

*dCS*

# Rossini APEX 2.1

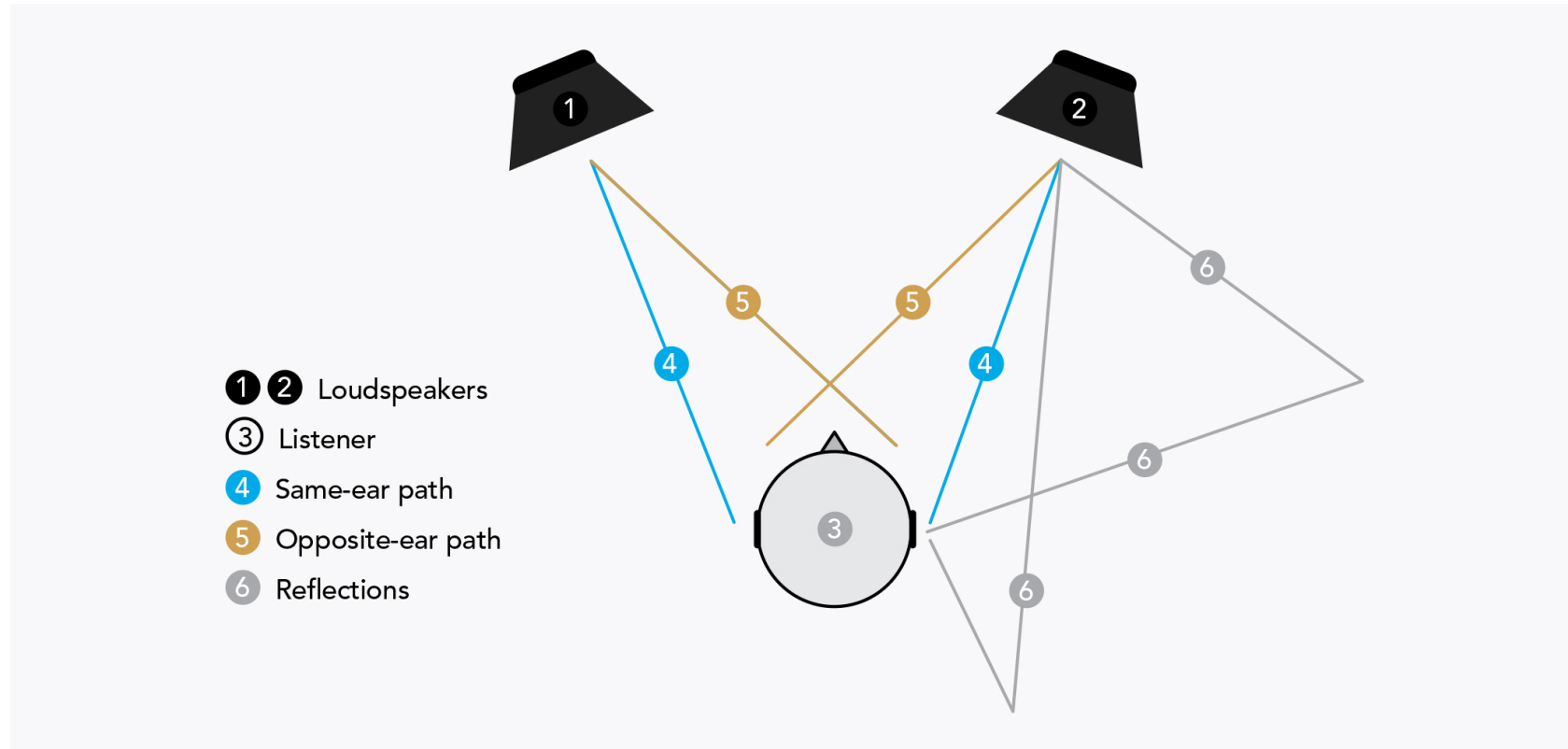
Adding dCS EXPANSE™ to the Rossini Platform



# The Headphone Challenge

Audiophiles have long recognised that the psychoacoustical experience provided by headphones fundamentally differs from listening to music through a stereo pair of loudspeakers. In a conventional two-channel system, we hear the signal from the left and right loudspeakers with both our left and right ears. Listeners also hear the effects of the room along with the loudspeaker's direct sound. While room/loudspeaker interactions can be problematic and challenging, the natural reverberation present in traditional audio systems gives us a sense of distance, space, and naturalness—more like what we hear in a live performance.

