

GoldenEar Triton Five

This slim column hides its light under a bushel – or at least a sock – but is an addictively attractive performer
 Review: **Andrew Everard** Lab: **Keith Howard**

You might seem to be setting yourself up for a fall if you call your company GoldenEar Technology. It's a cue for all those jokes about effects heard only by those claiming such aural ability, grist to the mill of the 'design them properly and they all sound the same' brigade. Fortunately for the team behind the GoldenEar Triton range – including the £2300 Triton Five we have here – the product lives up to its billing, for the Five is perhaps the most striking speaker I have heard at this price level for a very long time.

Led by company founders Sandy Gross and Dan Givogue, GoldenEar can claim involvement in some highly successful speakers of the past. After all, Gross co-founded Definitive Technology with Canadian Givogue, and Polk Audio with Matthew Polk, before giving up semi-retirement in 2010 to kickstart GoldenEar.

SOCK IT TO 'EM

Based in Stoneville, Maryland, just north of Baltimore, and with its engineering facilities in Arnprior, Canada, a short distance from Ottawa, the company's resources include a full-size anechoic chamber the equal of Canada's famous National Research Council facility. Its 'sound first' engineering philosophy is immediately apparent when you encounter the slim columns, just over 112cm tall with plinth, of the Triton Five.

Like all the speakers in the company's range, it eschews elaborate woodwork, expensive veneers and glitzy trim. Instead the speaker is wrapped in a simple black 'sock', capped top and bottom with high-quality gloss-finished plastic mouldings, thus leaving money to be spent on the sound-critical elements of the design. The sock is designed to remain in place,

the company saying it has no effect on the sound, although I gather some Triton enthusiasts would beg to differ, and as you'll read later I had such a ball with the demurely-clad speakers I felt no need to undo the endpieces, slip off the covers, and experiment further. After all, I rather liked the almost anonymous 'stealth' styling of the Triton Fives, the 18.3cm-wide enclosures having minimal visual impact in the room, and the simple lines being so

'It makes some larger, costlier speakers sound just plain silly'

much more attractive than the rather industrial look of the 'naked' speaker seen in the rendering, adjacent.

The essentials of this design, and the styling, are shared across the entire range, from the

entry-level Triton Seven, at just under £1600 a pair, all the way up to the flagship Triton Reference, at a sniff below £9500. The scale of the speakers, and the drivers within, is all that changes, so the Reference stands a little under 1.5m tall while some of the models above the Five also pack built-in active subwoofers to boost their low-end ability.

UNDER THE COVERS

This isn't the first speaker I've encountered with such hidden technology, but it is one of the most successful. Not that GoldenEar has anything to hide, for within the Triton Five is a range of in-house drivers and some novel engineering. The basic configuration, up at the top of the front baffle, comprises a D'Appolito arrangement of mid/bass drivers and a tweeter the company calls a 'High Velocity Folded Ribbon' (HVFR),

RIGHT: Cloaked in an elasticated fabric 'sock' the Triton Five combines a D'Appolito Array of two 6in bass/mid drivers above and below a proprietary 'High-Velocity Folded Ribbon' tweeter (HVFR). Four 8in ABRs extend the bass



BASS GAIN, NO PAIN

Given that a plastic moulding or two, a tube and a hole are cheaper, most loudspeaker designers prefer conventional reflex loading to the passive radiator alternative. In this case the moving mass of a diaphragm replaces the air mass within a port tube to form a Helmholtz resonator with the compliance of the air within the cabinet. But air moving back and forth within a reflex port can give rise to 'chuffing' or 'windage' noises, and at high velocities can result in compression and distortion. Plus a hole in the cabinet can allow egress of reflections and resonances within the enclosed air. The passive radiator (or ABR, auxiliary bass radiator) – of which there are four in the Triton Five – provides relief from some of these problems. In a floorstanding speaker, the sensible place to put them is exactly where GoldenEar does, on the side panels close to the floor, as this gets them near at least one room boundary (the floor) and perhaps two if the speaker is designed for use with its back to the wall behind. Boundary gain then assists the bass without causing major response irregularities. **KH**

the larger drivers venting into a cabinet designed with a slanted baffle and non-parallel panels for the avoidance of standing waves.

