



Thinking inside the box

CERTAIN THINGS WE TEND TO TAKE FOR GRANTED: BIGGER POWER SUPPLIES ARE A GOOD THING, MOVING COILS ARE BETTER THAN MOVING MAGNETS, AND A SEPARATE DAC AND CD PLAYER IS USUALLY BETTER THAN AN ALL-IN-ONE PLAYER. BUT PRECONCEPTIONS ARE SOMETIMES PROVED WRONG – AND THAT’S THE CASE WITH AUDIO NOTE’S NEW £22,000 CD5.1X PLAYER

Vinyl is my preferred source, but many albums I love are available only on CD, and I want to get the best sound from them, too. If you read the pitch on Audio Note’s company’s website, where it claims to “elevate the one-box CD player to hitherto unknown levels of performance.” Well, I ask you – how could I not review it? But how I actually came to try the CD5.1x is an interesting story...

I’d been borrowing a CDT Three transport (£10,236) and DAC 3.1x Balanced (£8,620) to help me review the company’s new Pallas range of digital interconnects. But, when Audio Note founder Peter Qvortrup said he need that combo back and had something else for me to try, I wasn’t expecting to be going back to a one-box player.

Before using the CDT Three/DAC3.1x, I’d been using the CD4.1x one-box player (£10,236), which I thought was pretty good – but I was amazed at the quantum leap forward in sound quality that the CDT Three/DAC3.1x had given me.

I was hearing dramatic new nuances in my favourite jazz musicians’ performances, not to mention hugely improved dynamics, power and a massive improvement in the weight, solidity and tunefulness of basslines I thought I knew. It was a whole new world of music and I’d literally just embarked on this voyage of rediscovery when that combo had to go back to be replaced by the CD5.1x. Back to a one-box player! But there was a strange glint in Qvortrup’s eye when he handed it over...

Predisposed as I was to regard a one-box player as a step backwards, I was not prepared for what happened when I spun up my favourite track, *I Can See Clearly Now*, from guitarist Peter White’s superb *Groovin’* CD. White’s guitar was conveyed with such presence, articulation and detail: how each note was played, the vibrato on some notes, how some were plucked harder, some softer, how they were shaped, and the CD5.1x conveyed fast runs with a precision and energy I’d never heard before from CD.

The bass line was also fuller and more powerful and yet better controlled, tighter, while percussion and drums had an explosive power and presence that rang truer than ever before. Yet in doing this, the CD5.1x managed to keep everything perfectly balanced – nothing distracted or disturbed me. The music just flowed as it should with its lilting rhythm beautifully conveyed.

Next up was Dave Koz with *Honey Dipped* from his *Saxophonic* CD, and I was blown away by the sheer presence and power of his alto sax, while the trumpet and trombone backing was separated better and


Specifications**Audio Note CD5.1x CD**

Type	CD player
Price	£22,035
Laser	3 beam, 780nm
Output impedance	5ohms balanced and single-ended
Reference output	1.2V RMS single-ended; 2.4V RMS balanced
Channel balance	less than 0.2dB
Dimensions	142mm (H) x 445mm (W) x 428mm (D)
Weight	16.8kg

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made more sense. Every nuance of Koz's play was laid bare, every breath, every push. His sax more real. But for all the extra detail, power and rhythmic impetus, it all gelled together into a perfectly integrated and balanced whole, with nothing detracting from the enjoyment of the music.

So *Amazing*, my fave track from soul legend Luther Vandross's *Give Me The Reason* was just that – 'amazing'. The CD5.1x conveyed his vocal mastery and virtuosity in breathtaking detail and separated out what the backing musicians were doing more sharply than before. Marcus Miller's bass line was rock solid and deeper than I had ever heard it, without being overpowering. The full emotional impact of the track was hitting new heights for me.

Body and power

My favourite Bruce Springsteen track is *Racing in the Streets* from *Darkness on the Edge of Town*, and the CD5.1x conveyed the piano on the intro with great openness, body and power, while Springsteen's vocals were clean, detailed and packed with emotion. And when that bass line kicked in, it fair blew my socks off – even now, months later, I'll still put a disc I haven't played before on the CD5.1x and then just stop whatever I might have been doing, and quietly think to myself, 'wow'!

So is it better than the £22,600 CDT Three/DAC3.1x/Black Pallas cable? Yes, by a country mile – and £600 cheaper! This was the best sound I had ever heard from CD at home.

Right then, Audio Note, explain yourselves! The first iteration of the CD5.1x, designer Darko Greguras tells me, mated a CD-T2 transport with a DAC3.1x Balanced, but the current version now uses a CDT Three transport with a modified DAC4.1x Balanced. Each has its own power supply and they simply share a common chassis.

The transport uses a top-loading Philips CD Pro 2LF CD mechanism, custom-modified in-house by Audio Note, while the rectified and regulated power supply, explains Greguras, uses 6X5 rectifier valves and is very similar to that used in the M2 preamplifier, but improved with Kaisei capacitors and non-magnetic half-watt and 1 watt resistors.

The DAC in the CD5.1x uses Audio Note's usual 18-bit stereo AD1865 chipset – now discontinued – which they chose and still use as they found it to be the best sounding, and still better than the 20-bit chipsets that would replace it. Luckily, Qvortrup had the foresight to buy up as many as he could, and assures me he has all the stock he will ever need.

Open-loop shunt regulators and 12V transformers are used, with no oversampling, no jitter reduction, no reclocking, no filters. The circuit uses standard Kaisei capacitors and non-magnetic tantalum resistors which took, Greguras confides,

some time to fine-tune as they sounded different from the magnetic tantalums. He emphasises that they play a very important role in achieving the sound he was looking for from the CD5.1x.

In the line stage, Greguras also experimented with resistors, using half-watt and 1W non-magnetic tantalums and Kaisei non-polar capacitors. The analogue output stage uses an ECC82 and a Philips 5687 double triode valve feeding Audio Note's own in house-made SHiB C-core transformers with copper primaries and secondaries on the transport and digital side.

Greguras also designed a new power supply for the CD drive motor. Here he used a lot of what he learnt from his work on the power supply for the TT3 turntable. He tells me: "We didn't want to go open loop or very tightly-controlled. We found that there is an optimum degree of control. The motor for the CD sled also has its own separate power supply. We do not modify the CD drive in any mechanical way, but we do swap out the surface-mount capacitors for our own, as that sounds best. In some places, we had to tweak some capacitor values."

Short and simple

One of the secrets of the CD5.1x's performance is short signal paths. As Qvortrup says: "It's also a demonstration of how simplicity actually works: you don't have connectors and transmitters and receivers, you just have short simple signal paths – that has unequivocal, easily identifiable benefits."

Greguras adds: "Everything is close together and the distance from the CD transport output buffer to input on the digital side is very, very short. On the CD transport side the signal is on circuitboard tracks and the rest is wired point to point. The line stage board is point to point and the power supply regulator is a combination of track and point to point hard-wired. Those hard-wired connections are copper wire, which suits better because the SHiB output transformers are copper. Time and effort has been taken to optimise the interface between the stages and all of this had to be fine-tuned by listening, as measurements won't show it."

And that time and effort has clearly paid off. The CD5.1x is the finest one-box player I have heard, outperforming many separate transport/DAC combinations, including Audio Note's own CDT Three/DAC3.1x Balanced, even with the new Black Pallas interconnect at £3,700.

I'm enjoying rediscovering my CD collection and am constantly amazed by how good those discs are now sounding. The CD5.1x isn't cheap, but it offers towering performance. It deserves the highest recommendation and amply demonstrates that there is still more to be retrieved from CD than we might once have thought.