



# DCS BARTOK REVIEW

By Third Eye | 02-2020

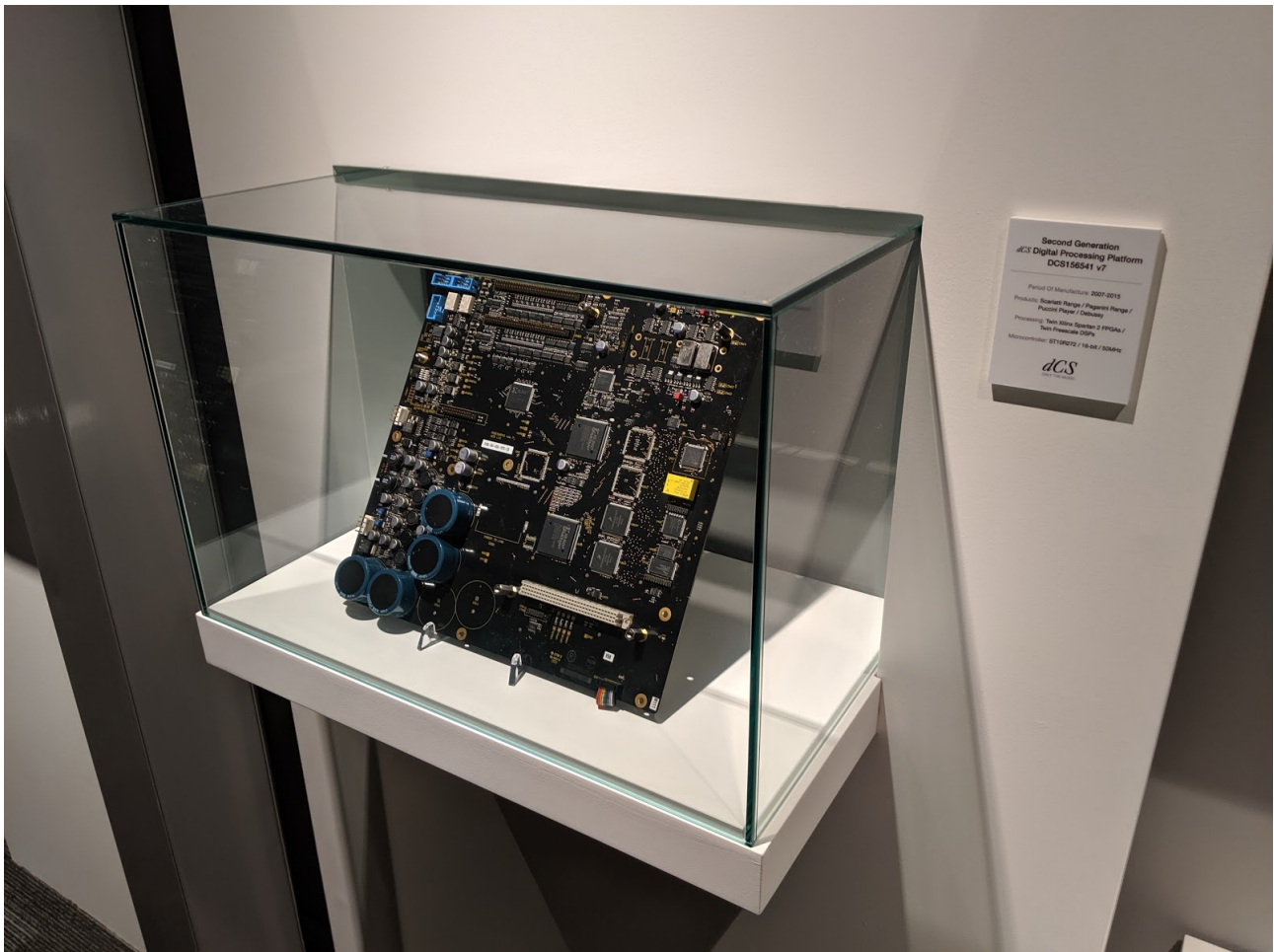
## End Game DAC

**Pros:** - Natural, organic sound with incredible transparency, detail, and dynamic range

- Lifelike timbre
- Excellent built-in headphone amplifier and streamer
- Upgradeable and future proof dCS Ring DAC
- Extremely high end build quality

**Cons:** - High price of entry

- Large and heavy footprint
- No included remote control



**Introduction** The past decade has been somewhat of a golden age for headphone audio enthusiasts. In addition to the plethora of new companies and products on the scene, the level of innovation and

performance has also significantly gained pace. It's not a stretch to say that the sound quality we can achieve with our headphone audio rigs today is something that we could only dream about just a few short years ago.

