The Invisible DAC: My Listening Impressions of the dCS Varèse System

By Lee Scoggins | Issue 137

The dCS Varèse DAC

For some time now, I have enjoyed visiting my friend Scott Carpenter who owns Evolution Hi-Fi in the Buckhead section of Atlanta, Georgia. As my friends will tell you, I am a frequent visitor of hi-fi shops, and I have a deep passion for the latest technology.

Fortunately, Scott is not a pushy or haughty dealer. He's just a genuinely good guy and fun to hang out with. It certainly doesn't hurt that the place itself is a beautiful facility and everyone is friendly. Scott recently brought in the dCS line and has done well enough to floor their latest flagship the Varèse, a currently five component system with a sixth box, a new transport, arriving in the Spring of 2025.

David Steven (left) and Scott Carpenter (right)

Scott is an unusually skilled stereo setup guy and he takes a lot of pride in delivering components to his customers and spending a good chunk of time dialing them in. Back in November, David Steven, the Managing Director of dCS, came to Atlanta for the Varèse introduction event, and I asked Scott and David if I could share some listening impressions of the Varèse. Due to both the limited number of Varèse systems, it is not easy to get an in-home review sample, but no worries—Scott's flagship system is one I have been very familiar with in its various incarnations.

The imposing Wilson Audio XVX Chronosonic

It would yield even more clarity than my system as it included the Wilson Audio XVX Chronosonic speakers, the top of the line D'agostino Relentless mono block amps and three chassis Relentless preamp, near-flagship Transparent Opus cabling throughout, and a Shunyata Denali power conditioner in a treated, but large, open expanse of a room.

The whole system

In fact, I have taken listening notes here already because it previously utilized the dCS Vivaldi Apex stack and I am always curious to see what possible moves I can make from my existing Rossini Apex gear.

Which brings us to my own experience with dCS products.

I had started off humbly in digital audio with an Adcom CD player, then the Sony SCD-777ES SACD/CD player, moving up to a Benchmark DAC1 then the Benchmark DAC2, then a PS Audio DirectStream DAC and transport, and finally landing on the Rossini DAC. I had heard dCS gear many times at shows, and it always stood out to me as the most neutral DAC, able to do imaging extremely well. Already eight or so years into the Rossini, I was able to finally purchase one, but I soon found out that a big upgrade was coming, and I was worried that I might have purchased an aged-out door stop! Yikes.

Fortunately, it was offered as a hardware update called APEX and involved updates to almost everything in the chassis. The way it worked was that you would send your Rossini into Jim Fuller in Boston. He would install an all new Ring DAC board, but the processing platform (control board) stays the same. But you did get a new backplate

which now had the APEX text on it. In total it was offered for $9K which is not inexpensive, but you are getting an entirely new DAC. Very cool of the boys in Cambridge to keep the technology current in such an affordable fashion.

But what was this APEX update all about?

As it turns out, it was the result of a lot of research and development from Chris Hales and Andy McHarg during and after the Covid pandemic. And it involved a massively improved analog output section as well as a new and more linear Ring DAC board. Sound-wise, it was a bit of a miracle to my ears. There was a new openness across the board and the bass felt more right to me. The soundstage became wider and deeper. The midrange was—and remains—glorious. Highs are effortless and non-fatiguing.

APEX was the best investment I made in my system that year. It seemed to fix the few criticisms I had with the Rossini. Overall, I felt it went from being a smidge analytical to offering up more neutrality, resolution and musical engagement without being too much on the warm side of playback.

The entire Varèse stack

But there was something I did not know about the APEX improvements until a bit later… APEX was based on learning from the R&D done for this new Varèse flagship! Varèse continues the tradition of dCS products being named after composers. The new Varèse is the company's new statement product, and the five (of the six total) Varèse components at Evolution currently add up to an eye-watering $276K. Flagship indeed! But my perspective in audio has always been open to products beyond my pay grade as I figure that the creating team obtains new knowledge that usually flows into more affordable gear. And in fact, we learned this from our experience with the new APEX hardware. And the audiophile in me is always curious how close we are getting to a natural sound that vividly recreates a live event. I had recently heard some tremendously impressive digital playback systems from the likes of Wadax, MSB, Esoteric, and Lampizator. What would the Varèse be capable of? Would it really be worth $276K?

