

HiFi Rose RS201 E

Korea's Citech group is ploughing its considerable in-house hardware and software resource into a series of network-attached players. Here's its most compact all-in-one
 Review: **Andrew Everard** Lab: **Paul Miller**

One of the great advantages offered by network-capable audio hardware is that, once a platform has been designed, it can be rolled out across a number of products, re-purposed and scaled depending on the target market. We've seen the same from brands as diverse as AVM [HFN Dec '21], Cambridge Audio [HFN Nov '21] and Naim [HFN Aug '21], and now recent arrival HiFi Rose is following the same path with high-end players designed to be used in existing systems all the way through to one-box soundbar set-ups.

So the £1750 RS201 E featured here may look like a shrunken version of the £3900 flagship RS150 [HFN Jun '21], with the same in-house operating system and control app, but in fact it's a very different animal. While the RS150 is aimed firmly at the high-end streamer/player market, the little RS201 E is a much more enticing prospect for those new to network audio. Thanks to its onboard Class D power amp, it needs only the addition of a pair of loudspeakers to create a complete hi-fi system, able to stream from online sources as well as local network storage, and do much more besides.

HEAVYWEIGHT FEATURES

Described by its Korean manufacturer as a 'Professional HiFi Media Player' the RS201 E is not only an audio streamer, player and DAC, capable of handling files all the way up to 384kHz/32-bit and DSD512/11.2MHz, but it can also play video sources over a wide range of formats up to 4K, either on its 'letterbox' front panel display or out to a compatible TV via HDMI. While its video quality is perhaps best left to our sister title *Home Cinema Choice*, such a facility certainly adds to the appeal of the RS201 E, even if most new TVs already stream HD film content.

RIGHT: External 24V PSU feeds independently-regulated supplies for CPU and GPU [on riser PCB], BT/Wi-Fi hub [top, right], ES9018K2M DAC and ES9602 headphone amp [top left] plus TI TPA3244 PurePath Class D amp [under heatsink]

The 'cute appeal' of that video display aside – and it's only one of many tricks available from the HiFi Rose operating system and display – what rapidly becomes clear is that this is a network device every bit as capable as its pricier stablemates, wrapped up in a convenience package that can only extend the brand's appeal. Its targets may be different, the RS201 E challenging the likes of Cambridge Audio's Evo duo and Naim's Uniti range, but it's equipped to put up a pretty strong fight.

As well as its network streaming capability, with connectivity via Ethernet or Wi-Fi, the RS201 E can accept music on USB storage and micro SD cards, or via Bluetooth, AirPlay, or USB-C OTG (On The Go) from suitable portable Android devices. It also hosts one set of line inputs plus digital on an optical input, the last allowing sound from a TV or set-top box, for example, to be played through the unit. It's also possible to unscrew a panel in the base of the unit and insert an SSD storage

device, from which the RS201 E can then play audio or video, and the contents of which can also be shared with other players on the home network. Given that a suitable 1TB SSD can be bought for around £80 these days, that might well be an option worth taking up, even if you only use it for temporary on-board file storage.

