

# HiFi Rose RS250A

Korea's Citech group continues apace with yet another 'full colour widescreen' offering from its HiFi Rose brand – this time with an updated network-attached media hub  
 Review: **Andrew Everard** Lab: **Paul Miller**

**A** Rose by any other name? As has happened in the past, Korean manufacturer HiFi Rose has launched a new version of an existing model – in this case its RS250 network player – with worthy specification changes and a suffix to set the two apart. But there's a mild inconsistency here, for when the company upgraded the RS150 [HFN Jun '21] to the current version, due to a DAC chip change forced upon the company by the 2020 fire at AKM's semiconductor plant in Japan, it became the RS150(B), selling for £3899, but the revised RS250 is now the £2349 RS250A, available in either silver or black finishes.

Again, there's a chip swap at the heart of the new machine – along with other audio-related changes – but this time HiFi Rose has kept things 'in the family'. So, in place of the ESS9038Q2M converter of the original, the 'A' version uses the eight-channel ESS9028PRO which, in double-differential guise, promises greater dynamic range and reduced distortion as a stereo DAC [see PM's Lab Report, p65]. Also into the mix are added a new low-phase-noise clock oscillator, 'enhanced' linear power supply and new, discrete op-amps in the analogue output stage.

## SETTING THE PACE

But we're getting a little ahead of ourselves here as the first RS250 – which was only launched in 2021 – never made it into these pages. So what is the RS250A? Well, it's clearly intended as a more affordable option for those who don't want to stretch to the RS150(B), with distributor Henley Audio describing the pricier model as a 'High Performance Network Streamer', and the RS250A as a 'Hi-Fi Streaming Solution'. Mind you, the original RS250 is still on Henley Audio's books, at £1949, and that one's a 'Complete Hi-Fi Network Streamer'.

**RIGHT:** Beefy linear PSU [bottom left] feeds independently regulated supplies for Hexacore CPU and Mali-T864 GPU [top PCB] plus ES9028 PRO DAC and audio stages [beneath]. Wi-Fi module [far right] is connected to internal aerial

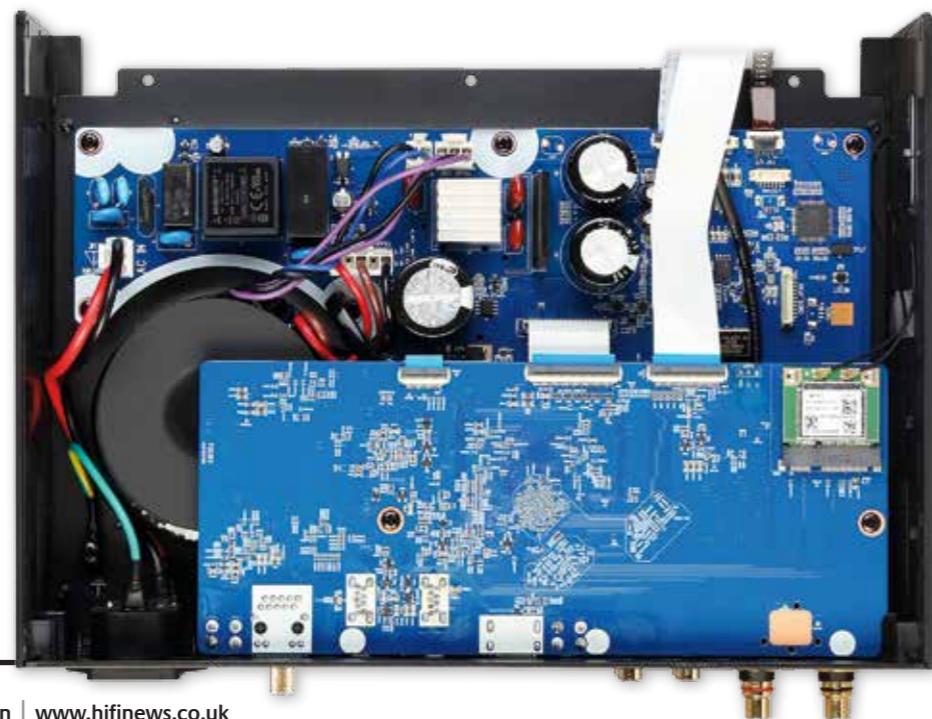
Hmmm – perhaps the speed with which new models keep coming from Korea has us all confused: after all, in recent months we've had the excellent-but-quirky RA180 amplifier [HFN Jul '22], and the all-in-one streaming amp, the RS520 [HFN Jan '23]. And word is there's more on the way...

