

**IN SIGHT**

- 1 Balanced XLR outputs
- 2 2x coaxial digital inputs (BNC)
- 3 2x optical digital inputs

ended and balanced XLR outputs. Although network streaming isn't on board, aptX Bluetooth is, allowing streaming from a mobile or tablet.

Sound quality

We could talk about dynamic range and noise floor modulation, but the bottom line is the Hugo TT2 simply creates a more believable illusion of a physical presence and space than any other DAC here. Some – not just the DAC 2.7 – get hold of a recording and ask: “How can I help you?” while the Chord grabs it by the lapels, let's say *BB King Live at The Apollo*, fixes its stare and asks: “What have you got?”

Potency swells dynamically from within and doesn't apply just to the musicians on stage. At the Apollo, the audience is a palpable, perfectly located presence, too. The soundstage is expansive but more remarkable is that the clarity of imaging, solid and ambient, extends right out to the edges. The other DACs, even the DirectStream, sound softer and more impressionistic at their soundstage extremes.

Then there's the Hugo TT2's ability to adapt. For example, the opening wash of strings on the Randy Newman track is composed of individual violins and cellos playing as a collective, not a rosy amorphous mass. The start of notes, their harmonic body, the long tail of decay, the ambient acoustic – it's all so easy to hear. Meanwhile, *Core Shift* from Yello's latest album *Point*, clearly channels *The Race*, but no other DAC plays it with the pace, precision and verve of the Chord. Quite simply, the Hugo TT2 mixes fire and finesse like nothing else ●

Chord Electronics

Hugo TT2 £3,996

Chord's reputation is arguably unmatched and the weight of expectation rests heavily on its shoulders

DETAILS

PRODUCT
Chord Electronics
Hugo TT2

ORIGIN
UK

TYPE
DSD-capable DAC/
preamplifier/
headphone
amplifier

WEIGHT
2.5kg

DIMENSIONS
(WxHxD)
235 x 52 x 238mm

FEATURES
● Supports sample
rates up to:
32-bit/768kHz
PCM and DSD512
● Digital inputs: 2x
coaxial (BNC); 2x
optical; 1x USB
● Analogue outputs:
balanced XLR;
single-ended RCA;
2x 6.35mm and 1x
3.5mm headphone

DISTRIBUTOR
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Even in the spirit of stoking up some tension, it would be unwise of me to suggest that the Hugo TT2 DAC/headphone amp – minus Chord's partnering performance-enhancing, million-tap M-Scaler – is in any way deprived of tools to put the frighteners on the rest of the DACs in this group. When it comes to its standard upscaling and processing power, this is a Bugatti Chiron in a field of Golf GTIs.

Compared with the 256-tap filters most traditional DAC chips run, the Hugo TT2 employs a Xilinx Artix 7 Field Programmable Gate Array (FPGA), custom-coded by Rob Watts, with 86x 208MHz cores running in parallel to create an advanced 16FS Watts Time Aligned (WTA) filter with 98,304-taps, double that of the Hugo 2.

A new high-power discreet output stage coupled with second-order noise-shaping integrated between the DAC output and filter is said to further reduce already vanishingly low distortion while, in place of the original TT's Li-Po battery power supply are six super capacitors capable of delivering

huge, linear dynamic currents with peak output of 5A, 9.3V RMS.

At a smidge under £4,000, premium build is a given and hardly a stretch for Chord, which takes pride in its aviation standard build, though the use of small steel ball bearings for buttons, coloured illuminations under glass port holes and a polychromatic sphere

Chord Electronics' Hugo TT2 is a Bugatti Chiron in amongst a field of Golf GTIs

remain as quirky as ever, even though these are now supplemented with a more conventional scrolling menu system viewed through a small display window on the front left corner.

