

Xero sum game

Leema Acoustics' latest mini-monitor is called the Xero, and promises extensive improvements at no extra cost. In fact, they're £330 cheaper, says David Price...



The little Leema Xens were one memorable highlight of last year's bleak winter. At just £1,000 (less one pound) they provided a superb, classic mini monitor sound in the vein of the Rogers LS3/5a and Harbeth HL-K3ES. Hardly surprising really, as Leema Acoustics was formed by two ex-Beeb engineers, Lee Taylor and Mallory Nichols.

Indeed, the latter was involved in the manufacturing of MAGTRAX monitors for recording studios and mastering companies from the early nineties and Lee Taylor, the recipient of BAFTA and Palme d'Or awards, is experienced in recording and mixing for television, music and film. In short, although the company is a young one, the Xero's designers are

old hands – and it shows when you plug them in...

Whereas the £999 Xen was the company's first loudspeaker, the £670 Xero is its third, and is essentially a downsized Xen – and unusually these days, Leema has seen fit to pass on the price saving of the slightly smaller cabinets and simpler construction. The Xen used a hybrid steel and wood cabinet with metal front baffle, whereas the Xero employs a more conventional all wood affair. It's slightly smaller at 220x140x206mm and lighter at 10kg (still a lot for a speaker of this size). Although the Xen's metal front baffle looked beautiful, certainly the Xero doesn't seem any less well built and appears just as robust. Internally, there is extensive damping from a double layer of bitumastic lining.

The Xeros feature a 1-inch (25.5mm approx.) Vifa Tympany fabric dome tweeter that uses high-flux neodymium magnets and ferro-fluid damping, plus a new bespoke 100mm magnetically screened mid-bass driver marked 'Leema Acoustics'. The crossover uses hand-wound air-cored inductors, high quality capacitors and PCBs with thinner multi track copper, rather than a typical fatter single layer. Whereas the Xen ran two semi-restrictive bass ports on the front baffle, the Xero has a single, fluted, rear mounted, free flowing 25mm affair. Just above this is a block of bi-wireable binding posts with gold plated links. The wood veneer was of excellent quality and comes in a choice of Cherry, Birds Eye Maple, Black, Ebony or Black Ash.

Quoted sensitivity is 86dB [see MEASURED PERFORMANCE] which means that only reasonably powerful amplification need apply. I found the Xero less than happy on the end of my World Audio 20W valve amplifier, and instead substituted the excellent NuForce Ref 9SE monoblocks which proved more than comfortable with the Xeros. I found they worked best on Atacama 24" stands, about 30cm from my back wall, toed in slightly – although you can run them slightly closer to the rear walls without setting their bass ports off and provoking them into resonance. They were fed from the NuForce monoblocks with the superb Clearer Audio Optimus Reference loudspeaker cable.

SOUND QUALITY

Sounding a touch shrill and cloudy, initial results weren't positive, but careful positioning and a good warm through began to bring real rewards. A slight tighten of the drive unit screws, some Blu-tac to lock them onto their stands and an extended run-in brought an even more impressive

for such a small box, and one seldom experienced at this size and/or price point. Of course, you don't get Tannoy Westminster-style seismic activity, but there's a confidence there that belies their baby boxes.

Moving up to the midband and this is where the Leemas shine brightest. The insight from the Xeros wasn't noticeably less than my reference Mel Audio Horamas, which are approximately five times the price. Indeed, there's a degree of transparency here that you'd be happy to get from any speaker of any size costing £670, let alone these pint pots. Troy Overwater's 'Op' SACD, a jazz/classical fusion recording of stunning clarity showed the Leemas to be able far beyond expectation. The striking dynamics from the drum kit and double bass, allied to some beautifully silky tenor sax sounds showed these speakers at their best.

Indeed, most impressive (for their size and price) was their winning combination of musicality and couthness. Whereas some less boxes are good fun to listen to yet rough and ready with it, or others are

well, their only weak spot being a marginal lack of treble ambience and less confidence when it came to imaging 'out of the box'. Being very compact mini-monitors, the Leemas project very well indeed – just as you'd expect – but they're just a tad more directional than some and so a touch of toe-in helps here. Taking the grilles off also helps, but this can also make the upper midband ever so slightly forward for more conservative tastes. For example, on Donald Fagen's 'Tomorrow's Girls' (an upfront and unashamedly 'well lit' recording), they could sound a tad bright when run 'naked'.

