

HiFi Rose RS151

Korea's HiFi Rose launches its second-generation streamer/DAC flagship with onboard storage facility, more powerful DSP, improved connectivity and Full HD touchscreen
 Review: **Andrew Everard** Lab: **Paul Miller**

A rose by any other name is still a HiFi Rose? Well yes, it can appear that way: since it first arrived on the hi-fi scene, the Korean company has launched a head-spinning barrage of products, all of which can, at first glance, look rather similar. However, what's been going on is a policy of expanding the appeal of the range upwards, downwards and outwards – the last, for example, by adding its own lineup of amplifiers – and introducing a programme of upgrades along the way.

The result is a network player range now starting (at least in the UK) with the £2349 RS250A [*HFN* Feb '23], moving up through the RS520 [*HFN* Jan '23] – at £3349 complete with built-in amplification – and topping out with the RS130 'Ultimate Network Transport' [*HFN* Oct '23] and the RS151 we have here, at £4299 apiece.

SYSTEM HUB

That makes the RS151, available in black or silver, the current flagship network player/DAC, and while the price is high in HiFi Rose terms, it's a fraction of the cost of range-toppers from some longer-established brands in the network audio scene. Of course, it, and everyone else, also now faces competition from below in the form of Chinese brands such as Eversolo [*HFN* May '25], which is doing the same trick of entering the market with highly affordable products, then diversifying upwards.

Much about the RS151 will be familiar to *HFN* readers, from the full-width HD touchscreen display to the multiple inputs, both digital and analogue, as well as the network audio capabilities. Clearly the company sees this as more of a system hub, rather than merely a network player. As well as those multiple inputs, extending to HDMI eARC for TV sound as well as

RIGHT: PSU [top left] feeds separately regulated supplies for Octa-core RK3588 CPU and ARM Mali-G610 GPU [right], the Qualcomm BT module [far right], XMOS microprocessor, and ES9039SPRO DAC-based balanced audio output stage [bottom centre]

accommodating conventional audio sources, the RS151 offers variable preamp outputs, allowing it to be used straight into power amps or active loudspeakers, and can be fitted with SSD storage of up to 4TB, allowing it to store and play music onboard. That's in addition to its network and local playback, via Ethernet and USB ports, and you can even connect a USB disc drive to rip CDs straight into internal storage – the fitting of which will take you all of five minutes – or USB-connected drives of up to 10TB.

So, what's new here? What sets this model apart from the RS150/RS150B [*HFN* Jun '21] it replaces in the lineup? Well, most obviously that Full HD display is now wider at 15.4in/39cm, and there's a new control app, called Rose Connect Premium, which allows full control of all the functions of the unit [see boxout, p57]. This is a comprehensive app albeit one that still felt like something of a work in progress, but I am sure the bugs will be ironed out in fairly short order. There's also a conventional remote handset [see

p59], but control is still smoother and more versatile via the touchscreen or app.

ON THE CLOCK

At the heart of the RS151 is technology derived from the company's RD160 DAC [*HFN* Jan '25], including its proprietary 'Digital Processing Core' or DPC. This uses a high-precision clock to synchronise and maintain all incoming digital audio data in I²S format, all in a separate section kept away from the CPU circuitry and the DAC/analogue section. There's also the option of upscaling all digital signals to a maximum of DSD512 before they hit the main digital-to-analogue conversion, which is in the hands of an eight-channel ES9039SPRO DAC chip.

Analogue and digital signal paths are kept apart, and the analogue stage uses the company's 'Noise Reduction Analogue' filter, said to 'further eliminate noise and deliver an extremely flat response' [see PM's Lab Report, p59]. The upgraded Octa Core RK3588 CPU running the whole unit, on a customised version of Android 12,

'Driving the speakers to silly levels, I was having a blast'



is claimed to deliver four times the data processing performance and eight times the graphics performance of anything HiFi Rose has employed before, while providing support for very large music libraries of up to a million tracks.

