

hi-fi news

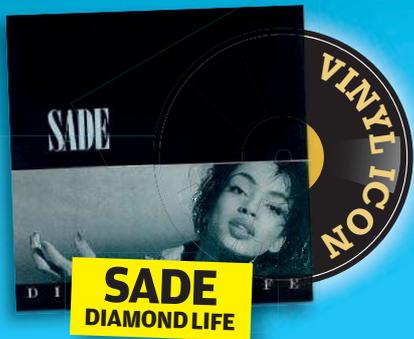
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& Record Review

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Simaudio Moon Neo 260D

Simaudio has introduced a new CD transport to its series of Moon Nêo components – one that can be fitted with an optional DAC board featuring hi-res-capable inputs

Review: **John Bamford** Lab: **Paul Miller**

We were bowled over by the technical performance and subjective sound quality of Simaudio's Moon 380D standalone DAC [HFN Aug '13]. We reviewed it alongside the company's 330A power amplifier, since the 380D can be optionally fitted with a resistive array volume control circuit to negate the need for a preamp in an all-digital system.

The Moon Nêo 260D CD transport (with optional DAC) is a new addition to this Canadian audio company's portfolio, so we were keen to get our hands on it as soon as it arrived on these shores.

ENTIRELY NEW

As mentioned in that 380D/330A review, Simaudio had just announced it was revamping its Moon component line-up. Its new Moon Nêo designs are built into casework with sculpted front panels akin to the aesthetics of the firm's luxurious Evolution Series components. Where many of the Nêo products are re-worked versions of previous Moon components, the 260D 'CD transport' is an entirely new product.

Here we're assessing it as a CD player which, like the majority of players today, features digital inputs for playing additional sources via its digital-to-analogue converter stages. But it *is* available as a dedicated CD transport with AES/EBU (XLR) and S/PDIF (RCA) outputs, priced £1650. The DAC section is an £800 option that can be retro-fitted by an appointed dealer in the time it takes to enjoy a coffee and a chat about all things hi-fi. Yes, of course it has a 24-bit/192kHz-capable USB input for playing hi-res audio downloads from computer sources. The DAC also sports three S/PDIF inputs: two electrical (RCA) and one optical (Toslink), all of which will accept incoming data up to 24-bit/192kHz. And the DAC's analogue stage has balanced and single-ended outputs.

RIGHT: Simaudio's proprietary CD drive system is mounted on a four-point 'M-Quattro gel-based floating suspension'. The 32-bit DAC is a PCM1795 from Burr-Brown (Texas Instruments)

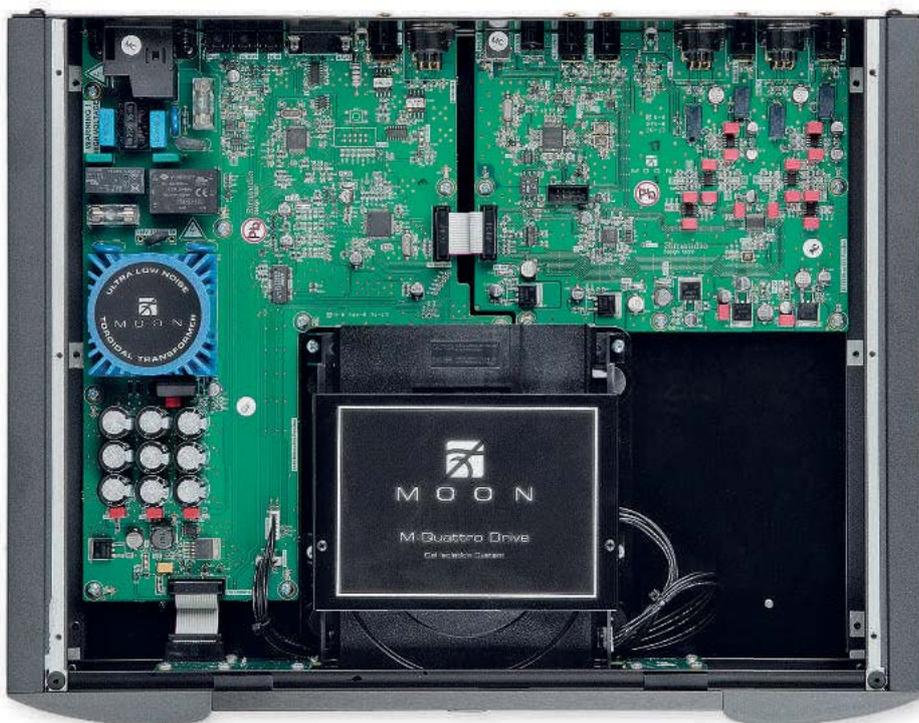
Launched at a point in time when sales of compact discs are certainly waning, the 260D is a carefully considered product introduction from Simaudio [see boxout]. Moreover it replaces three CD player models – the 230, 260 and 360 – from the company's legacy Moon line-up, so it would be fair to say the firm is focusing on quality rather than quantity in today's niche market.

