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MOON by Simaudio 700i v2 & 780D v2 Integrated amplifier & streaming DAC

by Simon Lucas



For a company that's usually pretty level-headed and not generally given to fits of over-excitement, MOON seems a little impatient just now.

I mean, is it me or is a 39th birthday an unusual anniversary to want to mark? Québécois aren't, so the stereotype suggests, the most gung-ho or restive people on the planet – so the recent appearance of quite a number of pricey new MOON by Simaudio products – including the two tested here – strikes me as slightly strange.

Victor Sima established Sima Electronique in Quebec in 1980. By the

1990s the company had become Simaudio, and launched its first reference-grade series – the MOON range – not long after. By the turn of the 21st century, 'MOON by Simaudio' had morphed into an extremely well-regarded brand turning out some extremely well-regarded products.

Why not, then, wait another six months and have a proper Ruby Anniversary knees-up? Why launch a flurry of intriguing new products now, when in 2020 they could have been accompanied by cake and candles?

Perhaps MOON has something even bigger, even more lavish prepared for next year's party... If that's the case, well, the two products partnered here will certainly do to be going on with.

As far as the boxes themselves go, they could only be MOON offerings. The broad MOON aesthetic has been established for some time now – it calls for a slightly oversized and thoroughly over-engineered enclosures of the 'power-packed sprinter' rather than 'rangy distance runner' variety, with some modest and judicious curves to add a little visual pizzazz.

Both the 700i v2 integrated amplifier and 780D v2 streaming DAC conform to the template. Each is 476mm wide, meaning they will dominate your kit-rack, and each is available in a choice of black, silver or two-tone (black and silver) finishes. Each features MOON's startlingly assertive 'red dot' display (which is visible from across the road, never mind across the room). Each includes significant heat sinks down each side, each is heavy enough to (in the words of Laurie Anderson) stun an ox, and each feels built to withstand a medium-sized detonation. If you find you have need to invoke MOON's ten-year warranty for either of these products, it seems very unlikely it will be because of any shortcoming in construction.

Given build quality that speaks of longevity the equal of that of the owner, then, it seems appropriate that both the 700i v2 and the 780D v2 are also specified to remain useful until the end of time.

The 700i v2 is a strictly analogue integrated stereo amplifier. It's a true dual-mono design, with only the power cord and switch being shared by both channels – in every other respect each channel operates entirely independently of the other. MOON's bespoke 'Lynx' technology puts in an appearance, with the intention (as ever) of virtually eliminating the global feedback loop – it's an inconvenient and costly methodology,

but MOON insists the resulting lack of interaction from the speaker back in the direction of the amplifier gives across-the-board sonic benefits.

Power, at 175 watts per channel into an 8ohm load, is a) provided by an oversized dual-mono power supply with Class A power output to 5 watts, and b) ample. Power is transferred and regulated by a custom shielded transformer design – MOON maintains its super-low thermal, electrical, and magnetic loss gives excellent regulation, improved power transfer, and increased current speed.

At the output stage, MOON is understandably proud of its custom bipolar output transistors which give, so it says, 'unprecedented' gain linearity. Very few companies of this size are prepared to do anything but fit off-the-shelf equivalents.

Around the back, the 700i v2 features four pairs of RCA inputs – the dual-mono configuration means the left-channel inputs and right-channel inputs are grouped together on either side of the panel. There is one pair of balanced XLR inputs too – like the RCA equivalents, each channel's input is located on the corresponding side of the panel. Next to the XLR inputs, there's a tape monitor in/out loop, and line-level RCA pre-outs in case you want to use a £13k integrated amplifier as a pre-amp. Elsewhere there are gold-plated speaker binding posts (the 700i v2 will power just the one pair of speakers), a bidirectional RS-232 for custom installation convenience, and 'SimLink' in/out micro-jacks. Connect the 780D v2 to the 700i v2 this way and press 'play' on the DAC to switch to the appropriate amplifier input.

Up front, the 700i v2 is reasonably uncluttered and logical. There are three degrees of display intensity (they're easily described as 'bright', 'very bright' and 'searing', though these are not the official terms), and the display can be defeated altogether – which is a small but welcome mercy.

