

Naim NDX 2

ANDREW EVERARD THINKS THAT THIS SECOND-GENERATION OF NAIM'S NDX NETWORK AUDIO PLAYER HAS THE POTENTIAL FOR GREATNESS



The new generation of Naim's *ND*-range of network players now comprises some three brand new models. While the £4,999 *NDX 2* is a direct update for the discontinued *NDX*, and the entry-level £1,999 *ND 5 XS 2* is somewhat different from its predecessor, the £12,999 *ND 555* is pitched even higher than the *NDS* it replaces.

At first glance, it would seem that the new models are just the inevitable result of combining the old with the hardware/software package on which is based the revised *Uniti* range (launched a little over two years ago). At the time of that launch, the obvious question was whether this 'new platform for the future' (as Naim called it), would find its way up from *Uniti* to *ND* models.

Spool forward to 2018, and it's not quite that simple: the new Naim platform at the heart of 'new *Uniti*' was always developed with new *ND*-models in mind. Their arrival meant that the full potential of the platform, designed to futureproof the range against developments in file formats and streaming services, is finally being realised. The new models now play DSD files up to 128/5.6MHz, PCM to 32-bit/384kHz, will also handle anything supported by Google Chromecast, are Roon-ready, and will support Bluetooth and Apple AirPlay 2.

Both the *NDX 2* and *ND 555* gain the full-colour 5in TFT screens first seen in the new *Uniti* models. The entry-level *ND 5 XS 2* has no display, the idea being to optimise sound quality. And in practice all three models will usually be driven by the ever-evolving Naim App.

Like the *NDX* it replaces, the new *NDX 2* can either be self-powered or use an external *XPS* or *555PS* power supply. That pitches this midrange model at just under £5000 in self powered form,

while the *ND 555* requires a £6600 *555 PS DR* power supply to operate.

The *ND555* does very nicely indeed with just one power supply, which should come as a relief to those thinking of upgrading from, say, an *NDS/555 PS DR* package, as the demonstrations I've heard to date have suggested the new model is better than the old, but that the previous flagship still has 'something' about it some may find hard to surrender. Time, and more listening, will tell.

When used 'under its own steam' the *NDX 2* has a small switch-mode power supply to keep it ticking over on standby, which is entirely disconnected when the main toroidal kicks in for listening – a neat solution.

Under the lid, the *NDX 2* uses Naim's own streaming board and DSP, now with enhanced efficiency, a third generation master clock and Low Voltage Differential Signalling, to keep down the unwanted radiation from the digital transmission, which could otherwise affect the analogue sections of the unit. Discrete filter circuits are used in place of the *NDX*'s op-amps, and the upgraded *PCM192A* DAC combines with a discrete I-to-V converter. Some circuit boards are mechanically decoupled in order to combat acoustic feedback effects, and there's a choice of S/PDIF input on BNC and RCA electrical sockets, and an optical input.

As is usual with Naim players, there's the choice of RCA or DIN outputs, and a remote output to allow the *NDX 2* – and thus the Naim App – to control a suitable Naim amplifier or pre-amp, and a remote control is provided (in this case the radio-frequency Zigbee device introduced with the latest *Uniti* models).

I have to say that the new look of the *NDX 2*, with its large display fitted into classic Naim 'classic

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series' casework is of little consequence to me, as I operate Naim players old and new using the company's excellent App. In fact all three models could adopt the display-less design of the entry-level *ND 5 XS2*, and be none the worse – and possibly better – for it.

Sound Quality

No, what is of real interest here is the enhanced performance of the new midrange player, and that's something about which I have no doubts. I tried it both in my own system, with a variety of Naim amps and my usual PMC speakers, and also in Martin's highly optimised Naim/Magico set-up, and in each case we listened to *NDX 2* alone and with a *555 PS DR* power supply, with the benchmark for listening provided by our extensively-used *NDS* players.

The results were highly illuminating, and not just because the *NDX 2* in 'solo' form got reasonably close to the *NDS/555 PS DR* combination. Used with the *555 PS DR*, the improvements are more than incremental, bringing the player much closer to an *NDS*. While the *NDX 2* alone is pretty spectacular, I suspect many owners will have hankerings for the power supply upgrade once they have had a chance to experience it in action.