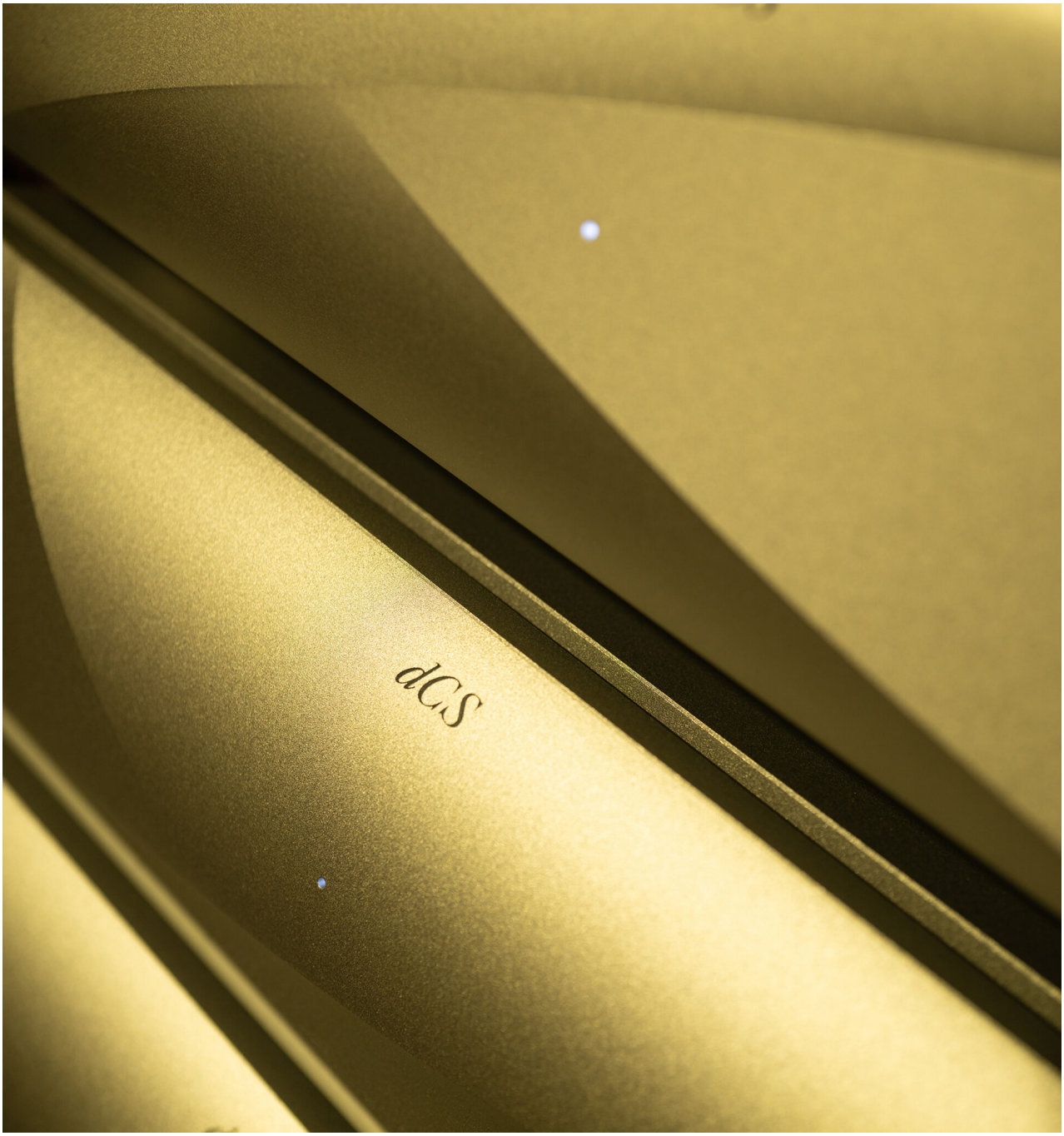
Scott sent me a text when the crates from dCS arrived at Evolution in advance of the event, and I headed to the store. Kevin, another friend, joined us a little later. I tempered my enthusiasm as I knew all products need break-in time and, in my experience, the better the product, the more time is needed. But we assembled all five boxes and got it going. It sounded noticeably different and great out of the, er, boxes but more on that later. So why does a state-of-the-art product need six boxes? Not unlike the Vivaldi stack, each component serves a purposed. Here are the six boxes that make up the Varèse "stack":

- Core: this is the unit that supports high resolution audio and streaming Noise shaping and filtering happens here as well. Future proofing is possible here for a while as there are modules in the back, not unlike pro audio tape decks, where new hardware and functionality can be allowed over time.
- Two Mono DACs: one each for the Left and Right channels, this is where the conversion to analog happens.
- Master Clock: clocking duties happen here of course using the new ACTUS and Tomix
- User Interface: this large screen, high resolution full width, works as a control function with the new circular Varèse remote control and displays the album art and typical playback features like track information and playback queues. There is a small Bluetooth antenna on the back to talk to the Varèse remote.
- SACD Transport: not yet available or reviewed herein but arriving in Spring of 2025 to complete the system.

But I believe the real breakthrough here is the use of Mono DACs.

Why? By carefully using a DAC for the individual channels, noise can be reduced to near-inaudible levels. Now this wasn't easy, as dCS had to create new clocking technology to make sure the DACs remained perfectly in sync. To further help on synchronization and reduce the expense of cabling such a complex system, a new cable with LEMO like connections was developed called ACTUS. ACTUS cables connect the Core unit to the

other boxes, and Ethernet cables connect at the Core level. You still need to buy a set of power cords, but this is a nice feature. I suspect the transport will work in the same fashion.



The textured curves of the Varèse faceplate

The build quality of the units is exceptional. dCS has taken their artistry of the CNC machined faceplates to new heights in my opinion and I especially like how the "waves" on the Mono DACs appear to be mirror images. Either in "stack" form or side by side, the Varèse is visual and sculptural art. The textured silver finish of Evolution's Varèse is really something to see in person. The case work is thick and substantial, and the cables are strong but nicely flexible as well. The seams on the case work are very precise. Possibly the best part is the round remote, which feels substantial in the hand and is easy to use.

D'agostino Relentless amplifier

Interesting enough, it sits perfectly within a side of the D'agostino half-moon shaped Relentless remotes. Neat.

But the real interesting part came from a series of six listening sessions I had at Evolution. However, first I must offer up two caveats about this review to the reader:

