high-contrast dark-text-on-white-background readout. Operations such as

secondary powering on/off, menu selection and display brightness are all handled by the cleverly disguised panel buttons on the front fascia that blend completely with the integrated slotted panels which grace the unit's faceplate. The rear of the DSC1 is cleanly laid out with the aforementioned digital inputs clearly clustered in the centre of the unit's back panel and bookended by the IEC/Mains input socket and main power rocker switch on the left and both balanced and unbalanced output on the right.

Set up

For this review I fed the DSC1 a mix of 16-bit/44kHz and 24-bit/192kHz PCM files from cloud-based streaming services like TIDAL/Qobuz and local USB-HD based mp3, PCM and DSD128 files via Roon/Ethernet through an audio-only dedicated Apple MacBook Air 11-inch. I also fed the same files through the DSC1 via its USB input through an Aurender N10 music server. The DSC1 unit I had did not allow for *Lossless* Roon playback via Ethernet (Green light in Roon signal path indicates "High Quality" not "Lossless," but this was because the unit showed up under "Zones" as a "ShairportSync" device due their Roon Ready implementation still being in the works (coming soon according to Roon's VP of Marketing Dipin Sehdev), so everything above Redbook was being downsampled to 24/48 to accommodate the AirPlay protocols. Therefore I used the DSC1's USB port via the Aurender N10 for critical listening. That said, I have to say, even via AirPlay, the Metronome sounded organic and had a very satisfying analog *authenticity* to its portrayal of voices, wood-bodied string instruments, brass and piano. I think many would be impressed at how well the circuit implementation handled the Apple compression algorithms. *I did not use the Mconnect suggested by Metronome for playback because I have an extensive Roon/Aurender library and while initial noodling around with the Mconnect application proved satisfactory, it did not behoove me to rebuild my library in yet another disparate app.



Associated equipment downstream from the DSC1 for this review included a McIntosh C2600 Tubed Preamplifier, McIntosh MC611 mono blocs and DeVore Fidelity Gibbon X loudspeakers. All digital cabling, interconnects and speaker cables were a mix of TelluriumQ Black, Ultra Black, Silver and Black Diamond. AC cabling and power requirements were handled by PS Audio AC5 cables and a Power Plant 20.

I contacted Metronome's Associate Director and Managing Partner Jean Marie Clauzel to find out more about the DSC1. Here's our back-and-forth. **Metronome Q&A**

Rafe Arnott: *Metronome has been known for many years for its CD player and transport technology, what made the company want to branch out into networked computer-audio devices? What was the goal behind the DSC1?*

Jean Marie Clauzel: "It's true that Metronome was reputed for their CD players, but before all, the aim of the company is to provide the best audio-digital sources. Then it became natural to go to computer music and streaming. DSC1 was designed to be a connected DAC, so its first function is D/A conversion."

RA: *“Digital Sharing” is literally the in the name of the unit, is it safe to say that when the R&D and initial design process of the DSC1 was underway that bringing everything to do with digital, or computer audio was baked into the unit’s DNA?*

JMC: “Yes. DS will stand for a range of connected devices. The following one is in development, but this is another story of course.”

RA: *You’ve included every critical digital input and unbalanced and balanced outputs, the 32-bit/384kHz AK4497 DACs are mounted on separate independent PCB sub-boards allowing for potential upgrades – is there an FGPA implemented as well to facilitate software/firmware updates to code/processing as well? If not, why and how will software/firmware upgrades be implemented?*

JMC: “Good question, and two answers: The internal management software can only be modified at our workshop, while the firmware of the network PCB can be updated via the app mControl.”

RA: *Why were the Ak4497 chipsets chosen for the DSC1? Why not an R2R or Multibit design?*

JMC: “We have quite a long experience with AKM’s processors, especially how to get our specific sound-reproduction profile. This is why we keep loyal to AK chips.”

RA: *I understand that “Roon Ready” certification is coming to the DSC1? Why is a partnership with Roon important to Metronome? Is having a dedicated company to handle software/app implementation a better fit for Metronome than hiring its own engineers and producing the bulk of its own software coding? I initially was using Mconnect to run the DSC1 – which is satisfactory – but nothing close to the Roon experience for digital-file playback.*

JMC: “It’s not our purpose to provide audio player solutions, and Roon is getting more and more importance in the audiophile population worldwide. This choice was first of all a customer’s request.”

