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Kubrick DCX

Soulines/Timestep vinyl duo

# LOUDSPEAKER

Three-way, interport-coupled cavity floorstanding loudspeaker Made by: ELAC Electroacustic GmbH, Kiel, Germany Supplied by: Hi-Fi Network, Gloucestershire, UK Telephone: 01285 643088 Web: www.elac.com; www.hifi-network.com Price: £5200



# ELAC Adante AF-61

With a coincident driver array and interport-coupled cavity bass, meet the company's most radical floorstander in years Review: David Price Lab: Keith Howard

power pop'

ut with the old and in with the new. ELAC is a German loudspeaker company of quite some repute and a great many years' standing. Yet major changes have been afoot at the company, with its new VP of Engineering, Andrew Jones, indelibly stamping himself on the brand's products. A former KEF man – there in what were arguably the company's harvest years with Laurie Fincham, in the late 1980s – he went on to put Pioneer's luxury brand TAD on the map with some great sounding high-end loudspeakers [HFN Jan '15].

### **DESIGN ECHOES**

Since February 2015 he has been based at ELAC America's headquarters in Cypress, California, designing models that have a far wider appeal than the company's slightly parochial Kiel-born products of yore. If the last ELAC speaker you heard was five years or so ago, you will be surprised at the new direction it has taken.

The £5200 Adante AF-61 could have been bespoke tailored for the leafy suburbs

of Middletown, USA. It's a big and imposing floorstander able to move vast amounts of air in medium to large listening rooms. Yet it would be wrong to characterise the new ELAC as a 'big banger' that's as crude as

it is capacious, for it's actually a highly complex, sophisticated design, where most of the clever thinking is hidden within.

Indeed there are fascinating echoes of Andrew Jones's time at KEF in the use of a concentric mid/tweeter, which has shades of KEF's Uni-Q [see KH's boxout, p41]. Also, the sophisticated internal cabinet design, with its interport-coupled bass, harks back to his time spent in Kent. There are shadows of KEF's Four-Two models here, which also had no visible bass drivers - as with the Adante AF-61 they were tucked away inside the cabinet.

The driver lineup takes some getting used to. Mounted at the top of the front

baffle is a 5.25in black anodised aluminium midrange cone – chosen, ELAC savs, because it is fast, stiff and low in distortion - with a centre-mounted 25mm soft-dome tweeter. This coincident cone/dome driver array is mechanically isolated from the other drive units in the speaker, and indeed the cabinet itself.

The array is also shared with the impressive £2600 Adante AS-61 standmount [HFN Feb '18]. ELAC says that the tweeter's larger than usual surround means it can cross over to the midband unit a little lower than is typical for a three-way design, at 2kHz. Below 200Hz, three specially designed 6.5in aluminium cones take over to handle low frequencies. These have powerful magnets, high quality voice coils and cast baskets, but they are not the things you see on the front baffle because they're actually mounted inside the interport-coupled cavity cabinet.

From here, they aspirate three front baffle-mounted 200mm passive radiators, also sporting aluminium cones, via an internal reflex port. The idea is that passive

radiators minimise the port noise that results 'It's absolutely from large amounts of air in its element being moved around by the internal bass drivers, with Sir Elton's and also help stop standing wave resonances escape. It's an intricate and complex arrangement,

something that Jones called with typical British understatement, 'a very involved system to design'.

### **FUSS-FREE FLOORSTANDER**

Standing a lofty 1330mm tall, the Adante AF-61's cabinet is as solid as you'd expect of something weighing 46kg, with a swish black anodised aluminium baffle, into which the treble/mid array and passive bass

**RIGHT:** The AF-61's anodised alloy baffle hosts a 5.25in aluminium cone with concentric 1in silkdome tweeter. The three visible bass units are passive 8in alloy-coned ABRs, driven from behind by three active 6.5in alloy-coned bass drivers