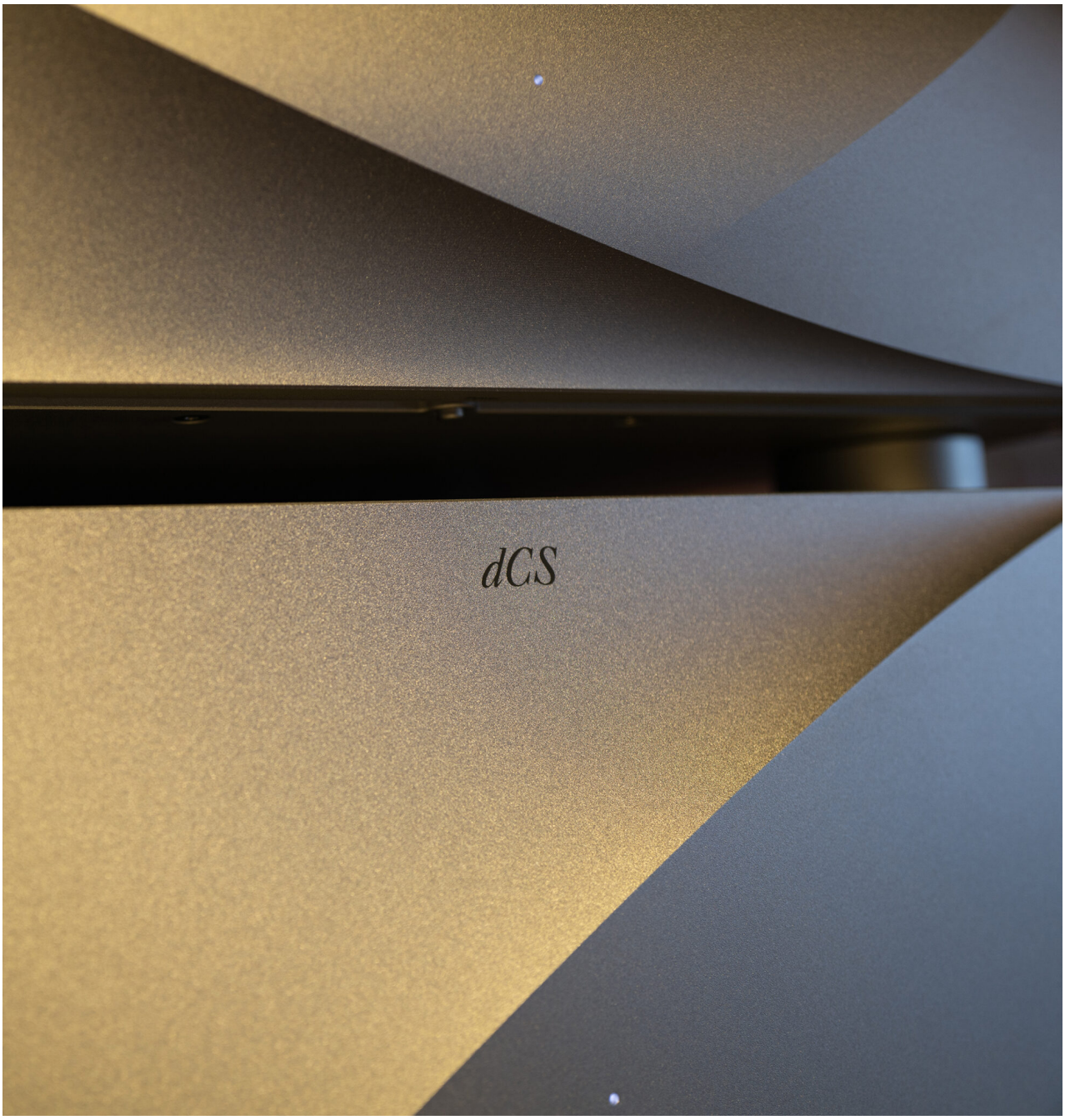
Caveat 1

I listened to the flagship Wilson XVX system at Evolution. I did not have the opportunity to hear it in my own Alexia V-based system. Thus, these are listening impressions done on a different system, but one I am intimately familiar with and have a great number of seat hours as they say in the racing community. It a system of reproducing extraordinary detail but also one that is very engaging from a musical standpoint. Thus, I believe my listening impressions are valid here.

Caveat 2

I can speak to the sound of the Varèse within the confines of this system, but it is impossible to fairly compare the system to that of other DACs without swapping in the competing DAC. I suspect many of you will wonder, how does this compare to the even more expensive Wadax?

It's not possible for me to do a side by side as I have not seen a dealer carry both. The tiny industry economics at play in high end audio make it difficult to compare two expensive flagship products.



dCS curves with a peek at the hidden power button

So, what does it sound like?

Like nothing.

No, not like nothing else. Like nothing. It feels like a conduit for music. It seems like a pipe with musical information effortlessly flowing through. It has the most natural, lifelike sound I have ever experienced from digital, and that by more than a country mile. It is an invisible DAC, seemingly doing perfect conversion, and just giving a perfectly clear window into the performance. But why would this be?

The Mono DACs are so low in noise that I believe that low level information is completely present and available here and that provides those detailed cues that create a whole new level of realism. It is first disorienting and immensely satisfying at the same time. The

vocals best even some of the best reference turntables I have heard (believe me, it is *not* easy to type this as an owner of a Continuum Caliburn). The soundstage is rendered so lifelike. It must be the low noise of the DAC contributing or enabling this low-level information that creates realism. The bass is full and rich, but not overdone. The spaciousness of the music on admittedly huge XVXs is a sonic panorama of detail and beautiful midrange. It is cohesive across the frequency range. It is addicting. In my six visits to Evolution, I wound up staying an extra hour…or three.

Of course, this is all based on streaming, and we listened to wide variety tracks from my own playlists, Scott's select tracks, and some recommended by dCS. We used the excellent Qobuz service but with both 16/44 and 24/96 or higher resolution. Here are some notes from my listening sessions:

Yello, "Kiss in Blue." The wonderful cinematic presentation from Yello always sounds good, but even my Rossini Apex is destroyed by the Varèse' rendering of Heidi Happy's vocals. I noted the bass is simply amazing.

Fink, "Trouble." A current trade show staple, the opening guitar on this track is more present than I have heard elsewhere. However, the real clue to Varèse power is the realism of the crowd noise in the background, so wondrously recreated.

