

## DAC/PREAMP & MONOBLOCKS

Pre/DAC and mono power amps. Rated at 300W/8ohm  
Made by: Sound United, Shirakawa Audio Works, Japan  
Supplied by: Sound United UK, Kingston-upon-Thames  
Telephone: 0208 103 4770  
Web: www.classeaudio.com  
Prices (DAC/Pre & Monoblocks): £9999/£10,999 (each)

**AUDIO  
FILE**

# Classé Audio Delta PRE/MONO

Classé is back with a bang – its third-generation Delta amplification carrying ‘does what it says on the tin’ model designations, and sounding as thrillingly no-nonsense as ever  
Review: **Andrew Everard** Lab: **Paul Miller**

When it comes to prosaic model naming, Classé has it nailed: its latest Delta series preamp, selling for £9999, is called ‘PRE’, and the matching monoblock power amps at £10,999 apiece, are called ‘MONO’. The only other model in the lineup is the Delta stereo power amp, at £11,999, which is unsurprisingly called ‘STEREO’.

Long anticipated [see PM’s interview boxout, p47] this preamp/monoblock combo share a sculpted metal look, with a hefty wraparound fascia running into the side panels – and incidentally aren’t as huge as they may look. Well at least the preamp isn’t, standing just over 12cm tall and a shade under 44.5cm wide, it will fit into just about any hi-fi rack.

The power amps, however, are a different matter, for they may share the same width as the PRE, but have a bigger footprint, being 49.2cm deep rather than 44.9cm, and stand just over 22cm tall. Not vast, but it’s the weight of the MONO amps that will limit your positioning options: while the PRE is chunky enough at 13.5kg, the power amps are a hefty 44.3kg each. Even the custom mains leads are weighty!

### POWER USER

In return for all that weight, you get an amp rated at 300W/8ohm, doubling into 4ohm [see Lab Report, p49], with the first 35W of that output delivered in Class A, all powered by a custom toroidal transformer – accounting for almost a third of the all-up weight – and what Classé calls, with some modesty, a ‘massive, high-quality power supply’. PM explains more in his boxout [p45], but Classé claims additional benefits for its efficient temperature regulation, not

**RIGHT:** Custom 2.4kVA transformer [lower left] weighs 14kg and is joined by 22 Mundorf 4-pole electrolytic capacitors [centre] in the PSU. The output stage has 16 lateral MOSFET packages mounted onto a forced-air cooling tunnel [top]

least a speedy warm-up and the option to ‘stack and rack’ pairs of MONOs.

Inputs on the power amps are on both unbalanced RCAs and balanced XLRs, partnered by two sets of Furutech Torque Guard speaker terminals, designed to protect against over-tightening. There’s also a range of remote connections, including 12V trigger and IR in and out; and Ethernet, RS232 and Classé’s own CAN-Bus remote system. A USB-A port services updates. A series of LED signals on the front panel provide status and warning information, and the power meter display can be dimmed or turned