Even the Bluetooth capability has been enhanced, with a new external module and antenna housed in a 'lozenge' on the RS151's rear panel, this supporting BT v5.4 via a new Qualcomm chipset. True, not many buyers will be choosing a unit at this price point to stream music from their smartphone, but the ability to do so is there. In addition, the player is Roon Ready, and supports AirPlay, DLNA/UPnP, Qobuz, Spotify Connect, Tidal, Apple Music, ROSE Tube and Internet radio.

READY FOR ANYTHING

Connected to my usual Naim/PMC reference system, the RS151 was used in a variety of ways: playing from the SSD I'd inserted and from network storage; streaming from online services including Qobuz, Tidal and Internet radio; as a DAC fed from an external transport; and as a

Roon endpoint. And it didn't take long to establish that the performance on offer was very even across all these use cases, with none offering any significant gains in either sound quality or usability.

Fortunately, that very consistent performance is best categorised as very good indeed, the RS151 delivering a sound that's as packed with detail as it is musically involving, whether playing CD-quality streams or rips, or stretching things all the way up to DSD256 or 512 files, which are about as far as even ambitious users will push the format range.

By any standards, this range-topper offers a level of performance sufficient to win it a place in many a high-end system, which at the price makes it a compelling buy. Okay, I may have prematurely announced the verdict, but I didn't have to use the RS151 for long before I settled into protracted (and wide-ranging) listening sessions. Moreover,

after a short period of reacquaintance with the way the Rose app works – on Windows

ABOVE: The 15.4in-wide TFT/LCD touchscreen duplicates the setup and music metadata functions seen via the Rose app [boxout, below]. Four chrome control buttons are set into the top

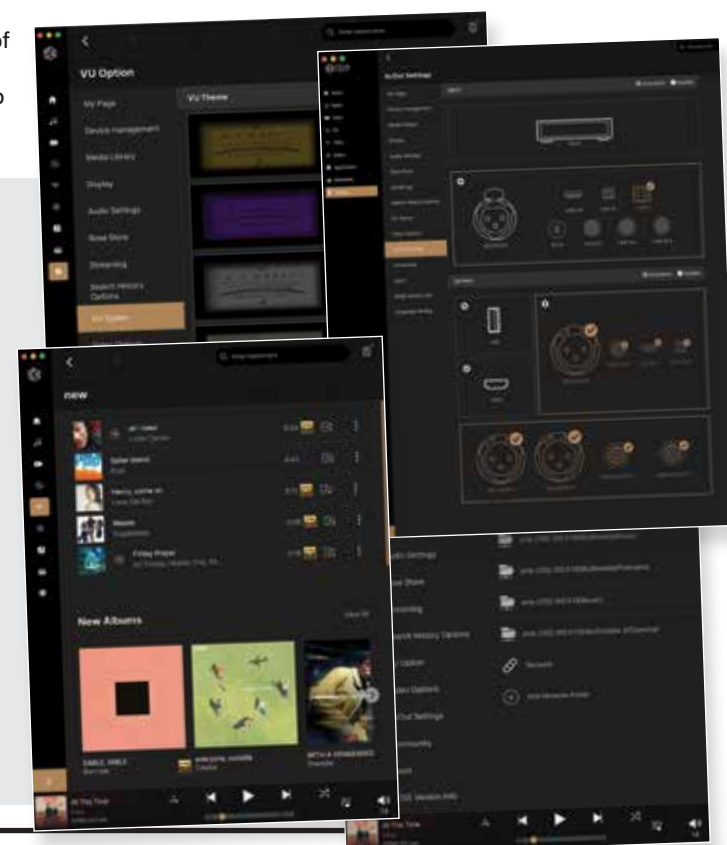
and Macs as well as Android and iOS – I was not bothered by its operational foibles and simply enjoyed the way it plays music.

