CD player, USB and streaming DAC
Made by: Harman International Ind., Northridge, CA, USA
Supplied by: Karma-AV
Telephone: 01423 358846
Web: www.marklevinson.com; www.karma-av.co.uk
Price: £21,000

AUDIO FILE

Mark Levinson N°519

This unusually comprehensive network player/preamplifier illustrates the benefits of a modular design approach – and proves both highly flexible and a pleasure to use

Review: **Andrew Everard** Lab: **Paul Miller**

The start of every review for *HFN* is a commissioning email from editor PM, and in this case it contained the immortal line 'At £21k, what kind of competition is the N°519 up against?'. That's the kind of simple-sounding question likely to give anyone serious pause for thought. Yes, £21,000, which means it's by far the most expensive network playback device to pass through my listening room, and makes even my reference player, at around two-thirds the price complete with obligatory power supply, look like something of a snip.

Mind you, the N°519 is rather more than just a network audio player, as perhaps one might hope given the pricing. In practice it doubles as a highly flexible DAC, and has variable outputs to enable it to be used as a 'digital' preamp. It even packs a slot-loading disc transport, able to handle both standard Red Book CDs and CD-ROMs carrying MP3 files – though I'm not entirely sure who's likely to spend this amount of cash on such a device and then want to play low-bit-rate files...

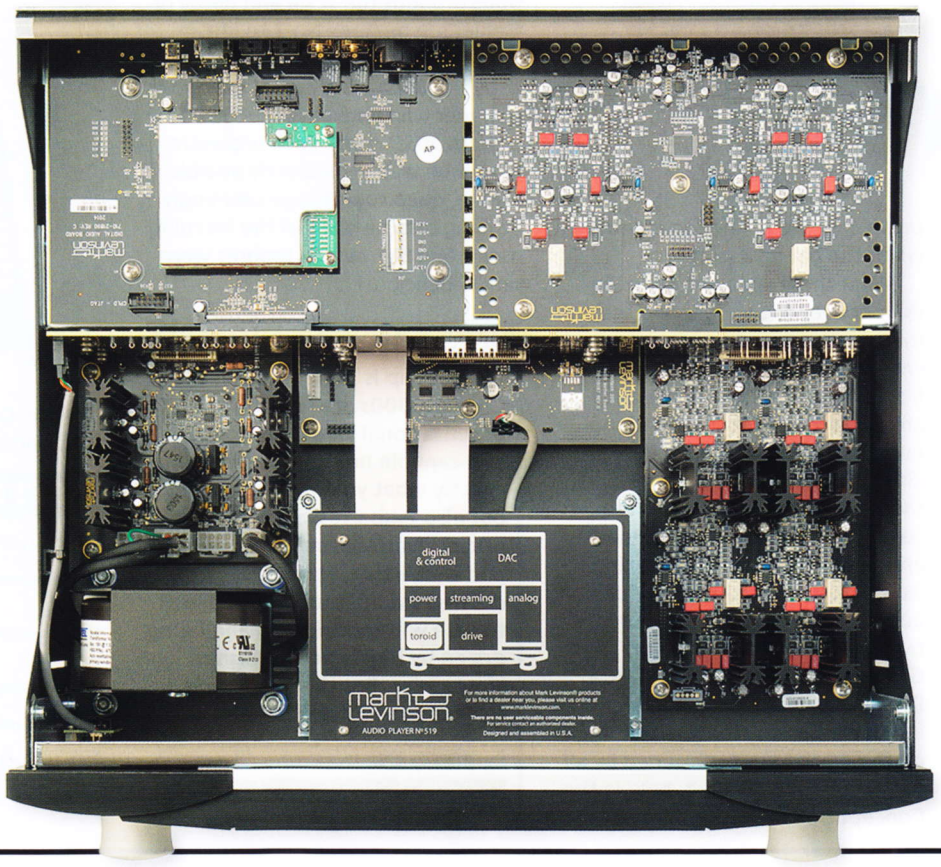
STANDING TALL

In the best tradition of US-made high-end audio, the N°519 has what can only be described as 'serious kit-rack presence', exuding solidity and high quality build, with the choice of a black finish accented with natural metal buttons and 'iconic Mark Levinson twin-knob controls' doing that impression no harm whatsoever. Handbuilt in the USA, it's not as huge as the oversized shipping box might suggest – fortunately! – being a pretty standard 43.8cm wide, but it stands quite tall, not least to accommodate that disc drive and the large 5in TFT display, able to show everything from menu settings to album cover art.

This also has the benefit of making the display easy to read, should you wish to use the N°519 directly using the remote handset, but for the smoothest operation it's best to resort to the free ML Connect app running on a smartphone or tablet, as this enables not only control of all the various inputs and services on offer, but also detailed adjustment of the set-up of the unit itself. That's very welcome, as the menu structure as accessed via the front-panel controls seems rather obstructive – though I am pretty sure it would become less so with extended familiarisation.

