HiFi Rose RS150

Powered by in-house hardware and software engineering from Korea's Citech group, the HiFi Rose brand combines slick visuals with the promise of state-of-the-art sound
Review: **Andrew Everard** Lab: **Paul Miller**

One of the great benefits of the rise of streaming – be it network or online – is the flexibility it gives manufacturers to create just about any product they like. There are some basic formats, including the all-in-ones like the Naim Uniti [*HFN* Nov '17], NAD M-Series [*HFN* Aug '20] and the new Cambridge Audio Evo [p22]. There are also streaming amps and standalone playback components (network players or DACs), but within those parameters the engineers and designers have no shortage of freedom to create network audio devices in just about any shape they want…

All of that clearly isn't lost on HiFi Rose, part of Korean company Citech, previously known for its interactive kiosks and set-top boxes, and now becoming available in the UK via Henley Audio. The £3899 RS150 is the more expensive of the two models being used to launch the brand, and it is a true flagship. Its casework is literally hewn – well, OK, machined – from solid aluminium, and your eye can't help being drawn to the high-resolution display filling the front IPS touchscreen panel. It's a full 14.9in wide, almost 38cm in new money, and can display everything from menus to cover art, not to mention 4K HD video, which the RS150 can also play out to a connected screen via an HDMI port.

FILE UNDER FLEXIBLE

There's no arguing with the fact that the display is a stunner, making the RS150 look unlike any rival product. The effect is much like one of those latest-generation electric cars, with screens stretching across the dashboard. Freed from any need for conventional controls, many designers are embracing this new flexibility, and the HiFi Rose team has gone for broke here… You can even have 'VU' meters in a variety of colours, including a McIntosh-emulating

light blue, and as many formats of clock display as anyone could sensibly need, from an analogue face through to a recreation of very retro mechanical digital flip-digits.

The same display, albeit in a smaller form, appears on the partnering RS201E, which sells for £1749 and comes complete with a rated 100W of amplification to create a 'just add speakers' device. There's more where these two come from as the entire HiFi Rose range runs to some six models, including the RS350, which is an all-in one unit complete with onboard speakers. There's also a USB CD drive, the RSA780, which comes with the challenging slogan 'It is not light. It is not shaking anymore. 900g is the best weight for CD playback'. So now you know…

Mind you, it's easy to forgive the company's designers and marketeers all this exuberance, given just how well equipped is the RS150. It offers playback from a wide variety of sources, both local and networked; has extensive capability with a huge range of file formats; is compatible with Airplay, TIDAL with MQA, Qobuz and Roon, as well as supporting some proprietary streaming services such

as RoseTube for video (currently mainly in Korean); and can act as either a source component or a streaming/digital preamp, thanks to variable-level outputs on both unbalanced RCAs and balanced XLRs. It even offers the option of becoming both a player and a streamer – remove a panel in the base-plate, and you can install an SSD drive for onboard storage to complement its USB-A host ports, and there's also a slot to accept Micro SD memory cards.

CUSTOMISED OS

Meanwhile, conventional digital connections, in and out, are provided on optical, coaxial and AES/EBU sockets; USB-B for connection to a computer; I²S digital output is available on RJ45 or DVI sockets; and networking is via wired or wireless connection, the Wi-Fi being via a plug-in USB dongle also able to support Bluetooth with aptX. This also allows the Bluetooth remote handset to control the RS150.