Both my 'at home' listening, and 'away fixtures' (as a USB stick in one's pocket will carry sufficient music for extended sessions), enabled me to play the same tracks in both locations, and switch quickly between old and new players.

Having established that the *NDS* could outgun the *NDX 2*, especially when it came to that absolute, if hard to define, 'rightness' in the sound of instruments, it was interesting hear just how well the new player could bring out the scale and ambience of a recording, not to mention the detail it manages to unearth.

A favourite recording is *John Williams at the Movies*, a lovingly captured Keith Johnson/Reference Recordings project. The march from Spielberg's unfairly neglected *1941* proves a solid test for any system, building as it does from simple woodwinds and snares to barnstorming brass and percussion.

The *NDX 2* delighted, with real punch from the big drums and the rasp of the band; only adding the *555 PS DR* showed that this player could give even more.

Introducing the power supply not only injected extra air into the sound, firming up the soundstage picture, but also both tightened and extended the drums, giving them even greater slam. In other words, it brought the *NDX 2* much closer to the performance of the *NDS* we had in the rack as a reference, even if the old favourite still brings a bit more swing and fluidity to the party.

So it was with Alison Krauss's *Let Me Touch You For Awhile*, from her *New Favorite* album. I had heard this piece used to good effect in hi-res FLAC at an *NDS/ND 555* comparison, so I wanted to hear what the *NDX 2* could do with it in DSD. The answer was 'a lot': Krauss's voice was more fragile and at the same time better shaped on the new player, and while we couldn't do the comparison with the *NDS* (which doesn't play DSD), I was able to ascertain that the *NDX 2+555 PS DR* simply snapped the vocal out of the mix in a more appealing fashion, while maintaining that lovely character and sweetness the unassisted *NDX 2* had delivered.

The same was true with the final movement of Elgar's cello Concerto (Paul Watkins/BBC Phil/Andrew Davis), here in hi-res FLAC: the *NDX 2* gives a fine sense of control, confidence and maturity, with a rich, rosin bite to the solo instrument, while adding the power supply just opens things up a shade more, making every element in the recording more apparent in a more finely-resolved soundstage.

That was also apparent when playing *The Le&N Don't Stop Here Anymore* from Billy Bragg and Joe Henry's fabulous *Shine A Light* album. The set is subtitled 'Field Recordings from the Great American Railroad', and the *NDX 2* brought out a great sense of the ambience captured by the portable recording rig on station platforms and the like, not to mention the different characters of the two performers' voices.

And with the power supply bolted on? Wow! This gives a tighter focus on the duo, and yet the




Manufacturer's Specifications

Formats played	PCM to 32-bit /384kHz DSD64/128
Streaming services	TIDAL, Spotify Connect, Chromecast, AirPlay, vTuner
Connectivity	2.4/5GHz Wi-Fi, Ethernet, Bluetooth aptX HD; Roon ready
Digital inputs	BNC, RCA, optical, USB-A
Outputs	RCA/DIN
Size (WxHxD)	432x87x314mm
Weight	10kg
Price	£4995 (555 PS DR £6,600)

atmosphere around them is more apparent, spacious and – well, atmospheric. I'm familiar with how intriguing and enticing this set sounds on my *NDS*, as it's a firm favourite and gets played a lot when assessing amps and speakers; via the *NDX 2/555 PS DR* it sounds almost as compelling, and easily brings the same kind of smile to the face.

Back to a more conventional, and super-clean, recording, and the *NDX 2* sounds both subtle and effortlessly dynamic with the Dena Piano Duo's reading of the Brahms *Variations on a Theme of Josef Haydn* from their *Hommage à Grieg Vol III* album. The *NDX 2* makes a fine job of the simple opening chorale and the deliciously inventive variations, making it clear what each of the performers is contributing to the whole, while delivering the whole work as a joyous burst of music-making. Yes, adding the external power supply to the Naim player adds to the openness of the whole thing, and brings out the resonance of the two instruments rather better, but the *NDX 2* alone is hugely capable with this recording, as it was with everything I played.

