



LIKE



dCS Bartók  
Streaming DAC

VIRGIN

by Neil Gader • photography by Matt Wrightsteel

**AS** audio enthusiasts we remember the anticipation and excitement we experienced when first bringing home a new piece of gear. How we'd spend the rest of the day, night, and into the wee hours of the morning, playing through our music collection—grabbing one album after another, replaying favorite tracks, leaning in closer to the speakers during crucial passages to confirm that we weren't just imagining things. It was magical, like discovering your music all over again. As pop diva Madonna once sang, it made the hobby feel *shiny and new*, as if "for the very first time." I've been in this game long enough to know that this feeling doesn't come along all that often. But then along came Bartók from Data Conversion Systems, Ltd, better known to most of us as dCS.



**BARTÓK** is the British firm's latest network-streaming DAC and represents the direct replacement for Debussy (a non-network DAC). At \$13,500 it is also the most affordable digital music player in the dCS lineup, slotting in just below the \$23,999 Rossini player, which Alan Taffel reviewed in Issue 285. Bartók is also a strictly one-box affair, unlike the flagship Vivaldi which spreads its vaunted technology across three discrete enclosures—DAC, clock, upsampler (four boxes if you opt for the transport).

Visually compared with the elegant curves of dCS's \$100,000-plus flagship Vivaldi, Bartók looks like a downright commoner. The front panel is classy minimalist. Its sharp LED display is confined to a relatively small corner of real estate on the left. To the display's immediate right is a row of five small buttons (power, menu, filter, input, and mute) with a large volume/scroll wheel to the right. The back panel is spacious, and logically laid out. Digital connectivity includes inputs—USB, AES, or SPDIF, and Ethernet for network streaming and storage (such as the Synology 2TB NAS that I use). There are also word-clock inputs for use with dCS's Rossini Master Clock, if your sensibility and budget tend that way. Accessible online music services currently include Tidal, Qobuz, Deezer, and Spotify, or Apple devices via AirPlay. The Bartók performs full MQA decoding and rendering. The independent balanced XLR and unbalanced RCA line outputs can be set to one of four line-output voltage levels to optimize system compatibility. The volume control is standardized throughout the dCS line. In essence there are three separate controls with differing pathways for PCM, DSD, and MQA. They have more headroom than earlier 34-bit designs—dCS now specs them closer to ~60-bit linear.

Bartók sports the highly regarded dCS Ring DAC and signal-processing platform, plus a custom high-performance UPnP network music streamer that features DXD upsampling (in dCS speak, this is shorthand for high-rate, high-depth PCM, corresponding to either 24-bit/352kHz or 24-bit/384kHz) as standard, and optional DSD upsampling. The Bartók supports all major lossless codecs, plus DSD in DoP format and native DSD. There's an extensive selection of DSP filters—a set for PCM and another for DSD—to suit individual tastes and musical choices. The characteristics of these filters are explained in the owner's manual, along with recommendations based on music genre. But dCS isn't hard-headed about how to use these filters, either. Its approach is that there is no right or wrong, and whichever best accommodates the owner's listening bias prevails. From my standpoint I found the differences subtle at best, and no single filter swung my opinion permanently in its direction.

Like all dCS products, Bartók retains the auto-clocking, jitter-minimizing architecture that's used in Vivaldi. Significantly all dCS platforms are designed for a six-to-ten-year span that will incorporate no fewer than 2–3 software upgrades within that period. This is one crucial reason why dCS designs using FPGAs or Field Programmable Gate Arrays and writes its own code for them. Its literature states that these semiconductor devices are “based around a matrix of configurable logic blocks

(CLBs) connected via programmable interconnects” and can be reprogrammed to a desired function or application (signal processing, for example) after manufacturing. In the fast-moving DAC market this can effectively extend the lifespan of Bartók, if not make it nearly future-proof. To this end, Bartók firmware is easily updated via its network connection with a new automated download menu.”

There are two versions of Bartók—the network-streaming DAC reviewed here, and one with an optional built-in Class A headphone amplifier. The custom-designed head amp is suitable for high- and low-impedance headphones, either balanced or unbalanced. The cost for this option is \$1500 and is currently exclusive to Bartók.