The company is in a strong position to support and service its CD players for many years. While specialist hi-fi manufacturers are finding it increasingly difficult to source dedicated CD mechanisms, Simaudio assembles its own in-house. This is a factor of considerable importance for audio enthusiasts. Even in the unlikely event that the world's major record companies announced they were ceasing all manufacturing of CDs next month, millions of music lovers have CD collections acquired over many years. We're going to want to play them for decades to come.

The mechanism in the 260D transport is decoupled from the player's chassis by a gel-based floating mount that Simaudio calls its M-Quattro suspension. Designed to provide good mechanical grounding while also affording effective isolation from vibration, it's the same mechanism design that Simaudio uses in its Evolution 650 and 750 Reference CD players.

THE DAC BOARD

Meanwhile, the optional DAC board features an alternative 32-bit DAC [see inside shot, below] to the ES9016S Sabre from ESS that's to be found in the costlier outboard 380D. The galvanically isolated asynchronous USB input is the same, however, and uses the XMOS processor interface which the company first employed a couple of years ago for the add-on modules for its 650D and 750D DAC/CD transports. Mac OS provides native support, while Thesycon-sourced drivers for Windows PCs need to be downloaded.





The 260D's multi-segment status display appears a little old-fashioned compared alongside some of today's ultra-cool and sophisticated-looking OLED displays. Moreover the inputs aren't named, so you need to know that to select (for example) the USB input you must scroll through the four inputs to 'd4'. But the display's legends are easy to read – and they do indicate the incoming sampling frequency when using the player's DAC section.

The rear panel has various connectors for external communications. The 260D has an RS-232 port for custom integration/automation and software updates. Next to this are two 'SimLink' in/out mini-jacks for unified control of connected Moon Nêo amplifiers. Furthermore if you hook up one of the company's standalone 180-MiND network streamers [HFN Aug '13] you can control the 260D (and the volume of a connected amplifier) via an iOS or Android tablet or smartphone. A further mini-jack socket is provided for connecting aftermarket IR remote control receivers.

The supplied handset is a perfunctory plastic affair, however the company does make a swish aluminium back-lit controller (model number FRM 3) priced £399. From UK dealers this is currently available at a discounted price of £195 if purchased at the same time as the 260D. Standard finish for Nêo series Moon products is black. They are also available in silver or a 'two-tone'

finish with black faceplates and silver cheeks at no extra cost.

A FAMILY LIKENESS

I described Simaudio's Moon 380D D-to-A converter as sounding even-handed and luxuriously 'comfortable', making for easy-going long-term listening. The new 260D delivers more of the same, its music-making 'rounded' and inviting. Its bass is extended and punchy, while its refined treble quality makes it a great all-rounder for enjoying the majority of a varied digital collection across all musical genres. I was struck by the 260D's exceptional smoothness and civility, and its tonal richness that invited prolonged listening sessions late into the wee small hours during the weeks it was in residence.

It's been a while since I critically compared CD replay with my computer audio source setup: a late-2009 Mac mini running Windows 8 (Boot Camp) and JRiver Media Center playback/file management software. I spent an evening with friends alternately playing CDs in the 260D and comparing rips of the discs. We couldn't reliably discern any subjective difference in sound quality, which certainly made a compelling argument for the validity of a (properly configured) computer rig as

'Cymbal strikes and soft brush strokes shimmer in the air'

ABOVE: To the right of the display lie familiar CD transport keys; on the left, standby and track programming buttons are augmented by an input selector and display on/off controls

an audiophile source component. And the 260D lacks very little in the way of dynamic impact. The tracks 'Fanfare/You Know it' and 'You're Gonna Need Me' from Sheffield Lab's effervescent *Tower Of Power Direct* album [CD-17] were bubbling with energy, the soulful and bluesy big band jazz positively bursting forth from my monitors.

