

Press Release

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The dCS Ring DAC: A remarkable technology

The dCS Ring DAC is an integral part of all dCS DACS and integrated music players. This digital-toanalogue conversion system – unique to dCS – was developed from the ground up by dCS engineers.

Originally created for our professional audio products, it features a combination of proprietary hardware and software – all developed in-house – which has been carefully honed and refined over three decades to deliver a world-leading technical and sonic performance.

ONLY THE MUSIC

This novel invention – one of several bespoke technologies created by dCS – is one of the reasons that our systems have earned global acclaim for their transparency and fidelity.



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APEX Enhancing the Ring DAC's analogue performance

As part of our commitment to continuous development, our engineers are always exploring ways to further enhance the Ring DAC's performance and, in turn, the musical experience our systems provide.

In 2017, we released a major update to the mapping algorithm that controls the dCS Ring DAC, which allows listeners to tailor the performance of their system to suit their listening preferences and musical tastes.

Following the launch of this software upgrade, we embarked on a project in 2021 to further interrogate the Ring DAC's circuitry and analogue performance. After several months of intensive research and development, we reconfigured the Ring DAC circuit board and developed an all-new analogue output stage.

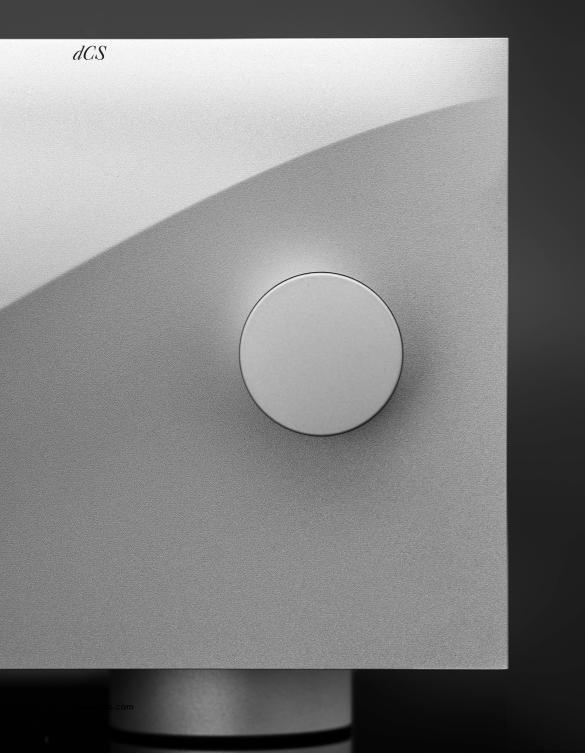
The creation of our new Ring DAC APEX hardware has allowed us to deliver a range of sonic and measured improvements and enhance the musical performance of two renowned product families: the dCS Rossini and Vivaldi.



As of March 4, we're launching new APEX editions of the Vivaldi DAC, Rossini DAC and Rossini Player, which will come fitted with our new Ring DAC APEX hardware as standard. We're also offering upgrades to existing dCS Vivaldi and Rossini owners.

APEX : What's new





Our engineering team have made extensive changes to the Ring DAC's hardware. With the exception of the resistor array, which remains unchanged, the latest generation Ring DAC hardware is all new.

Modifications include:

- Modifying the reference supply that feeds the Ring DAC, resulting in lower output impedance
- Enhancing the filter, summing and output stages of the Ring DAC
- Improving the symmetry of summing stages
- Creating an all-new output stage
- Reconfiguring the main Ring DAC circuit board
- Replacing individual transistors on the board with a compound pair

These modifications are the result of exhaustive analysis and thorough investigation. The new Ring DAC hardware has been extensively tested to ensure it delivers both real and tangible benefits. Alongside running quantitative tests using our bespoke equipment, we have carried out several sounds of subjective listening tests with music professionals and critical listening experts.

