

# the ear

HI-FI MUSIC GEAR

hardware review



## NEAT Iota Alpha

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This review has taken longer than expected because it's been so hard to tear myself away from these most enjoyable, highly involving loudspeakers to put pen to paper. There probably isn't a higher recommendation than that to bestow on this unconventional design from Bob Surgeoner but, as to how this conclusion was reached, read on.

Neat (an acronym for North East Audio Traders, from the days when the owner was in retail) has had a knack of producing unusual designs. The latest creation is itself a variant on the well-received Iota launched some four years ago now and unlike anything else the market had to offer. A compact two-way, it was to be placed horizontally in the listening environment, rather than in the conventional upright fashion; although many professional studio installations use speakers in this manner it is a rarer application in the home.

What is so remarkable about the Iota is that its sound belies its size as it produces a soundstage way above its dimensions; also unusual was the deployment of an EMIT planar/magnetic tweeter. This technology has become more popular of late and is successfully being used in some headphone designs. It relies on the entire diaphragm being energised and, as the signal is passed, moving relative to the magnetic field.

The little Iota proved a hit for Neat which produces it in a range of vivid colours, but it was still principally a stand-mount although it could be employed as a desktop loudspeaker. Never one to sit still, Neat's owner and designer began to experiment and it wasn't long before the Iota had a new variant. Appearing at a UK dealer show in Bristol, Neat's nameless prototype was essentially the Iota with an extra bass driver and some long floor spikes. It soon became the talking point of the event: a loudspeaker where the ribbon tweeter and midrange driver were nowhere near the listening axis. How, just how, could it sound so good? Perhaps the only thing it lacked was bottom end, but a subwoofer would solve that.

Boosted by the initial response from both the buying public and hi-fi press, Bob Surgeoner went away to refine his mini floor-stander and to come up with a suitable name. By the time of the massive Munich High End fair, in May, Neat was firing on all cylinders. Displayed on a large, open stand in one of the huge downstairs halls was a range of the Iota Alpha in colours and wood veneers to cater for all tastes. Circumstances were such that I ended up caretaking the Neat stand for a few hours, purely as a favour. This gave me the chance for some intense listening to a wide repertoire of material, albeit in the corner of a convention centre rather than my well-damped listening room. Immediately I fell in love with the design, its looks and its capabilities. I booked a review sample there and then.

The screw-in metal spikes are obligatory as they raise the cabinet sufficiently to

allow the downward-firing 134mm pulped paper bass unit to function. It is supplemented by the aforementioned 50mm hybrid tweeter, sourced in Germany, and a 100mm mid/bass driver from Tymphany, late of Denmark and now with production in Hong Kong. The crossover is well made and uses point-to-point wiring leading to a single pair of rear connection terminals.

Essentially an Iota with a vented bass chamber below, to the rear of the superbly made and exquisitely finished Iota Alpha cabinet (British-made in south Yorkshire) is a bass port as part of this two-and-a-half-way design, the top section being an infinite baffle. But where it differs from the stand-mount Iota is that the top, front baffle is slanted so that the drive units fire their sound upwards. This allows the overall height to be just 450mm (less than 18inches); incredibly small for a floor-standing loudspeaker.



It wasn't until I unboxed the review samples that the ideal installation for these maverick loudspeakers became clear: these are the perfect models to put either side of a TV. Whereas conventional floor-standers tend to drag the eye to the acres of ungainly exposed baffle, and stand-mounts become a visual distraction in one's periphery, the baby Neats are ideal, being off the central eye-line and yet delivering a convincing stereo image to the seated listener. The Neats arrived at around the same time as a new 42inch Sony Bravia TV I had been expecting and a lengthy sample of QED's Reference Optical Quartz digital interconnect. The coupling could not have been better. My first arrangement was with the Sony TV fed from a Freesat decoder and its digital output connected to a Denon AV receiver (AVR-X2100W). It was going to be interesting to see how the 86dB, 4 Ohm Neats fared with 95 Watts (into 8 Ohms) from the integrated (operating in stereo, not its 7.2 channel capabilities).

### Sound quality

The review took place during the 2016 Proms season and every opportunity was taken to listen live to both BBC Radio 3 and the BBC television broadcasts direct from the London venues, principally Cadogan Hall and the Albert Hall. Even with a modest mass-produced amp, the Neat Iota Alphas were clearly well-designed and highly competent loudspeakers. Everything I had remembered from that Munich exhibition hall, and more. Much more. It's no surprise that the designer listens to a myriad of live music; in fact on international visits to hi-fi shows, you'll find him at a different music venue each evening, lapping up the sound while most other manufacturers are blowing their expense accounts lapping up the booze and, would you believe, trying to escape music and hi-fi.