So, am I contemplating giving up the *NDS*, keeping the power supply and slotting in the *NDX 2* instead? It's tempting, given the wider range of format capability, extra services, and indeed the ability to play to the new Naim as a Roon endpoint without needing extra hardware in the way.

But the arrival of this new player doesn't render the old flagship broken, and there's still so much appeal about 'old familiar', which definitely has more of that unfathomable 'Naimness' that apparently so

divides opinion, but to these ears is rather addictive. (Whether I'd feel the same way if and when I've had the chance to spend some time with the *ND 555* could be a very different matter.)

But that shouldn't in any way detract from the *NDX 2*. By any standards, it's an excellent player, both in its flexibility and, most of all, its performance.

Naim NDX 2 Part 2: Martin Colloms Continues the Story

I had heard these new network streamers at an early demonstration at the Salisbury HQ a few months ago though it was made clear that the products were pre-production at this stage and that improvement was likely. Taking into account pricing and context, the *NDX 2* impressed most at that event, certainly on a value basis. At the demonstration we were also given a comprehensive briefing on the improved technologies employed inside. Naim's designers have dug deeply to create original design features for their new streamers.

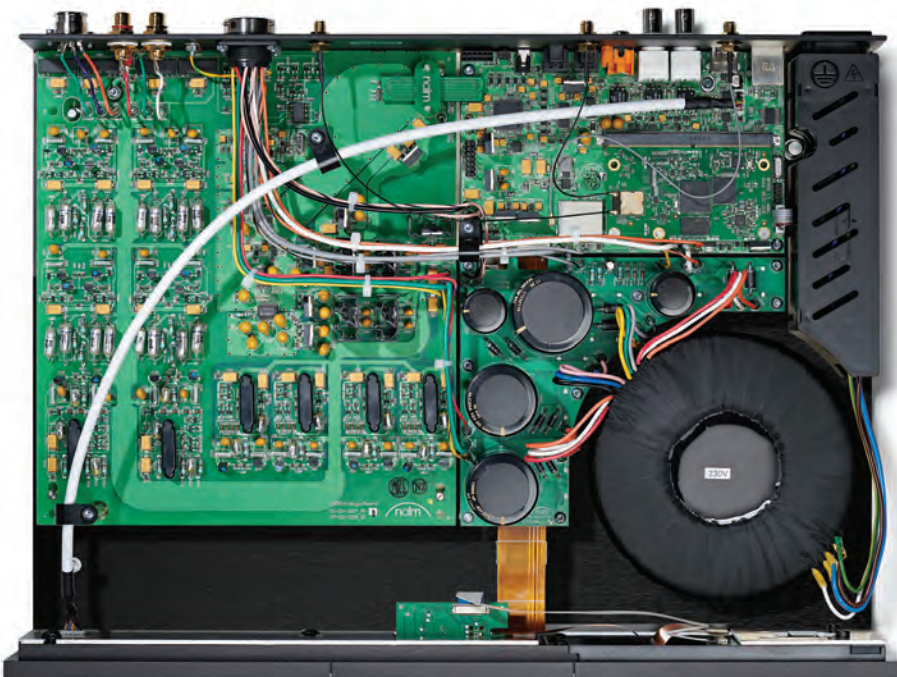
A key feature is the adoption of LVDS for digital data interfacing, low voltage (LV) to reduce the radiation of noise, and differential signalling (DS) to separate the data from the ground planes and proximate conductors. The newly balanced signal format rejects noise-induced jitter and also greatly reduces noise radiation.

The multi-bit *PCM192A* DAC now used has an improved 12V power supply while *ND 555*-style discrete transistor filter stages replace the IC op-amp sections of the outgoing *NDX*. The build includes improved vibration control, while that subtle gain that is possible through switching between RCA and DIN output sockets is also retained.

As AE has noted, there is a common functional unit in the new NAIM digital audio series, and that is the central core, responsible for primary digital functions, acquisition and communications external and internal.