One of the areas that has seen such dramatic change has been digital audio. I remember the excitement surrounding the first asynchronous USB DACs and the feeling that digital audio was finally coming of age and would someday be able to approach the performance level of vinyl playback. I also remember hearing about Cambridge, UK based dCS and was familiar that they were the first company to introduce asynchronous USB to a standalone DAC, called the Debussy, back in 2008.

Traditionally known in the hi-fi world for their proprietary, and fully upgradable, dCS Ring DAC, dCS is also known for its position at the upper echelon of the high end audio market. For reference, the full stack Vivaldi digital audio playback system (DAC, Transport, Clock, Streamer) costs over \$115,000 with the Vivaldi DAC alone costing \$35,000. In developing the Bartok, dCS set out to design a standalone, one box solution that would be able to provide a large dose of trickled down performance of the full stack Vivaldi system in a package that would appeal to a variety of use cases, including streaming and headphone audio listening.



Over the years, we've seen several two channel audio companies dip their feet in the water with dedicated private listening rooms at various CanJam shows around the world. And until recently, it seemed that the primary goal was to introduce head-fiers to the world of two channel audio with the rationale being that headphone enthusiasts would eventually "graduate" to two channel systems when



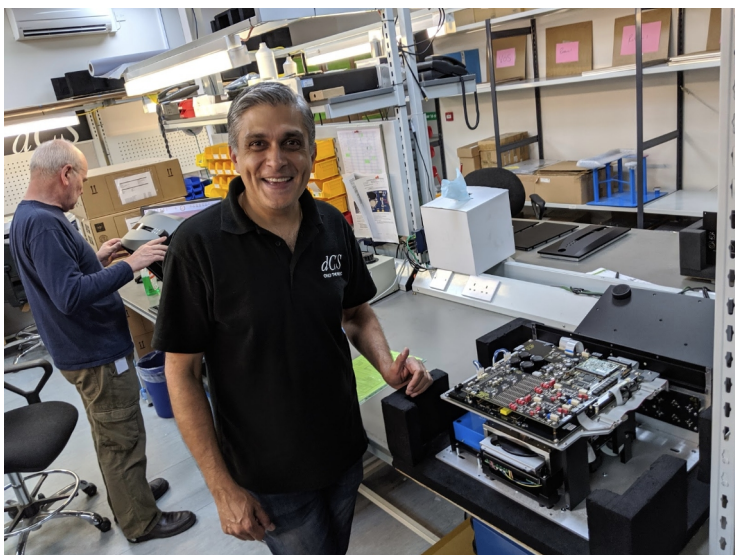
they were able to. And yet, there seems to be a recognition of the high end enthusiast headphone community as its own niche market. A market that is asking for products with more innovation and better performance along with truly high end and aspirational products that also imbue a luxury lifestyle and strong pride of ownership.

The dCS Bartok would fit into this category and would squarely aim to appeal to the headphone enthusiast looking for an end game DAC to build a rig around or someone looking for a one box solution as the Bartok includes an excellent built-in headphone amplifier and streamer.

The Bartok was released in 2019 and can be purchased either as a DAC only version (US MSRP \$14,500) and as a DAC with Headphone Amplifier version (US MSRP \$17,250). The subject of this review is the DAC with Headphone Amplifier version and encompasses:

- The dCS Ring DAC, which is the very same one found in all dCS DACs including the flagship Vivaldi.
- A Streamer that can be used with the main streaming services and as a Roon endpoint.
- An in-house designed Class A headphone output stage that uses an all discrete transistor design along with its own dedicated power supply.
- An app called Mosaic that enables full control over the digital audio system.

I first heard the dCS Bartok at several audio shows in 2019 including CanJam and Munich High End. And just prior to CanJam London 2019 (one of the last CanJam shows prior to the involuntary pause caused by COVID-19) I had the opportunity to visit the dCS headquarters in Cambridge and came away extremely impressed with the engineering focus of the company and the story behind it. After spending several months with the Bartok in my home system in 2020, I'm better able to share my longer term impressions.



