

Cool for cats

Copland's latest has Scandinavian cool written all over it, but does the sound echo the look?

Copland is revitalising its small but perfectly formed range of electronics one piece at a time. A few months back we tried its rather impressive six-channel CVA306 tube preamp and matching CVA535 power amp. Now we've managed to secure the a sample of the brand's latest and only current CD player, the CDA822, featuring the same laser-cut nameplate.

The smooth, cool Scan-design exterior is almost the antithesis of the complexity inside the box. Copland has gone to considerable lengths to keep the circuitry inside this player as noise-free as possible. This process starts with the power supply, which is based on twin transformers – one for the control circuitry, display and loading drawer, the other dedicated to the audio signal. Coupled input filters are used to reduce noise and followed by a 15-volt power supply for the triple-regulated analogue output, with separate filters used for left and right channels.

The DSP (digital signal processor) uses a high-stability master clock and sample rate converter which upsamples the CD's 16-bit/44.1kHz bitstream to 24-bit/176.4kHz prior to digital-to-analogue

conversion. This process has the effect of removing jitter before the dual differential Analogue Devices DAC turns the signal into something that resembles music. It's used in dual differential mode as a further ploy to eliminate noise in the output. As noise is essentially the bane of digital audio this is clearly a positive contribution to road safety.

The next stage is analogue signal processing, which uses only localised feedback and a discrete double differential current-to-voltage converter. In effect this means that a separate circuit is used for the positive and negative output of the DAC, a technique that is claimed to result in higher resolution at the analogue output.

In practical terms the CDA822 is very straightforward – basic switching on the front and both balanced and single-ended outputs around the back. Things get more complex when you pick up the system remote, however. This has a plethora of functions (by two-channel standards at least) and no colour coding, so you might end up searching for the play button for the first few weeks. Still, if you have (or end up buying) Copland amps it will prove a lot more practical.

VERDICT

**Copland
CDA822
CD player**
£1,598

➤ Excellent imaging, natural tone, fantastic bass and an emotionally coherent delivery.

➤ Timing could be snappier, remote could be more ergonomic.

➤ **CONCLUSION**
This well built and carefully thought out player delivers most of the goods all of the time and if you go for the more sophisticated musical forms it's superb value.

KEY FEATURES

➤ Analog Devices (AD1853) DAC

➤ XLR balanced analogue outputs

➤ RCA phono analogue outputs

➤ RCA phono coaxial digital output

➤ Wired remote control socketry

➤ System remote

➤ Sample rate conversion to 24-bit/176.4kHz

➤ Four time display options plus defeat

The front panel permits selection between four alternative timing displays, or you can defeat that element altogether and go for the stealth approach – less practical perhaps, but it pays small sonic dividends.

PERFORMANCE

All this attention to detail inside the player does seem to pay off where it counts – in the sound that comes out. The CDA822 is an extremely smooth and relaxed operator – it deals with everything you throw at it with ease, such is the shortage of distortion in its output. This can often result in a player with a seeming lack of energy or drive, and there have been plenty of machines in the past that have been apparently grain free yet have proved to be dynamically challenged when it came to delivering the goods. Fortunately, the Copland doesn't fall into that camp. Give it a disc with get up and go in its pits and the sound will do the same (for the most part – see below for more).

There will be some who yearn for a more in-her-face, pacey sound and there are players out there which will serve them better, but if you want to rely on the software for your musical energy rather than added injection from the player this Copland proves rewarding. For some reason the first disc that revealed as much was by a Scandinavian band, the Esbjorn Svenson Trio, whose subtle but dynamic jazz vibes positively ignited with this player. It seems to like drums and percussion in general, picking out these elements in a subtle but distinct

CALCULATED CONVERSION

A sample rate converter is a circuit that converts from one clock domain to another. The sample rate converter in the CDA822 can function asynchronously, which means that the input need not to be synchronised with the output. It uses sophisticated signal processing (64 tap FIR filter) to remove jitter, reducing it to -55dB at 100Hz, and -100dB at 1KHz. However, in the CDA822 the input is synchronous because it comes from the same precision reference clock.