The same goes for the start-up sequence, which is reminiscent of that encountered with early samples of the Musical Fidelity Encore player [*HFN* Dec '16] – in other words, you press the power button and nothing much seems to be happening for ages, tempting you to press again in case you made a mistake. With the MF product it was an automatic update search taking place, which meant the unit would 'hang' if not connected to the Internet – since corrected, I believe. With the N°519, it's just a case of the unit being a bit on the slow side to fire up, with nothing to tell you anything's happening apart from a flashing standby light – it would be useful to have a progress bar or similar to show things are happening.

That aside, the N°519 seems to work very smoothly with the app, or via browsers, although I did have a slight hitch with getting it to recognise my music library, which is usually served via MinimServer. In this instance I had to switch to Asset UPnP in order to get my music to appear, but with that done all went swimmingly, apart from the occasional loss of contact with the music library on my NAS units, requiring the servers to be reconnected. Strangely, things seemed to work much more



RIGHT: Linear PSU [left] feeds digital input board [top left], CD drive and streaming board [centre], ESS Sabre-based DAC circuit [top right] and fully balanced analogue output [lower right]

smoothly when using the now-superseded Linn Kinsky app as the interface between library and player: it worked fine with both MinimServer and the N°519.

TAILORING TO SUIT

So, it plays network music, at up to 192kHz/32-bit as well as handling DSD2.8 and 5.6MHz in native form, and also has two optical digital inputs plus two coaxial and one AES/EBU, along with an asynchronous USB Type B for computer connection and a pair of USB-As able to accept storage devices. Bluetooth is also provided, supporting the aptX codec, along with both Wi-Fi 802.11b/g/n and gigabit Ethernet for networking.

As already mentioned the N°519 supports UPnP/DLNA streaming, and is also compatible with Internet radio, podcasts, Spotify Connect, Deezer, Tidal and Qobuz (with the appropriate subscriptions). All the inputs and services are accessed by large, clear 'buttons' on the app screen, and while the playback controls on the app are a bit on the small side, even the fumble-fingered should find them easy to use.

Go into the settings menu and it's possible to switch between fixed and variable outputs, select filtering should you want to use a subwoofer with the unit, and set various volume parameters – such as start-up level, mute level, *etc* – change power-saving settings like auto-off and display blanking time, and adjust a whole range of input settings.

> 'The N°519's sound is typically big, bold and unrestrained'

For example, you can adjust the gain of an input to level up volume across your whole set-up and rename and disable inputs, and then you can choose some more N°519-specific settings.

For a start there's a choice of 'Sharp', 'Slow' and 'Minimum Phase' digital filters for PCM content, the option to set normal or wide PLL bandwidth – wide being more forgiving of the quality of the incoming digital signal, but possibly having some quality implications – and set the DSD low-pass filter (on the network and USB inputs) to remove various levels of ultrasonic noise.

MODULAR DESIGN

The change of pace at Mark Levinson's R&D department is rather reminiscent of that old saying about waiting for a bus – 'you stand for an age and then three turn up at once'. But we're not complaining here at *Hi-Fi News* for, thanks to design director Todd Eichenbaum, ex-VP of product development at Krell Industries, an entirely re-imagined 500-series of separates has been released in the last two years. This began with the EISA Award-winning N°585 integrated amp [*HFN* Apr '15], followed by the N°536 monoblock power amp [*HFN* Sep '16], the N°526 preamp/DAC [*HFN* Dec '16] and now the N°519 'Digital Audio Player'.

While each product has its niche, there's still an overlap in some key features and enabling technologies. The Mark Levinson DAC board, for example, is a very refined implementation of the ESS Sabre 32-bit converter which, along with ML's 'Pure Path' analogue line stage, is re-worked into the N°585, N°526 and N°519. All offer USB inputs and a choice of 'Sharp', 'Slow' and 'Minimum Phase' digital filters for playback of PCM files [see Lab Report, p41]. However, only the N°585 includes an amplifier while the N°519 has a CD drive and streaming capability. The N°526 comes with a *very* versatile MM/MC stage – and with the announcement of a partnering N°515 turntable, now we know why! PM

ABOVE: Unmistakably 'Levinson', the elegant industrial design belies the N°519's flexibility, its features navigated via fascia controls, and 5in TFT display, or remotely via iOS/Android apps