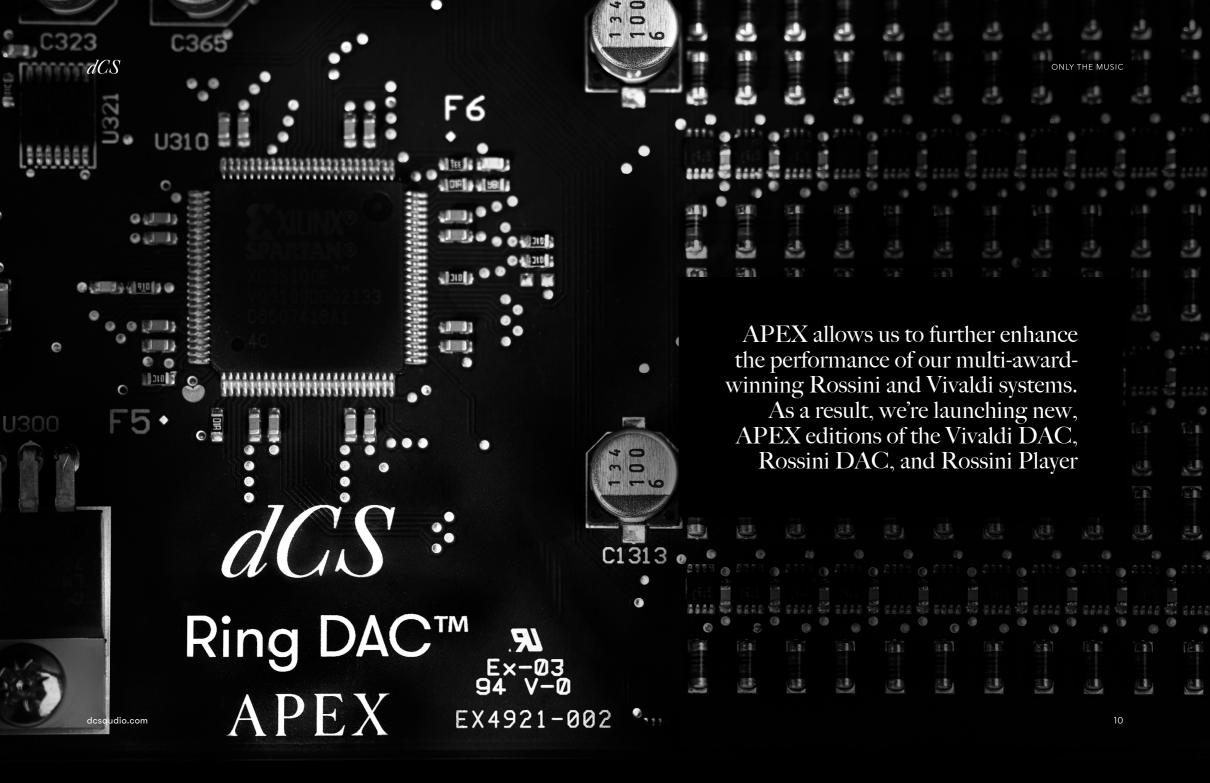




The dCS Ring DAC is already renowned for its excellent linearity – even at low signal levels – as well as its worldleading noise and distortion performance. With APEX, we've achieved the seemingly impossible, reducing noise and distortion even further, and increasing linearity by over 12dB.

These measured improvements have resulted in a range of sonic improvements. Feedback from our subjective listening tests has been hugely positive, with our golden-eared listeners noting a wide range of improvements. Here is just some of the feedback we received during our extensive testing and development process:

- Improvements in the musical experience are immediate and obvious
- Dynamics, rhythm and timing are improved
- Bass detail and impact are improved
- Soundstage resolution and image focus are significantly enhanced
- Details are revealed with greater ease and naturalness
- Leading edges of transients are faster and more impactful
- Transient settling is better, revealing the space after the transient
- Voices and other midrange elements are more precise and tonally resolved. The timbral quality of massed strings Is more realistic
- The transients emerge from greater silence and from a blacker background. The contrast between instruments and the background is therefore more distinct and displayed with a greater sense of clarity



Honouring our customers' investment in dCS

In addition to the launch of our next generation APEX models, we are making our Ring DAC APEX hardware available to existing Rossini and Vivaldi owners through a global upgrade programme.

