

dCS Lina Streaming DAC, headphone amp and Clock

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The role of 'most affordable device from a premium manufacturer' is a curious and challenging one. The product in question must deliver a compelling taste of what you will receive in more prodigious amounts further up the pricing structure but do so on a budget capped well below

what those premium products have available. At the same time, it has to hold its own against products that might be another company's flagship; one that they're thrown everything into which can affect customer perception of the result.

The dCS Lina manages to partially sidestep this issue by offering something a little different to other dCS devices. It consists of a three strong Lina range of products that is designed to offer the ultimate headphone listening experience when used together. To do this, it features the first completely analogue dCS product; the Lina headphone amplifier. Designed to take a digital feed from the Lina DAC, it is a fully balanced, Class AB device with a DC Servo and analogue volume control offering balanced and unbalanced headphone outputs on the front panel.

Simple for a dCS

The Lina DAC is 'simple for a dCS,' which is a relative term because judged by any reasonable standard it is quite astonishingly sophisticated. Built around the company's Ring DAC platform (which, for now at least, is in non-APEX configuration), which takes elements of a ladder DAC but combines them with a wholly unique custom mapper

system that is intended to average out any value errors that might otherwise appear over time. The Ring DAC prioritises low distortion and limiting jitter over and above spectacular signal to noise measurements (although it is important to stress that the Lina is no slouch in that regard either) because that is what dCS's data tells them matters more.

The sample rate handling of this DAC varies from input to input but the headline figures are PCM to 24/384kHz and DSD128. In mid 2023 terms where sub £1,000 devices routinely support 768kHz and DSD512, this is absolutely nothing to get excited about but still covers off one hundred percent of my music library and I suspect will for most people reading this too. The options available for adjustment are simpler than more elaborate dCS devices but still stretch to two PCM filters, four DSD filters and the choice of DXD or DSD upsampling. Although it launched as a line level device, the DAC now sports a digital volume control that functions in the same manner as the Bartók, less the physical controls on the front panel. This is completely transparent in use and allows the Lina DAC to front an all digital system if you wished.

As befits its role as part of the headphone stack, crossfeed and the 'Expanse' system that dCS developed for headphone listening can also be selected which is how the Lina Headphone amp gets away with being exclusively analogue. This functionality is made available to one USB-B connection, a USB-A socket for reading thumb drives, two S/PDIF inputs, one on BNC, one on RCA, two AES connections and a network connection. Balanced and unbalanced analogue outputs are fitted.



EQUIPMENT REVIEW
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» UPnP Access

The network input of the Lina is wired only and makes use of the company's Mosaic control app, giving UPnP access to local libraries and on board support for Qobuz, Tidal (for which the Lina is MQA capable), Deezer and Spotify along with internet radio and AirPlay. I like Mosaic a great deal; it's utterly logical to use and, on an iPad Pro at least, has been unconditionally stable under test. As you might expect, if you are a Roon user, the Lina DAC is configured to work as an endpoint too. Control options available in the app are repeated on a menu system accessed via the front panel display and a small number of features are only accessed there. Accessing the video mode setting on the optical input (necessary because without it, the Lina has latency you'd associate with Apollo mission telemetry when connected to a TV) is something of a pain but it only needs to be done once.

For an additional £7,250, the duo can be partnered with the matching Master Clock. This connects via twin BNC cables and features dual oven controlled crystal oscillators – one for multiples of 44.1kHz and one for multiples of 48kHz. The Master Clock is designed to minimise jitter and uses proprietary dCS thinking, now into its third generation. The Master Clock will also work happily with the Bartók (and anything else with a clock input) and offer the same notional benefits there too. As it comes in the same half width casework as the Lina DAC, the three units are reasonably compact arranged horizontally and stack vertically too.

In styling terms, even the most luxuriant photography leaves them looking slightly austere compared to their pricier relatives and the lack of silver finish might be an annoyance for a few people. The experience of using them for real though goes a long way to overcoming these reservations. Their simplicity gives them an elegance that makes more complex rivals seem fussy and every aspect of their construction, from the packaging, through the casework and even the quality of the cabling supplied with them as standard, speaks to a level of care and attention to detail that is impressive, even judged at the asking price. Something that dCS is very accomplished at is avoiding the sort of buyer's remorse that can accompany looking at a box that cost as much as a lightly used Vauxhall Corsa and thinking "I spent how much on this?"

All the dCS things

And, so we can get this out of the way nice and early, it does enough of the things we associate with dCS to ensure

that its role of the first rung on the ladder is met. For me, the dCS listening experience is not about shock and awe. This means that there's no attention grabbing embellishment to the sound, simply an absolute clarity that takes a little time to appreciate. The glorious opening 'Fists of Fury' on Kamasi Washington's *Heaven & Earth* [Young Turks] is the same rich and inviting presentation it is on my normal (and accomplished) digital front end but you become aware that the Lina is prying open that massed orchestra and making the whole experience that little bit easier to follow. The really clever bit about that is that it is done without any loss of cohesion to the performance as a whole.

