

Blue notes



Don't be fooled by its diminutive dimensions, says **Malcolm Steward**. Neat's Iota standmount proves that big things do come in small packages...

Recently, several well-respected loudspeaker manufacturers have taken to producing models designed for desktop use. And why not? Most of us spend far more time sitting at our desks than we do sitting in front of our hi-fi systems. Why, then, should we be obliged to listen to low-grade audio merely because we are not in the room that houses our hi-fi? And, if truth be told, while nobody can beat the computer industry on savage pricing, it isn't in the same league when it comes to matters of producing high audio quality.

My office conveniently houses a couple of NAS drives and the network connections to my music room and the internet, and so makes an ideal place from which to administer my music network. To do this effectively, I need a fine quality audio system on my desktop. To this end, I have a Naim UnitiQute streamer/amplifier installed next to my desk. This feeds whatever speakers I happen to have on my desktop and also supplies Internet Radio and amplifies the beeps and farts from my desktop computer. I also have my Cambridge Audio iD100 iPhone dock and charger hooked up to the Qute.

One of those well-respected loudspeaker manufacturers to have taken to producing models designed for desktop use is Neat Acoustics. The last model the company launched was the **impressively enormous**, Ultimatum XL10, a £15,000-plus floorstander, while the model under consideration here is the £650 Iota.

This is a decidedly *smaller* loudspeaker, designed specifically for situations in which size – or lack thereof – matters. The design exploits boundary reinforcement and so requires placement close to a wall or, in my situation, on a desktop, which provides some bolstering of low frequencies. Suitability to bookshelf

placement, and a supplied pair of matching single-pillar stands, also meant the Iota could be used in my music room as well as my office.

The speaker is a two-way bass reflex design, housed in a high-quality 2.6 litre internally damped MDF enclosure. The main drive unit is a close relative of that in the Motive range, a 100mm polypropylene cone with a ferrite magnet assembly. Tweeter is a 50mm vertical planar magnetic ribbon unit. Neat says that this unit is critical to the design because it lends the whole speaker its essential character and musical integrity. "In this context," continues Neat "the tweeter's strengths of superb dynamic contrast and accurate tonal colour are well matched to those of the main drive unit".

The manufacturer considers the Iota ideally suited to the currently *en vogue*, all-in-one streaming products. I am inclined to agree; despite its low sensitivity figure of 84dB, the wee speaker worked fine in my smallish office powered by a 40 watt Naim UnitiQute, and could deliver volume levels that most people would find uncomfortable. I imagine that it

DETAILS

PRODUCT: Neat Acoustics Iota

ORIGIN: UK

TYPE: desktop

loudspeaker

WEIGHT: 3kg

DIMENSIONS: (WxHxD)
200x130 x165mm

FEATURES:

- 2-way bass reflex enclosure
- 6 ohms nominal impedance
- 84dB/1 watt quoted sensitivity
- recommended amplifier power 25–100 watts
- 50mm vertical planar magnetic ribbon tweeter

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would equally well accompany the Linn Majik DS-M and comfortably outperform the Majik 109 speakers, which I have to say I did not especially enjoy when I reviewed the Linn system recently. I parked the Iotas on Partington Topper cones to elevate their baffles slightly, and connected them with Tellurium Q Blue speaker cables. Although not compulsory, the speakers are designed for horizontal placement, either with their HF units innermost or outermost, the latter being the configuration I preferred and adopted for most of this review.

Finally, a note for the fashion-conscious desktop audiophile; the Iota is available in two Standard finishes, Satin White and Satin Black. It can also be supplied in Flame Red, Zinc Yellow and Ultramarine Blue.

Sound Quality

These baby Neats – the maker refers to them as 'Super-Micros' – have that wonderful ease of communication that makes their larger siblings so special; the Iotas may not have the dynamic compass or bandwidth of speakers like the Ultimatum XLS or

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XL6, but the voicing and character, albeit slightly reduced in scale, remain comparable. They sing just as fluently and persuasively, and the nuance and subtlety they convey is outstanding for a tiny 'desktop' speaker, I feel.

The performance of the Iota truly belies the diminutive proportions of the loudspeaker. Instruments and voices are not miniaturised, but appear as full-bodied and as solid as you would expect from any reputable desktop monitor. In truth, the performance exceeds what one might expect from such a design; not only does the Iota tell you what the musicians are doing, it also lets you know whether they are having fun doing it, and if so, to what extent.

These little boxes will put a smile on your face every time you play a worthwhile album. Alison Krauss & Union Station's *Paper Airplane* never failed to transform me into a blissed out hillbilly with its peerless Bluegrass playing and its poignant harmony stacks.

There is obviously no real bass fundamental action going on here

As the badging suggests, the Iota was also designed to work horizontally



Q&A

MALCOLM STEWARD SPOKE TO NEAT DESIGNER BOB SURGEONER ABOUT HIS NEW IOTA SPEAKER



MS: Without giving away any secrets, how did you create the illusion of a full-range portrayal of a piano and bass from such a tiny enclosure?