Bob Dylan, "Man in the Long Black Coat." A very crispy harmonica and a superbly rendered gravelly voice by Dylan is a delight. Again, superb bass and clarity on the guitar introduction are world class.

Tracy Chapman, "Fast Car." Spectacular vocal clarity and lifelike dynamics on the crescendo. Micro and macro dynamics on the Varèse are breathtaking.

Eagles, "Hotel California." The deepness of the kick drums is a standout and, as expected, the guitar is completely natural. There is a deep and wide soundstage.

Van Morrison, "Reminds Me of You." The intro guitar work is spot on. But what I want to emphasize here is the separation of instruments. This is something the Varèse does at reference level. I believe we could tie this quality to the ultra-low noise floor.

Voces 8, "Fever." Another quality of the Varèse is the ability to show massed voices as a collection of individual voices. Absolutely breathtaking here!

Aaron Copland, "Fanfare for the Common Man." Clear trumpets, nicely outlined. There is a huge weight presented on the drums that are absolutely thunderous at times.

Joe Morello, "Take Five." A favorite drum demo track of Scott's, this was just *amazeballs* on the drum reproduction. Wow.

Henry Mancini, "The Theme from the Pink Panther." The cymbals had the appropriate shimmer and long decay that real cymbals have. The saxophone had the right bite here as well. Positively real in presentation. No pre or post ringing here friends.

Dominique Fils-Aimee, "Birds." A favorite track of mine for both performance and sound, I have never heard her voice sound so present, and it was just more musical. Stunning.

Peter Gabriel, "Mercy Street." The low end throughout this track created a low frequency floor of information I had not experienced before. It's there somewhat on other systems but it felt more fleshed out here adding to more musical enjoyment. The layering of sound in the beginning of the song is just so well done.

Rickie Lee Jones, "Show Biz Kids." This amazing cover of the Steely Dan song is so wonderful here with a bass line presented in full rich sound and a never heard before clarity on the triangle suspended so well in air.

Dire Straits, "You and Your Friend." The guitar work here is of course genius and present on most good systems, but the realism of the Varèse took it higher.

It was easy to get lost in the music and even get emotional at times. Realism does that. You forget about the gear, and you get pulled into the performance. You want to hear all your favorite songs. That to me is what high-end audio is all about. Creating that strong emotional connection to the music. This new technology helps that go to another level.

Another view of the Varèse components

Criticisms? As with any new product, the new Mosaic ACTUS control app is a work in progress. It works well 90% of the time but it can lose connectivity with the user interface from time to time. This is just new software stuff. And the regular Mosaic app I use on the Rossini has been updated frequently and works great. That's all I have. That's it. I

suppose I should complain about the price but I'm not going to. This is Nordschleife track record-setting performance, and it is a limited production product. David and shareholders need to recoup their multi-year R&D.

But Holy Cow! This is, in my humble opinion, an entirely new level of DAC performance. I have not heard digital playback anywhere near the quality of what I heard with the Varèse. The musicality, detail, dynamics, imaging, and just outright realism is simply breathtaking in a properly set up system. It far exceeds what I have heard in other similarly high performance and similar priced systems. Not many of us will be able to afford this Disney World ticket but we can go to our nearest dealer and hear what is possible. Trust me, it's worth the trip.

I believe that the dCS team has created an ultra linear, hyper low noise Mono DAC system that genuinely lets the music through with zero audible noise. Chris Hales and Andy McHarg and their engineering team are to be highly applauded for their teams' effort here.

And perhaps even more so, David Steven is to be commended for funding an all-out, cost be damned assault to create statement digital playback. In my humble opinion, the dCS team has invented the world's first "invisible" DAC! Bravo.

As a bonus, I posed some questions to dCS Managing Director David Steven. Here is his response which I believe gives further insight into the project.

I hear an incredibly low noise floor on the Was that a design goal? How was it accomplished? How much more linearity is in the Varèse? What sound characteristics result from improved linearity?

Varèse represents advances in several different areas of engineering, all of which contribute in some way to the overall performance of the system. While reducing noise floor wasn't an explicit criterion for Varèse, it is fair to say that given advancements we made in mechanical, power supply, electronic and D/A converter design (to name a few), a lower noise floor was a natural and targeted outcome.

