

Audia Flight FLS10

Hoping to make a bigger splash in the UK, Italian brand Audia Flight releases a weighty integrated amplifier that nonetheless displays an impressive lightness of touch
 Review: **Cliff Joseph** Lab: **Paul Miller**

Thanks to only sporadic distribution in the UK, Italy's Audia Flight may not be the household name that it might otherwise have been, or deserves to be, in high-end hi-fi circles. Founded in 1996 by Massimiliano Marzi and Andrea Nardini, the company is clearly not a new kid on the block, though it last appeared with its Pre/50 amplifier combo and Phono preamp in *Hi-Fi News* nearly a decade ago [*HFN* Jan and Aug '09].

However, the company's products are now being distributed by Elite Audio in the UK where Audia Flight's profile is being raised with the launch of its latest integrated amplifier, the FLS10, priced at £7900. Audia Flight says that its products are a combination of sophisticated circuit design and Italian style, and its dedication to the design process means that all its products are handcrafted and assembled at the company's facility near Rome.

A THREE-MAN TASK

Even so, it seems that the sheer complexity of its 'current feedback' circuitry has won out here [see PM's 'Current Thinking' boxout, p61], as the outward appearance of the monolithic FLS10 is a far cry from the understated and effortless elegance that we might normally associate with *la dolce vita*.

Weighing in at a daunting 36kg, the sizeable FLS10 will require a sturdy equipment support – in fact, the manual recommends recruiting two other people simply to unpack the amplifier and help you to lift it into place. The two substantial heat vents that occupy the entire left and right sides of the unit also mean that you'll need to give it plenty of room to maintain adequate circulation.

And the manual suggests that the FLS10 has – like an Italian dandy – something of an aversion to daylight, so you might

RIGHT: Based on the FLS4 power amp, eight pairs of power transistors are deployed in bridge mode (per channel) across the heatsinks, supported by a huge 2kVA toroidal transformer and 144,000µF of supply capacitance

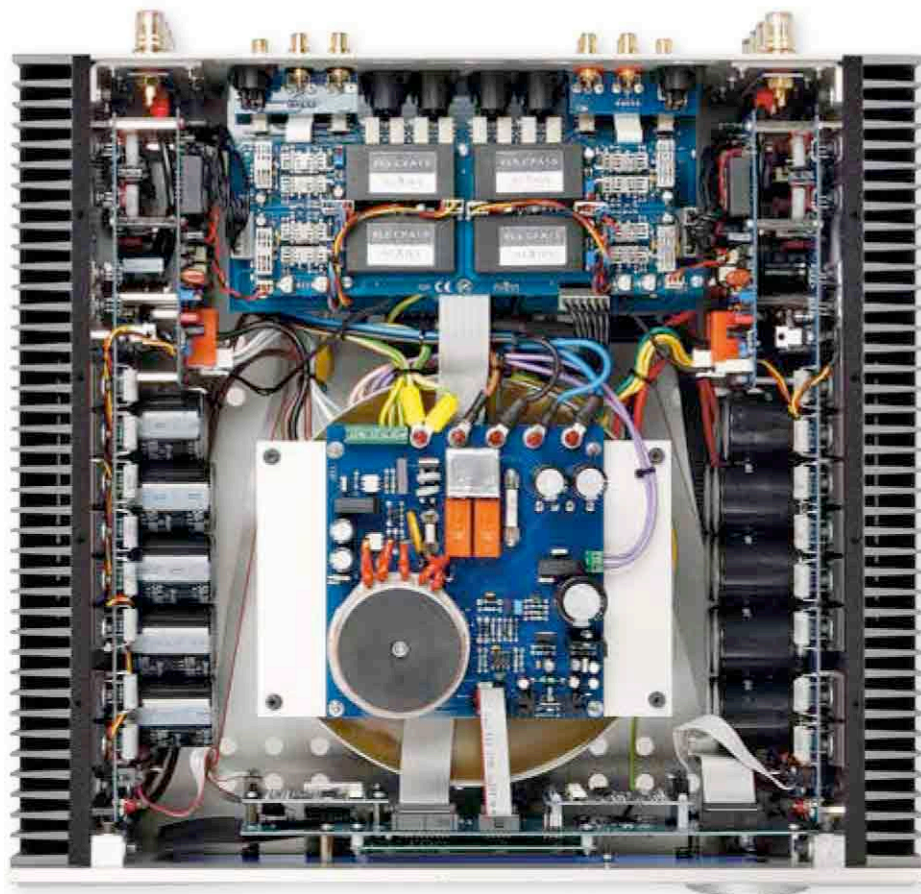
prefer to keep it away from windows as well. But, once you've rounded up some friends to unpack the amp and reorganise your listening space, you do at least have a choice of silver or black for the bulky alloy case, so that it can make a modest attempt to blend in with your decor.

