

Naim Uniti Nova

The flagship model in Naim's reinvented Uniti network music system range combines flexibility, future-proofing and user-appeal with an entirely persuasive sound

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

Replacing a successful model is always a risky business, and consigning an entire range to history doubly so – but that's just what Naim has done with its Uniti lineup of all-in-one network music systems. Gone are UnitiQute, the NaimUniti itself, the SuperUniti and even the UnitiServe ripper/storage device. In their place we have the Uniti Atom from £1750, the Uniti Star starting from £3300, and the Nova reviewed here, the flagship model of the new range, from £4100.

All those prices are dependent on the configuration you choose. For example, the Atom may be ordered with an HDMI input for hook-up to a video source at a £100 premium, while an extra £150 on the Nova, or £200 on the Star, will get you a built-in DAB radio tuner. Completing the new lineup is the £1800 Naim Core ripper/server, which is supplied without a hard drive to allow the buyer to choose their preferred configuration.

TODAY'S CHALLENGES

While the wholesale change of what has become one of Naim's best-selling lineups is certainly brave, there was an inevitability about it, given the way the music landscape has shifted since the original NaimUniti was launched back in 2009. Back then, we were in a world of MP3 files and, for the very adventurous, WAV or FLAC rips at CD quality. I seem to remember I set up a NAS device with a single 1TB drive (and my first iPod!) in order to explore the potential of the first review sample, and was very excited when someone pointed me toward a source of 96kHz/24-bit files.

Now we're in a world of competing streaming services, one or two with the

ability to deliver hi-res music on-demand, not to mention downloads available at everything up to 384kHz PCM. And of course we've seen the revival of DSD as a music playback format – just when the whole world thought SACD was as dead and buried as the rival DVD-Audio – and its extension beyond the DSD64/2.8MHz format used on those discs up to DSD128, 256 and even DSD512 iterations.

Although Naim worked hard on the original Uniti models during their lifetime, adding features and compatibilities over the years via a mixture of hardware upgrades and (admittedly rather laborious) firmware updates, the company realised some time back that it was reaching the limits of the products to take on new tricks, and that radical changes were required.

In our interview sidebar [p43] Naim MD Trevor Wilson explains some of the challenges the company faced in this process – and they turned out to be even greater than it had anticipated – but the short version is that the 'new Uniti'

models now on sale, some nine months after originally planned, are the result of a project stretching back some four-and-a-half years.

It also involved a substantial investment, both financially and in terms of development resources, and the construction of a new cell-based production facility in Salisbury, with computer-guided manual assembly and testing based on work the company piloted with the build of its flagship Statement amplifier system [HFN Jun '15].

FEATURES GALORE

The Statement project has informed more than just the way the latest Uniti models are screwed together, for even the briefest inspection reveals the now familiar top-mounted volume control (also seen in Naim's Mu-so one-box systems), heatsink ribs and white Naim logo within the acrylic 'plinth' on which the products sit. Also brought in from Mu-so is the hidden Wi-Fi antenna, doing away with the rubber stub aerial used on the original Unitis.

Perhaps the most striking feature here, however, is the large LCD display panel on the front of the Atom, Nova and Star

'Naim's "platform for the future" includes plenty of spare capacity'



RIGHT: An over-sized mains transformer feeds linear PSUs for the analogue amplifier in addition to the SHARC DSP [centre], streaming board [silver, lower right] and ADC/DAC board [right]. A small switchmode PSU serves standby



models. This is a huge improvement in 'across the room' legibility over the old green displays, not least because it also allows the system to display cover artwork.

Beside it are touch buttons to access major functions of the unit, with the display and button illumination dimming when not in use if required, then waking again when the user's hand approaches to operate it. Naim also supplies the new Uniti models with a radio-frequency remote control in a matching high gloss finish. The handset gives feedback of volume level, and so on, as well as working out of line of sight of the unit, and – at least once one gets one's head around the iconography used – proves intuitive in use.

However, for the smoothest experience I'd stick to Naim's excellent iOS/Android app, which also allows easy access to music stored on your home network and streaming services. I find it one of the easiest apps of its kind to use, although admittedly it's the one with which I am most familiar, as it also 'drives' my other Naim network devices.

The Uniti Nova itself comes with network music playback support, all the way up to 384kHz/32-bit and DSD128,

Tidal and Spotify Connect integration, and Chromecast built-in. This last feature allows it play music directly from a portable device or computer running any Chromecast-enabled apps – Naim says that means almost 500 apps, including the Qobuz hi-res service, and enables the Uniti Nova to add new functionality as and when it appears. That's also due to the processor 'headroom' built into the device, for while the old Unitis were just about reaching the limits of their functionality, the new models, built as they are on Naim's 'platform for the future', have plenty of capacity to spare.

