

Screen time

Want a colour screen for artwork? Naim's NDX 2 streamer is for you says Noel Keywood.

There are streamers – and Naim's streamers. The NDX 2 (£4999.00) I am reviewing here is an upmarket version of the ND5 XS 2 (£2299.00) 'entry-

level' we reviewed in the May 2019 issue. You can tell by the on-board screen! Otherwise you might be baffled because they look similar, but unsurprisingly the NDX 2 is better equipped.

There's little digital the NDX 2 cannot access. It offers connection to on-line music services such as Spotify and Tidal and has vTuner to pick up the 10,000 or so radio stations streaming to the 'net around the

world. Digital connection is via wi-fi or wired ethernet – I used it wired. With UPnP it can stream from any home network server including a Windows PC (or Mac with UPnP software), to read all those CDs ripped so laboriously to a NAS drive – or perhaps furtively grabbed from a friend! However, no need here to load it onto a NAS drive since the Naim can also read music files from a USB drive plugged in at front (left) – something I find very easy and convenient when music files are

whizzing around everywhere. There's a rear USB for more permanent storage. Additionally, there are no fewer than four S/PDIF digital inputs on the rear panel, two opticals, one BNC electrical and one RCA phono socket electrical, again all easily selected by the app, or remote control. With Bluetooth (aptX HD) it accepts music streamed by direct radio link from a mobile 'phone or tablet. Apple Airplay and Google Chromecast are supported and the

NDX 2 also integrates with Room, as a fully certified Room Certified end-point device. With Room you get album artworks delivered consistently to the on-board screen (and app) from its data base. As you might have guessed by now, there is a free control app for mobile 'phone/tablet for those with wi-fi, but also a remote control – missing from the ND5 XS2 – for those who would rather not fiddle with the 'phone or a tablet, but of course you then get a track list on



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the screen only and may need binoculars. The case is 87mm high, 432mm wide and 324mm deep, weighing a hefty 10kgs, so as streamers go this is a big one. One of the reasons is that Naim use a massive toroidal mains transformer inside, feeding a linear power supply. No cheap switch-modes here! The alloy case is of tank-like construction, with clean edges and rock solid feel. At right sit Naim's soft-touch back illuminated press button controls, but with remote and app available there's not much need. And I find Naim's app easy to use; there aren't too many obscure side functions; most of what you need to see and do sits in plain sight.

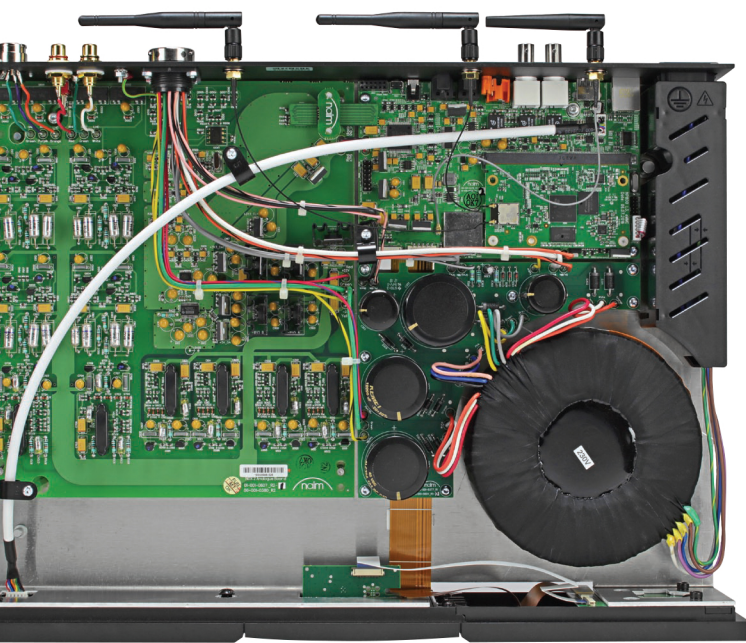
Naim say they use a Burr-Brown PCM1792A digital-to-analogue converter chip with their own digital filters and current-to-voltage convertor. Shame there are no filter options available, although Naim's filter is pretty drastic by digital standards – and it gives fine sound. But then I often end up preferring slower filters that restrict analogue bandwidth, so no big surprise.

Files up to 32bit at 384kHz resolution (PCM) are readable, plus a wide range of file formats including WAV, FLAC, Apple Lossless (ALAC), Aiff, MP3, M4A, and Windows files

such as WMA. DSD64 and DSD128 are playable as well, I found. Omissions are remote control of volume – a surprise – and balanced XLR outputs. There's no headphone output either. All disappointing at the price.

SOUND QUALITY

I hooked the Naim NDX 2 up to our network and ran it mostly from our Melco N10/100 ethernet connected server. However, I also used a USB flash memory drive plugged in at front and our Astell&Kern AK120



Massive toroidal mains transformer (bottom right) marks the NDX 2 out as 'a Naim'. It feeds a huge linear power supply and low noise regulated power lines that all contribute to the Naim sound. The main board is neatly laid out.

portable player plugged in optically. Measurement showed no difference between these inputs except optical will not play 192kHz sample rate data, which is a TOSLINK connector limitation, rather than a system limitation.

Initially I partnered the Naim with our Creek Evolution 100A amplifier, connected by Chord Company Epic unbalanced RCA phono plug terminated cables (the

mean Daz (Persil?) clean, washed of grunge, clear and strong at bass frequencies and with a gloriously open sound stage of spacious dimension – but without warmth. Classical enthusiasts will gurggle with delight – as I did! With large orchestras like the Berliner Philharmoniker playing Don Quixote, Horn Concerto 2, Richard Strauss (24/96) the NDX2 threw up a massive performance that spread

"The clincher with NDX 2 is sound quality. What I heard was convincing"

Naim lacks XLR), but it sounded so good I decided to move on to our Icon Audio Stereo 30SE single-ended valve amplifier to squeeze out some more.