Setup was remarkably easy. For most users the Bartók Mosaic control app (a free download) will be the first order of the day to get the unit up, running, and fully functional. Once resident on an iPhone or tablet, Mac or Android, the graphic display is clean and intuitive, and music easily searchable. I was able to manage DAC settings, upsampling and filter controls, playback instructions like creating a song queue from a source (a USB or my NAS), and of course access network streaming and subscription channels. Alternatively, there is an optional remote control available to order. I haven't seen it, but I doubt it will have the flexibility of the control app. However, it might be a nice addition whenever you can't find your phone.



### BARTÓK VS ROSSINI: THE ESSENTIALS

Given that Bartók and Rossini are both DAC streamers, I asked John Quick, dCS's general manager, to explain their most salient differences. His response arrived, well...swiftly. Beginning with the chassis, Bartók is not quite as heavy or as inert as Rossini. Whereas all Rossini panels, save for the base plate, are machined from solid, aerospace-grade aluminum, Bartók shares only that player's side and top panels. Its inner chassis is folded metal (to provide more heatsink area for the optional headphone amp), and its front fascia is a relatively thin and light cap over the inner chassis. Like every dCS component, Bartók uses internal acoustic damping panels to reduce sound-degrading mechanical vibration and magnetic effects. Bartók has a single PSU for the entire unit, unless it is fitted with the optional headphone amplifier, which has its own dedicated PSU. Rossini boasts twice the power-supply capacity and a completely dedicated PSU for the RingDAC analog board. Rossini sports dCS's latest, version 2.0 Ring DAC mapping algorithms and DSD filter, whereas Bartók uses dCS's classic mappers and filters. Otherwise, Bartók and Rossini share the same dCS processing platform (referred to as Control Board), as well as the very same RingDAC analog board as the flagship Vivaldi series. The upshot suggests that there is a lot of Rossini in this Bartók.

### THE SOUND

Before I launch into my sonic impressions of Bartók let me preface my remarks with this thought: No conversation about a top-tier digital media player would be complete without discussing the elephant in the room—vinyl playback. While it remains the gold standard for many audio enthusiasts, our connection with analog playback is also a complicated one. Sonically, there is no denying vinyl's warmth and dimensionality—a visceral naturalism that strikes our ears as lifelike. Yet there is also the *experience* of vinyl, its care and handling, which can be every bit as compelling as its sound. Vinyl playback places you in a mindset to listen with intention. It's not a casual, spur-of-the-moment endeavor. It's the ritual of selecting an album and cleaning and cueing the disc that focuses our attention, almost as if we were sitting in an audience within a concert hall, waiting for the performance to begin. It's a format that rewards patience and care. Ease and expediency, who needs them? And importantly vinyl isn't about soaring numbers—the digital-bits rat race for resolution.

Digital playback, on the other hand, has none of the comfort-food touches of analog. Its premium is convenience and being a veritable digital Sherpa at file organization. LP playback, by its nature, feels important because it feels so perishable. Digital lacks this vulnerability. Grooves are fragile; data is permanent. But vinyl playback can also be idealized, even fetishized. It's not without its own set of artifacts and colorations, like every other component in the audio chain. So, why am I talking about vinyl in an article about a DAC streamer? Because, except for the tactile thrill of dropping the stylus in the groove, music reproduction through Bartók

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could often as not be mistaken for music from a fine LP rig. I don't say this lightly.

Sonically, Bartók cuts a tonally neutral path, swinging neither cool nor hot on the sonic spectrum. Treble response is flush with air and extension, and low frequencies are pitch-perfect and tactile. The dCS has a character that I would describe as favoring an "in front of the beat" energy, constantly pushing the music forward and not allowing it to lag. Its transparency is as crisp and crystalline as a winter morning in the Rockies. And while flat frequency response is generally a given in the digital world, unexpected was the potpourri of timbral detail that seemed to explode from this network player. That was why I constantly returned to recordings of Stravinsky's *Pulcinella*—a piece that's breathtaking in its divergent melodies and contrasting instrumental voices. The harmonic complexities of an exchange between bassoon and oboe or a trombone and





an acoustic bass, ripping the air with brass transients and a full belly of bass resonances, really allowed Bartók to strut its full résumé of colors and shadings.

