

INTEGRATED AMPLIFIER

Streaming integrated amplifier. Rated at 100W/8ohm
Made by: Simaudio Ltd, Quebec, Canada
Supplied by: Renaissance (Scotland) Ltd, Edinburgh
Telephone: 0131 555 3922
Web: www.simaudio.com; www.renaissanceaudio.co.uk
Price: £6250

AUDIO
FILE

hi-finews
OUTSTANDING
PRODUCT

Simaudio MOON 371

The MOONLink-compatible 371 streaming integrated is the 'north star' of MOON by Simaudio's new Compass Collection – bristling with features, and with power to spare
Review: **Mark Craven** Lab: **Paul Miller**

Seasoned audiophiles will remember MOON once being the name of Simaudio's 'reference-grade' hi-fi hardware. But these days, the website for this Canadian marque is headlined 'MOON by Simaudio', and MOON, rather than Simaudio, is the branding that graces the front of its products. Moreover, Simaudio has also started curating new releases into 'Collections'. The first of these, the North Collection, arrived in 2023 as a home for flagship models. Now we get the second-tier Compass Collection, led by the MOON 371 streaming amplifier on test here.

Priced £6250, this has both the look and specification of a thoroughly modern integrated, although the colour display that takes up the middle portion of its fascia is not, as might initially be presumed, a touchscreen. Sure, the column of illuminated icons on the left-hand side look as if they can be tapped by a finger but, in practice, it's the discreet black buttons next to them that are used to flick through inputs and menu options.

FEEDBACK FREE

The MOON 371 treads the familiar 'just add speakers' amplifier path, combining a bevy of wired and wireless connections with operation via smartphone/tablet app [see boxout, p57], and a compact design. Similarly styled to previous Simaudio products, with curved cheeks at either end of a fascia that comes in either a black or silver finish, the unit looks pleasingly smart. And dimensions of 429x87x385mm (whd) should help it fit in just about anywhere.

This first product in the new Compass Collection leverages aspects of models from elsewhere in the Simaudio stable. Chief among these is the 'MOON Distortion-Cancelling Amplifier'

RIGHT: Packed interior is dominated by a universal switchmode PSU [top] feeding a Stream810 module [blue, bottom] and digital PCB [left], with AK5552 ADC and ESS9039Q2M DAC, and Class A/B power amps [far left/right] each with two pairs of high current devices

(MDCA) technology, which is where the manufacturer says it 'breaks away from traditional feedback-based' amplifier designs by eschewing *global* feedback.

KEY FACTOR

Naturally, compensation is still applied to manage gain and bandwidth, and suppress both distortion and output impedance [see PM's Lab Report, p59], but this is a proprietary 'real-time error correction'. The 371's MOON Hybrid Power (MHP) power supply [see pic, below] is a custom design too, a switch-mode type previously used in the company's DACs/processors but reimagined here for duty in an integrated amplifier. The MHP is a key factor in the unit's modest chassis size and 9kg weight without restraining the Class A/B power amp itself – conservatively rated at 2x100W/8ohm, doubling into 4ohm.

'This amp serves a bevy of wired and wireless sources'

On the front of the amp is a smooth-feeling volume control that switches from 1dB to 0.5dB steps as the level increases. To the left of this is a 6.35mm headphone output, which mutes the speaker outs when in use, and then the display, which offers album artwork, volume and source during playback. This screen is also used

to make changes to the MOON 371's user settings – display brightness, preset volume levels, screen saver mode, etc. Particularly useful is the ability to rename inputs via a text editor, which

makes a change from selecting from a predefined list. This is a bit fiddly, however!

Back-panel connectivity is wide-ranging, although the lack of a computer-friendly USB-B input feels like a missed trick – you can, however, play from external storage through the MOON 371's USB-C host input.



'The discreet black buttons next to the display are used to flick through inputs and menu options'



For analogue sources there are balanced XLR and unbalanced RCA ins, plus a phono input switchable between MM or MC configurations, with 40dB and 60dB gain, respectively. Meanwhile, a further set of RCAs acts as a preamp output.

Digital inputs comprise optical, coaxial and HDMI ARC connections, Bluetooth, and built-in Wi-Fi and Ethernet. Two RJ45 sockets are provided, enabling the amp to work as a network extender to another device, or to become part of a 'MOONLink Group' whereby several MOON products can be controlled as one. Multiroom functionality extends to streaming any of the amp's inputs to other networked MOON products. For this, an AKM AK5552 A/D converter handles analogue sources, but this is only used for the amplifier's main output if the user selects 'Synchronised' mode in multiroom settings (to ensure no latency between zones).

This is, then, a very flexible device. It's also Simaudio's only current integrated amplifier with a DAC onboard, as models in the North Collection are intended for use with one of the series' networked

DAC/preamps. Those units – the MOON 681, 791 and 891 – utilise different configurations of ESS Sabre chips in conjunction with FPGA-based reclocking/jitter reduction. The digital stage here is less advanced, being based around a single, but well proven, ESS9039Q2M DAC.

