

PS Audio NuWave

Another 'half-pint' unit, PS Audio's NuWave DAC is especially stylish at the price with its 'wrap-around' alloy casework. Available in black or silver and topped off by a glossy perspex lid, it all looks very smart indeed. However, PS Audio has not endowed its NuWave with a display, but simply a selection of indicators that confirm selected input, signal lock and whether or not you've elected for 192kHz upsampling. It's the only unit in our test *not* to indicate the incoming sample rate – fine if you're confident operating 'blind' but an oversight if you're not sure your PC or Mac isn't downsampling in the background.

Connections at the rear are only fractionally sparser than the equivalently-priced Moon 300D: one coaxial, one optical and one USB input with both balanced (XLR) and unbalanced outputs. So, with fewer options, or opportunities to get confused depending on your viewpoint, than either the Lavry or North Star DACs, the NuWave is virtually ready to go as soon as you have plugged it in.

All you need do is decide whether to opt for 192kHz upsampling or process the incoming media natively at 48kHz, 96kHz etc. Of note, the manual contains useful information in terms of unit setup, system optimisation and trouble-shooting.

PLENTY OF VERVE

Listening to the NuWave through its USB input, I was immediately struck by the sheer verve of the performance it offered, sounding punchy, taut and crisp. The unit has a relatively high output level [see

RIGHT: The simple front panel of the NuWave sports just two control buttons and six LED indicators



Lab Report] and required careful level-matching in order to avoid this skewing my findings. Suitably dialled back, the PS Audio continued to show itself as an ebullient performer, with bass in particular sounding very tight and deep.

This worked a treat on the Steely Dan album, gripping the backing bass guitar securely and making each note sound articulate and distinct. At the top end, the PS Audio NuWave certainly sounds vivid but this is also often accompanied by a mildly gritty character. Via either USB or S/PDIF inputs, the Gaudete Quintet's horns rasped *too* much for my liking even if, contrarily, their basic performance remained very detailed and realistically staged.

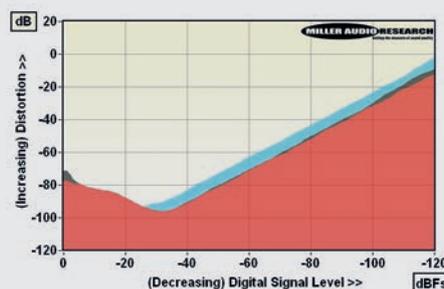
In much the same fashion, Diana Krall's vocals were exquisite but her backing instrumentation was a little unfocused or indistinct. Ironically, reverting to the digital output of my CD player source ironed things out somewhat and the NuWave started to sound both smoother and more inviting with my Steely Dan and Eagles selections.

Sound Quality: 75%



HI-FI NEWS LAB REPORT

A combination of Burr-Brown's PCM1798 DAC and PS Audio's own discrete analogue output stage defines the performance of the NuWave DAC. The BB DAC provides superb low-level resolution, good to $\pm 0.1\text{dB}$ over a 100dB range and low jitter – just 70psec with 24-bit/48kHz data and 100psec at 96kHz, falling to a mere 17psec via USB. The analogue stage delivers a huge 5.3V peak output from its balanced XLRs from a moderate 98ohm source impedance, but the output is phase-inverted so take care with A/B comparisons. This stage also imprints its own distortion which is 'high' at 0.013% at 0dBfs but actually falls by a factor of 10x to 0.0012% at -30dBfs [see Graph, below]. Importantly, from a subjective standpoint, distortion is very consistent with frequency while the response shows a mild low-bass lift (+0.2dB/12Hz) and treble roll-off (-2.6dB/45kHz and -7.5dB/90kHz). The X MOS-based USB input (with proven Thesycon drivers) not only offers lower jitter but also a higher A-wtd S/N ratio (110.5dB vs. 108.5dB via S/PDIF). All other 'analogue' parameters are necessarily identical. PM



ABOVE: Distortion versus digital signal level at 1kHz (red/SPDIF, black/USB) and 20kHz (blue/USB) over a 120dB range



ABOVE: The rear panel plays host to coaxial, optical and USB digital inputs in addition to balanced (XLR) and unbalanced (RCA) analogue outputs

Maximum output level/Impedance	5.29Vrms / 98ohm (balanced)
A-wtd S/N ratio (S/PDIF / USB)	108.5dB / 110.8dB
Distortion (20Hz-20kHz/0dBfs)	0.013-0.014% (S/PDIF)
Distortion (20Hz-20kHz/0dBfs)	0.014-0.012% (USB)
Frequency response (20Hz-20kHz)	+0.08dB to -0.45dB
Digital jitter (S/PDIF / USB)	70psec / 17psec
Resolution @ -100dB (S/PDIF / USB)	$\pm 0.1\text{dB}$ / $\pm 0.2\text{dB}$
Power consumption	9W
Dimensions (WHD)	214x60x370mm