Bartók's sensitivity to dynamic shifts, especially of the micro variety, was likely without peer in my experience. When I listened to Tom Waits' "Take It with Me" or "Georgia Lee," the ambience and random "found sound" eccentricities of Waits' barn-house recording venue (on *Mule Variations*) flooded the track with everything from bird whistles, to a buzz of electronics, to the thumping foot pedals and crackling death rattles of an ancient upright piano. Bartók traps these low-level details and ambient minutiae like flypaper. From opening transient to the last gasp of acoustic decay, the musical event is fully exposed in its clarity. Bartók recovers these intimacies in a way that is almost embarrassing in its explicitness. It might be a slight shift on the piano bench or a rustle of fabric during pianist Evgeny Kissin's performance of Glinka's "The Lark," or a couple of short breaths Norah Jones takes during "Not Too Late." Like witnessing a recording from inside the microphone capsule, this level of resolving power creates the impression of a live performance. It drives involvement and makes you want to listen even more intently.

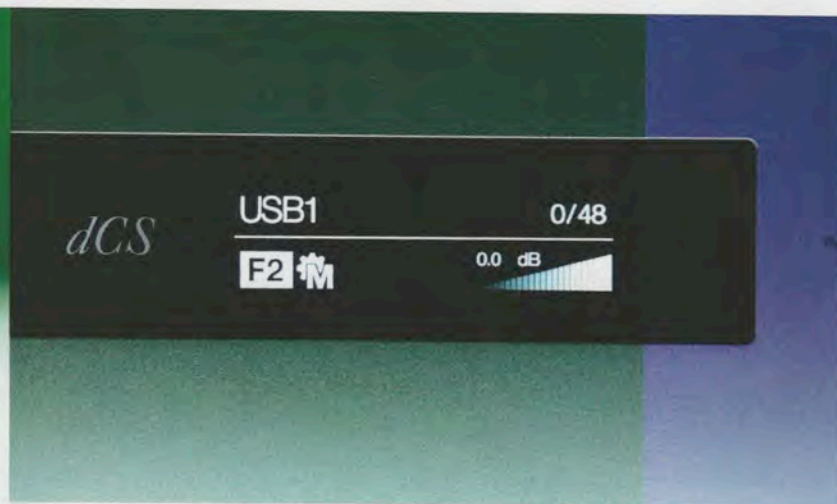
With Bartók in the chain I dare anyone to sit still on a track like "Sweet Georgia Brown" from bassist Ray Brown's *Soular Energy*. This media player simply ups the dynamic and rhythmic stakes into sheer stomp-your-feet territory. It creates a propulsive immediacy and liveliness that break loose in much the same way as classic direct-to-disc recordings do. It's as if the Bartók wizardry has eliminated generations of mixing and processing and returned to the original virgin master.

There's something else; this DAC has a characteristic that is uniquely different from any DAC I've reviewed. It produces the body of a performance on more levels and to a degree that I've not experienced. By "body" I mean the dimensional expression and weight of venue ambience, amplitude, and acoustics, and the physicality of musicians on a stage. Whether it's a soloist, a chamber group, a jazz combo, or a full-tilt orchestra, each performer is captured in front-to-back entirety. It's analogous to being able to lay your eyes on the musicians—to clock their proximity to one another. A prime example is the Rutter *Requiem* with the Turtle Creek Chorale and The

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Women's Chorus of Dallas [Selig, Reference]. The recording has vertical and depth components—a view of singers on risers ascending to the rear of the stage. Bartók reveals individual voices even as it focuses on the collective whole, and it sustains that focus right down to the last gasp of hall decay.