Each of the five inputs can be customised – the label can be renamed from its factory default of either B1, S1, S2, S3, or S4, and a maximum or an offset volume level (-10dB/+10dB) can be assigned. Inputs that aren't in use can be disabled altogether, and each input can be made to bypass the volume control.

It's a delightful volume control, mind you, so don't go rushing to bypass it in favour of your source component's alternative. Apart from being machined with



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“The 700i v2 and 780D v2 are – spoiler alert – an absolutely thrilling listen.”



▶ the sort of well-weighted sturdiness of a bank-vault door, it allows ultra-fine tuning of the output level (which runs from 0dB to 80dB). From 0dB to 30dB, the volume is adjustable in 1dB steps – but from 30dB upwards, the output can be finessed in 0.1dB increments. And in addition, MOON claims its use of an optical encoder system of volume control results in far less signal degradation than the more common potentiometer alternatives.

Despite its entirely different functional emphasis, the 780D v2 streaming DAC has more in common with the 700i v2 than just MOON's signature aesthetic. It has the same big, bold and retina-bothering display, for a start off, the same ability to relabel each of its inputs to rationalise the user experience, and to defeat unused inputs altogether. In its own way it's also a dual-mono design – there is one DAC chip (an ESS ES9018S Sabre32 Hyperstream) per channel running in mono mode.

As you might imagine, the specification is extensive and incorporates some excitingly large numbers. The 780D v2 features a total of nine (mostly physical) digital inputs: one AES/EBU, one USB, two Toslink, three S/PDIF (two RCA and one BNC), network via an Ethernet socket and Wi-Fi antenna combination, and Bluetooth functionality (to aptX HD standard).

There are XLR inputs (one four-pin, one five-) for use with MOON's 820S power supply, and a choice of XLR or RCA outputs to an amplifier. The same bidirectional RS-232 and 'SimLink' micro-jacks as the 700i v2 is sporting make an appearance here too.

The 780D v2 is Roon-ready and able to decode MQA through all of its digital inputs. Each digital input is able to deal with information up to and including a 24bit/192kHz standard, while the USB socket

and network connection can go all the way to 32bit/384kHz, DSD256 and DXD. The MIND 2 streaming module that's accessible via Ethernet or Wi-Fi also has TIDAL Masters, Qobuz Sublime+, and Deezer Hi-Fi integrated and ready to go, and can enable wireless streaming to any other MIND devices on the network.

The rest of the heavy lifting is mostly done by MHP (MOON Hybrid Power), a high-performance power supply using high-speed digital switching, analogue linear regulators and conductive polymer capacitors for low noise and rock-solid stability, and two-stage M-LoVo (MOON Low Voltage), a virtually noise-free DC regulation circuit.

This as-long-as-your-arm list of promising abbreviations and optimal numbers is all well and good, of course – and the fact it all looks quite handsome in a post-bout Greco-Roman wrestler kind of way doesn't do any harm either. But at over £26k for the pair, performance needs to be of the 'life-changing' variety if the MOON twosome is going to come close to justifying the outlay.

Using a selection of appropriately high-end loudspeakers, the sound the MOON duo delivers may not, in absolute terms, be 'life-changing'. But there's no doubt it's 'life-improving' – and that's true from a wide selection of digital file types and sizes, from music of all genres, at any kind of volume level. Heard in tandem, the 700i v2 and 780D v2 are – spoiler alert! – an absolutely thrilling listen.

Starting with a 16bit/44.1kHz copy of Grant Green's *His Majesty King Funk* [Verve] via a CD transport into one of the 780D v2's S/PDIF inputs, the MOON's rousing all-court game is made quite obvious. *The Selma March* is unpicked in the most unfussy way, Green's single-note line guitar-playing existing in its own, strictly delineated, space. Each accompanying instrument (organ, congas, drum-kit, and tenor sax) enjoys the same elbow room and is distinct down ▶

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“It has signally failed to compromise where the quality of components, build, and finish are concerned.”