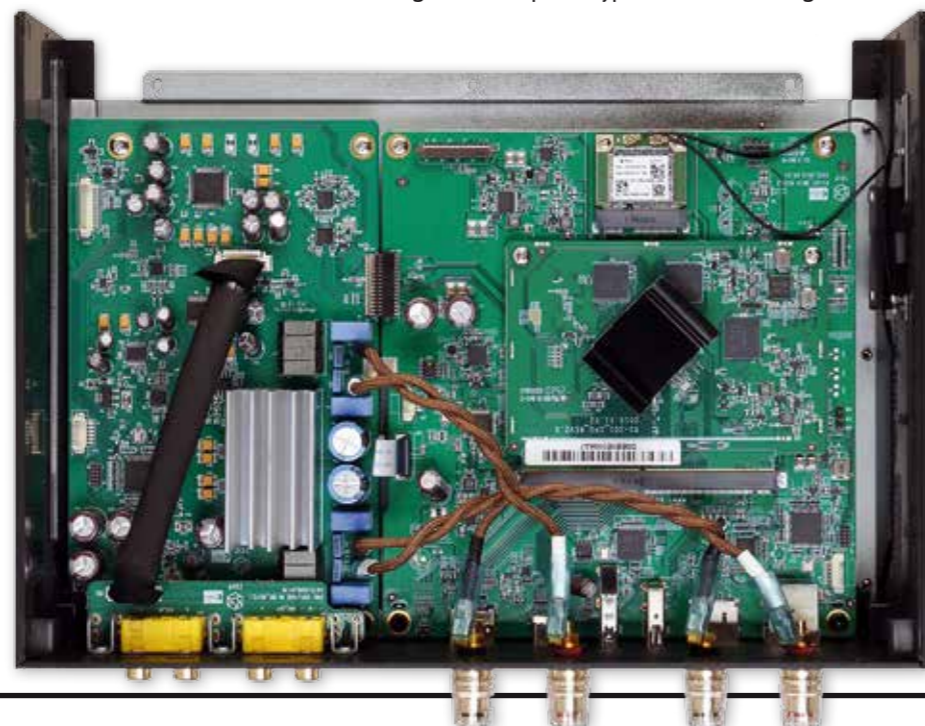
RIPPING YARNS

As an adjunct to that internal storage, HiFi Rose has a disc drive in its catalogue.

The slot-loading RSA780 is solidly built to isolate it from vibrations, offers a USB 'isolation mode' to remove any electrical noise, and can be used to play music via USB through any of the company's products, or to rip discs in FLAC or WAV

format to their internal storage, where fitted. How good a buy the RSA780 is will depend on how much you're planning on using it, given that it sells for £349. You might want to try experimenting with a computer-type DVD drive first, given that

'Sting's slick album belies its "lockdown" status'



LEFT: 8.8in-wide touchscreen TFT display provides fingertip control over everything from input selection to menu set-up

these – even 'known-brand' models from the likes of Hitachi-LG and Asus – can be bought for £30 or so.

As well as playing through speakers using its internal 'embedded PurePath power amplifier', the RS201 E can also be used straight into integrated or power amplification via its line/preamp outputs. Incidentally, HiFi Rose variously quotes an output of 100W and while this is possible under dynamic conditions into low loads [see PM's Lab Report, p61], the stereo/8ohm output is closer to 35W in practice.

If you want to bypass the internal power amp then the RS201 E's preamplifier can be switched between fixed and variable output via the unit's menu system [see boxout, below]. However, the preamp facility should probably be seen as a useful upgrade path rather than a primary focus of the RS201 E. If you are looking for a player/preamp source component, I'd be more inclined to choose the company's £1949 RS250 instead, as it deletes the internal power amps but adds a useful USB-B computer input, and an internal power supply in place of the RS201 E's external computer-style 'brick'.

For what it is, however, much of the beauty of this 'all-in-one' model is in the quality feel of its all-aluminium construction, its internal production engineering [see inside picture, p58], and the slickness of its operation, whether using the Bluetooth remote handset [p61], the touchscreen display or the company's excellent app for Android or iOS.

This is a complex and very flexible device, offering Qobuz, Tidal (with MQA decoding) and Spotify Connect among its streaming services, plus access to Internet radio and podcasts. It also boasts Roon-ready status, yet it's remarkably easy to set up and use, thanks in no small part to the combination of the exceptionally well sorted Rose OS and the Rose app. In fact, go through the clear installation routine, and you can soon be playing music, unaware of all that's on offer here – the deep dives can wait for another day.

LIGHT BUT TIGHT

Despite the cautions about power output mentioned in PM's Lab report [p61], the RS201 E proves well-equipped for the kind of set-ups in which it's likely to be used.

Paired with the likes of Bowers & Wilkins' 600 S2 Anniversary Edition speakers or, indeed, the rather more expensive Neat Iota Xplorers I used for much of my listening [HFN Jul '18], it proves a willing and entertaining listen provided you don't ask too much of it.

Yes, it can toughen up a bit when pushed really hard with driving rock standards or large-scale orchestral works, but playing music at sociable – rather than anti-social – levels it sounds smooth and refined. It also has a knack of delivering excellent insight into performances and the way the music has been put together.