## ALL BASES COVERED?

So the RS250A is a network player. Or a network DAC. Or a network DAC/preamp. Actually it will fulfil all those functions, having both analogue and digital inputs – the latter running to USB-A and -B, optical/coaxial, two-way Bluetooth, AirPlay, and a choice of wired or Wi-Fi networking – and analogue and digital outputs. The RCA outs offer a choice of fixed-level for your preamp or integrated amp, or 'straight to power amp/active speakers' variable, while digital outs are on coaxial/optical again, plus a USB 3.0 for suitable DACs should you want to use the unit as a transport. There's also an HDMI 2.0 output, good for video at up to 3840x2160 resolution (4K), should you tire of watching your hi-res videos on the built-in 8.8in/225mm touchscreen display occupying most of the front panel.

Missing here are the balanced outputs and AES/EBU, HDMI ARC and I<sup>2</sup>S digital inputs of the RS150(B), but then the new arrival is rather more compact at just under 28cm wide and a little over 8cm tall. For all that, it looks good and solid, thanks to the usual HiFi Rose build quality and finish, and the controls feel smooth and precise. There aren't many of them though – all you get to push and twist are a power button and a volume control, below which sits the headphone socket. All remaining controls are accessed via the touchscreen, the Bluetooth remote handset, the Rose Connect Premium app for Android or iOS [see boxout, p63], or using a web browser interface on your computer.

The RS250A can stream music up to DSD512 and 768kHz/32-bit over a network. Well, sort of. I only managed to get it to access music on my QNAP NAS by downgrading the server's networking to SMB1, something QNAP advises against on security grounds. Fortunately, music can be fired to it using a third-party app such as mConnect, and with Asset or MinimServer running on the NAS, but the smoothest means of access was via Roon.



There are also dedicated apps onboard the RS250A for Apple Music, Qobuz, Spotify Connect and Tidal, along with full MQA decoding. Music can also be played from attached USB storage, and there's the facility to fit internal SSD storage of up to 4TB via a hatch in the baseplate, which takes moments. With such storage connected or onboard, a CD drive can be plugged into one of the USB ports for the ripping or playback of discs.

## READ THE ROON

There's a huge choice of 'sound-tailoring' options here, from upsampling to a stack of digital filters, but regular readers will know I don't have much faith in any of these having a consistent effect across a wide sweep of genres and sample rates. In the event, I left HiFi Rose's RS250A to do things 'as is' and got on with listening to some music. For the same reasons I kept it simple with the playback control, so having tried both analogue and digital inputs, all of which seemed perfectly respectable, I concentrated instead on streaming to the player using mConnect and – mainly –

Roon, as these offered the slickest, typically seamless operation. And with those few caveats, it's all good news from here.

The RS250A offers the usual HiFi Rose combination of civility and musical excitement and is as adept with a large-scale classical recording or a heavy rock track as with audiophile-approved small ensemble content. Thus the calypso take on Cole Porter's 'Night And Day' on *Everybody Digs Bill Evans*, in its 2007 remastered release [Riverside Records RLP-1129], found the player probing deep into the track's knockout bass and drums – there are times when the pianist seems almost like a passenger. Yet it did so without

calling attention to itself, allowing the listener to enjoy the virtuoso playing.

Even with the slightly rough sound of ELP's *At The Surgery* release of live broadcasts dating back almost 50 years [X-Ray XRYCD015], which is a counterpoint to the whistle-clean *Brain Salad Surgery* album of the same time, the RS250A is all about the main event here – the musicianship and tightly

**ABOVE:** The 8.8in-wide touchscreen display duplicates the configuration functions seen via the Rose app [see boxout, below] plus album artwork and details from streaming platforms

locked interplay of the trio. Emerson's whizzing and whirring synths mesh with Lake's taut, unflashy bass playing and Palmer's 'max attack with total control' mastery of his massive kit. This is the band at the peak of its pomp, for better or worse, and the massive sound was conveyed convincingly by the RS250A, bringing waves of nostalgia to this 'I was there' – well, at some point of the massive tour – listener. There's even an 18-minute gallop through 'Pictures At An Exhibition' here, and a Palmer drum solo running to almost 12 minutes until it segues into a breakneck 'Rondo'.