I found myself completely immersed in the recent remaster of *Pink Floyd At Pompeii MCMLXXII* [Legacy; 96kHz/24-bit download], transported back to seeing the live film in a cinema some 50 years ago, except now the refreshed sound had real punch and slam through the RS151, plus sensational impact. Before long my Naim NAP250 DR [*HFN* Dec '15] was driving the speakers to silly levels and I was having an absolute blast, enjoying every detail of the sound, from the chunky, extended bass to the scream of the guitars and the sting of the cymbals. What had seemed somewhat

ROSE CONNECT PREMIUM

From the outset, HiFi Rose products established a reputation not only for offering a big bang for your buck, but also for the brand's slick, comprehensive control apps. The Rose Control Premium app launched with the 'new generation' RS151 builds on those strengths and – the odd typo notwithstanding – proves a powerful ally both for the hardware and its operator. It's available for Mac OSX and Windows as well as the usual Android and iOS, and allows the user to access every aspect of the player's setup and operation, from digital processing and input/output selection to the range of streaming services supported. Also, it offers a wide range of VU meter layouts on that big front panel display screen, if that's your thing!

It will combine multiple music libraries, even when they're stored on several NAS or USB devices, integrating them with your chosen streaming services, and – with the power of the upgraded onboard processor – will handle even the largest collections of tracks. You can even control one of the company's integrated amplifiers via the Rose app, for seamless full-system integration.

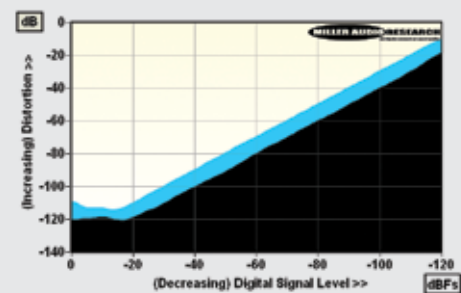


LAB REPORT

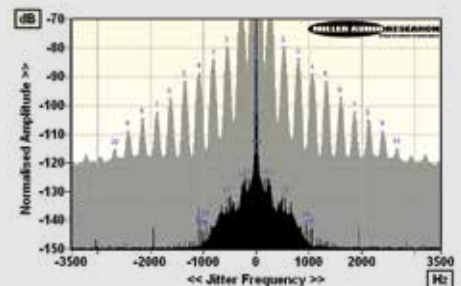
HIFI ROSE RS151

While this new flagship player/DAC represents a further evolution of the DPC (Digital Processing Core) seen in the '1st gen' RS150 [HFN Jun '21] and more recent RD160 USB DAC [HFN Jan '25] it also marks a departure from the AK4191EQ upsampling/noise-shaper and AK4499EXE DAC employed previously. Instead, the RS151 uses a single ES9039SPRO from ESS, maintaining its predecessor's super low distortion with just 0.00007% at the top of its dynamic range [see Graph 1, below] and widening the A-wtd S/N from 119dB to 121dB here. The maximum 8.84V balanced output is more than sufficient to drive any power amp into clipping without the services of an intermediate preamp but while HiFi Rose claims a low 3ohm source impedance this is only the case above 500Hz – below this it rises to 935ohm/20Hz.

Unfortunately, the very low-rate jitter seen in those earlier HiFi Rose player/DACs persists in this new model, amounting to >20nsec and with a base modulation of $\pm 2.65\text{Hz}$ in this implementation [see zoom jitter plot, grey spectrum, Graph 2]. Clearly this is not linked to the choice of AKM or ESS DAC but is possibly an intermodulation between internal clocks. While numerically very high (via all digital inputs), experience suggests this very low-rate jitter may bring a marginal softening to stereo images and top-end 'air'. Neither were any of the six digital filters enabled in our sample, every selection bringing the same slow roll-off minimum phase digital filter. This trades limited post-ringing for a poor stopband rejection at low sample rates (just 8.5dB at 48kHz) and roll-offs at $-1.7\text{dB}/20\text{kHz}$, $-5.0\text{dB}/45\text{kHz}$ and $-6.4\text{dB}/90\text{kHz}$ with 48kHz, 96kHz and 192kHz media. Fortunately, regular OTA firmware updates are offered! PM



ABOVE: Distortion vs. 48kHz/24-bit digital signal level over a 120dB dynamic range (black, 1kHz; blue, 20kHz)



ABOVE: High resolution 48kHz/24-bit jitter spectrum ($\pm 3500\text{Hz}$, black). Zoom spectrum with the same marks (grey, $\times 100$, $\pm 35\text{Hz}$ span; sidebands at $\pm 2.65\text{Hz}$)

