

EQUIPMENT REVIEW

NEAT XL6 LOUDSPEAKERS

By Malcolm Steward

For the past few weeks I have been living with the NEAT XL6, a particularly handsome looking floor-standing loudspeaker from the company's prestigious Ultimatum range. It has impressed me greatly and has more than lived up to the claim in the press release that accompanied it, which told me that it had been designed to offer "absolute technical, mechanical and musical integrity."

Those last two words in the sentence above have a special relevance here and explain why I have been a devoted fan of NEAT Acoustics' designs for a couple of decades: NEAT speakers have a rare and consistent musical empathy and 'rightness' about their presentation that can be absolutely spell-binding. This goes beyond what one magazine said in its highly positive review of the NEAT Petite SX, my favourite, compact, two-way, stand-mount and the direct descendant of the first NEAT loudspeaker, the pitch black Petite of 1989. The magazine opined that the SX "continued the trend of putting timing and dynamics ahead of all else." That, to me, suggests an imbalance in the performance, which is certainly not the case: NEATs blend all the vital attributes necessary to present music in the most plausible and engaging manner one can imagine.

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For many years I have lived with active speakers and there are precious few passive loudspeakers that I can tolerate for any length of time: NEATs are one exception to that rule, especially when they are bi- or multi-amplified with grippy and musically sympathetic power amplifiers; in my case, Naim NAP250s. That does not imply that the XL6 is a difficult-to-drive or particularly demanding loudspeaker: it performed quite contentedly driven by a single-wired SUPERNAT/HI-Cap or Creek 5350 integrated.

Everything about the construction of the XL6 positively shouts "class" and "quality" at you, right down the wooden packing crates in which these heavyweights (45 Kilos each) are delivered. By the time I had unpacked them, fitted their spiked support plinths, and put the empty cases in the garage I was ready for a shower and a beer – or, better still, a shower in beer! They are not especially large enclosures but they are heavy and not the easiest to manhandle: do not try taking them out of their crates or bolting on their plinths in a confined space: make sure you have plenty of room and preferably get someone to assist you.

The cabinet of the metre-high XL6 is not the usual MDF box that the majority of contemporary floor-standers employ: the main structure uses damped, 18mm, slow-growing, Birch plywood while the drive unit baffles are a substantial (45mm thick) sandwich of Birch ply, Polyethylene and fibreboard, which – being rigid and

non-resonant – the designer considers ideal for extracting the optimum performance from the drivers, of which four are visible while the two, isobarically-loaded, 168mm, floor-facing bass units are mounted within two discrete chambers occupying the lower portions of the main enclosure. The uppermost of these chambers is vented at the rear to fine tune the driver response.

Above these are the forward-facing visible units: the 168mm bass/midrange driver with its Aluminium phase plug, and the 26mm, modified, SEAS Excel, Sonomex, domed, high frequency unit. Each of these vents into its own, discreet, internal chamber, the mid-range section being rear-ported for optimal tuning. Completing the driver line-up is a pair of upward-facing, 25mm, EMIT planar/ribbon, super high frequency units both of which share a further, isolating internal chamber.

All six units integrate through a minimalist four major-element type crossover network (that is four elements along with damping and attenuating resistors). This network includes precise tolerance, low-loss, air-cored inductors and newly-developed Polypropylene film and foil capacitors. The design uses predominantly first-order slopes and mechanical roll-offs designed to deliver what NEAT describes as a "natural and uninhibited" performance.

Finally, these substantial cabinets are supported by steel 'outriggers' that usefully extend the footprint of the enclosure, and add some weight, to provide the speakers with a secure, stable footing and, in order to assist with convenient set-up, easy access to the spikes for accurate adjustment.

To achieve that "natural and uninhibited" sound the XL6 needs a thorough run-in, partly I would imagine, to free off the suspensions in all those drive units. NEAT suggests 200 hours or more, and expresses the opinion that the performance will continue to improve thereafter, so I left the review pair

running continuously for 10 days or so at a moderate volume setting with the uninterrupted feed from an internet radio station.

In order to sound truly “natural and uninhibited”, I consider that a speaker needs to be able to produce significant low frequency output, not in order simply to reproduce notes from a bass guitar or piano but so that it can convey the near inaudible presence of a mass of air moving, even slightly. For example, if you were to walk into a church blindfolded you could instantly visualize how large the interior was because of the presence of that mass of air and the effect it had on any sounds. The voice of a soprano, for instance, would appear totally different in that space compared to the character it would present singing in your living room. Without waffling like an AV subwoofer, which is as far as a speaker can get from “natural and uninhibited”, the XL6 with its isobaric bass driver arrangement delivers those low frequencies and sense of ‘air’ convincingly.