I was fortunate to have Bartók's SACD-playing cousin, the Puccini player, on hand. This proved an irresistible opportunity for comparison. First using the Puccini as a stand-alone player and then as a transport sending the data stream via SPDIF cable into the Bartók. What I learned was that although the now-discontinued Puccini remains a potent force for music reproduction, it can't match the sonic nuance and transparency of Bartók in head-to-head comparos. A prime example was from Harry Connick, Jr.'s album *We Are in Love*. Connick's lovelorn ballad "Drifting" features a concert harp backing Connick's vocal. The Puccini did well to restate the "facts" of this very good recording. The Bartók, however, took those facts to a more tactile and expressive level. Not only did it supply a stronger, fuller sense of dimensionality within the soundstage; it also served up the image of each instrument with more energy, particularly as notes and harmonics died off into the ambience of the venue. With the Puccini there was a hint of the noise floor limiting





## dCS Bartók Streaming DAC

natural decay. It could be heard almost as a cottony texture that encapsulated the decaying note, lightly cloaking it. This veiling, as low as it was with Puccini, was essentially non-existent with Bartók.

### GOING ACTIVE

I'm an active loudspeaker devotee and own a pair of ATC SCM50 tri-amplified towers as a reference. This opens up new avenues for DAC streamers like Bartók that are equipped with volume controls. I was especially interested to compare the sonic differences between operating Bartók within the ecosystem of the Pass Labs XP-12 preamp, and then running the network player directly into my ATCs. In both instances I used Wireworld's latest Series 8 Silver Eclipse cabling (review forthcoming). The quality of the volume control is critical not only to transparency but to balance and dynamics. The gripe—most agree is well deserved—against early digital volume controls (in comparison to resistor-ladder analog attenuators) has been reduced transparency and dynamic compression.

Maybe it was the "classic" analog audiophile in me, but I was expecting there to be obvious differences between listening through a linestage and going direct from the Bartók. However, I couldn't find any coloration or artifact that would disqualify the dCS as a stand-alone. As I listened via Qobuz to a favorite, Vaughan-Williams' *The Wasps* Overture with Previn conducting the LSO, I didn't hear a foreshortening of the soundstage or image smudging. The MQA via Tidal of The Cars' "Just What I Needed" had all the requisite rock cues and cymbal splashes and strafing guitar solos that made my vinyl version so electrifying. The upshot is if you own active loudspeakers and are only contemplating listening via digital playback sources (like a Bartók) you might consider placing the acquisition of a linestage preamp on hold. The good news is that you've simplified the audio chain by one whole component and interconnect (source to preamp). Certainly, if you get the analog bug down the road, superb preamp options like the Pass Labs abound.

It's not lost on me that the price for admission into "Club dCS" is not inconsequential. Nonetheless, at a price hovering in the low teens it undercuts all other dCS products and many others by a wide margin. When you factor in the sonics, functionality, and long product cycles that dCS is known for, suddenly Bartók becomes part of a rational conversation. As high-end audio enthusiasts we tend to slice and dice the performance of a component into neat understandable chunks of criteria—dynamics and tonality and so forth. But at the end of the day, isn't the ultimate goal really to leap those hurdles in the pursuit of something singular—the purity of music itself? I think it is. And that's how this

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DAC streamer spoke to me. In sum, Bartók is a state-of-the-art component, brilliantly executed, that rivals and often exceeds the performance of any comparably priced digital or analog playback rig that I've heard to date. Bravo Bartók! **tas**

### SPECS & PRICING

**Formats:** All major lossless formats including WAV, FLAC, and AIFF up to 24-bit 384kHz native sample rate; DSD64 and DSD128 in DFF/DSF format; other formats include WMA, ALAC, MP3, AAC, and OGG. Apple AirPlay at 44.1kHz or 48kHz; USB interface up to 24-bit PCM at up to 384kHz plus DSD64 and DSD128 in DoP format

**Inputs:** UPnP network interface on RJ45 over Ethernet network; one USB-B type; one USB-A type; (2) AES/EBU; (2) SPDIF (RCA & BNC); one SPDIF optical

**Outputs:** Line, one RCA pair, one XLR pair

**Dimensions:** 17.5" x 4.6" x 17"

**Weight:** 36.8 lbs.

**Price:** \$13,500

### DATA CONVERSION SYSTEMS LTD.

Unit 1

Buckingham Business Park

Swavesey, Cambridgeshire

CB24 4AE, United Kingdom

+44 (0)1954 233950

info@dcsltd.co.uk