Sound Quality

The *NDX 2* consumes little power, and given that it does audibly 'warm up' after switch on I would be inclined to leave it on most of the time. Up and running it uses 19W, but in network 'standby' mode it draws under 2W; if powered down, but electronically ready for wakeup, it enters 'deep sleep mode' consuming less than 0.5W. (A 6V 0.33A torch bulb consumes nearly 2W!)



When he visited, AE brought a USB stick containing his familiar recordings and it was fascinating to work with him and his music collection, including more recent HD and high rate DSD material. I was particularly pleased that he did not ‘track hop’; instead each piece was allowed to build and continue to its conclusion.

The superior sound quality delivered by those HD tracks was unmistakable with the *NDX 2*, and the higher rate DSD is beginning to show the advantages of versatile streaming replay versus plain CD. It also shows how the *NDX 2* is able to reveal clearly these sound quality differences, especially so with the costly *555 PS DR* power supply augmentation.

Run as a one-box unit, fed from my *UnitiServe* music store (with the network housekeeping beyond reproach), the *NDX 2* performed very well at its price, admittedly with the advantage of installation on a Naim *Fraim* rack system. Depth, focus and timing were very good, grain was pretty low, and soundstages were expansive. Dynamic expression was also good and it held our attention well.

Compared directly with an established *NDS/555 PS DR* (which historically costs around £15,000), there was an obvious shortfall, but the gap is not as great as one might expect.

Adding the *555 PS DR* provides an increase of perhaps 25% in overall sound quality, while a somewhat smaller increase is anticipated for the lesser *XPS DR* supply option. For pure CD material, derived from a disc drive *via* the S/PDIF connection (all other sources and inputs disabled), another 5% was possible, such a small margin showing just how much server-fed audio design has improved over the years.

Tidal was already installed and these FLAC files (assuming that one had not accessed one of those often degraded ‘re-mastered’ versions by mistake) can sound really good, quite close to the archival WAV standard from a local server.

Try Joni Mitchell’s *Blue*, which is available on Tidal as both re-mastered and original versions. The re-mastered version is compressed, overly loud, and has lost much of that characteristic gentle swing and syncopation. It’s more like re-mastered for AM radio! (This dumbing down with its levelling up of dynamics and loudness, is presumably so one does not need to use the volume control when changing tracks.)

After much deliberation we arrived at approximate numeric scores for sound quality. A ‘full fat’, well run in *NDS/555 PS DR* would score around 300 with current software and a well set up network and local server/drive. By comparison the *NDX 2* achieves a class leading 150 points; when augmented by the *555 PS DR* power supply the score rockets up to 220 (missing out only by showing somewhat less refinement, and that elusive quotient of rhythm and timing).

Perception of the latter is notoriously personal and will also depend on the rest of the system. However, an *NDX 2* has an additional advantage over the *NDS*, due to its up to date compatibility with the latest high resolution music formats.

Conclusions

With class leading rhythm and dynamics, notwithstanding the now withdrawn (and somewhat format limited) *NDS/555 PS DR* warhorse, the *NDX 2/555 PS DR* streamer/player has planted itself firmly in the digital replay arena at its particular price point.

The non augmented machine is also pretty special at its price point. Clarity, image depth precision and dynamics are a prime strength, while still greater resolution and improved timing may be had with those optional extra power supplies. An Audio Excellence rating seems appropriate for the *NDX 2/555 PS DR* combination.

Review System

Constellation *Inspiration 1.0* pre-amp, Townshend *Allegri* control unit; Naim *NAP500DR* power amplifier; Naim *SuperLine* phono pre-amp, Linn *LP12* player (with *Keel* chassis and *Radikal* motor control), Naim *Aro* arm, Lyra *Delos* cartridge; Naim *UnitiServe* network server and S/PDIF source; Linn *Klimax Katabyst*, Naim *NDS [+555PS(DR)]* streamer/DACs; Wilson Audio *Sabrina*, Magico *S-5II*, Quad *ESL63*, Q Acoustics *Concept 500*, BBC *LS3/5a* speakers; Naim *FRAIM* racks; Transparent *XL MM2*, Naim *NAC A5* speaker cables, Naim *Super Lumina*, Transparent *MM2* and Van Den Hul *Carbon TFU* interconnects.



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