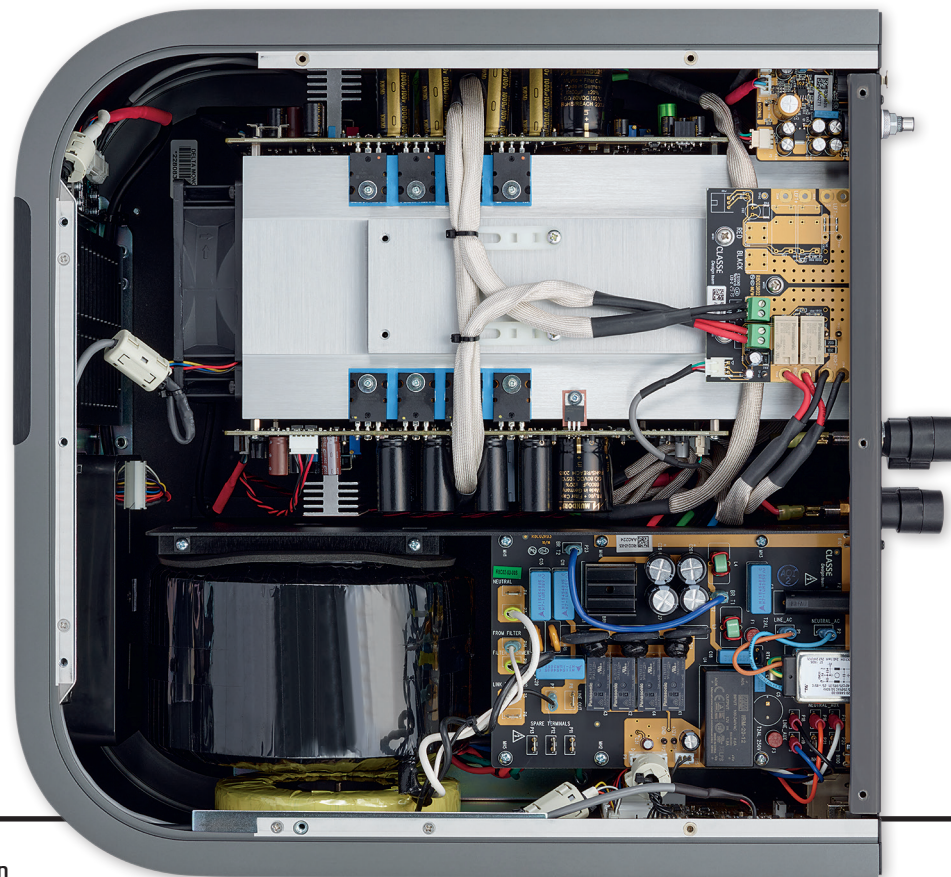
off, with Classé providing the helpful hint that when the needle is to the left of vertical, the amp is working in Class A. With so many meters these days having

mere decorative value, this digitally-governed display is exceptionally accurate.

On test, the power amp was fed from the PRE using balanced connections, the preamp having not just main outputs on RCAs and XLRs, but also a further pair

of ‘Aux’ outs, and a subwoofer out. This second pair can be configured to duplicate the main preouts or act as line outputs, or one of them can be assigned as a second sub out, the two outputs then able to

*‘The amp’s in Class A if the needle is to the left of vertical’*



**LEFT:** Delta PRE (top) features touchscreen display – the USB-A is purely for iOS devices. Massive MONO power amp (one shown here) shows accurate, dimmable metering, and intake louvers for the fan-cooling system

adjustments in the phono menu. Each of the amp’s inputs can also be set-up with its own level trim – or as bypass for use in home cinema set-up – along with tone controls either as conventional bass and treble or as a tilt control, a parametric equaliser, plus mono summing and bass management, all

drive two mono or stereo subs. All of this is configured in the preamp’s extensive menu system, controlled by the front-panel touchscreen display, which even allows different subwoofer crossover points and slopes to be selected. Five output presets can be set and stored, including adjustable distance/delay settings when a sub is used.

### INPUT DATA

Evidence of this flexibility is apparent in the fact the PRE hosts no fewer than 15 inputs! On the digital side these run to an Ethernet port for DLNA streaming and

AirPlay via a home network; a USB-B for computer connection up to 384kHz/32-bit and native DSD up to DSD256; plus one AES/EBU, three coaxial and three optical. There’s also a USB host port on the front panel, curiously only for the connection of iOS (iPhone) devices, although it does also allow firmware updates.

There are two sets of XLR balanced analogue inputs and two on RCAs, plus a dedicated phono input, with the option of reconfiguring one of the line-ins to accommodate another turntable. There’s also an extensive range of gain/loading

implemented in DSP. It’s also possible, when using the analogue inputs, to set the PRE into ‘Digital Bypass’ mode, at which point it becomes a pure analogue preamp, with all its digital circuitry powered down.

With remote connectors mirroring those on the power amp, including comprehensive system configuration via the CAN-Bus link, the PRE also has a dedicated headphone section with a 6.35mm socket and cross-feed function. Operational shortcuts can be assigned to one of a series of function keys on the remote [p49] and – as if all that wasn’t enough – the PRE has an optional 4K-capable HDMI video module, offering four inputs and one output for around £500.