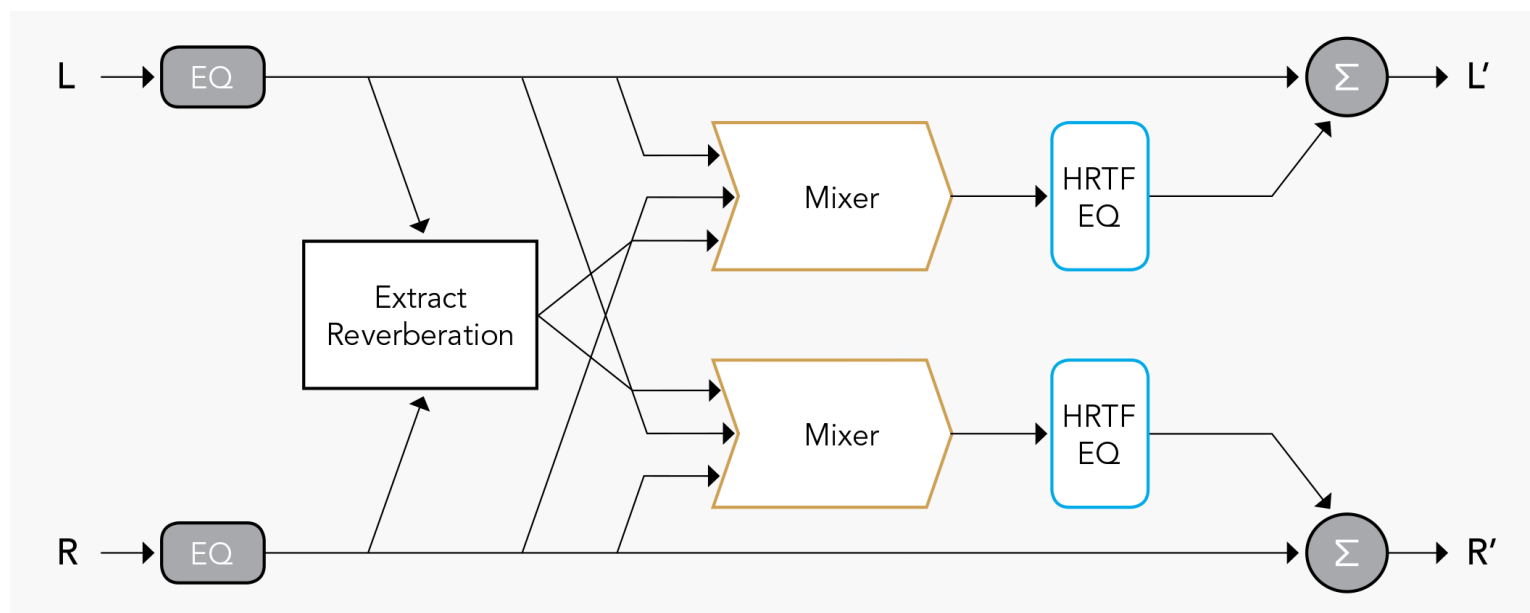
Headphones eliminate the effects of the room since the transducer transmits the audio signal directly to our ears. Additionally, the left and right channels of the recording are provided to each corresponding ear independently and isolated. This isolation does have some advantages. The best headphones offer a uniquely intimate musical experience devoid of room-induced colourations. However, even the best headphones cannot present a natural sense of space and ambiance. They instead create the illusion that the performance is taking place inside the listener's head.



## The dCS Approach

For many years now, audiophiles have understood that one disadvantage of headphone listening is unnatural spatial presentation. Several manufacturers and researchers have offered solutions to the problem, and the results vary widely in principle and effectiveness. These solutions generally employ a type of “cross-feed”, where a portion of the left signal is fed to the right ear and vice-versa. However, this approach fails to consider all the factors affecting how we generate headphone signals from loudspeaker-oriented recordings. Accordingly, none of the existing technologies were worthy of inclusion in dCS’s products.