CLEAN SWEEP

Taking pride of place in the *HFN* Listening Room [p41 & *HFN* Yearbook '25], driving loudspeakers including both the Wilson Audio Alexx Vfx and B&W 801 D4 Signatures [*HFN* Sep '23], the MOON 371 proved that you don't necessarily need a huge slab of electronics, or to follow the separates route, to create largescale, involving music. Yes, it's slim of stature and rich in features, but hearing this amplifier power floorstanders through big movie soundtracks and hard rock anthems might have you wondering why you'd ever want more grunt than is on offer here.

Hand in hand with this speaker-driving ability is its very natural rendering of leading-edge detail. So the MOON 371 is quick to rise to the occasion, ensuring

ABOVE: Dominated by its massive colour display, the 371's two-tone alloy fascia (black is also offered) hosts mute, input and brightness buttons plus a volume rotary – these controls also assist in navigating the configuration menu

music never sounds sluggish. By the same token, there's no overt warmth or diluted treble. Rather, the amplifier adopts a clean and largely neutral approach that uncovers the nature of a recording.

Given Randy Hanser's 'Underwater Lazarium', from the American musician's *Funtown* album [Jazzhaus Records JHR 115], the MOON 371 dug deep into the fat basslines and electric guitar licks, delivering a tangibly full-range and rich sound. It was also able to coax the big Wilson Alexx Vfx speakers into the immersive, wall-to-wall presentation with which I've become familiar. There's a vast price gap between those speakers and this amp, but the latter was clearly not operating out of its depth.

WEIGHT AND SEE

The more 'ethereal' aspects of Hanser's nine-minute piece carried a little bit of grain, lacking that last touch of air and sweetness. These include his slightly processed vocals, delivered in the style of Mark Knopfler, and the high steel strings on his acoustic guitar. Yet this didn't prevent the piece from sounding superb overall, with fine dynamics and weight – a performance of scale and tonal richness.

The MOON 371 gave a spirited, revealing rendering of Katie Melua's 'On The Road Again' [*Piece By Piece*, BMG; CD res], which spotlights the singer's exemplary vocal talents against a bluesy backdrop of acoustic guitar, brass and piano. There was nothing shy or receding about this performance, ➞

'Here was a performance of scale and tonal richness'

MIND THE APP

Free for use on iOS and Android devices, Simaudio's **MiND Controller 2** app is focused on managing music playback. This is a universal controller for all of the company's networked MOON devices, and doesn't (yet) allow for adjustment over the 371's specific settings. There are hints, too, that the software has evolved over time – volume changes are handled by icons at the bottom of the screen, in lieu of the virtual rotary controllers favoured by some rivals, and you can't use the physical buttons on the smartphone/tablet itself.

While MiND therefore lacks a little operational spit and polish, it remains intuitive and useful. All eight of the amplifier's inputs are selectable, with the Network option integrating Qobuz, Spotify, Tidal, Deezer and Highresaudio streaming platforms, in addition to USB storage, Internet radio and UPnP/DLNA streaming. Tracks can be queued across sources, and the app also handles multiroom creation and playback. Alternatively, the MOON 371 can be played from native Spotify, Tidal and Qobuz apps, plus Apple AirPlay and Roon.





ABOVE: Single 4mm speaker binding posts and preamp outputs (on RCAs) are joined by MM/MC phono and two line ins (one balanced on XLR). Streaming is offered via wired Ethernet (x2) and wireless with digital ins on optical, two coaxial (to 192kHz), a USB-C host port for external drives (to 384kHz and DSD256) and HDMI ARC (48kHz)

the sound leaping forward to almost touch the listening seat, every transient detail leaned into with gusto. By comparison, her twee breakout hit 'Nine Million Bicycles' took on a sweeter, more flowing feel, without the amp veering into honeyed, softly-softly territory.

BASS BOUNTY

Just as Melua's vocals sounded floaty and smooth through the MOON 371, the cigarettes-'n'-whiskey growls of Johnny Van Zant across Lynyrd Skynyrd's acoustic *Endangered Species* [Volcano 82876 55128 2] were roughly detailed, as appropriate. However, listening to 'Devil In The Bottle' it did feel as if the singer was spread a little too wide, not quite drawn sharply centre stage amid the instrumentation. This vaguely diffuse flavour was also noted with Ry Cooder's 'Theme From Southern Comfort' [Ry Cooder *Anthology: The UFO Has Landed*; Warner/Rhino 8122-79891-9]. Yes, the snap and twang of his slide guitar was all there, but perhaps it was not so ruthlessly defined.

The Mathilde Storm ballad 'Cries Like A Baby' [Propeller Recordings download] has a sparkling vocal track that runs the risk of listener fatigue. The MOON 371 delivered it with no shortage of presence and detail, while avoiding the gritty treble that has one reaching for the volume control. The fulsome bass on this recording, both soft yet robust-feeling, was another standout element.



