

# Simaudio MOON 250i

Traditional, all-analogue amplifiers have an advantage over their digitally-packed contemporaries as there's simply less to go 'out of date'! That's the theory...

Review: **Mark Craven** Lab: **Paul Miller**

**T**hese days, the letter 'i' included in a product name will have some people assuming there are networking features onboard – blame BBC iPlayer or Apple iTunes, I suppose. It's therefore worth stressing that Simaudio's £1900 MOON 250i is an all-analogue integrated amplifier (that's what the 'i' stands for here, of course), lacking digital connectivity and DAC, or any networking talents whatsoever. If this counts as an old-school approach, then there's at least one good reason for it – the 250i has now been in the Canadian company's stable for a decade.

This is not necessarily a bad thing. When a piece of consumer electronics enjoys longevity, it's usually because it's been doing a fine job, and there's no demand for it to be replaced or comprehensively upgraded. Aside from its remote control, in practice the MOON 250i is not dissimilar to the minimalist models that might have launched 40 years ago – input selection, volume and a set of speaker outputs!

## IF THE CAP FITS

Naturally, Simaudio does offer feature-rich amps, including the related £2800 MOON 240i which carries a suite of digital inputs, including 384kHz/DSD256-capable USB-B. Again, however, this is a non-networked model – for a streamed music solution from the brand, using its MiND (MOON Intelligent Network Device) platform, you'll need to add either one of its network players or streaming DACs [*HFN* Sep '21], or consider the company's MOON ACE 'just add speakers' solution [*HFN* Jul '22].

There have been some modifications to the 250i during its lifetime. Originally known as the Neo 250i [*HFN* Jun '14], and available in black, silver or silver/black hybrid finishes, it now comes in black only (in order, we're told, to streamline

production and keep the cost down to below the key £2000 mark). Furthermore, since 2021, Simaudio has used Nichicon capacitors in the 250i, and the bipolar output transistors are now the same as those found in its costlier 600i integrated and 888 monoblock models. The Alps volume pot has also been upgraded.

Measuring a svelte 89mm high, it looks a lot like every other MOON amp, preamp and DAC out there, bar the aforementioned monstrous 888. The company has been running with the same 'design language' for some time, with curved cheeks at each end of the front panel, central logo (on some models above an OLED or LCD display), and circular silver control buttons. The presentation is instantly recognisable as 'Simaudio', but arguably, on this feature-stripped amplifier, a little busy – for example, the bank of buttons on the lefthand side are for input selection,

something that's easily governed by the supplied remote handset [see p73].

## TALE OF THE UNEXPECTED

Also on the front of the MOON 250i are a motorised volume control, 6.35mm headphone socket and a 3.5mm analogue input. The latter is an unusual find on hi-fi

hardware at this price, and a sign of the amp's venerable nature. I suppose this might be welcomed by some as a quick route to audio piped over from a smartphone – although as many new handsets no longer offer a 3.5mm

output, its time is surely almost up...

The 250i's back panel [see p73] is so elegantly laid out you could probably lace this into your system with your eyes closed. A widely spaced set of binding posts sits toward the righthand side, next to an IEC mains socket and power switch. On the left can be found five line-level inputs on RCAs

*'It turned from groovy, blues jam to room-filling monster'*



**RIGHT:** Once upon a time, every integrated amp looked like this! Large toroidal transformer [right] feeds regulated PSU [top right] for a fully discrete pre/power circuit with custom bipolar output devices [on centre heatsink]



(no MM or MC phono stage here), plus a pre-out connection for use with an external amp. Tucked in between are RS232 and IR inputs, and in/out ports for Simaudio's SimLink (cable supplied), which supports interoperability between MOON hardware.

As our inside shot shows [see p70], the 250i's production engineering is equally elegant, with most space taken by a large toroidal transformer that adds mightily to the amp's 10kg heft. The bipolar output stage is conservatively rated at 2x50W/8ohm [see PM's Lab Report, p73], and is sufficiently biased, says Simaudio, to run in Class A mode over its first 5W.

Something intriguing about the MOON 250i is its power consumption. PM's lab tests reveals an idle power usage of 20W, dropping to only 18W when the unit is put into 'standby'. Such a figure is likely way above what most buyers will expect from a standby mode. Indeed, it seems that placing the amp in standby has little effect other than switching off the red and blue status LEDs on its front panel, so the energy conscious might want to turn the 250i fully off when it's not going to be used – despite Simaudio's assertion that the unit is

'designed to be powered up at all times for optimal performance'.

Being compact in size, the amp will slot easily into any hi-fi rack or on a tabletop, although the usual space requirements should be considered to ensure it doesn't run too warm. The top of the metal chassis is ventilated, and Simaudio is worried enough about users blocking this that it warns against it twice in the same paragraph in its comprehensive manual!