The Moon Nêo unit's transparency helped maintain a realistic perspective of the instrumental layout in the deep soundstage, the blasting brass and saxophone trio in the band's line-up sounding believably sharp and vibrant. The drummer's cymbals really do sizzle in this live-in-one-take

audiophile recording, but the 260D's civilised top-end helped keep any undue 'fizz' in check throughout the listening.

I don't want to give the impression that this 260D sounds *overly* smooth and syrupy. The fact that it doesn't appear to glare or sound grainy is perhaps why I found its demeanour relaxed and easy-going. It certainly doesn't lack high-frequency extension, the crashing and extended ringing of cymbals appearing most realistic when listening to excerpts from the 2005 Favoured Nations album *Chamber Works* by drummer virtuoso Terry Bozzio with The Netherlands' Metropole Orchestra. The 260D showed cymbal strikes, drum thwacks and more delicate brush strokes to be shimmering in the air with harmonic complexity and naturally extended decay. The calm demeanour of the DAC also allowed penetration of the more dense arrangements.

Playing 'Chan Chan' from the Ry Cooder-produced *Buena Vista Social Club* featuring the late Cuban pianist Rubén González [World Circuit WCD050] made an even more compelling case ➔

MEETING A NEED

'In product planning meetings we've been considering the design and functionality of the Nêo 260D for some considerable time,' says the infectiously enthusiastic John Carroll of Renaissance Audio, Simaudio's UK distributor since 1999. 'We know that CD sales are ever-declining, consumers increasingly downloading music in preference to physical media. But as a consequence this is making the CD a more specialised music carrier – and today's buyers of CD players more discerning than in years gone by.' He has a point. Only an enthusiast with an investment in a very large CD collection would dream of purchasing a new player dedicated solely to CD replay. Says Carroll: 'Taking into account that many enthusiasts might have recently purchased a standalone DAC, or bought an amplifier with a DAC built in, we concluded it made commercial sense to introduce a top-notch CD transport, with an *optional* DAC board for those requiring an integrated player.'

CD TRANSPORT/DAC



ABOVE: Simaudio's Nêo 260D has AES/EBU and S/PDIF digital outputs. With optional DAC it gains USB and three S/PDIF inputs, single-ended and balanced analogue outs

for computer audio when using the USB input of the 260D's on-board DAC, since we were able to appreciate the enhanced sound quality of a 24/96 digital transfer alongside a CD-quality 16/44.1 file of this moderately simple analogue recording. *Buena Vista Social Club* was one of the better recordings issued on DVD-Audio by Warner Music Group at the turn of the century; more recently the 24/96 two-channel mix has been available as a download from HDtracks.

The fine transparency of the 260D allowed the superiority of the hi-res version to be clearly obvious. The depth of the soundstage and reverberant acoustic appeared better defined with increased openness and space around individual sounds, especially the voices, while the intelligibility of the bass was much improved too.

STEPPING UP A GEAR

Indeed, the Moon stepped up a gear when playing top-notch hi-res recordings. The acoustic jazz project *Quiet Winter Night* by The Hoff Ensemble, from Norway's audiophile 2L label [2L-087], sounded exquisite. The ensemble was recorded in a church in Oslo – with the aim of creating an intimate sound with the instrumentation and voices. Says 2L's engineer Morten Lindberg: 'The qualities we seek [by recording] in large rooms are not necessarily big reverb, but openness due to the absence of close reflecting walls.'

With a hi-res-capable DAC like the one designed to fit inside Simaudio's 260D, hearing the realistic sound of the drum kit as percussionist Rune Arnesen opens the track 'Stille, stille kommer vi' is enough to make any audiophile's heart-rate quicken. So too is the uncommonly accurate

sound of the piano and trumpet. The best track on the album, the beautifully melodic instrumental 'Blågutten' which contains a delicious contribution by Børge Petersen Øverleir, one of Norway's most in-demand session guitarists, is available as a free 'test' download at resolutions up to 24-bit/352.8kHz from www.2l.no/hires. All hi-fi enthusiasts suitably equipped to play hi-res audio files should have a copy in their digital libraries!

In summary this is a tremendous CD player with a truly excellent D-to-A stage. As its PSU and analogue circuit design is less elaborate than that featured in the 380D standalone DAC it doesn't sound quite as vivid as it's more expensive sibling. But it's certainly a chip off the same block, proving adequately transparent and insightful to reveal the superiority of good recordings, especially when enjoying top-quality advanced resolution recordings played out from a computer.