The mid/bass drivers themselves are long-throw 6in units with cast baskets for rigidity, developed at the company's Canadian engineering facility. The enclosure behind them vents into a lower chamber where sits a quartet of 8in ABRs, two on each side of the cabinet and mounted low to make the most of reinforcement from the floor.

Meanwhile the HVFR, found across the Triton range, is described as 'pressurising the air, rather than pushing and pulling it, for better impedance matching with the air in the room'. The crossover network, again mounted high up in the cabinet, behind the drivers, is designed to augment the slanted baffle to time-align the drivers for 'a coherent wave-launch directed at ear level at the listening position.'

REAL WORLD VALUES

In common with the speakers from the GoldenEar founders' past, the Triton range is designed as a 'real world' lineup for use with relatively modest amplification as well as the more serious stuff. The promotional material also suggests the Fives' use with an AV receiver and the company's series of centre/height speakers, surrounds and active subwoofers to create multichannel audio/home cinema systems.

Set-up is simple, the speakers coming with both spikes for hard or carpeted floors and rubber feet for more delicate surfaces. And company founder Gross has some simple tips on how to get the best from the Fives: 'I like the Tritons (all of them) spaced quite far apart if possible, at least as far apart as you are from each, or even further. This is not absolutely necessary, but they will sound their

best. I find that any good speaker, not just the Tritons, if they have good centre-fill sound best like this. I also like them toed in right at the listener.'

CHAMPION CONTENDER

Auditioned in editor PM's listening room, on the end of the usual Melco/dCS Vivaldi One/Constellation Taurus reference system, I found quite a severe toe-in gave the best results – not quite 45°, but getting there – and that a good space between the speakers and the side and rear walls avoided the ABRs over-exciting the room. Thus set up, with the side-panels clearly visible from the seating position, and having run the speakers hard for a while to get them loosened up and warmed through, I was ready to start listening.

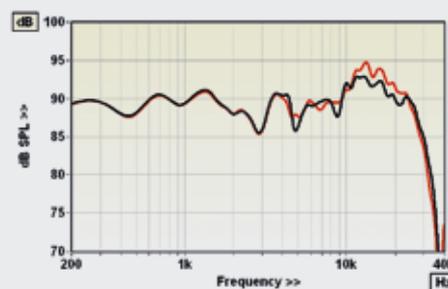
I was less ready, however, for just how impressive the Triton Fives sound, despite having read rave reviews of other models in the range. Quite simply, these are speakers that just sound 'right' as soon as you listen, creating a soundstage picture completely free from those slim towers, unearthing startling detail in the midrange and the treble, and with bass to make some much larger – and much more expensive – loudspeakers sound just plain silly.

If you've ever read one of those reviews in which the writer seems to suggest a process of toiling at the coalface to get under the skin of a product – get real, it's only listening and writing – then you'll enjoy the fact that the Triton Fives are not just ridiculously good for the money, but also remarkably easy to enjoy. After the first track I played – the Trondheim Soloists' recording of Tchaikovsky's 'Serenade', from the *Souvenir* set [2L 2L-090, 192kHz/24-bit] – I was already hooked by the wide-open sound, the weight and power of the bass and the way they seem completely invisible in acoustic terms, leaving the listener ☺

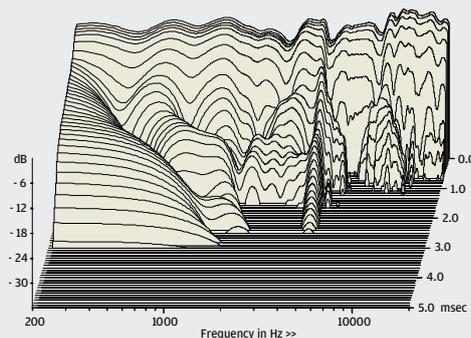
GOLDENEAR TRITON FIVE

Our measured pink noise sensitivity for the Triton Five – averaged for the pair – is bang on GoldenEar’s specification of 90dB. Note, though, the rather different mean and music values of 91.2dB and 89.4dB, respectively, which indicate a less than flat on-axis frequency response [see Graph 1, below]. The good news is that this high sensitivity is achieved without making the Triton Five a notably difficult load to drive. Although the measured impedance minimum of 3.4ohm suggests a 4ohm nominal rating rather than GoldenEar’s ‘compatible with 8 ohms’ specification, low-frequency phase angles are sufficiently well controlled that the EPDR (equivalent peak dissipation resistance) dips to an amplifier-friendly minimum of 2.5ohm at 48Hz. Unusually, the true EPDR minimum of 1.4ohm occurs much higher in frequency at 3.35kHz, where the spectrum of typical music signals should render it less significant.

The forward frequency response, measured at 1m on the tweeter axis, confirms the expectation of unevenness, with response errors on the high side at ± 3.7 dB and ± 4.7 dB, respectively. Listening a little off-axis might improve matters by suppressing the over-energetic upper treble but will probably add to the slight presence band suckout. Pair matching error over the same 200Hz-20kHz frequency range is a little disappointing at ± 1.9 dB, the largest disparities all falling within the passband of the HVFR tweeter, which on this evidence has less than consistent performance and a rapid fall-off in output above 20kHz. The cumulative spectral decay waterfall [Graph 2] shows a resonance at just below 5kHz, probably caused by cone breakup in the twin 6in bass-mid drivers. KH



ABOVE: The HVFR ribbon’s boosted upper treble is less obvious off-axis, albeit at some loss in presence



ABOVE: Cabinet and, in particular, driver resonances are well-damped aside from one obvious break at 4.9kHz

LEFT: The Triton’s hard polymer ‘foot’ may be fitted with spikes or soft rubber feet, but the 15kg tower is surprisingly stable. The two-way crossover is addressed by single 4mm terminals

focused and well-extended, the percussion nicely delineated, and the piano naturally weighted. It’s an exciting sound, and presented with total ease by the Triton Fives.

PERFECT BALANCE

With a different accompanied voice – in Britten’s *Serenade for Tenor, Horn and Strings* [Linn CKD 478; 192kHz/24-bit] – the Triton Fives display the same attributes: offering up the voice and brass in perfect balance with the orchestra in the resonant Snape Maltings acoustic for a brilliantly atmospheric sound. They also manage to be fast and crisp without ever sounding brash or overbright, as is clear from Iiro Rantala’s driving take on ‘Caravan’ on his *My History Of Jazz* album [ACT 9531-2]. Here the piano and violin charge on, while the percussion is clean and oh so tight.

But then that’s what the sound here is all about, and these very magical speakers present it whatever you play. Rounding off listening with ZZ Top’s ‘La Grange’ [from *Tres Hombres*; Warner Bros 8122-78966-2] shows that these speakers really can boogie, with fabulous snarl to the guitar, thundering bass and a heart-thudding drum figure just before the solo howls out.

By any standards these are simply wonderfully well-balanced speakers, and a delight to review. ⬇

HI-FI NEWS VERDICT

Superb speakers for sensible money? Yes – and then some! The Triton Fives live up to their ethos by putting the engineering budget where it counts – into the sound. The open, focused soundstaging, powerful, punchy bass and remarkable handling of voices and acoustic instruments all contribute to the very special sound on offer, making these slender black columns remarkable value and a must-listen.

Sound Quality: 87%



with nothing more than the music floating in the room. It’s a magical effect, like almost no other speakers I’ve heard at this level, and entirely addictive – I could hardly load music fast enough to hear how the Triton Fives would handle it!

With Gregory Porter’s ‘When Love Was King’ from *Liquid Spirit* [Blue Note 0602537410538; 96kHz/24-bit], the speakers open up with a beautifully nuanced view of the depth, richness and slightly recessed quality of the singer’s voice. Then, when the jazz trio accompaniment kicks in, it’s delivered with the bass

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – Mean/IEC/Music)	91.2dB / 90.0dB / 89.4dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.4ohm @ 3.8kHz 15.8ohm @ 1.7kHz
Impedance phase: minimum & maximum (20Hz–20kHz)	-56° @ 2.8kHz 40° @ 55Hz
Pair matching/Resp. error (200Hz–20kHz)	± 1.9 dB / ± 3.7 dB/ ± 4.7 dB
LF/HF extension (-6dB ref 200Hz/10kHz)	44Hz / 29.4kHz/28.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.0% / 0.5% / 0.1%
Dimensions (HWD) / Weight (each)	1010x183x279mm / 18kg