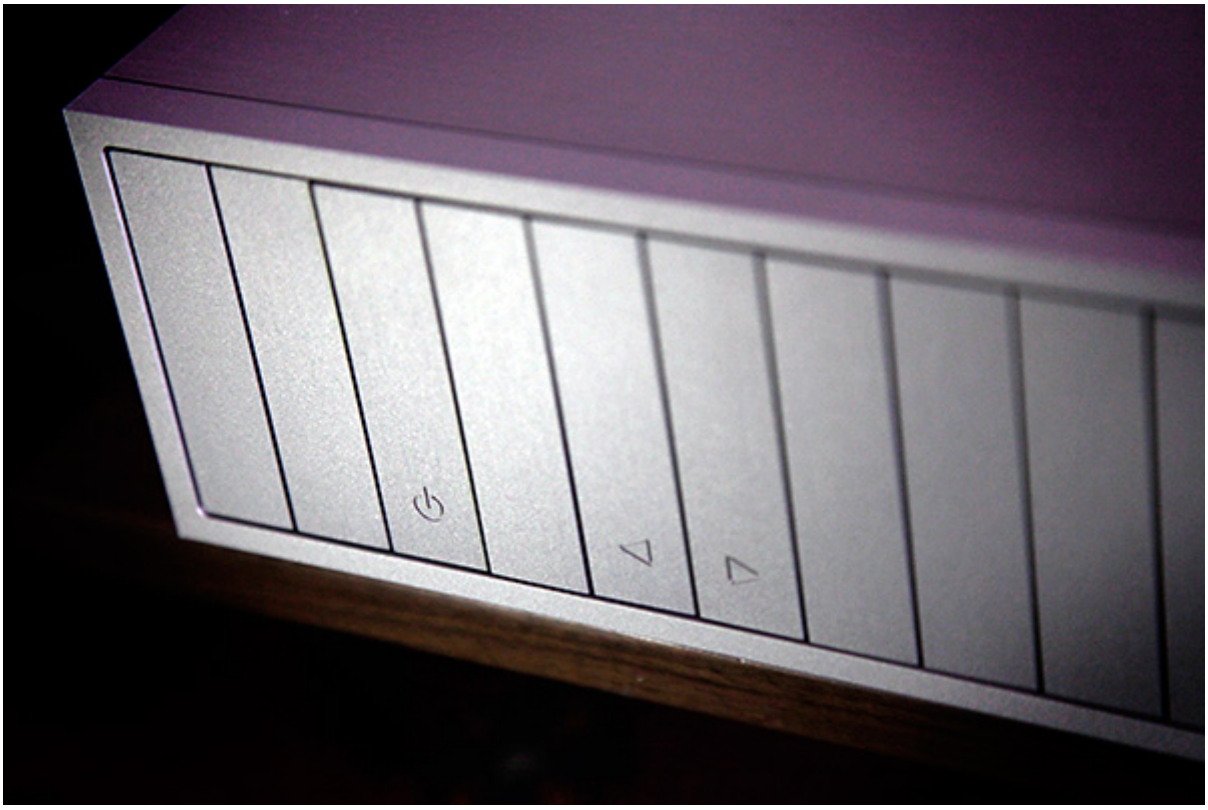
RA: *Where does Metronome stand on MQA? Can we expect full MQA decoding ability to be implemented in the future? For a unit that is targeted at the ultra high-end of fidelity for consumers, should people expect that capability in a component at this price point or is it still a question of how MQA is an end-to-end authenticated protocol that causes some manufacturers to bristle at opening up their proprietary digital-to-analog designs to an outside endeavour?*

JMC: “The DSC1 is already able to manage MQA, like our Kalista DreamPlay STREAM, and we’re working on it for other devices. Like Roon, it’s a request which comes more and more often. I could state that Metronome devices don’t need MQA to provide the best sound reproduction, but the end users will decide…”

RA: *What does the future hold for Metronome in the digital-sharing arena? Can we expect upgrades to the DSC1 in the near future?*

JMC: “We continue working on streaming mostly, and in the next months there will be one more device in this DS range, and more and more “connected” devices under Métronome and Kalista brands.”