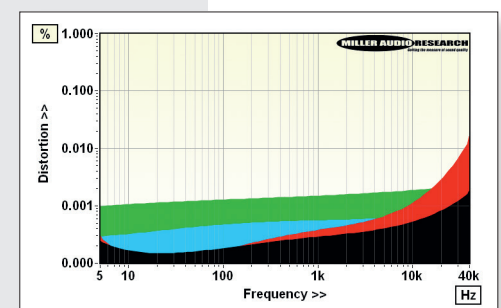
### BURSTING WITH LIFE

In use, driving flagship B&W 800 D3 speakers [HFN Oct ’16], the Classé amps immediately impress with the mighty power they can deliver, and the sheer refinement with which they do so. Opening up with Dr Lonnie Smith’s cover of ‘Why

### A CLASS ACT

Not for the first time, we have an amplifier claiming a good few watts – 35W/8ohm in this instance – with sufficient quiescent current in the output stage to maintain all the devices in their ‘on’ or conducting state. This is Class A. Crossover distortion is eliminated but dissipating those unused amperes develops plenty of waste heat. On more than a few occasions I’ve been inclined to doubt the boast, but not here where Classé’s lateral MOSFET output stage is kept in thermal equilibrium by mounting the devices on what it calls its IC (Intelligent Cooling) Tunnel. The square-section tube [see pic, p44] is filled with very fine alloy fins that are cooled by air drawn from the front of the amp, exhausting out the rear [see p49]. On my test bench I measured a steady 48°C air temperature from the vent. Toasty!

Classé has engineered a solution with a very wide open-loop bandwidth and relatively limited negative feedback but it still maintains an astonishingly low distortion out to high frequencies. Distortion is optimally low and consistent with frequency through its ‘Class A range’, seen [adjacent] between 1W (blue) and 10W (black, 0.00015-0.0007% from 20Hz-20kHz). It looks higher at lower power (0.1W, green, as noise) but only genuinely increases at HF at higher power (100W, red). PM



**LEFT:** ‘Class A’ to 35W – the Delta MONO’s low THD vs. frequency (5Hz-40kHz) at 100mW/8ohm (green), 1W (blue), 10W (black) and 100W (red)





**ABOVE:** Delta PRE has linear PSUs [under gold-plated copper PCB] and screened switchmode supply [far left] for the digital and control circuits, including the wireless network module [green, bottom]. Large chip is main microcontroller/USB interface with AK4497 DACs and balanced o/p on lower PCB

Can't We Live Together?' [*Breathe*; Blue Note 3546174], the Classé PRE/MONOs present the track, one of only two studio recordings on the album, with a real sense of 'musicians in the room'. That's assuming, of course, you were ever lucky enough to have a bunch of crack musicians, complete with a very restrained Iggy Pop on vocals, round for a bit of a jam.

The sound here simply bursts with life – and this turns out to be an abiding characteristic of these amplifiers. It's very much in evidence with a very different musical style, Jerry Junkin and the Dallas Wind Orchestra's reading of the John Williams march from the film *1941* [*John Williams At The Movies*; RR-142SACD].

### SONIC SPECTACULAR

The piece begins with delicate woodwind, and builds into full-on marching band style, with great big punchy bass drums, crisp snares and deft brass – the Classé amps hold it all together in truly spectacular style, those bass thumps really getting the 800 D3's Aerogel bass drivers shifting air.

Switch to a different take on John Williams – David Helbock's solo piano take on 'Duel Of The Fates' from *The Phantom Menace* [*Playing John Williams*;

ACT 9764-2] – and the presence of the instrument is striking, as indeed it is on Lady Ga-Ga's acoustic version of 'Poker Face' from *The Best Of Radio 1's Live Lounge* [Sony 88697914992].

### FEEL THE VIBE

Here, as ever, these amplifiers deliver focus, and more focus, underwritten with speed,

weight and masses of detail. All the basic qualities can be taken as read – breathtakingly realistic instrumental timbres, effortless dynamics and wide-open soundstaging and presence – but on top of that the sound is all

about communication. I have encountered few amplification systems in my time so readily able to draw the listener in to what's being played, and create that hi-fi ideal of a tangible impression of listening to a performance rather than an artifice created by a collection of electronics and loudspeaker drive-units.