### **Unboxing and First Impressions**

The Bartok is shipped double boxed with a white dCS box containing the Bartok protected by an exterior shipping box. The unit is well cushioned in the box with foam and comes wrapped in a black fabric drawstring bag. There is an excellent and detailed 54 page user manual along with Quick Menu guide and Mosaic control one sheets.

The first noticeable thing when lifting the Bartok up for the first time is its heft and physical size. It's a weighty beast coming in at 36.8 pounds (16.7 kilos) with dimensions of 17.5" x 17" x 4.6" (444mm x 430mm x 115mm). The large dimensions of the unit make it ideally suited for a dedicated audio rack.



The Bartok is beautifully finished in thick, machined aluminum and feels incredibly well made and rock solid. It eschews the more sculpted fascia of its higher end dCS siblings and instead opts for a flat front panel with a hi-res screen on the left, 6 small metal buttons, two headphone outputs (one balanced, one single ended), and a silky smooth rotary volume control on the right. Although dCS does sell a dedicated remote control as an add-on option, all of the controls can be easily accessed either through the front panel menu system or the Mosaic app. There is also the possibility to connect a universal remote control and I was able to connect a Harmony 700 that was lying around with relative ease, although in my application it wasn't fully necessary as my audio rack is placed within arms reach of my desk.

### Setup

The Bartok serves as the hub of a digital audio music playback system. Like many others, I listen to music and media from a variety of sources including playback of lossless audio files stored on my computer's hard drives, streaming of audio files from Qobuz, as well as content consumption from YouTube and digital audio playback from my Smart TV apps such as Netflix, and Amazon Prime Video. With the Bartok I can seamlessly switch the input source for my given application and for music specifically, I can use the Bartok as a Roon endpoint to manage both my hard drive based music files as well as my Qobuz streaming.

The back panel of the Bartok contains the connections for balanced and unbalanced analogue audio outputs as well as S/PIDF (coaxial and TOSLINK), AES, and USB inputs for connection to the computer and/or formatted flash drive or NAS drive. There are also Ethernet and IEC connectors as well as connectors for adding an external Master Clock to get even closer to the performance level of the dCS Rossini and Vivaldi platforms. To set up the Bartok in my system, I connected a USB cable to my PC and this connection called "USB 1" is the connection used when listening to music stored on my PC's hard drives and consuming content from my PC system, which in my case is mainly YouTube.



Connecting an Ethernet cable to my router, I'm then able to use the Mosaic or Roon apps to control my stored music files as well as my Qobuz streaming. When using the Bartok in this manner, the input will switch automatically to "Network".

For watching movies and shows on my TV, I have an optical cable connected to my TV and the "SPIDF3" connection on the Bartok.

I also have a set of RCA interconnects between the analogue audio outputs on the Bartok and the Auris Headonia 2A3 headphone amplifier. I can engage the Headonia by pressing the Output button on the front panel of the Bartok which toggles between the internal headphone out and the analogue outputs.

My listening impressions were mostly done using the Hifiman Susvara and Abyss Diana Phi, and to test out IEM's, the Vision Ears Elysium and qdc Dmagic 3D. For the Susvara specifically, I also added the Auris Audio Headonia 2A3 headphone amplifier to compare with the Bartok's internal headphone output stage. Finally, I compared the Bartok's built in streamer to the Innuos Zenith MK3, a highly regarded, high end music server.

## Sound Impressions

The dCS Ring DAC incorporated in the Bartok uses the same Ring DAC board found in the Rossini and Vivaldi DACs, albeit using a single power supply with a second power supply performing duties for the headphone amplifier. The Ring DAC uses a network of programmable FPGAs that are running proprietary dCS software that performs the digital to analog conversion as well as the digital filtering. One of the key advantages of the Ring DAC is its upgradeability via firmware updates.

Listening to the Bartok is absolutely breathtaking. dCS are somehow able to combine transparency and dynamic range along with beautifully rendered timbre, to deliver an incredibly realistic sound experience. And it does so in a relaxed and easy-to-listen-to-for-hours fashion. Music is conveyed with a broad palette of "color" and an impeccable sense of timing which results in the Bartok sounding organic and natural. And if the goal of a DAC is to bring us as close to the music as possible with the least amount of digital "noise", the Bartok manages to accomplish this with aplomb and finesse

## Using the dCS Bartok internal headphone amplifier

The headphone amplifier of the Bartok is an in-house designed Class A headphone output stage that uses an all discrete transistor design along with its own dedicated power supply. dCS manages to



balance voltage and current requirements such that the Bartok can handle both high and low impedance headphones. Depending on headphone used, the Bartok has 4 gain positions, from 0 (loudest), to -10, -20, and -30. In this case, I use the Susvara and the Diana Phi at 0 and -10, with the IEMs being at -20 and -30. The Bartok has (6) digital filters that provide slight, but perceptible differences in how the music is presented and these filters enable the end user to better match to their own personal preference. There is also a crossfeed filter and a recently updated Expanse filter options that provide 2 additional filters for headphone users. Although my personal preference is to listen without any of the crossfeed options, it's great to have the flexibility and with certain types of recordings, it's a welcome option to have.



The Bartok's headphone amplifier is able to drive most headphones extremely well, and even with the hard-to-drive Susvara, the Bartok sounds incredibly smooth, fast, and tight, with very good dynamics. The Diana Phi is an especially great match with the Bartok's internal headphone amplifier and I found myself switching between 0 and -10 depending on mood and music genre.

It was also a revelatory experience listening to the Vision Ears Elysium and qdc Dmagic 3D IEMs out of the Bartok. With both IEMs at a gain setting of -20 I still had plenty of volume range and both IEMs scaled significantly higher through the Bartok than out of the Astell&Kern SP1000, that I generally use for IEMs. Transparency, speed, dynamic range all increased along with a deeper and wider soundstage. Both IEMs sounded better than I had ever heard them and had zero background noise, with a completely black background.

#### Using Auris Headonia as external headphone amplifier

The Auris Audio Headonia 2A3 tube headphone amplifier (US MSRP \$9,899) is a great pairing for the Hifiman Susvara. When using the dCS Bartok as a DAC only there are four gain settings for the analog outs and these settings are 6V (loudest), 2V, .6V, and .2V. When listening with the Susvara, I keep the setting at 6V which gives me a comfortable to very loud volume range of between 2 and 4 (out of 10) on the Headonia volume knob. Adding the Headonia presents a slightly more three dimensional musical image that is simultaneously both larger and more diffuse, while at the same time adding a little more emphasis on the midrange and increased dynamics and slam. On the other hand the Bartok's headphone amplifier shines with a slightly more intimate, faster, and tighter sound against a perfectly

black background which is intoxicating. Overall, the headphone output in the dCS Bartok is an excellent solid state amplifier in its own right. Many transparent solid state headphone amps sound excellent on a short listen but induce listener fatigue over time. The Benchmark HPA4 is one of my favorite solid state amps that is both transparent, dynamic, and non-fatiguing. And the Bartok's headphone amplifier is very similar in this regard.

### **Comparing Streamers**

I also compared the built in streamer of the Bartok with the excellent Innuos Zenith MK3 (US MSRP \$4249) running both units with Roon as an endpoint. And while there are some minor differences in how music is presented, it's somewhat of an exercise in splitting hairs between the two when comparing sound quality. The Bartok streamer works flawlessly with both music stored on my PC's hard drives and in streaming my Qobuz files. One of the big differences between the two is that the Innuos unit has onboard hard drive storage and can also rip CDs directly to its internal storage. In the end, I believe that the added convenience of the Bartok's built-in streamer would likely negate the need for a separate streamer for sound quality purposes alone, unless specific additional features are required.

### **Conclusion**

The dCS Bartok is a truly spectacular product. Essentially, this distilled version of the flagship Vivaldi and Rossini digital audio platforms, provides a one-box solution for digital audio playback using the same upgradeable dCS Ring DAC as its flagship siblings. It's not a surprise that the Bartok DAC is a stellar performer and worthy of consideration for any end game headphone (or two channel) audio rig. The real surprise is the quality and refinement of the headphone output stage and the streaming capabilities of the dCS Bartok which largely negate the need for additional components and cables.

Headphone enthusiasts are increasingly spoiled for choice with companies like dCS pushing the envelope of what's possible in digital audio playback. It's also great to see a high end audio company like dCS get more involved in the headphone audio space, with their development of the headphone output stage in the Bartok.

The Bartok should be on a (very) short list for anyone looking for an end game DAC and gets my highest possible recommendation.