In what is looking like it might be a trend – tube hybrid integrated amplifiers – Copland joins in with a Danish beauty at a sensible price, the all-singing, all-dancing CSA100

Review: Ken Kessler Lab: Paul Miller

Three thoughts hit me as soon as I switched on the Copland CSA100 – integrated amplifier. Firstly, it was that it was an all-embracing, do-everything tube/transistor hybrid like the Vinny Rossi 12/2-E [HFN Jul ‘20], rated at a similar 100W/8ohm if at a fraction of the price, at £3498. The second was that I want it to kick off a fashion for cool, fully-loaded integrated hybrids because they are the smartest option for offering the best of the tubiod-solid states worlds. The third is the realisation that I need to look deeper into hi-fi system building.

How did the systems issue pop into my head? Because – as with the Vinny Rossi and other assorted items – I found the CSA100 forming part of an unlikely trio with Rossi and other assorted items – I found a sense of balanced disposal of one’s oddball notion of ‘spend a bit, sell a bit’. This is because the CSA100 joining in with a Danish beauty at a sensible price, the all-singing, all-dancing CSA100 – at least, there was for me.

This is wall-to-wall sound

With a £3500 integrated amplifier as the subject of the review system, I used a MacBook Air and a vintage Marantz DV8300 multi-format player for digital sources and the EAT 8-Sharp turntable [HNW Jul ‘20] with its No5 as the analogue source (£2000 combined).

Speakers for the main assessment were Falcon Acoustics LS15/3As (circa £2400) [HNW Dec ‘18], along with the KEF LS50 [HNW Jul ‘12] as a variable. Headphone listening included the astounding Audeze LCD-1 headphones (£369) [HNW Mar ‘20] and Master & Dynamic’s MH40 (£229). These partnering products adhere to the relative value of the CSA100, as I do not see someone with a system at this price point running headphones with a retail price higher than, say, that of the loudspeakers or amplifier.

Opening with a raucous rocker, as past experience has shown Copland products err toward the ‘nice’, I turned to Raspberries’ sublime pop epic, ‘Go All The Way’, the opener of their debut album, via CD from the box Raspberries Classic Album Set [Caroline CAR008021CD]. This is one of those ‘kitchen sink’ releases with so much going on that it could cause a migraine in the meek, the mix so poor an attempt at emulating Phil Spector that it sounds like mono most of the time – until you can hear why Raspberries’ harmonies are up for contention for the subject of the review system, I used a MacBook Air and a vintage Marantz DV8300 multi-format player for digital sources and the EAT 8-Sharp turntable [HNW Jul ‘20] with its No5 as the analogue source (£2000 combined).

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and the CSA100 can handle it, even through small monitors. Worrying about my disdain for the sound of ‘Go All The Way,’ and wanting to test the phono stage, I put on Raspberries’ Best [Mobile Fidelity MOFI 1-032], wondering if what has to be the finest pressing of a Raspberries LP would prove any better. Nope: it was the same insulting pile of sonic guano, emphasised by the other tracks exhibiting sonic worth diametrically opposed for sheer clarity. This proved a ‘light bulb’ moment because I was able to switch from LP to CD to determine the nature of the CSA100, and sure enough, the DAC section had a similar sonic signature to the phono stage’s.

FEEL THE FORCE

Clearly, whoever voiced this at Copland used the same criteria for digital and analogue, and this will be greatly appreciated by fastidious users of both, especially those who are critical of one format or the other. Funnily enough, I found the digital playback just as enticing as the analogue, with surprises galore when I listened to Earth Wind & Fire’s Spirit/That’s The Way Of The World [Vocalion CD5ML 8574]. This mid-1970s, world-class funk-disco was recorded with punch, power and detail, and I was even captivated by the synth-y opening to ‘Biyo’, a sound-effects moment for which there is no ‘real’ reference. When ‘Shining Star’ hit, a familiar track to anyone who was sentient 45 years ago, I started to appreciate why so may listeners – not necessarily indecisive – turn to hybrid amplifiers. It had all the kick, crispness and force associated with hefty solid-state amplification, while the presence of a lone valve (and this might be a stretch, or a display of my bias, to some of you) kept the treble from turning edgy.