That's certainly the case with Sting's *The Bridge* [A&M 3858707; 48kHz/24-bit], which belies its 'lockdown album' status and remote recording procedures with a wonderfully slick and crafted production, in which every element seems perfectly judged. The RS201 E brings out all the character of the singer's voice and makes the most of the serried ranks of (distant) musicians, all gelling together in a sound that's suitably lush and rich, while at the same time catchy and consistently interesting. Yes, the bass is more of the 'light but tight' school rather than plumbing the depths, but it's more than

BIG SCREEN ACTION

The high-quality 8.8in display that dominates the front panel of the RS201 E is no stylistic gimmick – it's as much a core component of the system as the Rose OS and the dedicated Rose music app. Big, clear and informative, the display makes the system simple to set up, and keeps the user fully informed through cueing and playback with its artwork options. Detailed adjustments in the extensive menu system extend to playing video in resolutions at up to 4K – although all that picture detail is rather wasted unless your nose is pressed up to the display. Moreover, just because HiFi Rose has come up with this big, clear and deeply impressive touchscreen, don't think the company hasn't retained a sense of fun... Dig into the menu and you'll find clock displays, from analogue faces to retro styles, including a 'big numbers' digital readout filling the whole screen. There's even a flip-type mechanical readout, if you want your system to look like a 1960s clock radio [see adjacent] complete with a choice of alarm ringer tones!



HIFI ROSE RS201 E



ABOVE: Line in/pre out (RCAs) are joined by optical digital in/outs and 4mm speaker cable terminals. There's an Ethernet port plus one USB-C, micro SD and two USB-A ports for external media and a BT/Wi-Fi dongle. Optional SSD is loaded under the case

adequate for this set, while the slightly soft treble will be preferred by many listeners, and won't aggravate speakers with a slightly over-enthusiastic top-end.

Similarly with the Carnegie Mellon Wind Ensemble's recently released recording of Richard Strauss's *The Happy Workshop* [Reference Recordings FR-745], this one-box allows a persuasive view of the skilfully intertwined instrumental timbres, while having all the speed and definition to make the most of the Mozartian influences in several of the movements. There's no need for massive bass here, so the system's light and fleet-footed approach is well-suited, and there's a good sense of the space and air of the recording venue, without overstressing things and distracting from the ensemble's intimate sound.

ROUGH AND TUMBLE

Roughen things up a bit with Peat & Diesel's *Uptown Fank* [Wee Studio Records], where traditional Scottish folk sounds meet driving beats, and while the RS201 E sounds a little congested and thick, that's just how the set sounds on even the most revealing systems. Importantly, there's no shortage of musical communication here, whether the

trio is punching hard or lulling the listener into a false sense of security with 'Stornoway's poignant opening before the guitar, bass and drums thunder in behind the fabulously raucous vocal.



LEFT: Although the RS201 E can be accessed via the Rose app, this handset also offers comprehensive control provided you can view your operations on the large colour display

The RS201 E's power plant could do with a bit more scale and authority at times, as is clear in the great final movement of the Brahms First [Budapest Festival Orchestra/ Fischer, Channel Classics CCS SA 28309; DSD64], where a rather more free-breathing sense of space and sheer scale of the musical forces wouldn't go amiss. But even here there's still plenty of intrigue on offer, just as the musical threads remain easy to follow, and are delivered with excellent fluidity.

THRILLS WITHOUT SPILLS

And when you calm down with last year's 30th anniversary release of Fourplay's eponymous album [Warner Bros 7599-26656-2], the system sounds assured and oh-so-detailed. Even with the opening 'Bali Run', which has somehow survived so many hi-fi demonstrations to emerge still able to thrill, there's detail in Nathan East's tight bass and the punchy drums of Harvey Mason, underpinning the intertwining keyboards of Bob James and Lee Ritenour's guitar.