Are we there yet? Not quite, as the RS150 can also accept audio from a video device using the ARC (Audio Return Channel) protocol on a separate 'HDMI in' port and the USB ports can output audio to
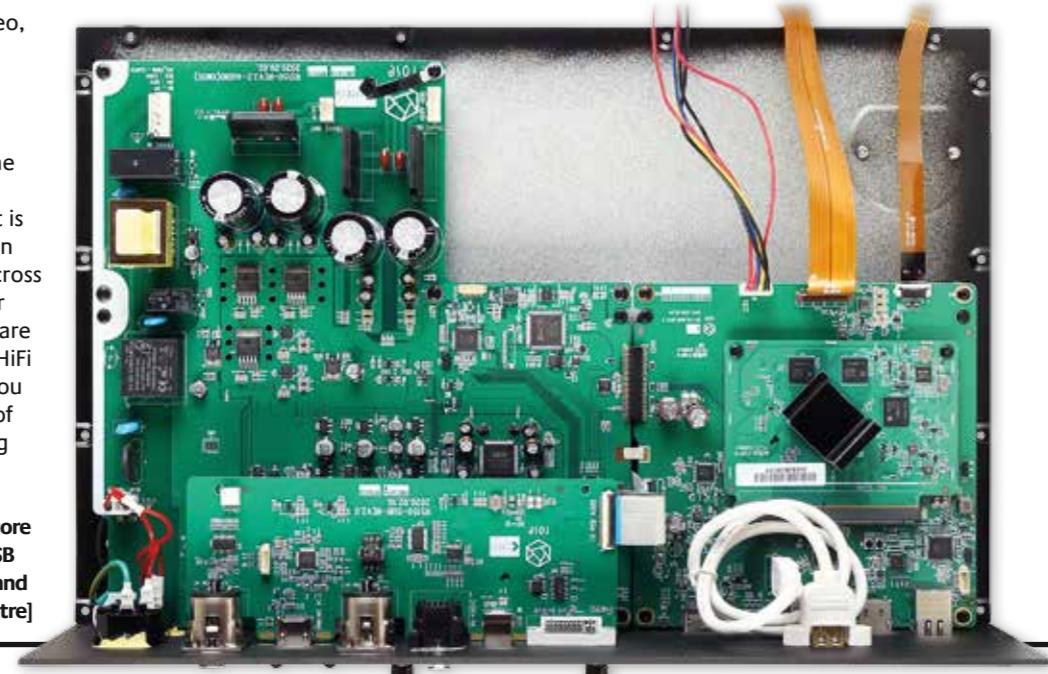
a suitable DAC. Oh, and there's a single set of analogue inputs, like all the RCA sockets here covered by flexible black plastic dust-caps on delivery [see picture, p54].

Under that very solid lid, the RS150 runs a customised Android 7.1-based system using the company's own Rose OS. This interfaces with the proprietary Rose Connect app running on either Android or iOS tablets or smartphones, and offers both day-to-day operation and some elements of set-up, though for detailed settings you'll have to use the multiple layers of menu on the front-panel touchscreen [see boxout, below]. Digital conversion, meanwhile, is in the hands of Asahi Kasei's Verita AK4499EQ, which can handle LPCM up to 768kHz/32-bit, as well as native DSD64, 128, 256 and 512. Whether video or audio, this unit will stream and play a huge range of file formats.

ON THE LEVEL

I'd like to report that the RS150 was simple to set up and use, and that I had music and video streaming within moments of plugging it in – except it wasn't, and I didn't. Hampered by the lack of a full instruction manual, the English version of which was still being prepared, and a somewhat thin 'Simple Manual' in the box, I have to admit to struggling a bit. And the unit took an age to index my admittedly huge NAS-based music library, find artwork and so on. In fact, in order to get on with some listening I had to resort to copying files to a USB stick and play them from that while the server scanning was going on, so keen was I to hear what this fine-looking machine was capable of.

At the same time, I also listened to the various digital inputs, including the 'computer' USB connection, albeit with a slight feeling that using the RS150 purely as a DAC was only scratching the surface of its capabilities. We got there in the end…

It's worth noting that this unit delivers some serious level at full volume – 4.5V via the unbalanced outputs, 9V on the XLRs [see PM's Lab Report, p57] – so it's worth going into the menu and fixing it at a more comfortable level if

'The music surges out, with excellent thump and punch'

you're using the RS150 into an integrated amp or preamp, rather than straight into a power amp. That done, and with all the configuration/housekeeping finally navigated, this remarkably flexible player revealed itself to be an entertaining and inherently very enjoyable listen.