When dCS determined how to optimize the process with which to tailor stereo recordings for headphone listening, dCS’s engineers researched and uniquely addressed factors ignored by other designs, such as overall equalisation of the signal path, reverberation preservation, and actively tailoring the cross-feed characteristics for natural soundstaging. dCS’s engineers, led by Andy McHarg, chose to design from the ground up a wholly new approach to cross-feed—dCS EXPANSE—which first debuted in the headphone version of the Bartók, and was later included in the Lina DAC. Uniquely, EXPANSE is processed entirely in the digital domain, allowing dCS to update EXPANSE through future software versions.



## Rossini APEX 2.1 Now Includes EXPANSE

When listening through headphones with dCS EXPANSE, the stereo soundstage moves out of the listener's head. The musical performance is presented as a conventional stereo soundstage in front of the listener. EXPANSE differs from other cross-feed solutions in that it optimises the timbre of the sound, preserves the overall sense of space and reverberation and adjusts other psychoacoustic factors responsible for believable music reproduction via headphones.

Many Bartók owners are hybrid listeners, meaning they listen to music within a conventional system with loudspeakers and via headphones. The headphone version of the Bartók Headphone DAC can be uniquely optimised simultaneously for both types of listening. Bartók listeners are especially attuned to the fundamentally different experiences provided by headphones and loudspeakers and, therefore, have a special appreciation for the state-of-the-art solution that dCS EXPANSE provides. EXPANSE has become such an essential feature for the headphone-listener experience that many customers have been reluctant to upgrade from Bartók to Rossini APEX. dCS saw the need to provide Rossini listeners who value headphone listening with the benefits of EXPANSE.



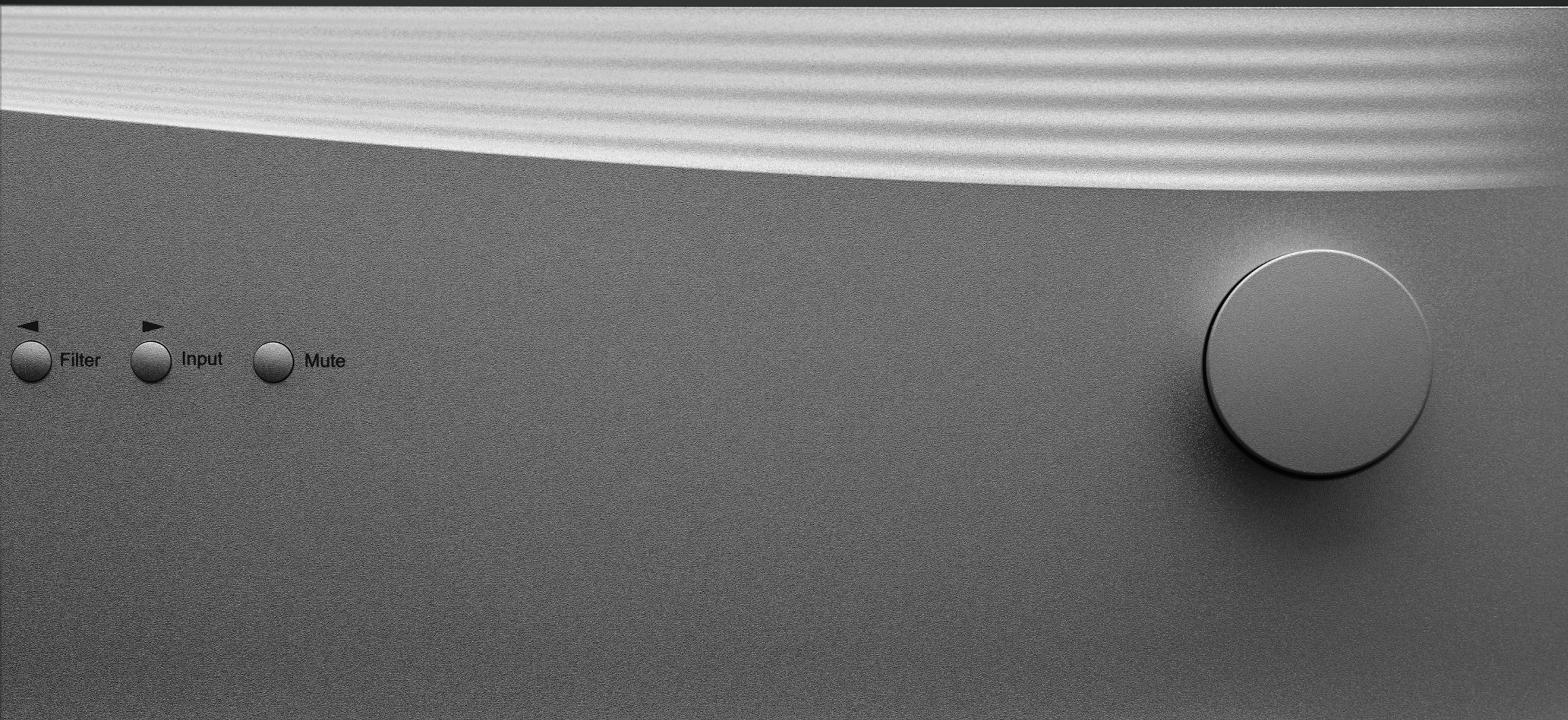
## Lifelike Reproduction with Headphones