CONCLUSION

The Leema Xeros produced a superb sound in their own right, and during the audition period I had to constantly remind myself that I was listening to a sub £1,000 pair of loudspeakers. They are tremendously musical, boasting nine tenths of the Acoustic Energy AE1 Classic's redoubtable skill in this respect, yet offer more detail, clarity and finesse as far as I could discern. At £670 they are, to all intents and purposes flawless – and in absolute terms they're easily capable of working with high end equipment; indeed, it's almost a shame not to deploy them this way. Regular readers might have noticed I'm a fan of Leema; it's rare to find a newish British company doing such interesting, impressive and able electronics and loudspeakers. Long may they run!

REFERENCE SYSTEM

Marantz CD63KI DP CD player
MF Audio Silver Passive Preamplifier
NuForce Reference 9SE power amplifiers
Mel Audio Horama loudspeakers

VERDICT

Excellent class-leading mini monitors with musicality, finesse and detail that belies their humble price tag – partner with high end electronics for super results.

LEEMA ACOUSTICS XERO £670

Leema Acoustics

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FOR

- resolution, speed
- musicality, tonality
- value

AGAINST

- nothing at the price

these loudspeakers are extremely convincing in the low frequencies

sound. At last the Leema Xeros were ready to rock...

Simple Minds' 'Promised You a Miracle' was the first track to go on, and the Leemas proved utterly unfazed by the big, fat bass lines and powerful drum work. Played on lesser equipment, this song can sound like a dirge, but the Xeros cut through the slightly 'grey' mix and began to unpack the track, throwing all its individual elements in sharp relief. Their basic sound was very clean, open and detailed in the greatest tradition of BBC mini monitors, but they didn't sound as slow, lightweight or nasal as LS3/5as – indeed they are more reminiscent of Acoustic Energy AE1 Classics in the way they're detailed yet truly dynamic.

Considering they run bass drivers the size of beer mats, these loudspeakers are extremely convincing in the low frequencies, in two respects. First, they go down low and are tight and taut with it, with no sense of the bloated, boomy boxiness you get from most speakers running bass ports. Second, they don't compress the sound even at high levels and/or with wall-cracking transients. There was no sense of a tiny driver huffing and puffing through a big bass port in an attempt to drive the room. This is a very clever trick

consummately well mannered yet dull as dishwater to listen to, the Xeros are blessed with an Acoustic Energy AE1-style *joie de vivre*, yet they remind me of the Harbeth HL-K3ES in their civilised demeanour – providing they're fed with a good source.

The first track on 'Op', 'Laverne Walk' was a delight to listen to, the Leemas getting into the swing of things, whilst never showing signs of distress at high levels. The cymbal work was no less enjoyable, the Xeros giving decent smoothness to the hi-hats and ride cymbals. The clarinet and flugelhorn work on 'Two Little Pearls' can often grate on this starkly open recording, but the Leemas remained unstrained. I particularly enjoyed the way these loudspeakers conveyed the vibrant texturing of these acoustic instruments.

In absolute terms, against the far pricier reference Mel Audio Horamas, the Leemas performed startlingly

MEASURED PERFORMANCE

The Leema Xeros have a gentle lift to their response right in the midband, and so should offer good midrange detail and vocal projection as a result. The lift peaks at the exact region where harshness can become a problem however, and so they may need careful matching to ensure that they do not become a little edgy.

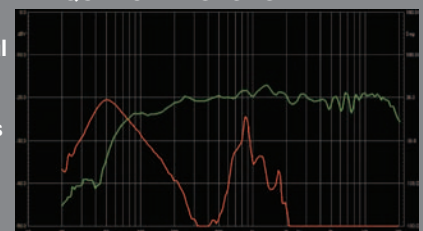
At the top end, the response starts to fall at around 16kHz which, whilst not being obviously noticeable, may rob some treble atmosphere from the overall presentation.

Bass is fine for such a dinky enclosure, output from the drive rolling off below 100Hz or so, and the port strutting its stuff at 50Hz, but the Xeros will not shake the room.

Electrically, the Xeros are not so well damped at the bass end, but have a nice easy measured average impedance of 10.8 Ohms, dropping to a minimum of around 7 Ohms, so they are not a difficult load. This will go some way to making up for their low

sensitivity of 84dB and meaning that 60W or so from a driving amplifier would be wise. AS

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE