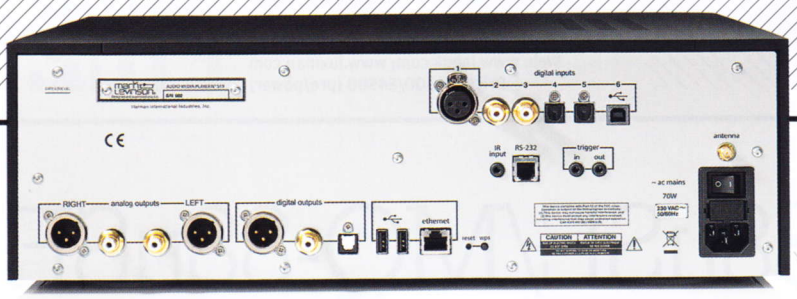
The settings also give access to the Clari-Fi music restoration technology developed by ML parent company Harman, which 'analyses compressed digital audio files during playback and reconstructs what was lost in the compression process'. As with the DSD filter at the other extreme, there's no correct setting for the intensity of the Clari-Fi processing – it's very much a question of personal preference.

And as with all these parameters, it's possible to create an individual range of settings for each input. That's all possible as the N°519 runs on an embedded Linux computer, while the digital-to-analogue conversion is in the hands of Mark Levinson's ESS Sabre-based 'Precision Link DAC' circuit, which runs the DAC chip's outputs in current mode into a discrete and fully balanced current-to-voltage converter, thus suppressing common-mode noise and distortion. The Precision Link system also uses a complex power supply arrangement with multiple, separately regulated supplies for the DAC chip, plus individual linear supplies for each channel to power the I-to-V converter and filter circuits.

Add in quite a lot of talk of military-specification components and aircraft-grade materials, and it's clear there's a lot here to go towards justifying that towering price. But is the sound similarly imperious, especially in a market not exactly short of expensive network audio components?

COMPELLING INSIGHTS

Well, having greatly enjoyed the N°526 preamplifier [*HFN* Dec '16] I was expecting great things of the N°519 and, I'm very pleased to say, I wasn't to be disappointed. Playing CDs, there's no denying – or ignoring – the N°519's big, bold and unrestrained sound, offering a mass of detail and a compelling insight into ⇨



ABOVE: Two coaxial/optical S/PDIF digital ins are joined by USB 2.0 and AES/EBU ins, two USB-A sockets and wired/wireless Ethernet. Coaxial/optical and AES digital outputs are included alongside single-ended (RCA) and balanced (XLR) analogue outs

every recording I tried. It's fast, deft and wide open, whether playing the driving rock of Blondie's *Pollinator* [BMG 538263402], where the powerful drumming and charging rhythms are tautly defined, or the close-focused but atmospheric choral singing of Ståle Kleiberg's affirmative *Mass For Modern Man* [2L 2L-136], in which the instrumental textures are richly delivered against an ethereal backdrop.

TOTAL SUREFOOTEDNESS

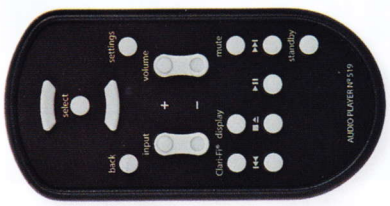
The 'block diagram' screen-printed under the lid [see inside shot, p38] shows the CD transport quite literally front and centre inside the N°519, and that's just how it sounds, for this is a do-it-all digital music source preamp that just happens also to be a very fine CD player. It may not quite be in the same league as, say, the Marantz SA-10 [*HFN* Mar '16] when auditioned purely as a CD player, the latter delivering a rather more vibrant view of the music, but then that's hardly the point, given the other abilities of the N°519.

And it displays those other abilities when used as a network player/preamp or from USB storage, delivering everything from hi-res quality Tidal and Qobuz streams all the way through to DSD with real power and impact, and total surefootedness. That's very much in evidence with the excellent recent Channel Classics release of Mahler's Symphony No 3 [Budapest Fest Orch/Iván Fischer; CCS SA 38817, DSD128 via *NativeDSD.com*], in which the ambience and presence of the recording is never in doubt.

When driven via my Mac computer through its asynchronous USB input the N°519's sound was arguably lacking some warmth, although when the same files were replayed via an intermediate Mutec MC-3+ USB [*HFN* Feb '17], reclocked and formatted for the N°519's S/PDIF input, the performance blossomed with far greater generosity.

Via USB or S/PDIF, the N°519's performance is hugely impressive, although this looks like yet another example of the traditional S/PDIF connection delivering the goods with that bit more conviction, nailing the music's 'soul' a little more convincingly. Even if such differences may boil down to a matter of taste, and system configuration, for many audiophiles it's also worth remembering that you can further tune the sound using those digital filters and the PLL lock selection.