The Hugo TT2 can handle up to 32-bit/768kHz PCM and DSD512 and, like the Hugo 2, has four filter options ranging from incisive-neutral to subtly warmed up. Neatly organised on the back panel are a USB socket, two optical inputs, two coaxials (using BNC connectors) and both single-

**Hi-Fi Choice****OUR VERDICT**

SOUND QUALITY
★★★★★ **LIKE:** Stunning sound quality; size; build; M-Scaler upgradeability

VALUE FOR MONEY
★★★★★ **DISLIKE:** Quirky ergonomics might split opinions

BUILD QUALITY
★★★★★ **WE SAY:** A DAC that believes in the superiority of digital and shows why

FEATURES
★★★★★

OVERALL

Group test verdict

After a week of poking laptops, plugging USB cables and spinning silver discs, it's time for **David Vivian** to reveal which of these talented DACs gets the nod

IF THIS BATTLE of the bits has confirmed anything, it's that spending more garners significant sonic gains but also narrows the margins between competing designs. For the first time in a *Group Test* I've felt the need to call a midfield tie, while the gifted contenders for the top spot have been almost as difficult to separate.

That a decoder as talented as the Bel Canto DAC 2.7 starts our countdown tells you something about the sky-high standards of the group. Its imaging might be a bit approximate, but it doesn't seem to spoil the music. Timing has that lovely effortlessly lucid, loose-limbed

quality. A definite character act, then, but a very likeable one at that.

The tie is between the Hegel HD30 and T+A DAC 8 DSD. Both are more neutral, even-handed and harder hitting than the Bel Canto, offering more impetus, subtlety, textural contrast and discrimination. The Hegel HD30's sound is devoid of manipulative emphasis, maybe a little dry, but ultimately satisfying. The T+A, meanwhile, plays with a gloriously straight bat, a DAC that takes as much care over music's inner intricacies as its outer limits.

The always entertaining, occasionally engrossing Auralic Vega G1 takes things up a notch. Deftly dynamic, it

hits harder, plays softer and charts all the points in between with seamless continuity.

By a distance that leaves Chord Electronics' Hugo TT2 and PS Audio's DirectStream as the best performing DACs here and, despite sounding so different, desperately hard to separate. The DSD-centric DirectStream is a compellingly coherent and cohesive ambassador for the 'DSD rules' camp that sounds fabulously natural with almost spooky hear-through depth and air, but without the artificial, conspicuous sense of layering some give. It's a phenomenon.



But not as extraordinary as the Hugo TT2. It isn't just the quality of pace, precision, passion and punctuality, but the often breathtaking grasp of performance that separates it from the smoother, richer PS Audio. Somehow, it delivers that elusive final five percent.

Make/model	Auralic Vega G1	Bel Canto DAC 2.7	Chord Electronics Hugo TT2	Hegel HD30	PS Audio DirectStream	T+A DAC 8 DSD
Price	£3,300	£2,400	£3,996	£3,990	£4,860	£2,914
Sound	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Value	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Build	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Ease of setup	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Overall	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Musical engagement of the highest order emerges from this inscrutable black box	The best things come in small packages and this DAC confirms it aims to please	The stunning table-top titan delivers a performance that beggars belief	Beautifully built, fully featured and a dream to use with sound quality that's a joy	Not the daintiest, but hear what it's capable of and it'll be the last thing on your mind	Small in stature but big on features, the DAC 8 DSD is a versatile box of tricks

TRY WITH THESE

CD TRANSPORT: Cambridge CXc £300 **HFC 401**

If you aren't ready to give up CD, the CXc is a keenly priced transport that will extract the best from your DAC of choice. Choose any of these and you'll have a source that will do justice to a talented system.



INTEGRATED AMPLIFIER: Naim Supernait 3 £3,500 **HFC 456**

Some price rivals may offer higher power output, but the Supernait 3 combines useful connections and supreme build with the ability to hit hard and go like the clappers when it needs to while providing a high level of subtlety when more nuance is required.

LOUDSPEAKER: Spendor D7.2 £4,500 **HFC 456**

A crisp, open and even-sounding loudspeaker that's impressively engaging and surprisingly dynamic at this price. There's more space around vocals and a lighter, more spry sound to cymbals, making for a lifelike sound.