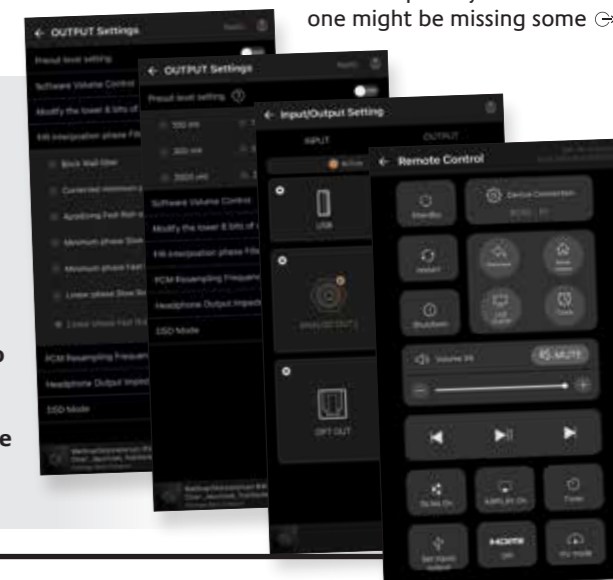
## THE FORCE AWAKENS

Back on safer ground, but still on the theme of music taken at pace, the Swedish Chamber Orchestra/Dausgaard reading of the first Brahms Symphony [BIS1756] captivated from the off. The clarity of the scaled-down musical forces revealed by the RS250A dispel any doubts that one might be missing some

*'It's an attractive prospect at the heart of a "stealth" system'*

## CONFIGURE YOUR ROSE

We've become familiar with the way HiFi Rose has designed its Rose OS – built on Android – and Rose Connect app to work together. So while you can set up and use the RS250A with either the front touchscreen or the supplied remote handset, the Rose Connect Premium app is by far the smoothest way of doing things. It offers the flexibility to customise the unit to your needs: inputs and outputs can be switched on and off to keep operation simple, and processing applied to each. Select an output and enable it – the chosen one turns gold on the app screen – and then use the 'gear wheel' settings icon to delve deeper. For example, you can choose the degree of upsampling you wish to invoke, select whether DSD content is handled 'as is' or converted to PCM, and choose between seven digital filter options. The output menu will also let you choose between fixed level or variable, the latter allowing the RS250A to be used straight into a power amp.



## HIFI ROSE RS250A



**ABOVE:** Line ins and outs (RCAs) are joined by digital coaxial and optical in/outs and video on HDMI. There's wired and wireless Ethernet, and BT, one USB-A port for external media (and space for an internal HDD) and USB-B for computer connection plus a USB-A output for connection to an external DAC

of the subtleties of the score – the conductor and orchestra aiming for a record time that's surely some 25% faster than typical. However, the player's control and resolution ensure the effect is more one of sprightliness than undue haste.

It's easy to warm to the way this player delivers music, simply because the character is that of the recordings, not anything imposed by the hardware. Yes, if memory serves, there's a little less bass weight than the more expensive models in the range can deliver, but it's a close-run thing. Otherwise, used with a decent amplifier – which in my case included my normal Naim reference set-up, and a couple of well-used Marantz MusicLink monoblocks pressed into service to test the player's capabilities when used as a preamp straight into power amps – the RS250A gave a very good account of itself.

In fact, given its dimensions, using it with a hidden-away power amp or active speakers would make it quite an attractive prospect as

a 'stealth' system. Moreover, with a 4TB SSD drive – think in the region of an extra £250-£300 – inserted into that bay in the baseplate it could be a compelling music library/player set-up, as well as quite an 'is that it?' talking point.

Whether you use it with Roon or controlled via an app

**LEFT:** Although the RS250A can be accessed via the Rose Connect app, this handset also offers comprehensive control, with operations navigated via the large colour display



such as mConnect, or indeed just concentrate on streaming services, this is something of a small wonder. It sounds generous and detailed with everything from CD-quality streams to hi-res offerings from Tidal and Qobuz. The RS250A is yet another example of how HiFi Rose manages to blend its flexibility with access to new developments by way of birthing more products to fill niches in the market.