Opting for the 'slow' filter setting typically adds a smidge of warmth, and is technically better suited to higher (88.2kHz/96kHz) media, while choosing the 'wide' PLL position softens the sound marginally. But, again, adjusting those settings will be down to preference, and as the inherent sound of the N°519 is one of directness and maximum information, if that's what you want from your system you'll not go far wrong here.



HI-FI NEWS VERDICT

Even if it's impossible to dismiss that eye-watering price from your thinking, the N°519 still delivers a hugely informative and powerful sound whatever you choose to play, and has absolute control over its sonic landscape. Some might argue for a tad more warmth or colour, but then the sound can be subtly tuned to suit personal tastes, and there's no gainsaying the impressive features and flexibility here.

Sound Quality: 87%

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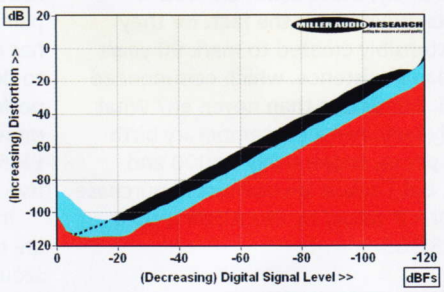
LAB REPORT

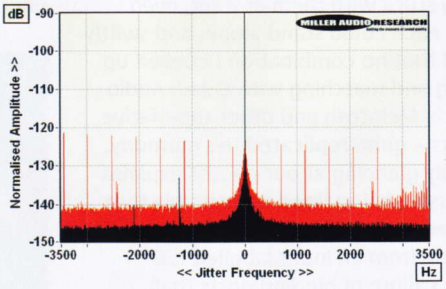
MARK LEVINSON N°519

Despite sharing the outline design of its ESS Sabre-based DAC stage and fully balanced 'Pure Path' analogue line stage with the N°585 [*HFN* Apr '15] and N°526 [*HFN* Dec '16] the N°519, free of high level amplifier or MM/MC phono options, carves its own niche as Levinson's purist 'Digital Audio Player'. At full volume (80 on the TFT display), the N°519 offers a full 13.7V output via its 73ohm balanced XLR outputs (12.7V at 0dBFs via CD) with an A-wtd S/N ratio of 118.4dB and distortion just 0.0005-0.0045% (20Hz-20kHz, re. 0dBFs). Harmonic distortion drops as low as 0.00015% at 1kHz over the top 30dB of the N°519's dynamic range and is only slightly higher at 0.0005-0.0008% at 20kHz. Note that this is with 24-bit source material – with 16-bit CD data distortion is 10-20dB higher at 1kHz below –5dBFs [see black trace, Graph 1 below]. Similarly, resolution is within a very tight ±0.05dB over a 100dB range with 24-bit inputs and within ±0.2dB with 16-bit CD.

With the 'Sharp' (standard FIR) digital filter engaged, the response is flat to within –0.17/20kHz with CD and 48kHz digital inputs, extending to –1.2dB/45kHz and –6.5dB/90kHz with 96kHz and 192kHz digital inputs. The 'Slow' filter option offers a stronger –3.1dB/20kHz cut than either the 'Fast' or 'Minimum Phase' filters (–0.19dB/20kHz), and a poor 5.7dB rejection of stopband artefacts (26kHz re. 22kHz at 48kFs), but there's significantly less pre and post-ringing on transients. This will be a good choice with 96kHz/192kHz media. Jitter, meanwhile, is phenomenally low at <10psec with 24-bit data at all sample rates across all S/PDIF and USB inputs and is at the 16-bit threshold of 115psec with CD [see Graph 2, below]. **PM**



ABOVE: THD vs. digital level over a 120dB range. 48kHz/24-bit S/PDIF & USB at 1kHz (red) vs. 44.1kHz/16-bit CD at 1kHz (black, dashed) and 20kHz (blue)



ABOVE: High resolution jitter plots via S/PDIF & USB (48kHz/24-bit, black) and CD (44.1kHz/16-bit, red)

HI-FI NEWS SPECIFICATIONS

Maximum output level/Impedance	13.7Vrms / 73ohm (Balanced)
A-wtd S/N Ratio (CD / S/PDIF / USB)	118.2dB / 118.4dB / 118.4dB
Distortion (1kHz, 0dBFs/–30dBFs)	0.0005% / 0.00017%
Dist. & Noise (20kHz, 0dBFs/–30dBFs)	0.0045% / 0.00035%
Freq. resp. (20Hz-20kHz/45kHz/90kHz)	+0.0 to –0.2dB/–1.2dB/–6.5dB
Digital jitter (CD / S/PDIF / USB)	115psec / <10psec / <10psec
Resolution @ –100dB (CD / S/PDIF / USB)	±0.2dB / ±0.05dB / ±0.05dB
Power consumption	33W (1W standby)
Dimensions (WHD) / **Weight**	438x146x406mm / 16.4kg