Especially when paired with the Lina Amplifier, the Rossini APEX 2.1 provides the perfect upgrade path for Bartók owners who also listen to headphones. With EXPANSE, the headphone listening experience is true to the original recording. Headphone listeners can now expect to experience all the hallmarks of dCS playback—precision, detail, transparency, and correct timbre and tonality—but with a soundstage presentation that far more closely connects the listener with the spatial intent of the original recording.



# Available for Download

Rossini APEX 2.1 will be available for installation on Tuesday, 14 February 2023, at 10:00 AM GMT.



# Rossini 2.1

## RELEASE NOTES

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# Rossini 2.1

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## 1 ABOUT

### 1.1 DESCRIPTION

Rossini is our single-box digital music player featuring the legendary dCS Ring DAC™ and signal processing platform plus a custom high performance music streamer.

Following on from the successful implementation of dCS Expanse and crossfeed features available in Bartok and Lina DAC we are pleased to announce the release of dCS Expanse for Rossini.

### 1.2 VERSIONS

Rossini firmware 2.1

*Note: No update to dCS Mosaic update is required for Rossini 2.1. Therefore, network firmware will remain at version 509 and dCS Mosaic Controller at version 1.4 (143).*

*A update for Mosaic will be available in the near future so that dCS Expanse settings can be accessed using dCS Mosaic Controller.*

### 1.3 AVAILABILITY AND DISTRIBUTION

Rossini 2.1 will be available for Rossini DAC and Rossini Player customers. This also includes products with APEX upgrade.

To update, customers can check for the latest firmware via dCS Mosaic Control.

## 2. WHAT'S NEW

### 2.1 NEW FEATURES

This update brings crossfeed and patented dCS Expanse features, allowing customers to enhance their headphone listening experience.

Further information on dCS Expanse can be found at <https://dcsaudio.com/expanse>.

### 2.2 IMPROVEMENTS

Fixes an issue where Rossini DAC would occasionally put Rossini Transport into repeat mode.



# Rossini 2.1

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## 3. SUPPORT

### 3.1 RESOURCES AND ASSISTANCE

If you're having issues with any aspects of your dCS product, we have an extensive network worldwide available to assist you.

Your first line of support should always be your nearest dCS dealer or distributor. Our partners are rigorously trained in every aspect of our product line, so they are well-equipped for most issues or queries.

You can find your nearest dealer or distributor at [dcsaudio.com/dealer-locator](https://dcsaudio.com/dealer-locator)

Alternatively, you can also visit the dCS Community forum ([dcs.community](https://dcs.community)), where you will find complete documentation for Mosaic, along with useful FAQs and information regarding common technical and support topics. There is a dedicated Support area where you can post any questions you may have.

You may also contact the dCS support team directly by email at [support@dcsaudio.com](mailto:support@dcsaudio.com). We aim to respond to any queries by the close of the next workday.

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**Data Conversion Systems Ltd.**  
Unit 1, Buckingham Business Park, Anderson Road, Swavesey,  
Cambridgeshire. CB24 4AEUK

[dcsaudio.com](http://dcsaudio.com)