Listening

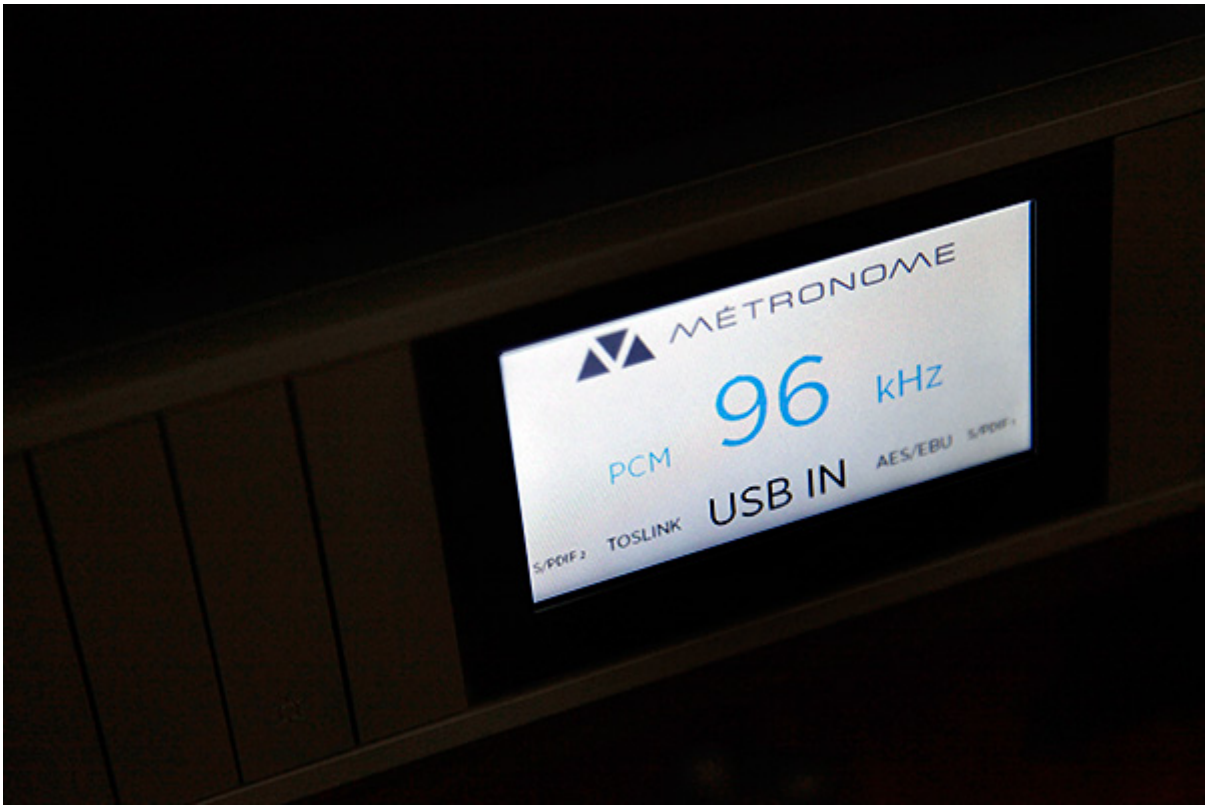


I started with some 24-bit/44.1kHz WAV electronic ambient mixes by Poland native son Bartosz Kruczynski. His February 2019 release on the Emotional Response record label *Selected Media 2016-2018*, (available for download HERE) had snagged my attention since first hearing it on the radio courtesy of local university station CiTR while driving – which I had Shazam'd and then filed it away for the future. After letting it run several times in the background off-and-on the last week I decided to give it a spin *at volume* through the Metronome which revealed some hitherto unnoticed deep bass texture that added a level of engagement to tracks like "IX" which casual listening at lower volumes had glossed over. The electronic keyboard notes gained weight, momentum and spatial anchoring in the sound stage through the DSC1 which brought a human, elemental touch to an album some could consider cold, but here the dense electronic synth, effects, basslines and percussion had life breathed into it.