Disco was always characterised by a tech-y feel, maybe even exaggerated sonic properties, but the CSA100 delivered the shake-your-booty excitement without ever resorting to aggression. It’s an area where Copland has always excelled and which it hasn’t abandoned, its hybrid sounding as ear-friendly as its all-valve designs. I hope I am getting across to you all that this amp seems incapable of causing listener fatigue. As a farewell to the CSA100, I put on Howard Tate [Analogue Productions APO 009], a live mini-LP that Chad Kassem’s crew produced a decade ago, featuring my all-time favourite R&B singer. With a crack band and a guitarist whose notes soared, the ageing singer brushed away the years to deliver heartfelt renditions of a couple of his classics and gems like B B King’s ‘Sweet Sixteen’. The intimacy was tangible, the space enveloping. The CSA100 delivered the shake-your-booty excitement without ever resorting to aggression. It’s an area where Copland has always excelled and which it hasn’t abandoned, its hybrid sounding as ear-friendly as its all-valve designs. I hope I am getting across to you all that this amp seems incapable of causing listener fatigue.

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**HI-FI NEWS VERDICT**

Maybe I’m getting soft in my dotage but I prefer to think it’s the hardware getting better. I utterly loved the Copland CSA100, the review system playing Cupid. I listened for hours on end, falling from source to source, even over-indulging in headphones. The ‘why’ is simple: the CSA100’s sound is so ‘more-ish’ you won’t want to leave it alone. The value and the plethora of features are mere bonuses.

**Sound Quality:** 86%

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**LAB REPORT**

**COPLAND CSA100**

Courtesy of Copland’s substantial PSU [see inside pic, p58] the CSA100’s power output readily exceeds its rated 100W/8ohm and 180W/4ohm specification at 2x125W and 2x193W, respectively, and supports bursts up to 174W, 320W, 527W and 715W into 8, 4, 2 and 1ohm under dynamic conditions at <1% THD [see Graph 1, below]. Distortion is rather vaguely spec’d at ‘0.04%’ although, in practice, it is impressively flat with frequency while the largely 2nd harmonic increases uniformly with power output from 0.003%/1W, 0.01%/10W and 0.035% at the rated 100W (all into 8ohm). Overall gain of the tube and transistor stages amounts to a sensibly moderate +38.6dB (balanced input) but the A-wtd SN ratio is slightly below average at 79.7dB. This is a subjectively pleasing white noise rather than hum or buzz, however. Also via the analogue inputs, the CSA100’s response is very flat and extended, though there is some ‘movement’ in HF extension depending on volume position. Best case, the CSA100’s ±1dB limits are <1Hz to 100kHz.

Measured via the tape loop (the preamp output leaves the power amp in-circuit), a 0dBfs digital input yields a ±2.2V output, the ESS9018S-based DAC stage offering a 105.5dB A-wtd SN ratio and minimum 0.0013% THD over the top 10dB of its dynamic range [see Graph 2]. Jitter is suppressed to an impressive ~20ps/clock via all sample rates while the 82dB rejection of alias images, pre/post ringing on transients [see Graph, p59], and the frequency response(s) are all linked to the DAC’s default linear phase digital filter. The responses reach out to ~0.1dB/20kHz, ~0.7dB/45kHz and ~2.3dB/90kHz with 48kHz, 96kHz and 192kHz digital files, respectively. PM

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**HI-FI NEWS SPECIFICATIONS**

**Continuous power** (<1% THD, 8/4ohm) 125W / 193W

**Dynamic power** (<0.1% THD, 8/4/2/1ohm) 174W / 320W / 527W / 715W

**Output imp.** (<1% THD, 8/4/2/1ohm) 174W / 320W / 527W / 715W

**Freq. resp.** (20Hz–20kHz) ≥80Hz / ≥100Hz / ≥100kHz

**Digital jitter** (USB / S/PDIF) 18ps / 20ps

**A-wtd S/N ratio** (DAC/Amp) 105.5dB (0dBfs) / 79.7dB (0dBfs)

**Distortion** (DAC, 0dBfs/Amp, 0dBW) 0.0014%–0.055% / 0.0095%–0.011%

**Power consumption** (idle/rated o/p) 38W / 425W (2W standby)

**Dimensions (WHD), each unit** 435x315x370mm / 14kg

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**Above:** Distortion versus 24-bit digital signal level over a 120dB range (1kHz, black; 20kHz, blue)

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**Above:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 26.7A