That it doesn't mercilessly tear apart hot and splashy pop and rock CDs will also be a boon for many listeners. You'll need a system with amplifiers and monitors costing tens of thousands of pounds to warrant something appreciably better. It really is that good. ☺

HI-FI NEWS VERDICT

It's perhaps a bit too expensive to be termed 'budget esoterica'. I'd call it 'bargain-priced high-end', since it sounds exceptionally refined and detailed, comes in sturdy casework that's extremely well-finished, yet doesn't cost a king's ransom. If you're in the market for a hi-res-capable USB DAC, then, you could plump for the Moon Nêo 260D and simultaneously be acquiring the last CD player you'll ever need.

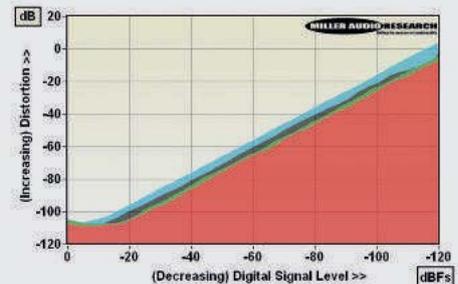
Sound Quality: 84%



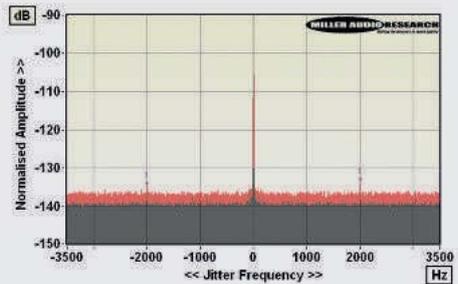
SIMAUDIO MOON NÊO 260D

Marketed as a 'CD transport with optional DAC' the true potential of Simaudio's Nêo 260D is only realised with the latter in tow, upon which it becomes a state-of-the-art USB DAC complete with a legacy CD drive. Both RCA and XLR outputs offer the same 1.96V at 0dBfs, regardless of source, and all three (CD, S/PDIF and USB) provide an equivalent 109dB A-wtd S/N ratio. This is because, as usual, the DAC (a Burr-Brown PCM1795) and analogue output stage are the final arbiters of analogue performance, here dictating the wide 122dB midband stereo separation, the +0.0/-0.12dB response (20Hz-20kHz) and low 0.0004-0.0005% distortion (also 20Hz-20kHz) at 0dBfs. There are fractional differences in distortion at lower digital levels between CD, USB and S/PDIF sources [see Graph 1, below] but it's as well to remember there are bigger differences between L and R channels. Of course, only the S/PDIF and USB inputs handle 96kHz and 192kHz media, the respective responses stretching out to -1.4dB/45kHz and -4.9dB/90kHz.

The combination of Simaudio's reclocking and the digital processing embodied within the SRC4321 upsampler/PCM1795 DAC endows the Neo 260D with a jitter reduction that's the equal of the very best outboard converters, regardless of price. Figures below 10psec for 24-bit data at all sample rates (48kHz to 192kHz) are truly exceptional [see Graph 2]. Other numbers, including low-level resolution good to ±0.1dB over a 100dB dynamic range are the icing on the digital cake. Readers may download full QC Suite test reports for the Simaudio Moon Nêo 260D's CD, S/PDIF and USB performance by navigating to www.hifinews.co.uk and clicking on the red 'download' button. PM



ABOVE: THD vs digital level (black, 1kHz at 24-bit/48kHz over S/PDIF; green, 1kHz at 24-bit/48kHz over USB) vs CD (1kHz, black and 20kHz, blue)



ABOVE: High resolution jitter plots using 24-bit/48kHz data (black, S/PDIF input ; red, USB input)

HI-FI NEWS SPECIFICATIONS

Maximum output level (Balanced)	1.96Vrms at 73ohm
A-wtd S/N Ratio (CD / S/PDIF in / USB in)	108.8dB/108.9dB/108.5dB
Distortion (1kHz, 0dBfs/-30dBfs)	0.0004% / 0.00025%
Distortion & Noise (20kHz, 0dBfs/-30dBfs)	0.0005% / 0.0007%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0dB to -0.12/-1.4/-4.9dB
Digital jitter (CD / S/PDIF in / USB in)	115psec / 10psec / 10psec
Resolution @ -100dB (CD / S/PDIF input)	±0.4dB / ±0.1dB
Power consumption	11W (1W standby)
Dimensions (WHD)	429x86x333mm