BIG DEAL

In practice, the RS150 delivers a sound that's certainly big and bold. It's also one that comes packed with detail, even with a simple recording such as Javier Laso's set of Schubert and Schumann sonatas [Eudora EUDDR2103], a pure DSD256 recording played at its native resolution.

If there's a criticism of the sound, it's merely one of a slight lack of space and atmosphere but that aside there's a close focus on the solo piano, and excellent weight to the instrument, along with fine impact in the playing allied to a real sense of the delicate touch of the pianist.

ABOVE: 14.9in-wide display – yes, it switches into English! – provides touchscreen control of the RS150, from input selection to menu set-up. You can even have even multicolour 'VU' meters

RIGHT: Switchmode PSU [top left] feeds independently-regulated supplies for Hexacore CPU and Mali-T864 GPU [far right], XMOS USB hub [top, centre] and AKM AK4499EQ DAC and balanced analogue output stage [lower centre]

ROSE CONNECT

While some manufacturers depend on third-party DLNA control apps for their network devices, HiFi Rose has built its own Rose Connect, for Android and iOS, to partner the Rose OS at the heart of the RS150. There's also a simplified RoseWare app, giving basic 'choose music and play' functionality, but the full-fat Rose Connect takes the user much deeper into its capabilities. As well as allowing access to streamed music – both network and online, including Qobuz, Tidal and Internet radio – it also allows the various inputs to be selected, displays to be altered and volume controlled (with the outputs in 'variable' mode). The interface delivers album artwork and playback information, including the file format, and does the same with Internet radio stations. Yes, you'll still need to resort to the front-panel touchscreen to make detailed set-up choices, and the app could occasionally do with some tidying up into more idiomatic English, but this is an attractive way to control what is a highly flexible digital device.

NETWORK-ATTACHED DAC

ABOVE: Line ins (RCAs) are joined by digital coax, optical and AES in/outs plus I²S outs on both RJ45 and DVI, and audio (ARC) and video on HDMI. There's Ethernet plus one USB-C, micro SD and two USB-A ports for external media, another for a BT/Wi-Fi dongle and USB-B for computer connection. Analogue outs are on RCAs and XLRs

That same sense of a powerful sound, if not one as absolutely resolved as could be possible, underpins the presentation of the LSO/Pappano recordings of Vaughan Williams's 4th and 6th symphonies [LSO Live LSO0867; DSD256]. Here there's no denying the scale and detail of the overall effect, even if a little of the 'liveness' is lost in the slight bloom to the way the RS150 delivers the music.

PLEASED AS PUNCH
For all that, the RS150 can sound thrilling with the orchestra at full speed, for example in the Scherzo of No 4, qualities that also translate well to hard-driving pop – in this case Tame Impala's *Lonerism* set [Fiction/Caroline/Arvato 570022-7], right from the thumping percussion of the opening 'Be Above It'. Freed from the need to deliver a credible acoustic soundstage, the RS150 just lets the music surge out, with excellent thump and punch, and carving persuasive instrumental textures without overly deconstructing the wash of sound.

And it really doesn't matter too much whether you play it via the network or digital inputs, or indeed employ the internal streaming or use it as a rather expensive Roon endpoint, for the

LEFT: Although the RS150 can be accessed via the Rose app, this handset also offers comprehensive control provided you can view your operations on the large colour display

'sound' is very broadly maintained. It's rich, dynamic and consistently rewarding, with only that slightly soft soundstage focus, really only in evidence with very 'atmospheric' recordings, as a slight blot in the copybook here. It can make church-recorded choral music sound a little dry, and is also apparent with simply-miked jazz in reverberant studio acoustics, but that aside the RS150 gets it right with its focus on the musicians and what they're playing.

That said, the sound here does respond well to high-quality recordings such as Taylor Swift's re-imagining of her *Fearless* set [Republic 00602435845098]. As she brings real substance to the up to date reworkings, her exuberant voice is reproduced with not a little class and vivacity, along with the intricacies of the instrumentation.