UPDATED WI-FI

The Uniti Nova also has both Apple AirPlay and Bluetooth with aptX built-in, along

ABOVE: Substantially built, the Uniti Nova is dominated by a huge top-mount volume dial. Functions can be addressed via the front panel touch screen, remote control or Naim app

with both Wi-Fi and Ethernet network connectivity, with an updated Wi-Fi section designed to lessen the chance of drop-outs and buffering, even when streaming

higher-resolution content. In addition, it offers a range of inputs including two sets of line-ins apiece on pairs of RCAs and Naim's preferred DIN connections, preouts on both RCAs (for a power amp or a subwoofer) and DINs. Digital inputs run to two optical, two RCA

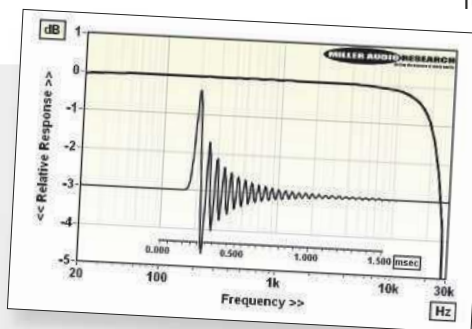
coaxial and one BNC socket, and the Nova also has an HDMI port able to take audio from a TV with ARC (Audio Return Channel) functionality. In addition music can be played from both USB storage and portable devices via Type A sockets front and back, which can also accept a portable USB CD drive for music-ripping to connected storage, and there's also a slot to the rear of the Nova to accept an SD memory card for playback or storage.

Furthermore, it can serve music from other network-connected devices – up to 20,000 tracks from four of them, which should be adequate for most needs, but if you want more it can be used together with a Naim Core ripper/store, at which point the Nova will offer almost Roon-like integration of Tidal streaming and locally-stored music. The new Unitis, like the company's Mu-so systems, are Roon-ready, and I was able



IN-HOUSE DSP

Named after two long-serving engineers, the Sells/Nilsson filter employed in the Uniti Nova comprises a brickwall IIR filter running on a 4th-generation 40-bit SHARC DSP [centre IC on inside shot, adjacent] with a gentle 6th-order analogue filter feeding the output. This IIR filter is a phase-linear type with no pre-ringing [but extended post-ringing – see inset Graph] and, therefore, very little acausal distortion – a suspect in the 'digital sound' that irritates many audiophiles. The Burr-Brown PCM1791 DAC, used here in current output mode and with discrete I-to-V conversion, handles 192kHz/24-bit data but the Nova's response does not stretch out to 45kHz (with 96kHz media) or 90kHz (with 192kHz media). Instead, Naim's custom IIR filter coefficients cut in earlier, delivering a 60th-order roll-off at 25kHz [see Lab Report, p45]. PM



ALL-IN-ONE SOLUTION



ABOVE: Full colour display delivers album artwork and content. An inbuilt proximity sensor wakes a 'sleeping' display as the user approaches

to play from my computer to the Nova using it as a Roon endpoint.

True, there's neither the disc-ripping and onboard storage of the Convert Technologies Plato [HFN Jan '17], which starts at around £3350, nor the CD drive and ultimate power of the much more expensive AVM Ovation CS 8.2 [HFN May '17], but the technology built into the new Naim flagship makes it a pretty compelling – and rather more compact – proposition.

Aside from the new digital platform, the audio side of the Nova is very much traditional Naim. While many rival products now use Class D or fully digital amplification, what we have here is a traditional

Class AB audio section conservatively rated at 80W/8ohm [see PM's Lab Report, p45].



ABOVE: Analogue inputs are digitised via a TI PCM1804 ADC [top IC] while a companion PCM1791 DAC services the analogue outs

'I failed to find anything the Nova didn't make fresh and involving'

Certainly in use the Nova sounds suitably powerful, detailed and effortless across a wide range of music, and you'd have to play your favourites at very high levels into large speakers in a very big room before you'd even start to approach its limits.