### A WINNING TEAM

Certainly the change of DAC, new output devices and improvements to the power supply seem to come together to give this player greater clarity and rhythmic acuity. This was clear with the close-focused horn and piano on Hervé Joulain and Silke Avehaus's *Essentials!* album [Cobra Records COBRA0086; DSD256], with both instruments having superb character and the recording plenty of space and ambience. But it was just as attention-grabbing with the intimate voice of Natalie Merchant on *Leave Your Sleep* [Nonesuch 522304-2], with its combination of poetry about childhood set to music played on stripped-back folk-influenced instrumentation. ☺

### HI-FI NEWS VERDICT

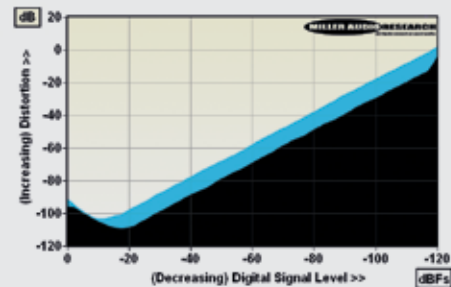
HiFi Rose's ability to reinvent and refine continues apace with this compact network player/DAC/preamp. The Rose Connect app offers excellent flexibility while the RS250A is memorable for its 'widescreen' user-interface and, above all, highly competitive sound. Packed with detail and real insight into what's being played, it has an even-handed approach with all kinds of music, and is a hugely involving listen.

Sound Quality: 84%

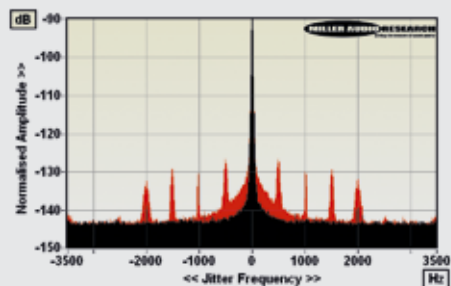


The South Korean Citech Company has swapped out AKM's AK4499EQ DAC from the older RS150 network streamer [HFN Jun '21] for the ubiquitous ESS ES9028PRO in this latest RS250A model, adding ESS's raft of user-selectable digital filters to the product's roster of features. However, these seven filters are only correctly applied if the 'maximum sample rate' is set to 'auto' and the 'resample rate' is disabled [see boxout, p63]. Moreover the RS250A's S/PDIF inputs do not recognise rates above 48kHz, although the LAN and USB connections are good to the specified 768kHz/DSD512. In general the 'Slow' filters offer a gentler but earlier HF roll-off and reduced time domain distortion (ringing), traded against poorer stopband rejection (~14dB versus ~55dB).

Tested with the default 'Linear Phase Fast' filter, the RS250A offers a maximum 2.28V *phase-inverted* output and wide 110.4dB A-wtd S/N ratio from a moderate 142ohm impedance. Low-level linearity is good to ±0.1dB over a 100dB dynamic range while distortion rises to 0.002-0.004% at peak output (20Hz-20kHz) and falls to just 0.00045% over the top 20dB of its dynamic range [see Graph 1, below]. Responses vary from very flat with the 'Fast' filters (typically -0.6dB/45kHz and -1dB/90kHz) and slightly 'sweeter' with the 'Slow' types (-5dB/20kHz, -7dB/45kHz and -8dB/90kHz). Interestingly, while the RS250A's performance is generally uneventful, it does show a design-specific jitter [see Graph 2]. The RS150 suffered from an extensive, very low-rate ±6.25Hz jitter while the RS250A shows clusters of low-rate jitter signals that are modulated on top of ±500Hz sidebands [red spectrum]. These only amount to ~250psec and are largely eliminated by the 'Resampling' mode [black spectrum], leaving a hint of residual phase noise. PM



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



**ABOVE:** High resolution 48kHz/24-bit jitter spectrum with 'resampling' off (red) and on (to 192kHz, black)

### HI-FI NEWS SPECIFICATIONS

Maximum output level / Impedance	2.28Vrms / 142ohm
A-wtd S/N ratio	110.4dB
Distortion (1kHz, 0dBFS/-30dBFS)	0.0022% / 0.0014%
Distortion & Noise (20kHz, 0dBFS/-30dBFS)	0.0044% / 0.008%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to -0.0dB/-0.6dB/-1.1dB
Digital jitter (48kHz / 96kHz)	240psec / 200psec
Resolution (re. -100dBFS / -110dBFS)	±0.1dB / ±0.6dB
Power consumption	16W (5W standby)
Dimensions (WHD) / Weight	278x83x231mm / 3.2kg