The main area the noise floor has improved is within the Differential Ring DAC. The overall increase in the number of current sources in the Differential Ring DAC current sources leads to a 3dB increase in signal-to-noise. The remainder of the 5dB noise floor decrease is down to several other factors and improvements.

In terms of linearity, our measurements have spurious responses with Varèse at 10dB lower than anything we have done previously. It isn't often a product can offer such dramatic increases in both linearity and noise performance, but the result is an improvement in virtually every subjective area of sound quality. The soundstage is better defined, set against a blacker background, with more clarity on each individual element of the performance. The improvement in linearity helps to convey the tonality of instruments and voices more truthfully.

Overall, our experience has been that Varèse is very much a visceral listening experience. While almost any individual element of sound quality can be listened to and found to be improved, one does not need to be a golden eared listener to appreciate the huge step forwards it provides in terms of musical connection.

You have a staff of PhD-level; how do you incorporate subjective testing into the objective measurements done at dCS?

Listening is a fundamental part of our development process and has been since the early 1990s when our founder Mike Story was voicing and developing the original 900 A-D in the studio with some of the world's top recording and mastering engineers. We were at the cutting edge of digital then as high-rate PCM and DSD were nascent formats, and filters were literally being designed and voiced on the fly. Listening and measurements go hand in hand at dCS and always have.

There are of course certain performance areas our engineers prioritise and focus in on when "developing" but I can say that they have never made a significant breakthrough in measured performance that hasn't resulted in an improvement to the subjective listening experience.

I put this down to almost 40 years of experience, expertise and insight. It's not just about measured performance but about interpreting measurements, knowing which measurements really matter and using the subjective feedback we gather to drive further test and engineering.

When we develop a new product, or even a new technology such as Apex it goes through an iterative subjective listening process that can take years. With Apex for example I recall at least six formal rounds of listening from first prototype to sign off but with Varèse the listening tests took place over a period of several years and covered hardware developments, software developments and prototype products. This constant, iterative listening and feedback process helps drive development at dCS and some of what we listened to made its way into what became the Varèse system.

What future modules for the Core or general upgrade possibilities might we see in the Varèse?

One expansion module which will be available from February 2025 is what we are calling the DIO (Digital Input/Output) module and has the following specs:

- 3x AES inputs
- 1x Word clock output
- 1x S/PDIF output
- 1x USB-B input (for a computer or server)
- 1x RS232 connection, to connect to Transport RS232
- 12v trigger output

We are currently looking at several other module offerings and these are in various stages of development.

Are there any upgrades planned for the rest of the line from Lina to Vivaldi?

Varèse is the culmination of a series of research projects, all carried out in tandem. We didn't set out to design a multi-box system—instead, we started with asking ourselves, how can we further advance audio performance, and how can we create an even more immersive, rewarding listening experience? That's what led us to Varèse.

What this means is that many of the breakthroughs we made when working on Varèse can be applied to other products and platforms, and several features already have.

The Ring DAC APEX upgrade for Bartók, Rossini and Vivaldi, for example, stemmed from R&D exploring how we could further enhance the analogue portion of the Ring DAC's design. As a result, both the Ring DAC APEX and Varèse Differential Ring DAC share several common features. Likewise, the dCS Lina range uses the same flex-rigid PCB architecture that is seen in the Varèse Core, and both Lina and Varèse feature chassis designs which are machined from a single billet of aluminum. (We recently published an article with more info on how Varèse R&D has benefited existing products in the dCS range, which you can read HERE.)

Looking forward 2025 will see a raft of new features being brought to Mosaic (our control app and network stack), Lina, Bartok, Rossini and Vivaldi as we roll out some of what we developed for Varèse. Some of these features will be usability improvements, some will be related to streaming services, and some will be audio path updates.

dCS has stated that new Varèse transport is coming in 2025. Is it possible that may also lead to a more affordable transport for the Rossini or Vivaldi?

Yes, the Varèse SACD Transport will be available in Spring 2025. Unfortunately, the supply of disc mechanisms is limited so it will be very difficult to develop a more affordable transport for the Rossini and Vivaldi. We remain committed to silver disc as a format so hope that we can find solutions to this challenge.

dCS

https://dcsaudio.com/

All photographs by Lee Scoggins.