Whether with the tunes familiar from the decade-old original or those unheard offerings Swift has unearthed from her 'vault', this sounds like a vibrant, mature set – characteristics the RS150 displays in spades. The slight sins of omission here are easily overlooked when music is being played this well. ⏻

HI-FI NEWS VERDICT

Initial impressions of the RS150 are created by the visuals, from its build quality to that eye-popping full-width touchscreen, but it soon becomes clear there's more to it than meets the eye. This is an accomplished player/DAC, and its slight softness – very content-dependent – is easily overlooked given the richness and levels of detail on offer. This is a decidedly impressive debut for the Korean brand.

Sound Quality: 84%

| 0 | - | - | - | - | - | - | - | - | - | 100 |

With in-house hardware and software engineering on tap, the South Korean Citech Company is rightly proud of the performance of its RS150 network streamer. The 'industry leading' measurements certainly illustrate what can be achieved with AKM's AK4499EQ DAC from its vanishingly low distortion that falls to just 0.00005% over the top 30dB of its dynamic range [see Graph 1, below] to its very wide 119dB S/N ratio that assists in delivering the RS150's excellent low-level resolution – good to within ±0.1dB over a full 110dB dynamic range. The maximum 8.65V balanced output is more than sufficient to drive any power amp into clipping without the services of an intermediate preamp and although the ~560ohm source impedance is a little higher than expected other 'analogue' parameters, like the stupendous 145dB channel separation, are testament to the generally very solid production engineering.

There is, however, one fly currently stirred into the digital ointment – a very low-rate ±6.25Hz jitter that extends out some 200Hz [see zoom jitter plot, Graph 2]. This is specific to the RS150 (it does not appear in other implementations of the AK4499EQ), possibly an intermodulation between internal clocks. While numerically very high at >20nsec, experience suggests this may bring a marginal softening to stereo images and top-end 'air'. Of equal subjective impact, perhaps, is HiFi Rose's choice of slow roll-off minimum phase digital filter. This trades zero pre-ringing and limited post-ringing for poor stopband rejection at low sample rates (just 5.4dB at 48kHz) and roll-offs of –3.5dB/20kHz, –6.6dB/45kHz and –8.5dB/90kHz with 48kHz, 96kHz and 192kHz media. This choice of filter is a very good compromise for higher sample rate files (above 48kHz). **PM**
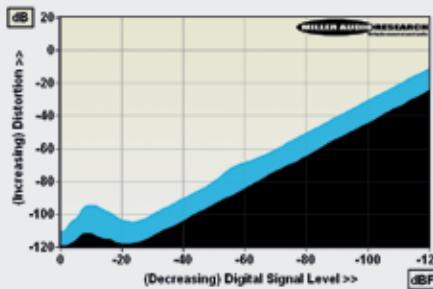
ABOVE: Distortion vs. 96kHz/24-bit digital signal level over a 120dB dynamic range (1kHz, black; 20kHz, blue)
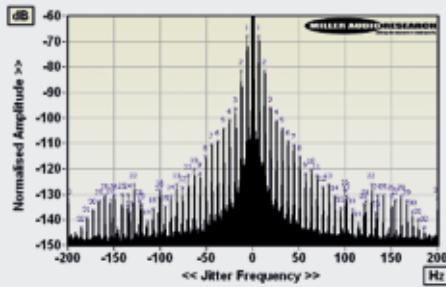
ABOVE: High resolution ±200Hz zoom jitter spectrum with 48kHz/24-bit data. Sidebands are at ±6.25Hz...

HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	8.65Vrms / 579-555ohm
A-wtd S/N ratio	118.7dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.00009% / 0.00009%
Distortion & Noise (20kHz, 0dBFs/–30dBFs)	0.0007% / 0.0003%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –3.5dB/–6.6dB/–8.5dB
Digital jitter (48kHz / 96kHz)	22110psec / 22150psec
Resolution (re. –100dBFs / –110dBFs)	±0.03dB / ±0.1dB
Power consumption	25W (1W standby)
Dimensions (WHD) / **Weight**	430x123x316mm / 13kg