While on the subject of ‘air’, another immediately striking function of the XL6 is its ability to cast a wide, deep, tall and open soundstage that refuses to be constrained by the enclosures. The speaker exhibited a keen spatial awareness, and placed instruments and voices precisely in their locations. Similarly, it was wonderfully adept at recreating the timbre and texture of instruments. It demonstrated both facilities acutely with the twenty-one percussion instruments featured in the Maurice Abravanel and Utah Symphony Orchestra recording of *Varèse Amériques*. This challenging composition subjugates melody and harmony and instead uses dramatic rhythms as contrasting elements rather than shifts of pitch. It takes an

exceptional loudspeaker to convey the power, dynamic contrasts and genuine musicality and merit of this magnificent work: the XL6 conveyed its majesty with remarkable ease and appeared to relish the diverse palette of tonal colour made available to it. I have heard very few other loudspeakers do justice to this music let alone render it with such inspiring authority. ▶



► Instrumental bass demonstrated power but resisted the temptation to hang around too long trying to make its presence felt. As with the rest of the frequency spectrum, the XL6 bass demonstrated commendable agility: it arrived, delivered its message, then receded quickly into inaudibility: there was no boom or overhang, and absolutely no sloppiness. The bass guitar and drums on Albert Lee & Hogan's Heroes' album *Like This* emphasized just how tight and controlled this speaker was at the low end.

Further up the spectrum, there never appeared to be any shortfall in the amount of detail the XL6 could convey: for example, it delivered a wholly accurate account of the effects on Albert Lee's Music Man guitar on "Runaway Train", conveying the character and tonality of the instrument with great fluency. This speaker has truly refreshing transparency and honesty that brings recordings such as this to life in a charmingly natural and artifice-free manner.

The latter quality is enhanced because the XL6 demonstrates remarkable speed: the way notes started and stopped was extraordinarily well defined and there was none of the time-smear one normally associates with a passive loudspeaker. This temporal clarity was not solely a function of the über-grippy Naim NAP250s: it was as equally noticeable when the speakers were being powered by a SUPERNAT/Hi-Cap or Creek 5350 integrated through the scrupulous and revealing TelleriumQ Ultra Black speaker cables.

Vocal precision was astounding: Albert Lee sounded exactly as he had in concert. The harmonies on "Cryin' in the Rain" (on the *Like This* album) were brilliantly portrayed with the accompanying drummer's voice and phrasing as painstakingly etched as Lee's.

The XL6 exerted strict control without ever beginning to sound sterile or cold: even the cavernous, dub bass on Gov't Mule's "I'm a Ram" from the album *Mighty High* was as tight as a nut, and was complemented for impact by Matt Abts' wonderfully recorded drum kit. The sheer attack of his snare and crash cymbals was parting the hair of people walking by in the street. This was not a result of any 'loudness war' style mix, but just what happens when an engineer mikes up a kit perfectly for recording and the producer does not cringe and turn down the gain when the drummer lets rip and exploits the true dynamic range of his instrument.

However, while these elements are all admirable, the biggest strength of the NEAT XL6 was the way it stitched them together to create a cogent, meaningful, emotionally persuasive, musical performance that was never less than compelling. If the music itself did not impress you, the demonstration of how it was assembled, played, arranged, mixed and presented would. Having said that, I struggled to find music and recordings that I could not appreciate and find satisfying through the XL6. It is such a musically well balanced design that it draws listeners into performances and allows them to hear facets they might previously have missed: nothing so extreme as instruments that "weren't there before" but subtleties and nuances that affect the way a performance communicates. For instance it revealed that John Cale's *Fragments of a Rainy Season* was not just an "Art Rock" album so much as a collection of thoughtful, intelligent tunes with acoustic guitar or piano accompaniments that sometimes finished with an "experimental" flourish. The major appeal, though, were the lyrics and Cale's inimitable, impassioned delivery along with his sensitive accompaniments. The XL6 is one of those rare loudspeakers that seems able to 'read between the lines' and extract the maximum emotional impact from a song or performance. It transcends merely playing the tune

correctly and rewards the listener with much more; a far deeper, more profound insight into the music.

The technical prowess of the XL6 certainly delivers musical performances that are utterly captivating and enchanting: I frequently started out intending to audition a couple of tracks and wound up discarding my laptop and listening to the entire album instead. Reviewing hi-fi with these communicative abilities can be a very drawn-out process, not that I feel at all inclined to complain. As audiophiles, we buy hi-fi, I hope, to enjoy music and to be moved and inspired by composers and lyricists. So little hi-fi, regardless of who makes it or what it costs, truly achieves that aim. NEAT loudspeakers get far closer to that goal than the majority of their competitors. The NEAT XL6, in particular, when driven by an empathetic source and amplifier(s), moves the listener closer to the performance than virtually any other loudspeaker I have experienced to date. +

TECHNICAL SPECIFICATIONS

Enclosure: 2.5-way, isobaric/reflex

Driver array: 168mm bass-midrange

168mm sub-bass [x 2]

25mm high frequency

Emit Ribbon super high frequency [x 2]

Sensitivity: 87/dB/1 Watt

Impedance: 6 Ohms

Recommended amplifier: 25-200 Watts

Dimensions (HxWxD) in cm: 100 x 22 x 37

Weight in Kilos: 45

Prices: £7,895/pr (standard finish)

£9,115/pr (premium finish)

Manufacturer: NEAT Acoustics

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