Based on Audia Flight's existing Class A FLS4 power amp (£6250) the FLS10 integrated provides a number of additional connectivity options. Alongside the 4mm speaker outputs, the rear panel also houses two unbalanced RCA and one balanced XLR preamp output, along with a headphone socket located on the fascia. There are no fewer than five input options, including three unbalanced RCAs and two balanced XLRs, but it's clear that the emphasis of the FLS10 is entirely analogue.

That said, it's worth noting that the back panel of the FLS10 also houses two slots used to install optional expansion boards that provide additional features. These boards weren't available in the UK as we prepared this review, but Elite Audio indicates it expects to supply an MM/MC phono board, priced at around £530, together with an RCA board that provides two additional inputs at £270. And, by way of future-proofing, there's the promise of a DAC board to provide multiple digital inputs, including USB and S/PDIF (coax and optical) connectivity, for a hefty £1400.

RESPONSIVE REMOTE

Once the FLS10 is set up, it's fairly straightforward to operate, although the design of its control panel is an odd





mixture of old and new. The chunky blue lettering and digits on the glowing blue display have a distinctly 1980s look to them, yet the display itself uses modern OLED technology, which suggests the 'old-school' look is very much a stylistic choice. In any event, the chunky lettering is large and clear enough to view from a distance when using the handheld remote control, and the brightness facility proved especially useful.

'It might be big and bulky, but its sound is light and elegant'

Pressing the 'Set' button provides access to a number of additional menu options on the display, including custom naming and preset gain adjustment for each input. The latter option may prove a useful time-saver, since the FLS10's fascia controls are a little fiddly – the input/function buttons, arranged in a long row, are extremely small and require a delicate fingertip action.

And while the large volume dial provides precise control in notional 0.5dB steps on a 100dB scale, it doesn't accelerate as you

continue to rotate the dial, so big changes in volume will leave you monotonously spinning the dial. Even the Mute button turns out to be a little eccentric, fading the volume down over a few seconds and

fading up again at the same speed when you resume listening.

Thankfully, the remote comes to the rescue here, with a more responsive volume control, as well as additional options, such as left/right balance

setting, that aren't accessible from the front panel of the FLS10 itself.

FLOATING HARMONIES

For listening, conducted in editor PM's media room, we employed a combination of Melco N1Z music library [HFN Jun '16] and Oppo Sonica DAC [HFN Oct '17] to deliver our test tracks via the FLS10's balanced XLR inputs. In truth, the FLS10 didn't get off to the most promising of starts, as the mighty power supply

ABOVE: Massive alloy case and that distinctive sweeping fascia are Audia Flight hallmarks. Build quality is excellent but the inset volume encoder and 'ball bearing' buttons are a little fiddly

housed inside this bulky amplifier seemed responsible for a low-level buzz emanating from the right channel of our B&W 800 D3 loudspeakers [HFN Oct '16; also see PM's Lab Report, p63]. Thankfully, this never proved loud enough to disturb the music, but it did occasionally rear its head during a lengthy pause between tracks. Loudspeaker sensitivity will prove a factor here, assuming this is a feature of all Audia Flight FLS10s.

Thankfully, though, any concerns were overcome once we became immersed in the integrated's pool of sound. It might be big and bulky, but the sound that it produces is impressively light and elegant. Some random button-stabbing during the initial set-up process brought us to 'The Humming' by Enya [*Dark Sky Island*; Warner Music 0825646982691].