# TWO IN ONE

ELAC's previous coaxial drivers - the X-JET and X-JET II - comprised a planar or almost-planar annular midrange diaphragm surrounding one of ELAC's pleated-diaphragm Air Motion Transformer JET tweeters. The first ELAC cone/dome coincident driver appeared in the 2016 Uni-Fi series, and the 5.25in Adante variant is similar in that it too combines an aluminium alloy cone with a soft-dome tweeter, located where the former's dust cap would otherwise be. Here, though, the midrange voice coil diameter is increased to 2in. The cone is flared and combines with the fixed ring around the tweeter, the shape of the cone surround and the continuation of the wavequide into the bonded aluminium front baffle, to achieve a smooth expansion which delivers wellcontrolled responses both on- and off-axis. The first cone breakup mode occurs at about 6.5kHz. 1.7 octaves above the 2kHz crossover to the tweeter. This lower-than-typical crossover point is partly achieved by fitting the tweeter dome - formed of fabric with a coating to optimise its vibrational behaviour – with a large surround. A soft dome was chosen as more appropriate in this application than a metal dome alternative. KH

radiators are set. It comes in a choice of gloss white, gloss black or furniture-grade satin walnut veneer. A dual set of rear binding posts is fitted, to accommodate bi-wiring/bi-amping, while the tall cabinet sits on a steel base plate that has four adjustable spikes.

Despite its size and design complexity, ELAC's flagship Adante floorstander proved relatively easy to set up in editor PM's listening room. The absence of an external bass port appeared to make it less fussy about placement, although it still needed to be about 80cm out from the boundary wall, and toed in slightly. It's easy to tell when you've got things right though, for the sound snaps into focus and the bass suddenly makes sense. The company claims a 87dB sensitivity for the AF-61 [see KH's Lab Report, p43] but it was clear on audition that it likes a good, powerful solid-state amplifier - the Nagra HD Amp monoblocks [p34] and Constellation Taurus [HFN Dec '17] were spectacularly overkill, downwind of a dCS Vivaldi One player [HFN Feb '18].

# **QUICK ON ITS FEET**

If you've owned ELAC speakers before, then the general cleanliness and airiness of the Adante AF-61 may surprise you. It has a distinctly open and extended sound that owes little to the past – it is fast, explicit and involving, with an evenness that's highly impressive. Furthermore, the way it fills the



room with a wide-open and very assured

sound is guite something. Indeed, there are faint echoes of a big KEF Reference series of yore, albeit with more agile and modern drive units that are less inclined to sit on transient details.

Sir Elton John's 'Saturday Night's Alright For Fighting' [Goodbye Yellow Brick Road; MFSL UDCD 526] is a case in point. This is a great slice of early '70s rock that buzzes with energy, powered by his piano wizardry, and high voltage electric guitar, then given added impetus by his cranked up staccato vocals. The Adante AF-61 is absolutely in its element with this sort of power pop, delivering a wide soundstage inside which every strand of the recording is captured with impressive clarity.

### SPOOKY SOUNDSTAGE

Images were locked in space and backing instruments easily heard through the dense and compressed mix. His vocal work was forward of the instrumental melee, hanging above the proceedings imperiously and sounding very clean – albeit just a touch dry in tone. But I could hear Sir Elton's every last vocal inflection, making the recording sound eerily open and direct. As the cranked up fuzzbox-drenched electric guitars kicked in, it was obvious that they were forward of the rest of mix, when so often they're just buried back in the middle distance. For a floorstanding speaker of its modest - in high-end terms - price, its soundstaging was seriously impressive.

The Pet Shop Boys' 'Being Boring' [Behaviour; Parlophone CDPCSD 113] hailed from 15 or so years later and is –  $\ominus$ 



aside from vocals – totally electronic. In this case the speaker's great spaciousness and panorama were still there, ensuring the Adante AF-61's deftness of touch with rhythms really shone through.

This is a multi-layered piece, with harmonies set behind multiple layers of synthesisers and a drum machine punching out a beat that's very much in the style of then-fashionable indie-dance. Here the AF-61 deftly captured the interplay between the bass drum, snare and cymbals, making for a most propulsive listen and investing the music with a real sense of direction and purpose.