▶ to the last harmonic nuance – and yet the interaction between players and the unity of performance that’s so essential to the jazz ‘experience’ (even one as four-square and formulaic as this one) is explicit too. Green’s background responses to each of his bandmates’ turns in the spotlight are sympathetic and lyrical, and that boogaloo lope so typical of mid-60s jazz is described in the most rhythmically unambiguous manner.

Grant Green was nobody’s idea of a musical pioneer, but he was an articulate and committed performer – even when, as with this album, chasing as wide an audience as possible. The 780D v2 retains all the subtlety and judiciousness of his playing during the D-to-A process, and the 700i v2 lets no detail escape it either. As a result, the listener’s view into the recording – not just the explicitly detailed fact of the instruments but their response to each other – is as clear as freshly laundered crystal.

A fairly abrupt change of gear to *Yesterday Was Dramatic – Today Is OK* by múm [TMT] as a FLAC download from Bandcamp gives an even more frank demonstration of the wide-open nature of the MOON electronics. The clatter and glitch at the top end of *I’m 9 Today* is anchored by droning keyboard pads at the bottom of the frequency range, while a combination of melodica and giggling occupies much of the midrange – and the streamer/DAC/amplifier chain of command lays it absolutely bare. The disparate sources of the sounds, the mechanics of the way they’re stitched together, and the resulting patchwork is made completely obvious.

These boxes have the remarkable ability to pay analytically close attention to every single aspect of a recording without sounding in any way dispassionate. From the dynamic potency of a tune to its harmonic detail, they’re unambiguous. From the depth and breadth of a soundstage to the the gauge of a bass guitar string, they’re packed with information. From the subtle inputs of Johnny Cash’s dentures as he laments his way through *One* [American Recordings] to the positivity and attack of Keith Jarrett’s piano during Samuel Barber’s *Piano Concerto op. 38* [ECM], they’re absolutely controlled.

And the more you exploit these considerable strengths, the more the MOONs reward. An MQA Masters file of Joni Mitchell’s *People’s Parties* [Asylum] is served up with effortless momentum, the details of the acoustic guitar, the understated virtuosity of the bass, and Joni’s exceptional harmonies during the outro combining to paint a picture that’s moving in an almost unbearable way.

MOON has gone to extraordinary lengths, in engineering terms, with the 700i v2 and 780D v2. It has signally failed to compromise where the quality of components, build, and finish are concerned. It has specified them to remain competitive for as long as is realistically possible. And as a consequence it’s unblinking when it comes to putting a price on these products. But to hear them in unison is to be properly transported by the music you play – which I guess must mean they’re worth the money. +

TECHNICAL SPECIFICATIONS

700i V2 Integrated Amplifier

Analogue inputs: Four single-ended line-level inputs (via RCA), one balanced input (via XLR)

Analogue output: Line-level pre-out (via RCA), IR, RS232 power control, tape monitor loop (via RCA), 12v trigger, SimLink loop

Input impedance: 23.7kΩ

Power Output: 175Wpc @ 8Ω

Distortion: THD (20Hz–20kHz @ 1W) 0.015%; (20Hz–20kHz @ 125W) 0.04%

Signal to Noise Ratio: Preamplifier (20Hz–20kHz) 120dB; amplifier (20Hz–20kHz @ 125W) 105dB

Dimensions (HxWxD): 140 x 476 x 460mm
Weight: 27.2kg

Price: £13,000

780D v2 DAC/Streamer

Digital Inputs: One AES/EBU, three S/PDIF, two Toslink, one USB, aptX Bluetooth, one Ethernet, b/g/n Wi-Fi

Analogue Outputs: One single-ended (via RCA), one balanced (via XLR)

Supported digital formats: PCM from 44.1kbps to 384kbps with word lengths up to 32bit, DSD to DSD256, DXD, MQA to 32bit/384kHz, DSD256, DXD only via USB and network

Frequency Response: 2Hz–100kHz, ± 0.3dB

Distortion (THD + Noise): <0.0001%, 20Hz–20kHz at 0dBFS

User Interface: FRM-3 remote control, front panel display, MiND Control app (iOS, Android)

Dimensions (HxWxD): 102 x 476 x 427mm
Weight: 18kg

Price: £13,500

Manufacturer: Simaudio

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