BS: The brief for the Iota was to produce a genuine musical experience from as small an enclosure as possible. With all my designs, it's an iterative process based on listening to music and making changes to every aspect (drive units, crossover, tuning, cabinet) based purely on what we're hearing. The tuning of the cabinet is particularly important here. There is little in the way of genuine low-frequency fundamentals from the Iota, so the tuning is a psychoacoustic device to guide the listener to the conclusion that there is more going on than is actually there.

The Iota impressed me with its brilliant vocal articulation. Is that a result of using the ribbon tweeter?

The Iota certainly owes much of its organic portrayal of the human voice to this tweeter. The choice of tweeter has always been very important in my loudspeakers, as we believe that it defines the character of the whole speaker and gives it its voice. Although the tweeter in the Iota looks like a ribbon, and sounds like a ribbon, it is actually a planar magnetic area-drive unit, similar in principle to the super-tweeters used in our Ultimatum series speakers. The Iota is actually made from very high-quality components which wouldn't be out of place in speakers costing several times more.

Just how simple is the crossover? It does not sound as if there is one there at all...

Part of the challenge with this project was to fit the crossover components into the available internal space. The crossover is a three element design, plus damping and attenuating resistors. Most Neat crossovers are variants of this format. There is a first order filter feeding the bass/midrange unit, using a physically very large LCOFC air-cored inductor. The tweeter signal is supplied through a second order filter using just a polypropylene film capacitor and a LCOFC air-cored inductor. So the crossover is simple, but the execution proved quite tricky in this instance.

IN SIGHT



- 1 small, stiff MDF cabinets come in a choice of colours
- 2 super smooth 50mm planar magnetic area drive tweeter
- 3 sideways badge shows it is meant for horizontal siting
- 4 bass is aided by a large rear port and near-boundary use
- 5 simple pair of gold-plated binding posts; no bi-wiring here!
- 6 100mm diameter polypropylene coned mid/bass driver



THE IOTA compares very favourably with most desktop systems. Primarily this is so because it does not, like many such other designs, incorporate a subwoofer. Subs can be tuned to integrate smoothly, yet never seem quite to disappear entirely. The result is that the problems they create often outweigh those that they solve, and you lose more on the roundabout than you gain on the swings, so to speak. The Iota does not suffer any apparent shortfall in the lower frequencies; it will not of course produce deep bass fundamentals but the speaker's voicing is so robust and fulfilling that one can enjoy organ music or Jaco Pastorius' bass through it and not feel shortchanged. Nevertheless, it is not balanced so heavily such that it wallows constantly, which is something one often has to tolerate with other slightly larger, warmer-sounding, desktop designs.

but you don't miss it. There's a credible facsimile of bass present; the Iota's brilliant voicing convinces you that you are not losing out anywhere. If you listen to Keith Jarrett, for example, he still plays a concert grand piano and not a £60 Fisher Price Laugh & Learn Baby Grand!

The Iota produces a credible and crisply defined stereo image that is not restricted in its width or depth by the speaker enclosures. This and its timbral integrity make it really accommodating for jazz fans.

Subtle musical detail is fluently and readily conveyed by the Iotas. There is no sense of forced transparency about their presentation; it is strikingly natural and such detail flows with astounding lucidity, just as it does with the company's larger models. The dynamics of this tiny speaker are amazing and are especially impressive at the lower end of the scale playing quietly yet in a highly revealing fashion with disdainful ease.

The Iota's dexterity with acoustic instruments and recording spaces affords the speaker an empathy for classical recordings, too. The polish and finesse of the drivers ensures the faithful recreation of instrumental timbre, in particular, this is noticeable with violins, which have attack and bite but are never reduced to sounding raw or steely. When a section of the orchestra plays there is also a tangible impression of the volume of air above that part of the orchestra being energised.

The Iota has the knack of focusing the listener's attention on the strong points of any particular piece of music. I, for example, am especially keen on James McMurtry's lyrical songwriting and, when listening to *Just Us Kids* noticed that the speaker seemed to shine an intense light on his lyrics, bringing out the humour, insight and perception in every one of his skilfully crafted phrases. This happened without any artifice, so I suspect that the speaker's overall clarity and dynamic accuracy simply allowed my brain to focus easily on that particular aspect of the recording.

In short, no matter what sort of music you enjoy, and provided you have a decent front-end and amplifier, it's fair to say that the Iota will communicate its musical message as well as many a larger loudspeaker can manage. ●

Hi-Fi Choice

OUR VERDICT

SOUND QUALITY



LIKE: Eminently musical and communicative, the Iota delights!

VALUE FOR MONEY



DISLIKE: Low sensitivity will be an issue for some

BUILD QUALITY



WE SAY: Thoroughly excellent sounding micro-monitor that will grace any audiophile's desktop

EASE OF DRIVE



OVERALL