The highlight with these little speakers was probably the seductive playing of the Berlin Philharmonic under Sir Simon Rattle who gave us Brahms' Second Symphony in D Major in all its splendour. Such tender intimacy from these fine performers who produced a slow movement which was achingly beautiful; the ambience of the venue was conveyed with consummate ease by the little Neats and, at no time, did I even think I was auditioning small loudspeakers. The soundstage was grand and imaging rock solid. Full marks to Neat for enabling the venue's

acoustics to be conveyed to the home by generating a ball of sound from these little gems. Just as magical and spine-tingling was the Orchestra of the Age of Enlightenment under Mark Elder who brought us Rossini's *Semiramide*. The sheer potency of the recitative and magnificence of the extended first-act finale was proof to me of these speakers' proficiency. They made the most of this pungent and forceful rendition which had Elder extracting the best from the musicians and the Neats extracting the best from the digits the BBC streamed that evening. That hybrid tweeter, which I haven't heard in any other design, is certainly capable of a very sweet and incredibly smooth presentation. It's a joy to listen to.

Blown away by the sonic capabilities of these boxes in a modest configuration I decided it was time to put my Trigon Dwarf II monoblocks to use (100W/ch). My acid test for loudspeaker evaluation is human voice, with many (even many highly expensive models) failing, sometimes dismally, in this regard. But the diminutive Neats had no serious flaws to report. With TV drama, and some favoured recordings such as Gielgud's *Alice in Wonderland* (Nimbus) and the BBC's Lord Peter Wimsey portrayed so perfectly by the lush tones of the late Iain Carmichael, each time I was presented with neutrality and naturalness sufficient to convince that the narrator was there, in front of me. In fact, such was the realism that I found myself trying to answer a telephone that was ringing on the set and convinced that it was my front door bell which rang. One can hardly ask more of a loudspeaker than this sense of authenticity. That so much bass can exude from such a small enclosure is taking physics to its limits, but take it to the limits is what Neat has achieved with the Iota Alpha. And achieved with aplomb.

It was only when turning to some 'processed' material, the likes of Amy Winehouse's 'Back to Black' and 'MacArthur Park' by Donna Summer that there were questions. It's not right to say that things fell apart, but just that I became aware of some minor inadequacies, a tendency for the bass to boom a little and a slight raspiness in the treble. Disappointed that I may have unearthed the Iota Alpha's Achilles' heel, I retired for the night.

Having slept on the problem, it was while munching my muesli that I had a brainwave... maybe the bass issue was due to my heavily carpeted floor? What would happen if I placed a paving stone under each speaker? Immediately the sound was transformed: the problem not cured perhaps, but certainly ameliorated. It would be interesting to hear them on a hard floor.

In their new setting the bass-lines from processed music were crisper, cleaner and impeccably integrated with the mid and treble so that the sound was able to break free from the confines of the cabinets and generate a deep, wide soundstage with convincing height as well but without the audible cabinet colorations which can so mar a poorly designed speaker's performance. That midrange is also worthy of note for the natural way it portrays human voice, eschewed of sibilance, chestiness or nasality which beset so many poorly-designed speakers. Also of note with these little beauties is the way they continue to work well even at low levels, ideal for late-night listening. Yes, there's a slight lack of bite, of punch, but that's to be expected with low volume levels. What is of note is the way the Neats manage to retain the natural quality of the human voice at lower levels – something some more expensive loudspeakers fail woefully to do.

Further evaluation included the likes of 'Working My Way Back to You Babe' courtesy of The Spinners, Lisa Stanfield's 'All Around the World' and REM's 'Shiny Happy People'. In each case the speakers displayed a consummate ease in conveying the rhythm while adding air and dynamics to the presentation with suitable pace and timing.



### Conclusion

Here we have a small loudspeaker, tiny for a floor-standing model, that's clearly intended for small to medium-sized rooms. To expect it to fill a huge void with high SPLs playing head banging rock is just unreasonable. Ideally situated either side of a TV screen, it would serve many homes very well. Very well indeed.

Positioning is always a matter of personal taste and needs to take account of room acoustics, but I achieved 'best' (most natural) results with the tweeters outwards to give maximum sense of space and openness, and the cabinets perpendicular to the rear wall. Closer to that wall and the bass increases but, for the most natural sound, I ended up with the speakers some 14-16 inches (35 – 40cm) away from the wall, to let that bass reflex port work to best effect.



While they sang on the end of a modest A/V receiver, the little Alphas really came to life with much more upmarket power amps, showing just what a thoroughbred of a speaker they are. Often more serious electronics do little but amplify a speaker's imperfections. Not so the tiny Neats.

Such was the success of the little Iota Alpha's that I didn't even feel I had to 'look down' at them – they projected the sound so well as to make them virtually invisible, below my sightline. Yes, for around the same money you can source a pair of significantly larger speakers, but that's totally missing the point of this design. These are the perfect loudspeakers for my sitting room A/V set-up. Full marks to Bob Surgeoner. Now, where's my cheque book?

### Specifications:

Drive units: HF – EMIT planar magnetic, mid/bass – 100mm polypropylene cone, bass – 134mm paper cone

Sensitivity: 86dB/2.83v

Frequency range: 33Hz – 22kHz

Impedance: 4 Ohms

Dimensions: (HxWxD) 450 x 200 x 160mm

Standard finishes: Natural Oak; American Walnut; Black Oak; Satin White

### Neat Acoustics

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