HI-FI NEWS SPECIFICATIONS

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|--|---|
| Maximum output level / Impedance | 8.84Vrms / 0.7-935ohm (XLR) |
| A-wtd S/N ratio (S/PDIF / USB) | 121.0dB / 120.8dB |
| Distortion (1kHz, 0dBFS/-30dBFS) | 0.00007% / 0.00013% |
| Distortion & Noise (20kHz, 0dBFS/-30dBFS) | 0.0005% / 0.0002% |
| Freq. resp. (20Hz-20kHz/45kHz/90kHz) | +0.0 to -1.7dB / -5.0dB / -6.4dB |
| Digital jitter (48kHz / 96kHz) | $\sim 25\text{nsec}$ / $\sim 25\text{nsec}$ |
| Resolution (1kHz @ -100dBFS / -110dBFS) | $\pm 0.1\text{dB}$ / $\pm 0.3\text{dB}$ |
| Power consumption | 16W (1W standby) |
| Dimensions (WHD) / Weight | 430x125x319mm / 11kg |



ABOVE: Wired/optical and wireless (via USB dongle) Ethernet inputs, are joined by coaxial and AES/EBU (to 384kHz/DSD128 DoP), optical (to 192kHz/DSD64 DoP), iS/HDMI and USB-B (to 768kHz/DSD512) plus two USB-A ports for external media (an internal bay accommodates users' own SSD/HDD hardware). RCA line ins are joined by RCA/XLR line outs, HDMI (video and iS) outs, coax/opt outs and 12V trigger ports

dated and nostalgic on other listenings was suddenly fresh and impactful again, aided by the crisp remastering and the forthright yet refined sound of the player. 'Set The Controls For The Heart Of The Sun' was suitably trippy and mesmeric.

ROSE TO THE OCCASION

Going to an opposite extreme, the new release of the complete Brahms symphonies from the Royal Concertgebouw Orchestra under Sir John Eliot Gardiner [DG 192kHz/24-bit download] is the perfect material for the wide frequency and dynamic ranges of the RS151. Here it delivered the opening movement of the first with realistic power and delicious levels of insight, and then flowed through the development of the work, right to the stately theme of the final movement.

And for all one could say about the technical niceties of the sound, from that powerful, clean bass right to an open but tightly controlled treble, what really appeals about the sound of HiFi Rose's RS151 is the sheer ease of listening. This player instantly makes one forget any shortcomings of the recording. It just sounds right.

Even with a less than stellar recording, such as Sting's *3.0 Live* set [via Tidal; 48kHz/16-bit], the RS151 did a fine job of bringing out the – admittedly somewhat affected – exuberance of the performance. Yes, the call-and-response schtick can get a bit



LEFT: Although the RS151 can be accessed via the Rose Control app, this handset also offers comprehensive control, with operations navigated via the large colour display

wearing at times – see the version of 'Englishman In New York' with its interminable 'woah-ohs' coaxed out of the audience – and the whole balance is dense enough to have one craving the freshness of The Police originals. The band here, recorded in LA, is tight enough, something the RS151 brought out well, but it lacks the spirit and snarl of the original Sumner/Summers/Copeland lineup. Oh well, back to the 2003 remaster of *Regatta De Blanc*, also Tidal-streamed, and as this HiFi Rose player slams out the opening bars of 'Message In A Bottle', normality is restored!

THE RIGHT STUFF

It's always a good sign when my listening for a review moves swiftly on from the tried and trusted 'test tracks' I keep to hand, and into a much more enjoyable series of sessions of just listening to 'stuff', made simple by a packed server and access to hi-res streaming services. That's just how it was with the RS151, meaning it got all the basics right in very short order, and had me wandering the digital libraries sampling music old and new. As the brand is now firmly established, this is clearly a network player to be taken very seriously – or with which to have a whole load of fun. ☺

HI-FI NEWS VERDICT

The upgrades are incremental, but they have moved the RS151's performance on substantially – sufficiently, in fact, to merit unreserved recommendation. It's no longer a case of being good enough if the budget can't stretch to a top-name network player: add £200 or so for 4TB of storage, slot it into the player, and you have a complete digital music solution with a sound to match many costlier rivals.

Sound Quality: 87%