Although very much an all-in-

LEFT: The partnering MOON remote caters for DAC, CD and amp functions. For the latter this includes input, volume, mute and access to the setup menu

one amp, the MOON 371 doesn't provide any way of fine-tuning its sound. As such, you might view it as a more single-minded model than rival units that pack in DSP tools and room calibration – it sounded authentically purist when playing 'In On It', from Pat Metheny's *Side-Eye III+* [Go Forward; 96kHz/24-bit], through its own streaming module/DAC stage. In this album opener, alongside drummer Joe Dyson, keyboardist Chris Fishman and bassist Daryl Johns, the guitarist unleashes sweeping jazz licks atop a samba rhythm and tinkling percussion, and the MOON 371 seemed to resolve every small detail.

FLEXIBLE FRIEND

When the band comes to a stop midway through the track, the hi-hat strike fading away, I noticed how involved I'd become in this music, and how much scale and depth the compact amp had mustered.

Yet it was equally captivating, in a different way, playing the serene overture to Verdi's *Aida* [George Solti/Rome Opera House, Decca; 96kHz/24-bit], where it delicately extracted the myriad string strands, rose and fell with the dynamics of the piece, and truly offered a widescreen view of the orchestra. The MOON 371 is playfully flexible – but also a serious performer.

HI-FI NEWS VERDICT

Simaudio kicks off its Compass range with a high-quality take on the do-it-all integrated. The MOON 371 is generously specified with its connections, from Roon to MM/MC phono, but this user-friendly nature goes hand-in-hand with a mature sonic delivery that combines clarity and insight with dynamic flair and heft. A thumbs up for the amp's styling too – although the MiND app could do with a refresh.

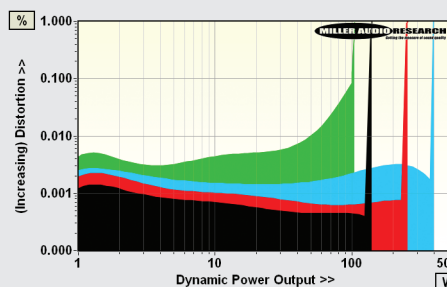
Sound Quality: 88%
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LAB REPORT

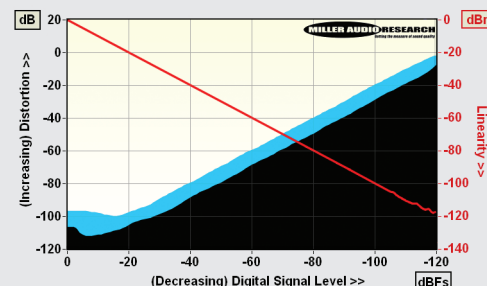
SIMAUDIO MOON 371

The 371's alloy sidecheeks are not simply decorative for they also act as the heatsinks for its L/R power amplifier stages, the latter tramping all over the 100W/8ohm and 200W/4ohm spec. by delivering a very generous 2x140W/8ohm and 2x260W/4ohm. This +2.7dB power increase is indicative of MOON's stiff PSU regulation but it also explains the 'neutral' dynamic headroom whereupon the MOON 371 supports 140W, 254W and 395W into 8, 4 and 2ohm loads under dynamic conditions. Maximum current is 14.1A (<1% THD/10msec) but this is limited to 10.3A/105W into 1ohm [see Graph 1, below]. That said, it's resilient enough to handle most likely partnering speakers. Distortion, too, is very low at 0.00025-0.003% (re. 10W, 20Hz-20kHz) and steady with level at 0.0004-0.0008% from 1W-100W (all re. 1kHz/8ohm). The response is very flat at -0.14dB/20kHz and -1.5dB/100kHz, with some treble roll-off into lower loads (-0.25dB/20kHz into 2ohm). With the 'Offset' at 0dB, gain is a sensible +31.5dB while the A-wtd S/N ratio is a generous 90dB.

Tested at a volume of '74dB' (2V RCA preamp output from a 49ohm source impedance), the ES9039Q2M-based DAC board benefits from a low <10psec correlated digital jitter, although there is some low-rate phase noise. The A-wtd S/N ratio is a very healthy 109dB while distortion is low at 0.0003-0.001% over the top 20dB of its dynamic range [see Graph 2] and linearity is good to ±0.2dB over a 100dB range [red trace]. Response and alias rejection are determined by the fast minimum phase filter, reaching out to -0.0dB/20kHz, -0.3dB/45kHz and -0.7dB/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 14.1A



ABOVE: Distortion versus 48kHz/24-bit signal level over a 120dB range (1kHz, black; 20kHz, blue) plus resolution/linearity (1kHz, red trace and Y axis)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	140W / 260W
Dynamic power (<1% THD, 8/4/2/1ohm)	140W / 254W / 395W / 105W
Output imp. (20Hz-20kHz, Pre/Amp)	49ohm / 0.018-0.048ohm
Freq. resp. (20Hz-20kHz/100kHz)	+0.0dB to -0.14dB/-1.45dB
Digital jitter (48kHz / 96kHz)	<10psec / <10psec
A-wtd S/N ratio (DAC/Amp)	108.9dB / 89.7dB
Distortion (DAC, 0dBfs/Amp, 10W)	0.0008-0.002%/0.00025-0.0028%
Power consumption (Idle/rated o/p)	27W / 333W (1W standby)
Dimensions (WHD) / Weight	429x87x385mm / 9kg