Inspired by the idea that radiation from the beginning of the universe is still detectable as a kind of cosmic background hum, the track epitomises Enya's penchant for widescreen, atmospheric production, and the FLS10 allowed the sound to expand outwards, effortlessly filling the room with a delicate, yet imposing sound. The hummed harmonies floated in typical Enya style, while being underpinned by a simple sequence of keyboard chords and slow, insistent drums that brought real body to the sound.

A news report about the new Freddie Mercury bio-pic prompted me towards some later-period Queen, and the title track from the *Innuendo* album [EMI CDP 7958872]. This is a lumbering colossus of a song, with Queen in their pomp-rock ☞

CURRENT THINKING

In practice loudspeakers typically expect a voltage input (where this voltage is proportional to the music signal's amplitude), so an amplifier will be designed to boost a low voltage input to a higher voltage output. This voltage gain is a high +46dB in the case of Audia Flight's FLS10 (in its 0dB input mode setting), however it does not employ voltage amplification from end-to-end. Instead current amplification (feedback) is also used after the input voltage is first converted to an equivalent current using a transconductance stage. Subsequently, the output current is converted back into a voltage using a transimpedance stage. This added complexity, increased further by its use of multiple parallel output devices, is clearly a price worth paying in Audia Flight's quest to achieve a very low distortion, wide bandwidth amplifier offering significant reserves of power from a very low source impedance (high damping factor). This topology has been refined since the company's first such amplifier, the Flight 100 power amplifier, was launched in 1997. PM

AUDIA FLIGHT FLS10

Based on its FLS4 power amplifier, the FLS10's fully balanced (bridged) output stage is floating and should never be connected to a grounded 'black' speaker terminal (Quad and some older Tannoy models spring to mind). The amplifier is not wholly 'Class A' but it is fairly power hungry, drawing 170W from the wall at idle, and, if left 'cooking' for a few hours the top plate reaches about 38°C and the black heatsinks 45°C. It is, however, a very lusty performer, mocking its 200W/8ohm rating by delivering 2x245W and 2x440W into 8/4ohm respectively with sufficient capacity in that huge PSU to offer 265W, 500W, 885W and 1385W (37.2A) into 8, 4, 2 and 1ohm under dynamic conditions [see Graph 1, below]. Distortion is low too, although lower at moderate 10-100W outputs (<0.001%) than at 1W/8ohm (0.0045%), and lower too at the lowest bass frequencies from 0.009%/20kHz to 0.003%/1kHz and 0.0004% at 20Hz (all at 10W/8ohm). The right channel also had some marginal advantage in our sample [see Graph 2, below].

Other advantages of Audia Flight's circuit topology [see boxout, p61] are realised in the usefully low 0.007ohm output impedance (20Hz-10kHz) and very extended response that stretches from 1Hz-100kHz with a mere -0.5dB roll-off. DC offsets are very low while the digitally-governed volume control offers a fine 0.03dB channel balance and the dual-mono construction leads to a >75dB channel separation up to 20kHz. However switching (rectification) pulses from that huge PSU - in close proximity to the audio stages - probably contribute to the moderate -60dBV hum and below-average 73dB A-wtd S/N ratio (re. 0dBW). Otherwise the FLS10 is a doozy! PM



ABOVE: Five line-level inputs are offered, two on balanced XLRs and three on single-ended RCAs. Balanced and single-ended preamp outs are included alongside (fully floating) 4mm speaker outlets. Note access plates for optional DAC and phono boards

prime, yet it's not as densely orchestrated as the band's mid-'70s *Bohemian Rhapsody* period, and the FLS10 is accurate enough to reveal the more streamlined recording of this track.

Ordinarily, I'd refer to 'Innuendo' as the classic 'wall of sound', but that would be to undersell the precision of the FLS10. In fact, it's more like a canvas, upon which the FLS10 precisely applies each musical stroke. The flamenco solo halfway through the song - played on acoustic guitar with a guest appearance by Steve Howe of Yes - has the clipped precision of this traditional form of dance.