Acoustic explorations through the Metronome brought continued enjoyment with albums such as the TIDAL 16-bit/44kHz version of Neil Young's 1978 classic *Comes A Time* (which I've been listening to on vinyl since I was a child and my father first bought it when it was released – I bring this up because I associate this LP with the sound of a needle dropping into a groove before the delicate strumming of Young's six-string guitar plaintively

opens up “Going’ Back” so I have an analog connection to it and the DSC1 had me right back between the speakers on the rug of my parent’s home) showing the streaming DAC’s ability to allow the unimpeded flow of rhythm and tempo with an almost tube-like emotive dynamic to playback that had guitars, bass, piano and drums all presented as life-sized consonants of drama and color between the DeVore Xs with a level of tonal and timbral accuracy I've come to expect from DAC designs at this price point: in a word, exquisite.

Another ’70s album I know well from black discs spinning in my past is *Between Us*, Murray Head’s third studio effort on A&M (Qobuz 16-bit/44.1kHz). The opening cut “Los Angeles” features Head’s signature almost-falsetto vocals emotively reeling you into the song’s lyrical fabric. The subtle acoustic-guitar shadings of this cut are given ample play through the Metronome with the sound of the jet landing (presumably at LAX) coming through with balance against Head’s string picking and plucking. Bass notes and percussion are deep and well-defined throughout the track and nestled in nicely behind Head and his guitar in the sound stage. Imaging (if it’s on the recording) is definitely one of the DSC1’s strong suits with a deep, wide sonic landscape laid bare with resolution *and* warmth regardless of genre or file type – even mp3 mixes I have by our resident mixmaster Scott Eastlick came alive without missing a beat, showing just how well this unit deals with any source given to it. For the record, while I prefer lossless or high-res files, I *never* turn up my nose at great music because of its sample rate.



In Conclusion

Explorations, whether they be of the type mapping uncharted waters and coastlines like Baudin – or of the musical variety like my time with with the DSC1, offer the chance to get out of your comfort zone and look (or listen) to things with fresh eyes (or ears). These journeys could offer disappointment or great reward while on deck, but I can say without rhetoric that my time on some (memorable) far-flung sonic shores with the Metronome had me listening more and more to both new works I was unaccustomed to and those classics committed to memory, a sure sign of a high-fidelity design built to stand both the test of time and musical enjoyment for the long haul. Compared to DAC/streamer brethren (of a similar price/performance category) I have on hand like the totaldac d1-direct and dCS Rossini, the DSC1 held its own unwaveringly with resolution, tonality, timbre and demonstrative emotive ability and while it did things with a different sonic flavour when held against both those heavyweight musical contenders, it never once had me wishing for another DAC to listen to other than in a comparative/relative manner. With Roon Tested/Ready implementation just around the corner, the DSC1 offers software versatility on par with both the totaldac and dCS. If I had to split hairs, I would say that strictly from a visual standpoint I prefer the Rossini's

darker, less obtrusive LED screen and the totaldac's lack of a visual lighted presence as I run it without the screen activated at all... but again, that's splitting hairs.

Specifications

- D/A Converter resolution: 32-bit/384 kHz technology, two conversion processors
- Sample rate converter – dynamic range capacity: 175 dB/THD+noise: -140 dB Internal processing, 32-bit/I\input frequency range from 32 to 211 kHz
- Analog stage line: Class-A international polarization
- Solid state: Frequency bandwith: 10Hz~20kHz +/- 0.1 dB
- Dynamic range capacity: 140dB
- Digital inputs: All inputs accept from 44.1 to 192 kHz signal sampling rate: S/PDIF 75 Ohms, RCA: 2 connectors, AES/EBU 110 Ohms, XLR connector, Toslink connector, USB type-B connector, (signals >192 kHz) Ethernet LAN
- Analog outputs: Unbalanced 3V RMS @0dB -47 Ohms – RCA connectors, Balanced 3V RMS @0 dB - 600 Ohms – XLR connectors
- Power supply: EMI rejection by Schaffner filters, 4 main toroidal transformers and 10 separated independent regulation lines
- Voltage: 100 VAC - 50/60 Hz Japan, 120/240 VAC - 50/60 Hz Other Countries
- Other characteristics: Power consumption: 35 VA Dimensions (WxHxD) : 435 x 90 x 435 mm Weight : 17.5 kg