### MUSIC MAESTRO

From an amplifier with a focus on doing one thing only, and at a price that's certainly not 'budget', it shouldn't come as a shock that the MOON 250i does that one thing – make music from analogue line sources – very well. And 'music', or rather 'musical', is the word here. Simaudio's integrated sounds accomplished in the way it paints an involving, rich-toned soundstage, and has excellent midrange handling. It could never be described as analytical, and I didn't find it favouring one genre of music over another. A voluminous, bassy foundation is added to material that demands it, and the amp has the energy

**ABOVE:** Now only available in a solid black finish, the 250i's sculptured casework still looks as modern as ever. Input selection and motorised volume are also remote-controlled

to make listening to up-tempo pieces fun. Overall, it's a real crowd-pleaser.

AC/DC's 'Thunderstruck' [*Razor's Edge*; EPC 510771 2] lacked some bite to the hi-hats that underpin the now-famous intro section, making this element a little less clear-cut than I've heard before. On the other hand, the MOON 250i really brought out the mass of backing vocals, and gave considerable depth and weight to a drum track so forthright I've known it used for subwoofer demos. And while a 2x50W power plant might not look like much on paper, in the real world it proved more than enough to give standmount loudspeakers – in this instance GoldenEar's passive radiator assisted BRX model [*HFN* Sep '22] – a kick in the derrière.

The bass on the AC/DC track was well-rounded and slightly warm; on 'Hot Mess', a track by '80s-influenced Canadian dance-funk duo Chromeo [*Business Casual*; Back Yard Recordings BACK57CDC1], there was more distinction to it, to go along with a snappy, upbeat and tight presentation. There's plenty thrown in the mix here, including percussion, synthesiser and vocoder vocals, all rattling along at quite a pace, and the MOON 250i parsed all of it, without it feeling lacking in cohesion.

### TAKE A BOW

For me, the highlight of the MOON 250i's performance, however, is not its power or dynamic ability, but the sumptuous rendering of instruments that comes from its articulate midband. Elton John's 'Hercules', from *Honky Chateau* [Mercury 528 162-2], opens with an acoustic guitar rhythm, followed by close-mic'd drums, piano chords and the singer himself. Each part had a noticeable sonic signature, and all sounded thrillingly natural, while the amp dug into the rousing bluesy rhythm. ↻

## JOURNEY TO THE MOON

**Simaudio, headquartered in Quebec, Canada, was born under a different name. Founded by Victor Sima in St Hubert in 1980 to make audio products 'aimed strictly at professionals', it was originally called Sima Electronics, yet by the next decade had rebranded to Simaudio and launched its Celeste range. These models, including integrated, pre- and power amplifiers, had a consumer rather than professional focus, and were later joined by Simaudio's 'reference-grade' MOON series, which launched in 1997 with the i-5 integrated [*HFN* May '02], P-5 preamplifier and W-5 dual mono power amplifier.**

**For a while the company continued to sell products across these different lines, but eventually the Celeste name was mothballed, so that now all Simaudio hardware is from the MOON stable, and the website labels the brand 'MOON by Simaudio'. What this means is that a product line that was introduced to signify the high-end now ranges from entry-level to flagship and everything in between. The 250i tested here, and the similarly priced MOON 230HAD headphone amp/DAC [*HFN* Nov '15], are its most affordable offerings apart from the £560 MOON 110LP V2 phono stage. Ranged above are more than 25 models in CD player, DAC, phono preamp, preamp, integrated and power amplifier categories.**

## INTEGRATED AMPLIFIER



**ABOVE:** The 250i offers five line inputs and a preamp output. A single set of 4mm speaker terminals are joined by control over 12V 'SimLink' trigger ports and RS232

Another take on 'Thunderstruck', this time from 2Cellos [*Celloverse*; 44.1kHz/16-bit download], featured a meaty edge to the low-string notes, encouraging me to visualise the frantic bow work. Meanwhile, the amp's delivery of Tchaikovsky's *Swan Lake* waltz, as played by the Chicago Symphony Orchestra under George Solti [Decca Records; 44.1kHz/16-bit download] featured a to-die-for tone as the massed strings played the iconic undulating melody – this was hung in the centre of the stage and fabulously smooth.

### DRAMATIC STEPS

'Strasbourg/St Denis', from the Roy Hargrove Quintet's *Earfood* album [EmArcy 0602517641815] was smoother still, with trumpet and alto sax soaring above the jazzy accompaniment. And once again, the MOON 250i shone just enough of a spotlight on the lead instruments without dissecting the mix into disparate parts.

Simaudio's volume control advances in quite dramatic steps, meaning only a couple of presses on the handset were required to turn the title track from Eric Clapton and B.B. King's collaboration album *Riding With The King* [Reprise Records – 9362-47612-2] from groovy, blues jam into a room-filling monster.

The 250i nailed the swaggering, swinging playing of drummer Steve Gadd and bassist Nathan East, offering a deep, fluid low-end – this time using B&W 705 S2 standmounts – that's

**LEFT:** Simaudio's universal remote caters for all its analogue and digital components – volume, mute and input select are available here



in excess of what you might imagine a slim amp can deliver. Sure, on this piece the legendary guitarists are joined by two more six-strings (why?), plus backing singers, piano and keyboard, and the 250i was less impressive in terms of unpicking the dense production – but there was no denying the foot-tapping energy of the performance as a whole.

I also marvelled at this amp's ability to serve even the most rough production with a spoonful of honey – for example, the 'buzzsaw' guitars of Entombed's *Left Hand Path* album [Earache Records MOSH 21] have never sounded so inviting. But the best indication of the MOON 250i's listenability I can give is that it pushed me to find more tracks to play, to the point I was dipping into artists I'd never heard before.

I wasn't sure what to expect when Amaia Montero surfaced via my Tidal algorithm... It turns out she's an unapologetically poppy Spanish singer, and the track 'Ni Puedo Ni Quiero' from her self-titled album [Sony Music; Tidal Master] is three minutes of strummed guitar, trombone notes, sweet-sounding vocals pushed far forward, and plenty of Latin flair. Simaudio's amplifier was right up for it. And I was right up for it too. ☺

### HI-FI NEWS VERDICT

The MOON 250i has clearly been designed to hit a target price – shedding a two-tone finish along the way to stay there – and as such lacks many hi-fi 'mod cons'. But what we're left with is an integrated amp that nails its brief. Its sound, an always enjoyable blend of smooth musical authority, inviting bass and surprisingly beefy output, is worth celebrating. I can see it easily lasting another decade.

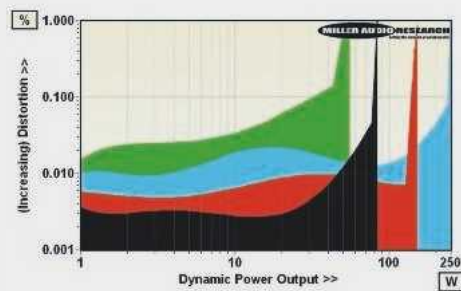
Sound Quality: 85%



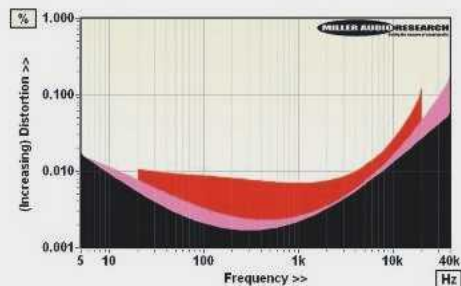
## SIMAUDIO MOON 250I

Although this ten-year-old integrated has certainly benefitted from component upgrades and a little 'light dusting' since its 'Neo' incarnation [*HFN* Jun '14], Simaudio's 250i is otherwise a classic example of 'if it's not broken, don't fix it'. It's refreshing to discover the amplifier's performance is as solid and competitive now as it was in 2014, benefitting from improvements in S/N, output impedance and drive into 2-4ohm. Rated at 50W/8ohm and 100W/4ohm, it achieves closer to 2x68W and 2x100W into 8/4ohm, respectively, and there's sufficient headroom garnered by that 320VA transformer to yield 83W, 152W and 250W into 8, 4 and 2ohm under dynamic conditions [see Graph 1]. The Class AB power amp is protected against shorts, so its output remains limited to 56W/1ohm. The 250i's output impedance is now a uniform 0.021-0.029ohm (20Hz-20kHz), increasing to 0.12ohm/100kHz, while the response reaches out from 5Hz-58kHz (-3dB) with a gentle treble roll-off down to -0.5dB/20kHz.

Overall gain is a sensibly restrained +36.5dB while the A-wtd S/N ratio is a deeply impressive 91.3dB (re. 0dBW). This is a very 'quiet' integrated amplifier suited for use with sensitive speakers, where hiss might otherwise intrude, while still possessing sufficient 'grunt' to tackle less sensitive/lower impedance boxes. Distortion is low and well managed too, achieving a minimum of 0.002% from 2W-20W before increasing to 0.004%/30W, 0.008%/40W and 0.016% at the rated 50W (all re. 1kHz/8ohm). Versus frequency there's just a slight rise at HF, from 0.002%/1kHz to 0.04%/20kHz (re. 10W/8ohm) and 0.12%/20kHz (re. 30W/8ohm) [Graph 2, below]. Finally, the analogue volume control 'law' marshals the top 6dB of gain from 12 o'clock onwards. PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 11.2A



**ABOVE:** Distortion vs. frequency at 1W/8ohm (black, 5Hz-40kHz), 10W (pink) and 30W (red, 20Hz-20kHz)

### HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	68W / 110W
Dynamic power (<1% THD, 8/4/2/1ohm)	83W / 152W / 250W / 56W
Output imp. (20Hz-20kHz/100kHz)	0.021-0.029ohm / 0.12ohm
Freq. resp. (20Hz-20kHz/100kHz)	-0.3dB to -0.5dB / -6.5dB
Input sensitivity (for 0dBW/50W)	42mV / 305mV
A-wtd S/N ratio (re. 0dBW/50W)	91.3dB / 108.3dB
Distortion (20Hz-20kHz, 1W/10W)	0.0017-0.026% / 0.0023-0.045%
Power consumption (idle/rated o/p)	20W / 190W (18W standby)
Dimensions (WHD) / Weight	429x89x366mm / 8kg