You don't need a few dozen musicians going at it at the same time either. Mazzy Star's sparse and lovely *So Tonight That I Might See* [Capitol] has far less need to be opened up but the clarity and definition it lends to Hope Sandoval's haunting turn in 'Into Dust' is still utterly arresting. It's a time honoured cliché to blurt out that listening to things you know well on the Lina is like hearing them for the first time again but stone me if it isn't perilously close to the truth. What I have also found no less diverting is that for something as revealing as Reuters, the dCS is impressively forgiving with it. *Language. Sex. Violence. Other?* by the Stereophonics [V2] is the mastering nadir of my digital music collection but it's still entirely listenable via the Lina trio.

The Expanse functionality remains a key part of how dCS has gone from a standing start to become one of the most formidable performers in the headphone arena. The Focal Clear MG that I used for the bulk of testing is a spacious and capable device but the effect of deploying Expanse is still utterly arresting. The result isn't 'bigger' or even necessarily more open but the gains to the structure of the created space and placement of performers within it is still utterly revelatory. I am aware that there is a degree of resistance in some circles to the idea of digital manipulation of the signal and dCS makes the process of turning it off entirely straightforward but its effect is so utterly and unequivocally beneficial that I cannot imagine many people will do so.

What is also notable about the headphone amp is that despite being dCS's first attempt at a completely analogue product, the same almost self-effacing transparency that the DAC demonstrates is present here too. Running a short series of tests with a Chord Electronics Hugo TT2 and Mscaler combination as the source for the amp, sees the wider and slightly more overtly dynamic presentation





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» of the Chord Duo be faithfully recreated by the Lina. If you are a headphone listener for whom vinyl is your preferred source, I have every confidence that – so long as the source equipment is equal to it – the Lina Headphone Amp would be no less proficient used in this way.

If your perception of what the DAC and headphone amp does is gradual rather than immediate, then the clock is the very definition of a slow burner. Adding it is simplicity itself; if you can count to two, have opposable thumbs, and can see where you connect the BNC cables and then attach them, it should present no problems. Once in situ, it very pointedly does nothing to alter the overall balance of the Lina, instead it simply enhances and refines that incredible ability to deliver recordings with absolute clarity and lack of embellishment. Quite whether this careful enhancement of an already biblically talented device is going to be worth £7,250 to you is a decision that only you can make; the Lina is outstanding on its own but it does have more to give even if it is subject to the laws of diminishing returns.

Emotional Response

So long as what you are listening to elicits an emotional response (and if it doesn't, why are you listening to it?), the dCS captures it effortlessly. One extended listening session exited the more conventional 'review friendly' category of content and wound up in a spirited rendition of Underworld's *Change the Weather* [Sire]. Released before Underworld was objectively good, the dCS does nothing to hide the glossy late eighties production and lightweight to the point of banal lyrics but the utter joy I find in this little curio shone through. Midway though, the track 'Original Song' gives the first hint of the sound that would define the group and the Lina reproduces the heavy synth line and stacked vocals in a way that grabs you on an emotional level. I'm pretty confident that this has never featured as a piece of test material for the dCS team but the Linas still behave like it was built for that song and that song alone.

It's this effortless and undemanding brilliance that marks the Lina units out as something special both as a trio for headphones but also with the Lina DAC acting as a line level source for my system too. A vinyl fixation means I'm always likely to want to adjust my volume in the analogue domain so the preamp functionality is less vital but for many, the scope to omit a preamp makes for a useful potential saving. In either case, you have access to that peerless decoding in a form that does the things that I (and many of you reading this) will need with nothing more, other than the promise of

extracting even more from it with the Clock at a later date. Then, when the demands of family members, neighbours or a simple desire to shut the world out manifests itself, I can settle down to what is comfortably the best headphone performance I have had the pleasure to experience. This is the most affordable dCS device and there's no shortage of rivals but the essence of what the company stands for is present and correct in every way and the results are outstanding. +

Technical specifications

Lina Network DAC

Digital inputs 2 × AES/EBU on 3 pin XLR, 1 × S/PDIF BNC Coax, 1 × S/PDIF on RCA, 1 × Toslink, 1 × USB Type B in Async Mode, 1 × USB Type A connector

Analogue outputs 1 × stereo pair 3 pin balanced XLR, 1 × stereo pair unbalanced RCA

Sample frequency and formats PCM 44.1–384kHz, up to 24bit, DSD 64, 128, Native DSD + DoP

Dimensions (W×H×D) 22 × 12.2 × 34cm

Weight 7.4kg

Price £12,500, \$13,650

Lina Master Clock

Clock Accuracy Better than +/-1 ppm when shipped over an ambient temperature range of +5°C to +45°C

Word Clock Outputs 2 × independently buffered TTL-compatible output on 75Ω BNC connectors

Output 1 fixed at 44.1kHz. **Output 2** fixed at 48kHz

Dimensions (W×H×D) 22 × 12.2 × 34cm

Weight 7kg

Price £7,250, \$7,750

Lina Headphone amplifier

Analogue Inputs 1 × stereo pair unbalanced RCA, input impedance 48kΩ. 1 × stereo pair unbuffered balanced XLR, input impedance 16kΩ. 1 × stereo pair buffered balanced XLR, input impedance 96kΩ

Headphone Outputs 1 × dual 3-pin balanced XLR, right and left channel. 1 × single 4-pin balanced XLR. 1 × single ¼" (6.35mm) headphone jack

Dimensions (W×H×D) 22 × 12.2 × 36cm

Weight 7.5kg

Price £9,000, \$9,750

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