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⊖ fashion. You can still hear what the lead instrument is doing (in this case piano) but it's hard to ignore the brush-on-snare work at the tune's rhythmic core. It's not a beat driven sound though, as you might get with a Creek or a Naim. The melody is always easy to follow, but you do notice timing variations – Ali Farka Toure's *Niafunke* contains lovely, lilting rhythms that aren't always apparent, but the Copland is clearly at home with this sort of stuff and you get to enjoy the easy yet powerful sound to the full.

Its other distinct strength is an excellent sense of three-dimensional stereo. Voices and instruments recorded in naturally ambient surroundings have tremendous physical presence and solidity. This is an area where CD used to fall short of vinyl every time, but here is an example of the original digital medium's full potential, with Ali Farka Toure's grain store providing some superb natural reverb for handclaps and voices on the aforementioned disc.

Frank Zappa's orchestral favourite *The Yellow Shark* likewise expands backwards from the speakers in the Copland's care. The slightly overblown recording of the kettle drum produces deep, round bass notes that reveal the scale of the venue, while the stringed instruments fill out the 'air' in the room. Bass is tight, deep and natural – Dave Holland's double bass on *Thimar* is reproduced with texture and colour while John Surman's horn soars over the top. Players like the Acoustic Precision Eikos bring more life to a disc like this but are unable to compete with the depth of soundstage, and the Eikos is pretty good at soundstaging.

Eminem's evergreen *Marshall Mathers LP* didn't fare so well, the Copland not quite delivering the kick that some top-notch players extract from the disc, but the bass is nonetheless well handled. Missy Elliott's *Under Construction* likewise didn't have the snap that it can, yet you hear plenty of what's going on. Ultimately this is because timing is a shade on the relaxed side, something that isn't a problem with a lot of discs



Detail

TRANSPORT
Sony transport mechanism.

LOGIC CIRCUITRY
Logic circuitry for controlling the disc and responding to commands from remote handset and front panel.

POWER SUPPLY
Two separate transformers – one for the digital circuitry (display, CD disc drive), the other for the audio signal. Two serial-coupled main input filters are used to reduce incoming noise. The analogue audio output power supply is a +/-15V triple-regulated type (first a series regulator, then a series and shunt regulator).

ANALOGUE SIGNAL PROCESSING
The analogue signal processing is done without global feedback, using a discrete double differential current- to-voltage converter. Devices use surface-mount transistors except at the output buffers where conventional types are used. The output is capacitively coupled by very large polypropylene capacitors (blue barrel shaped components).

DIGITAL SIGNAL PROCESSING
The master clock for the system is supplied by a high stability discrete oscillator which has very low phase noise. The buffer has a separate power supply. The master clock is used for the disc drive, sample rate converter and the DAC.

but if you have a taste for contemporary rock or dance it might be an issue.

Tonally it's exceptionally good. Instruments and voices are finely shaded, which makes them sound more real and live, this being backed up by a precise sense of stereo imaging which varies as often as the tracks do. And don't forget the luxurious bass and shiny but not glaring top-end – this is a very natural and well-resolved player that gets an awful lot of the important things right,

including *the* most important bit – communication. The Copland CDA822 delivers the message in the music, whatever that music might be, and does so in an even-handed, fluid fashion. This is what we should really be searching for at the end of the audiophile day. ⊕

📞 Absolute Sounds 0208 971 3909
🌐 www.copland.dk

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ALSO CONSIDER

- CLASSÉ CDP-10** £1,599
Another very fluid and natural player that gets close the mark in more ways than one.
- PRIMARE D30.2** £1,499
Superb high-resolution player gives a strong taste of musical structure and physicality.
- GAMUT CD1R** £2,350
If the budget will stretch a bit further this has a natural 3D sound that marries precision with emotional communication.