Sure, it's a bit lush and borderline 'audiophile jazz', but the music remains beautifully crafted, and motors along smartly in the hands of the HiFi Rose RS201 E, especially when you put a bit of the little unit's refined welly behind it. ☺

HI-FI NEWS VERDICT

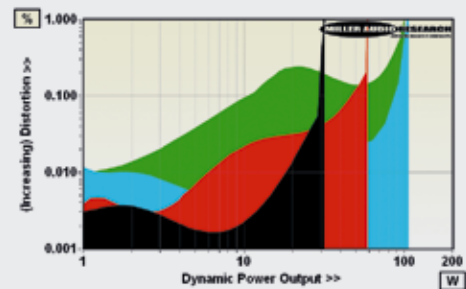
Yes, the RS201 E has its limits, and they're not hard to find if you push this little system too hard, but keep it within its comfort zone – as most users will – and you'll find it as fine-sounding as it is as flexible and enjoyable to use. At its price level it's not exactly without competition, but it retains plenty of user-appeal, and features – notably video streaming and playback – that nothing else of its kind can match.

Sound Quality: 84%

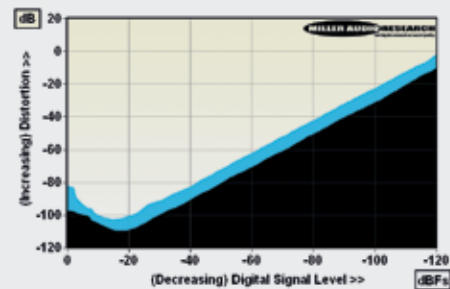


Although HiFi Rose offers a slightly ambiguous 'max 100W' spec. for the RS201 E, the datasheet for Texas Instruments' TPA3244 PurePath Class D amplifier module suggests a figure of 50W/8ohm in bridged mode. This is realised in the RS201 E at 2x33W/8ohm and 2x60W/4ohm with the same achieved under dynamic conditions, increasing to 105W/2ohm and 100W/1ohm, all at <1% THD [see Graph 1]. Gain is sensibly modest at +28.6dB and the A-wtd S/N ratio above average for a Class D technology at 87.2dB (re. 0dBW). Distortion is very low at ~0.001% through the midrange at 1W/8ohm, increasing slightly to 0.0016%/10W, but rather more abruptly above 10kHz to 0.06%-0.3% at 20kHz from 1-10W. This is a function of the output filter network, as is the 0.08ohm source impedance, increasing to 2ohm/20kHz. The response is very load-dependent – at 20kHz it is +1.1dB/8ohm, -0.4dB/4ohm and -3.5dB/ 2ohm, so loudspeakers with a rising HF load will sound 'brighter'.

The RS201 E's ES9018K2M-based DAC/preamp stage is very 'clean', offering a wide 111dB A-wtd S/N ratio from a maximum 3.15V output and 165ohm source impedance (increasing to 345ohm/20Hz). There's some slight phase noise revealed by the jitter tests but correlated sidebands are suppressed to a very low <15psec (all sample rates). Resolution is good to within ±0.2dB over a full 100dB dynamic range and distortion falls from 0.0016-0.01% at 0dBfs (20kHz-20kHz) to a min. of 0.0003% over the top 30dB of its dynamic range [Graph 2]. The default digital filter is a standard linear phase type offering a 115dB stopband rejection with response(s) of -0.2dB/20kHz, -1.2dB/45kHz and -2.95dB/ 90kHz with 48kHz, 96kHz and 192kHz files, respectively. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 10.0A



ABOVE: Distortion versus 24-bit digital signal level over a 120dB range (1kHz, black; 20kHz, blue)

HI-FI NEWS SPECIFICATIONS

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|-------------------------------------|---------------------------------|
| Continuous power (<1% THD, 8/4ohm) | 33W / 60W |
| Dynamic power (<1% THD, 8/4/2/1ohm) | 33W / 60W / 105W / 100W |
| Output imp. (20Hz-20kHz, Pre/Amp) | 165-345ohm / 0.079-1.93ohm |
| Freq. resp. (20Hz-20kHz/100kHz) | -0.0 to +1.1dB/-0.1dB |
| Digital jitter (S/PDIF / USB) | <20psec / <10psec |
| A-wtd S/N ratio (DAC/Amp) | 111.2dB (0dBfs) / 87.3dB (0dBW) |
| Distortion (DAC, 0dBfs/Amp, 10W) | 0.0016-0.01%/0.0012-0.25% |
| Power consumption (Idle/Rated o/p) | 14W / 90W (1W standby) |
| Dimensions (WHD) / Weight | 278x76x202mm / 2.3kg |