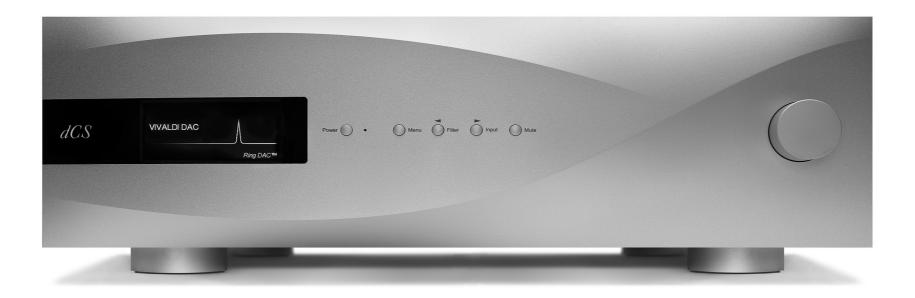
Owners of the dCS Vivaldi DAC, Rossini DAC, Rossini Player and Vivaldi One will all be eligible to purchase upgrades, allowing them to receive the latest generation dCS hardware, without having to having to purchase a new system.

The upgrade programme reflects our commitment continuous product development. We've always strived to create audio systems that improve with time, and to continue rewarding people's investment in dCS by delivering new products, features and enhancements. APEX is the latest example of this, and the most recent in a succession of major hardware and software updates delivered to the dCS community.



THE VIVALDI APEX

The next generation APEX edition of the dCS Vivaldi DAC is available from March 4, 2022, via our network of specialist retailers and distributors. It offers the same array of features as previous generation Vivaldi DACs, with the addition of the new Ring DAC[™] APEX hardware as standard. This addition allows us to extract an even greater level of performance from a system renowned for its clarity and fidelity.





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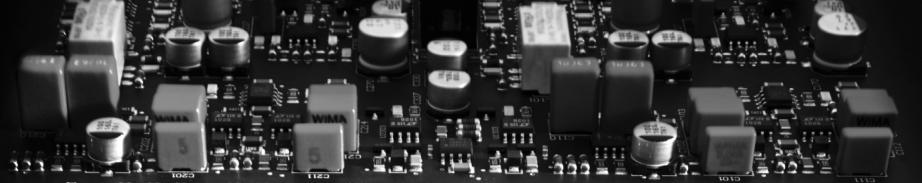
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THE ROSSINI APEX

Next generation APEX editions of the dCS Rossini DAC and Rossini Player are also available from **March 4**.

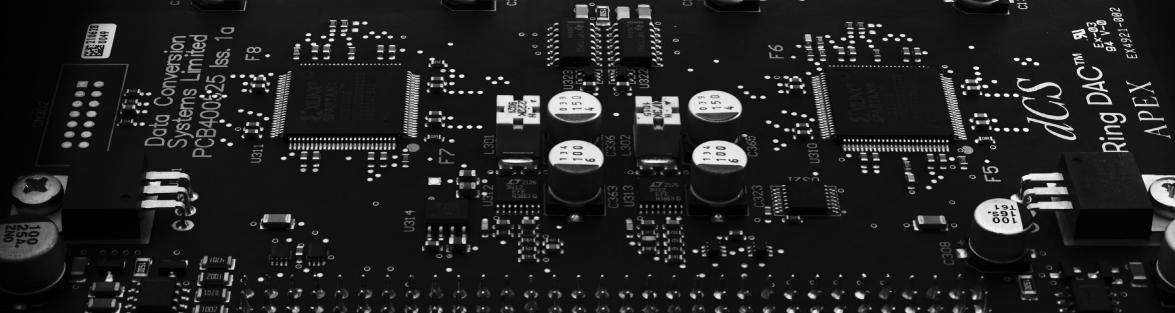






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Demonstrations & Auditions

We have already begun shipping demonstration APEX models to our network of specialist dealers and distributors in the UK, Europe, Asia and the US.