Even better, these Classé amps do so whatever you choose to play: I have never heard the simple two-track recording of The Beatles' 'And I Love Her' [*A Hard Day's Night*; Apple/Parlophone 0946 3 82413 2 4] sounding quite so vibrant, with every nuance of the percussion and the studio

'There's big punchy bass, crisp snares and deft brass'

## DAVE NAUBER

Dave Nauber, who describes himself as 'an audio industry lifer' has been with Classé for some 18 years and is now the Brand Director. Dave recalled that the very first outing for these Delta series amplifiers was at none other than our own Hi-Fi Show Live, then at Windsor, in 2017.

'This was a long way ahead of the official launch', says Dave. 'At the time we were switching manufacturing from Rotel's facility in Zhuhai to the new B&W building a few blocks away, although these Delta models never quite made it...' To the surprise of many, B&W was sold to Silicon Valley-based startup Eva Automation who subsequently decided to put Classé out to pasture as it didn't 'fit' with its vision for the B&W brand.

'Ultimately Classé landed in a good place with its acquisition by Sound United (SU) in Jan 2018. Classé now benefits from being part of a huge brand portfolio including Marantz, Denon, Polk and – ironically – B&W with its recent segue from Eva back into the hi-fi fold.'

Having rebuilt the original Classé design team in Montreal, SU also provides access to the Shirakawa Audio Works in Northern Japan – the former Denon factory famous for its CD players, DL-103 pick-up, etc. 'The Delta series will soon be joined by a five-channel Class AB power amp with partnering AV processor, and matching Delta stereo integrated with full digital capability.'

And the far future? 'We have a blue-sky, very high-end Omega series under consideration, but no prototypes yet. Nothing before 2026', says Dave. *HFN* will be ready! PM







**ABOVE:** The Delta PRE [top] has MM/MC and four line ins (two on XLRs) and two sets of preamp outs (on RCA and XLRs) plus a mono sub out. Digital ins include 3x optical, 3x coaxial and 1x AES (all 192kHz), USB-B (384kHz/DSD128) and wired Ethernet. Delta MONO [one shown, bottom] has RCA/XLR inputs plus two sets of 4mm cable posts

reverberation so clearly defined. Similarly with soprano Jodie Devos's luminous take on Freddie Mercury's 'You Take My Breath Away', from her romantic *And Love Said...* recital [Alpha 668] where both the voice and the accompanying piano of Nicolas Kruger have that marvellous 'reach out and touch' quality.

## BLAZE OF GLORY

I fed the Classé amps with all manner of torture tracks, and those I know extremely well, in an attempt to gain an insight into any weaknesses, and the only problem I could unearth was that they're capable of driving hard to such high levels that one might start to fear for one's speakers. Taking my inspiration from that Jodie Devos track, I unleashed the system with 'Brighton Rock' the opener from Queen's *Sheer Heart Attack* [Island UICY-76097].



The presentation was nothing short of energising, the rhythm section of John Deacon and Roger Taylor surging the track along and Brian May's guitar ringing through the mix, then chugging, snarling and fluting

**LEFT:** Illuminated buttons on alloy handset cater for the entire gamut of the Delta PRE's day-to-day functions as well as its comprehensive set-up menu

through that extraordinary 'all analogue delays' solo. For a track nearly 50 years old, it sounded never less than fresh and vibrant.

The last element, and the winning goal scored by the Classé PRE/MONOs? The Michael Stern/Kansas City Symphony recording of 'The Young Person's Guide To The Orchestra' [Britten's *Orchestra*; RR-120]. It's a self-explanatory test of any system's ability to convey orchestral timbres, scale and dynamics, and one these amplifiers pass in a blaze of glory.

From the finest of percussion, string and woodwind textures right through to the hefty drums, the Classé amps deliver a superb sense of the orchestra laid out before the listener. They're lyrical and smooth when required, then able to turn on that massive slam for the great conclusion to the fugue. And if that doesn't thrill you, nothing will! ☺

## HI-FI NEWS VERDICT

By any standards, the latest Classé Delta amps are a triumph, combining a hugely flexible and ultra clean-sounding preamplifier with power amplifiers as capable of mighty clout as they are revealing of the smallest of detail. They look the part, are superbly engineered and constructed to impeccable standards, and can cope with even the most complex of systems without any signs of compromise in their performance.