Loudspeakers were Martin Logan ESL-X hybrid electrostatics, cables Chord Company Signature Reference and an Isotek Evo 3 Mosaic Genesis re-generated power supply provided clean mains of 0.1% distortion to the system, instead of the 3%+noise that affects our London supply (fairly typical value).

The NDX2 had a distinctive sound, sort of Naim-ish. By that I

wide across the room, giving the orchestra scale and presence. The Naim's strong low-end delivery of kettle drum strikes also brought power, but the presentation is a clean one, with no hint of softness. Horns had excellent timbral resolution, sounding richly metallic, yet were crisply delivered; quite a fast sound for Naim and that's why I said Naim-ish. In the past Naim was more laid back I recall.

The NDX 2's character was interesting with Rock. Playing the challenging Dreams from Fleetwood Mac (24/96) I was hit by a sound



Two external wi-fi aerials and one Bluetooth aerial help make the NDX 2 sensitive to household router and phone signals, aiding data speeds and reception stability. There is an array of digital inputs and Naim's DIN socket output at right, but no XLR balanced outputs from the DAC.

I could get along with. Big and spacious, with Mick Fleetwood's drums punchy and powerful; Naim bass again. Steve Nicks sang in a clean space between the XStat electrostatic panels, easy to take in. The oft-heard brightness of this old classic translated into a pure delivery from the NDX2, if one that made clear its strong treble. It's not warm or reticent, but sharply defined up top.

Diana Krall's Narrow Daylight (24/96) usually comes across as soft and laconic, but the NDX 2 took a different view. It saw further into the timbral qualities of the piano and elevated Krall's vocals by placing them in a pure space, her vocal intonations made obvious. The slow bass line was tight and clean. Quite a vivid view, not soft or laconic. But the DSD64 version of this track NDX 2 showed to be soft and laconic, teasing out the differences between PCM and DSD. Arresting in the DSD version though was the simple plucked bass that came across as strong, clear yet texturally rich – no wobbly simulacra here.

I ran a test of impurity! Well, it can be fun and ideally should be. The Eagles' 'Somebody', from Journey Out of Eden, is compressed (CD) and can sound messy, but the Naim delivered the whirling Hammond organ and Glen Frey's vocals in clean enough and enjoyable form, if not warmed and smoothed. The Naim has strong top end revelation but it pushed this track along with strength and tempo.

CONCLUSION

The clincher with NDX 2 is sound quality. What I heard was pretty

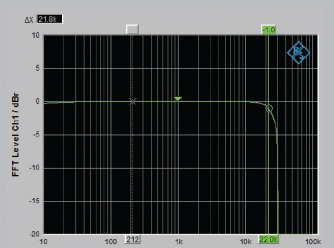
convincing, especially in sound stage size and overall propulsive power. The NDX 2 delivered both Rock and Classical in dramatic form between our electrostatic panels. Sonically it was supremely well honed, something of a reference for what is possible from streaming. And if you crave tight

bass, come here. Lack of volume control is a negative at the price, although not if your amplifier has it. But whatever device you have with digital on it, this streamer will play – providing you are prepared to miss out on 24/192 from optical – no deal breaker.

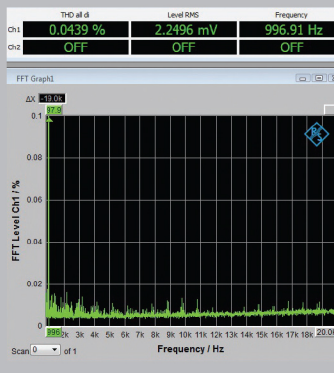
MEASURED PERFORMANCE

Frequency response of Naim's NDX 2 reached 22kHz (-1dB) from its S/PDIF electrical input (BNC) at 192kHz sample rate PCM (and all lower sample rates), where 96kHz analogue bandwidth is the theoretical maximum, often achieved. Naim traditionally bandwidth limit to 22kHz or thereabouts with their amplifiers and NDX 2 follows this

FREQUENCY RESPONSE



DISTORTION



pattern. There are no optional filters to change this. Results were identical from our ethernet wired Melco N10/N100 network server.

The optical inputs accepted up to 176.4kHz sample rate with our QED Quartz optical cable used in tests, as well as two other cables, going silent with 192kHz. With optical this is sometimes a matter of plug fit but jiggling the plugs – which sometimes works – did not work here.

Distortion at peak output (0dB FS) measured 0.0005% and at -60dB with 24bit a low 0.04%. The presence of some noise resulted in a mediocre 112dB EIAJ Dynamic Range value, from digital and network inputs, far below the 127dB claimed by Burr Brown for their PCM1792A DAC chip. Output (fixed) measured a standard 2.2V, similar to that of CD players; there is no volume control. The NDX 2 measured well, with very low distortion and Naim's usual limited bandwidth. Dynamic range was mediocre however. NK

Frequency response (24/192)
4Hz-22kHz
Distortion (-60dB) 0.04%
Separation 97dB
Dynamic range 112dB
Noise -110dB
Output 2.2V

NAIM NDX 2
£4999.00



OUTSTANDING - amongst the best.

VERDICT

A great sound, large and spacious. Does it all, almost.

FOR

- big sound stage
- strong, tight bass
- easy to use

AGAINST

- no volume control
- no headphone output
- no XLR balanced output

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