But when Brian May steps in and turns the flamenco phrase into a multi-layered heavy-rock riff, the sound remained clear and distinct, lining up each guitar like the synchronised clapping of the dancer's hands, and all the while following the tight, foot-stamping rhythm of Roger Taylor's drums.

When less precision and control is required, the FLS10 simply steps back and gives the music room to breathe. On the album, 'Bijou' is one of May's more restrained solo pieces, and the notes hang delicately in the air, taking me back to Enya territory and filling the room with the gentle warmth of a summer evening.

The FLS10 proved equally adept with classical music. Pinchas Zukerman's performance with the RPO strings of Vaughan Williams' *Tallis Fantasia* [Decca Classics 478 9386] was revealed with great delicacy in the opening section, the gentle sound of the violins drawing me in before jolting the piece to life as the deeper strings interjected. There's a great richness of tone here too, and it prevented the piece

from simply becoming an exercise in classical tastefulness. The swirling violins might have the sugary-sweet sound of a Hollywood soundtrack, but that was undercut here with a rich, resonant growl from the lower strings that sounded like a lumberjack taking a saw to a lump of wood.

HEART-RENDING DRAMA

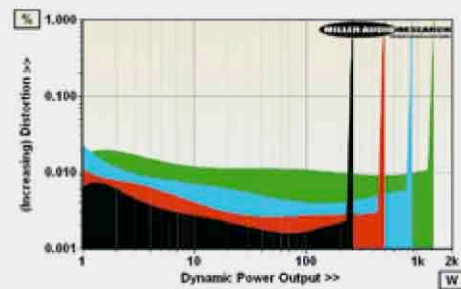
That richness of tone worked wonderfully well with gentler vocal sounds, too. The softly chanted chorus of 'This Woman's Work' by Kate Bush [*The Sensual World*; EMI CDP 7930 7 82] was terrifically clear and detailed, but always sounding warm and natural, capturing all the world-weary resignation of the song's lyrics. Just 30secs into the track and her whispered plea 'pray god you can cope', sets the scene and lets you know this one isn't going to be an easy ride. And as the solo voice breaks in over the chorus, 'make it go away...' the sheer drama and emotion revealed in Bush's voice was genuinely heart-rending.

It's a good job I was listening to the 1989 original, as the 2011 re-recording is twice as long and Kate Bush's voice is older, wiser and even more haunting... ☺

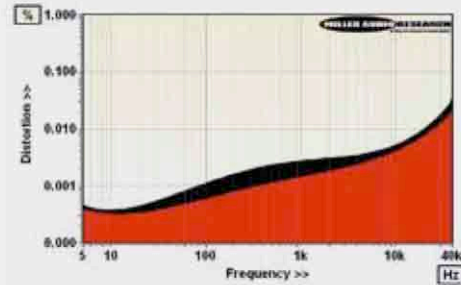
HI-FI NEWS VERDICT

The hulking design of Audia Flight's FLS10 might not bring Italian style to mind at first glance, but its musical lightness of touch allows it to unearth both detail and depth, backed up by impressive power when it's needed. Let's hope the hint of 'rattle and hum' was a one-off in our sample of this amplifier because its sound and potential to accept modular upgrades are significant redeeming factors.

Sound Quality: 83%



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 24.1A



ABOVE: Distortion versus extended frequency at 10W/8ohm, 5Hz-40kHz (left, black; right, red)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	245W / 440W
Dynamic power (<1% THD, 8/4/2/1ohm)	265W / 500W / 885W / 1385W
Output impedance (20Hz-20kHz)	0.007-0.023ohm
Freq. resp. (20Hz-20kHz/100kHz)	+0.0dB to -0.035dB/-0.5dB
Input sensitivity (for 0dBW/200W)	14mV / 200mV (balanced)
A-wtd S/N ratio (re. 0dBW/200W)	73.3dB / 96.3dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.0003-0.009%
Power consumption (Idle/Rated o/p)	172W / 699W (2W standby)
Dimensions (WHD) / Weight	450x177x440mm / 36kg