Sound Quality: 89%

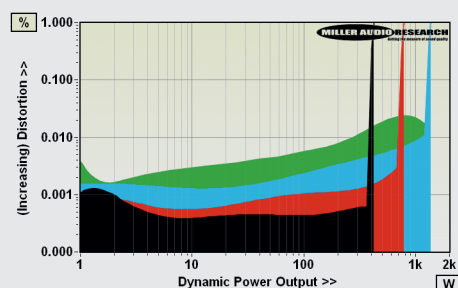
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## LAB REPORT

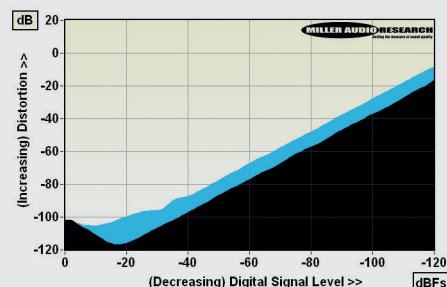
### CLASSÉ DELTA PRE/MONO

Sailing past its rated 300W/8ohm, Classé's Delta MONO punished the lab test loads with a full 410W/8ohm and 760W/4ohm, the very stiffly-regulated PSU going on to support 420W, 790W and 1361W into 8, 4 and 2ohm loads under dynamic conditions at very low levels of distortion [see Graph 1, below]. Power into 1ohm cuts at 1203W (34.7A) and the Delta MONO enters standby. Distortion is indeed exceptionally low through the Delta MONO's Class A range [see boxout, p45], from 0.0003%/100mW to 0.0002%/1W, 0.0001%/10W, 0.0003%/100W and 0.0006% at the rated 300W (all 1kHz/8ohm). Residual noise is low too, and the A-wtd S/N a wide 92.6dB (re. 0dBW) for an overall gain (balanced in) of +29.1dB. The response is flat to -0.05dB/20kHz and -0.6dB/100kHz and output impedance low at 0.01ohm.

The Delta PRE analogue preamp offers a huge 20V maximum output (balanced), a gain of +14.3dB, distortion gently increasing from 0.0002-0.0016% (0dBV, 20Hz-20kHz) and a promising 98dB A-wtd S/N ratio. The response rolls out to -0.2dB/20kHz to -6.4dB/100kHz although the AK4497-based DAC section, with steep roll-off linear phase filter selected by Classé, has its 'own' response of -0.2dB/20kHz, -0.8dB/45kHz and -3.1dB/90kHz with 48kHz, 96kHz and 192kHz media, respectively. Set to a 4V (balanced) output for a 0dBFS digital input, the PRE offers a very wide 115dB A-wtd S/N ratio and distortion is a consistent ~0.0014% (20Hz-20kHz). THD falls to a minimum of 0.0002-0.0007% over the top 30dB of its dynamic range [see Graph 2] and low-level linearity holds good to within ±0.1dB over a full 110dB dynamic range. Jitter meanwhile is suppressed to ~50psec across all inputs/sample rates. PM



**ABOVE:** Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 34.7A



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

## HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	410W / 760W
Dynamic power (<1% THD, 8/4/2/1ohm)	420W / 790W / 1361W / 1203W
Output imp. (20Hz-20kHz, Pre/Amp)	96ohm / 0.010-0.025ohm
Freq. resp. (20Hz-20kHz/100kHz)	+0.0 to -0.19dB / -6.4dB (Pre)
Digital jitter (USB / S/PDIF)	50psec / 45psec (48kHz/24-bit)
A-wtd S/N ratio (DAC/Amp)	115.2dB (0dBFS) / 92.5dB (0dBW)
Distortion (DAC, 0dBFS/Amp, 0dBW)	0.0002-0.0003% / 0.0004-0.0008%
Power consumption (Preamp/Amp)	36W / 540W (255W idle)
Dimensions (WHD, each unit)	445x121x445/444x222x492mm