Tonally, this big ELAC is impressive too, though I wouldn't say it's the

LEFT: Dual 5-way cable terminals support bi-wiring/bi-amping. Spiked outrigger plate improves the 1.33m tower's stability. Cabinet finishes include gloss black, gloss white and rosewood

speaker's strongest suit. I cued-up some sunny latin-jazz, ready to bask in the louche strains of 'The Girl From Ipanema' [Getz/Gilberto; MFSL 1-208] and lots of fun ensued, with much foot-tapping going on although I felt the Adante AF-61 couldn't quite capture the warmth of the track. It would be unkind to call this loudspeaker clinical, but it is certainly on the 'cool' side of neutral. So the midband and treble are very clean - admirably so - even if they don't always guite nail all of the richness of colour that's present on a recording.

### SEAMLESS TRANSITIONS

This doesn't detract from the AF-61's superb wideband delivery – the double-bass was strong and animated, lacking no physical heft, just as ride cymbals and other assorted percussion were carried in a delicate and extended way. Best of all was the seamlessness of the sound. For a loudspeaker with so many drive units and passive radiators fitted, it was a triumph. So, the song's famous sax solo was beautifully carried, with a super smooth transition between treble and midband drivers.

Indeed, the great strength of the Adante AF-61 is its overall cohesion, for it remains pretty much unflustered by the type of music that you play, or the volume-setting that you choose to play it. (b)

### **HI-FI NEWS VERDICT**

This isn't just a mid-life range refresh. ELAC's new Adante AF-61 is a highly sophisticated design, with ingenious engineering in evidence. The result is an extraordinarily capable floorstander for the money – with power, poise, detail, space and rhythm. It is 'affordable esoterica' – had it come more lavishly finished in a fancier cabinet, some would happily pay three times the price for this sort of sound.

Sound Quality: 88%

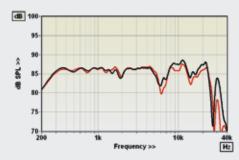
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# LAB REPORT

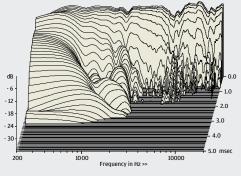
# **ELAC ADANTE AF-61**

Modern floorstanders as large as the AF-61 typically record sensitivities of 89dB or 90dB so it's a surprise to find that ELAC specifies 87dB, and that our measured pink noise figure is just under 86dB. Classically, you'd expect this to be accounted for by the AF-61 having greater bass extension than competitors and/or higher impedance - and that's the case. Although our diffractioncorrected nearfield measurement recorded a bass roll-off of 46Hz (-6dB re. 200Hz) - not a stellar bass extension for a large speaker - it does beat the 55Hz or so we commonly measure from high-sensitivity floorstanders. And the AF-61 is also rather more amplifier-friendly. Our measured impedance minimum of 4.7ohm is relatively high these days and sits well with the 6ohm nominal specification. However, its impedance phase angles are high enough to drop the EDPR (equivalent peak dissipation resistance) to a low of 2.0ohm at 74Hz, which is less than you'd expect of that minimum modulus but usefully 0.30hm higher than we typically record.

Forward frequency responses, measured at 1 m on the axis of the coaxial driver [Graph 1, below] reveal a generally flat trend but there are wiggles above 4kHz associated with the coaxial driver which increase the response errors to ±3.4dB and ±3.9dB respectively (300Hz-20kHz). Pair matching is disappointing at ±2.0dB, the largest disparities again occurring in the treble. You can ignore the roll-off below 300Hz for, in fact, the response is well maintained down to 65Hz, below which it falls away with a fourth-order slope. The CSD waterfall [Graph 2] suggests the mild 2kHz response dip is associated with a resonance, with only a cluster of low-level modes visible above that. KH



ABOVE: The AF-61's forward response is generally flat in trend save for a mild presence 'notch' and treble lift



ABOVE: Cabinet is well damped but a series of mild driver resonances are visible at 2kHz and 5kHz-8kHz

## **HI-FI NEWS SPECIFICATIONS**

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	85.8dB/85.9dB/85.9dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	4.7ohm @ 95Hz 15.4ohm @ 1.9kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-56° @ 64Hz 43° @ 20kHz
Pair matching/Resp. error (300Hz–20kHz)	±2.0dB/ ±3.4dB/±3.9dB
LF/HF extension (-6dB ref 200Hz/10kHz)	46Hz / 24.5kHz/25.6kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.2% / 0.2% / 0.8%
Dimensions (HWD) / Weight (each)	1329x244x398mm / 46kg