Customers who would like to book a demonstration are advised to contact their local dCS dealer or distributor [click **here** to access the dCS dealer locator tool].

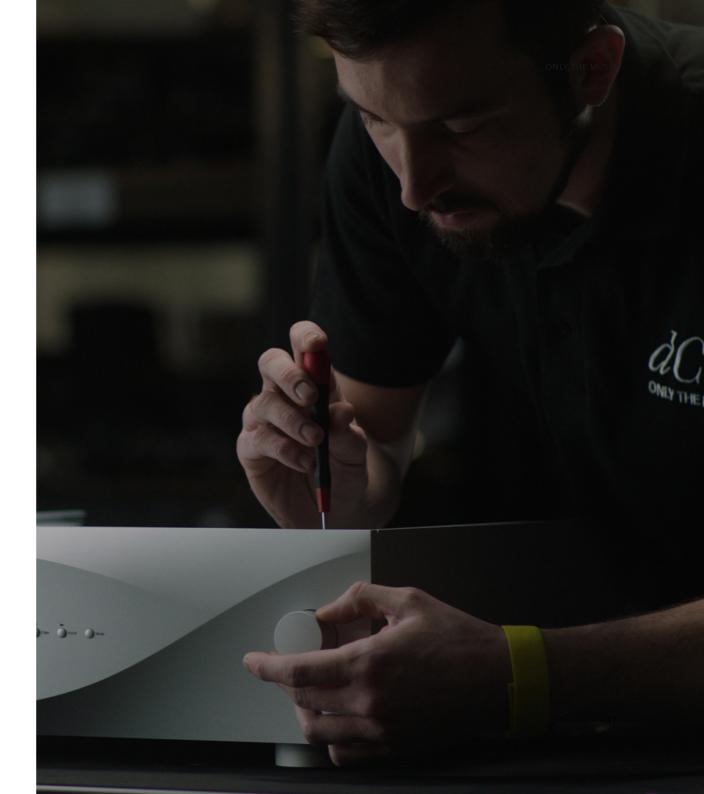
If you are having trouble arranging a demonstration, or finding a dealer near you, you can contact our dedicated customer support team <u>here</u>.

APEX Upgrades

In addition to launching next generation APEX models of the dCS Vivaldi DAC, Rossini DAC, Rossini Player, we're offering upgrades to existing Vivaldi and Rossini owners.

The upgrade programme will begin in May and is open to owners of the Vivaldi DAC, Vivaldi One, Rossini DAC and Rossini Player. dCS will perform upgrades for European distributors and their customers.

Customers who purchase an upgrade will receive the new APEX hardware, plus a new APEX escutcheon. dCS will also issue a one-year warranty on all upgraded units, free of charge. Customers are advised to contact their local dealer for pricing and details.



Learn more about APEX



Watch our APEX launch film, which features interviews with dCS Managing Director David Steven, Director of Product Development Chris Hales and Technical Director Andy McHarg **here**.



More information about the Ring DAC's unique architecture, and the advantages this offers, can be found in our digital resource paper, <u>Understanding</u> <u>the dCS Ring DAC</u>.

You can also learn more about dCS's range of technologies via our online Innovation hub. See **dcsaudio.com/innovation** for more.



Read our in-depth article on the development of APEX **here.**



Click **here** to access images of our Rossini and Vivaldi APEX models

Click <u>here</u> to access images of the dCS Ring DAC APEX More information about dCS, our products, our heritage and our technologies is available at <u>desaudio.com</u>



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