WEIGHT AND DEFINITION

I mentioned before the big powerful sound of the Nova, and listening to it the day after the death was announced of Walter

Becker, I was struck by the clarity and vibrancy with which it played some DSD rips of classic Steely Dan albums, delivering the music with both pace and punch, allied to excellent weight

and definition. The drive and speed of 'Bodhisattva' [from *Countdown To Ecstasy*; Geffen UICY-9566], was as attention-grabbing as the way the Nova revealed both the character of the instruments and the dynamics of the track. Even in the 'hell for leather' rush of the piece the sound was packed with information and detail, making for a compelling listen.

Meanwhile the more relaxed sound of 'Deacon Blues' [from *Aja*; Geffen UICY-9026] found me revelling in the harmonies and backing vocals, and enjoying the smooth yet crisp view of both the lead guitar and the weighty, tautly controlled bass. OK, so there was a bit of sadness and nostalgia involved in the listening, but undeniably the Nova did the memories proud with its informative sound and nicely defined soundstaging.

It's a sound that's very easy to enjoy, but rewards closer listening thanks to the sheer amount of musical detail offered. In simple terms, it's really rather lovely, and after only a little use, albeit with a sample 

TREVOR WILSON

Trevor Wilson has been Managing Director of Naim Audio since 2015, joining the company back in 2007. I asked him about the challenges in developing the company's 'Platform for the Future'.

'As a team, we decided to create these leading streaming systems and, given our delays in getting these products to market it would now be disingenuous for me to say the challenges were all anticipated. We didn't take into full account the time it would take to gain all the technical product approvals, but we have learned, and it won't happen again.'

There were physical challenges, too: 'The new industrial design called for square edges and "no visible fixings", so we've invested heavily in new manufacturing stations and processes. Other design challenges involved efficient space-packing and modelling for heat and ventilation.'

Chromecast built-in was a significant part of the design, as 'it gives access to apps such as Qobuz where music can be streamed at up to 96kHz+. It's a huge advantage, so say you like Deezer – it's there, or SoundCloud – it's there. And there are more compatible apps every day.'

And Wilson adds that 'AirPlay is also interesting: Roon was demo'ing its system using AirPlay on a Nova at the recent CEDIA show in the USA'.

But he won't be drawn on where the 'Platform for the Future' goes from here, beyond saying that 'As we call it a platform, that must give some encouragement to our customers who are expecting other products in due course'.



ALL-IN-ONE SOLUTION



ABOVE: Optical (x2), coaxial (x3), HDMI (ARC) and two USB-A digital inputs are joined by an SD card slot, wired and wireless LAN plus FM/DAB. Two line inputs are available on RCA/DIN sockets plus pre out on RCA/DIN in addition to 4mm speaker terminals

already very well run-in, the sound gained weight and poise, and settled into something extremely listenable.

In fact, comparing the sound of the Nova with my usual Supernait 2, which has a similar output power, fed from the preout DIN of the all-in-one system, it wasn't always easy to hear the benefit of the separate amplifier, which speaks volumes for the quality of the Nova's onboard preamp and power amp stages. It's a little less impressive when the Nova is fed with analogue sources, which are digitised [again, see PM's Lab Report], as I tried using my NDS network player as a source.

Here the all-in-one sounds a little softer and less detailed than the straighter path of the Naim integrated. However, I enjoyed using the preamp inputs of the Nova to combine it with my AV system, for which both a unity gain setting and adjustable lipsync delay are provided. Naim has clearly thought through every aspect of what this system can do.

FLEET-FOOTED AGILITY

And that's as obvious from the sound as it is from the functionality. Having tried the Nova with everything from podcasts Bluetoothed in from my iPod to hi-res files played from USB memory and network streaming, I've failed to find anything that this Naim system didn't make fresh and entirely involving.

As an aside, the system was able to handle anything up to 384kHz/24-bit FLAC files over Wi-Fi, but I'd still stick to a wired connection, both for 'belt and braces' certainty of data transmission, as I have more than a few DSD albums on my server.

The Nova will play hard and fast with the likes of Queens Of The

Stone Age's charging 'Head Like A Haunted House' [from *Villains; Matador OLE-1125-2*], but at the same time its fluidity and precision serves well a close-up recording such as the solo piano of Christian Gröven's *Bach - Inside Polyphony* set [2L-139], downloaded in the 352.8kHz/24-bit format of the original DXD recording. The presence and ambience of the recording are to 2L's usual high standards, and the church acoustic shines through, not as a special effect or a gimmick, but as a realistic sense of space.

Change to a larger-scale piece, such as Theodore Kuchar's lovely recording of *Shostakovich Jazz And Ballet Suites* with the Ukraine National SO [Brilliant Classics 6735], and the Uniti Nova's combination of dynamic ability and fleet-footed agility is much in evidence in the captivating 'Waltz No 2' from the *Second Jazz Suite*, with its playful swing and forceful punch.

The orchestra is clearly having a ball in this, perhaps the finest recording of these pieces, and as well as excellent instrumental tone and fine soundstaging, the performance delights. That's what the Naim Uniti Nova does so well. ☺

HI-FI NEWS VERDICT

This top-end Naim Uniti Nova moves the performance on from the old SuperUniti, while also bringing the facilities list bang up to date and leaving scope for future development thanks to the spare processing capacity onboard. It may no longer be the unique proposition the original NaimUniti was back in 2009, but for anyone looking for a 'just add speakers' network music solution this is a must-listen.

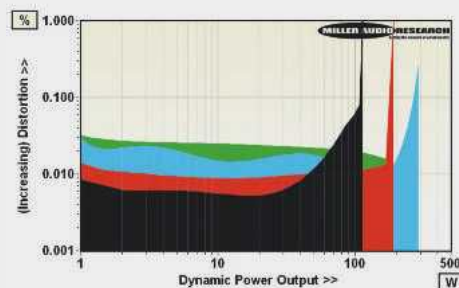
Sound Quality: 85%



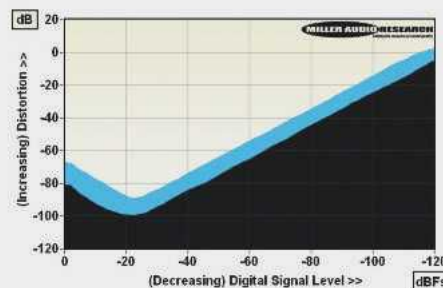
NAIM UNITI NOVA

It is possible to change the Nova's 'maximum volume' from a notional '85' to '100' in its set-up menu, a feature that increases the amplifier's overall gain from +35.1dB to +43.0dB. In most cases the 85 setting will be perfectly adequate. Power output is comfortably in excess of Naim's 80W rating at 2x96W/8ohm and 2x155W/4ohm, increasing to 114W, 190W and 290W into 8, 4 and 2ohm under dynamic conditions. The output is protected beyond 165W/1ohm, or 12.8A, but is sufficiently load-tolerant to handle any likely partnering loudspeaker [see Graph 1, below]. The performance of the output stage is arguably determined less by distortion – from 0.005-0.013% over its full 80W range through the midband and 0.005-0.038% from 20Hz-20kHz/10W – than by its higher-than-average (white) noise, yielding a 79.2dB A-wtd S/N ratio (re 0dBW).

The response and time domain behaviour of all the Nova's inputs is determined by Naim's custom upsampling digital filter [see boxout, p41]. Analogue inputs look to be sampled at 48kHz, offering a system response of -1.8dB/20kHz and -9dB/24kHz (all 10W/8ohm), while the digital inputs reach out to -1.2dB/20kHz and -16dB/30kHz (pre output) with all incoming sample rates above 88.2kHz. Tested at a default 2.05V line output level, the Nova's DAC stage offers a modest 103dB A-wtd S/N ratio while distortion drops to a minimum of 0.001-0.0035% at -20dBfs [see Graph 2, below], increasing to 0.01-0.046% with a 0dBfs digital input (all 20Hz-20kHz). Jitter, as promised by Naim, is the lowest I have measured with this tried-and-tested PCM1791 DAC. At <10psec with all incoming sample rates, this deeply impressive result pays testament to the rigour of Naim's digital engineering. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) loads. Maximum current is 12.8A



ABOVE: Distortion versus digital signal level over a 120dB range via pre out (1kHz, black and 20kHz, blue)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	96W / 155W
Dynamic power (<1% THD, 8/4/2/1ohm)	114W / 190W / 290W / 165W
Output impedance (20Hz-20kHz)	0.16-0.21ohm (68-225ohm, pre)
Freq. resp. (20Hz-20kHz/30kHz)	+0.0 to -1.2dB/-16dB (digital)
Digital jitter (S/PDIF at 48kHz/96kHz)	<5psec / <10psec
A-wtd S/N ratio (re. 0dBW/0dBfs)	79.2dB (Analogue) / 103.1dB (Dig)
Distortion (20Hz-20kHz; 0dBW/0dBfs)	0.005-0.038%/0.009-0.047%
Power consumption (idle/rated o/p)	29W / 260W (19W standby)
Dimensions (WHD) / Weight	432x95x265mm / 13kg

