



STEREO LOUDSPEAKERS

GOLDENEAR TECHNOLOGY TRITON ONE

GoldenEar Technology is a US-based brand that, as the name implies, focuses on loudspeakers for those who want highly accurate sound. It has a number of ranges, topped by the Triton series. That series is in turn topped by the Triton One floorstanding loudspeakers, and it is a pair of these that have been occupying pride of place in our system for several weeks.

EQUIPMENT

'Towers' is the word GoldenEar uses for the Triton One, and it is the right word. They stand nearly 1.4 metres tall, yet their main body is just 203mm wide. At 423mm deep, they seem like blades. A pre-attached plinth ensures stability. This comes with rubber feet, but spikes are included should you wish to pierce your carpet for greater stability.

Their build is very solid indeed, with each unit weighing 36.3kg. The tops slope from the front down towards the back (no pot plants will be placed on these speakers!), while the enclosures are narrow at the front and widen towards the rear. Each is completely covered, aside from the plinth and top cap, by a black sock grille. There must be a plastic grille behind the sock to hold the material off the faces of the drivers.

Packed into each of these slim towers are six drivers, all forwards firing, as you can see from the 'cutaway' of the left speaker in our picture.



Handling the high frequencies is a folded ribbon tweeter. GoldenEar says that rather than pumping air in the manner of a regular cone-based tweeter, this 'squeezes' the air to pressurise it, using a high temperature film in a strong magnetic field generated by neodymium magnets.

Above and below this is a pair of 133mm drivers which GoldenEar characterises as high-definition midrange/upper bass drivers. Each of these has its own internal sub-enclosure. Finally, there are three subwoofer drivers. These have a rounded-rectangle shape 127mm by 229mm.



Here there is another departure from the mainstream: these are active speakers. That is, a 1600W 'Forcefield' digital amplifier is built into each loudspeaker to power their 'subwoofers'.

The cabinets are loaded for bass performance by the use of four passive radiators, two on each side of each cabinet. Like the drivers, these are rounded rectangles, but larger.

Each enclosure has a power connection at the bottom rear, of course, and the amplifier switches on and off automatically according to the presence of a signal. One pair of gold-plated binding posts is provided on each loudspeaker, so there's no opportunity for bi-wiring. The speakers are also equipped with line-level inputs for the subwoofers, should you want to wire your home theatre LFE

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output to them, for some reason. GoldenEar rates the impedance of these speakers at 8 ohms, their sensitivity at 92dB, their frequency response at 14 to 35,000Hz, and recommends amplifiers rated at 20 to 650W per channel.

PERFORMANCE

We decided to take GoldenEar at its word and install these speakers in a high-end home theatre system, using them as the subwoofer as well as the main stereo pair. Rather than pointlessly wiring them up to the LFE output on the receiver in addition to the regular speaker terminals, we also went with GoldenEar’s recommendation: speaker cable alone. We then informed the receiver that there was no subwoofer, ensuring that all the LFE content went to the Triton One speakers. We also told the receiver that all the other speakers were ‘Small’, making sure that bass from those channels would also be redirected to the Triton One speakers. Clearly they would have a lot of work to do.

One point to note. If you are using your main speakers to carry bass from other channels in the system, be careful about the crossover frequency you choose. You might get away with, say, 200Hz if using a subwoofer. But with front speakers firing the rear channel’s upper bass directly at you, you’re likely to get way too many acoustic cues implying those rear-channel sounds really are coming from the front, and thereby wreck the surround effect. We’d suggest never going above 80Hz for the bass crossover in these circumstances.

For stereo listening we chose the ‘Pure Direct’ mode, which cut out all processing. For surround we selected the EQ option on our receiver that leaves the front channels unaltered and adjusts the other channels to match them tonally.

As to the loudspeakers themselves, there is a level control on each for the bass section. GoldenEar recommends putting this at the halfway mark. We conducted some measurements and confirmed that this was indeed the correct position for well balanced bass in our room.

We went through a very wide range of stereo music with these speakers, with exceptional results. For example, our favourite rendition of Bach’s Passacaglia and Fugue in C minor is from Telarc, digitally recorded decades ago, on a pipe organ for which the low C pedal has a fundamental of 16Hz. Accurate reproduction of this has proved troublesome over the years! The Triton One

speakers loped through it, reproducing the breath of the pipes as cleanly as their tone, the subtle mechanical noises, and of course that pedal. At the end of the first section there seemed to be an emphasis on the first harmonic rather than the fundamental, but even then there was a rare sense of room rumbling, the kind one experiences in an old stone church with a real pipe organ. This was impressive performance.

Just as impressive was the way the speakers maintained their coherence — their ability to sort out the threads of music — during the very busy section towards the end of the Passacaglia, where too often the music can become confused.

We tried some small chamber works, and it soon became apparent that the speakers preferred intimate audiophile-style recordings rather than studio ones. Yehudi Menuhin’s violin was clear, clean and precise, but sterile and impersonal in one of the latter. Simple recordings with some space between the instrument and the microphones were attractively rendered by these speakers in space and in tone.

Shifting over to the more modern era, we were rewarded by advancing the volume control with Yes’ *Heart of Sunrise* from ‘Fragile’, Bruford’s drumming lifting through the mix to be fully revealed, while Jon Anderson’s vocals, delivered with power, were controlled in their upper reaches.

Indeed, on just about all vocals there was great control of that troublesome frequency band which so many vocal microphones emphasise, threatening sibilance and harshness. Joanna Newsom’s rather strange voice, for example, accompanied by harp, managed a rare solidity to enhance its tunefulness.

The track ‘Nobody’ on Ry Cooder’s ‘Jazz’ showed again this superb vocal balance, and had a lot to say about the speakers’ stereo imaging. Rather than a cuttingly sharp location for each and every sound in the mix, there was a kind of rounded, solid quality to each object, perhaps more reflective of reality than super-sharp imaging. The stage depth was fairly shallow with the range of music we tested.

With movies these speakers were first-class in every respect. Obviously with a fine stereo performance they held up their end on full-range sound. But how about as a subwoofer replacement? In this department they were easily the best we think we’ve ever used. For example, we

had previously watched ‘Edge of Tomorrow’ with our 15-inch, 400W subwoofer in play in our regular system. And from memory it delivered a little more in the way of infrasonics. But still, when we again watched some battle scenes with the Triton One speakers taking on full responsibility for all the bass, they delivered amazing slam, with depth and power that would attract unwelcome comment from neighbours were we to repeat the performance late at night. They won’t do the super-deep infrasonics, but they did do everything musically relevant, and also just about everything required for an exciting movie performance.

A quick check of the frequency response revealed their measured output to be pretty much dead flat from 24Hz up to 20,000Hz, and perhaps beyond. A characteristic common to passive radiators is that they tend to reduce very rapidly in output below the tuned frequency, and that was the case with these ones, with the output down by 12dB at 20Hz and 27dB at 14Hz.

You will be hard put to find many loudspeakers capable of delivering anything like this level of low frequency performance.

CONCLUSION

The pricing of the GoldenEar Triton Ones may put them beyond the range of some who would love them, but if you can stretch that far, we would urge you to audition these fine loudspeakers. ■

GoldenEar Technology Triton One stereo loudspeakers

- Excellent tonal balance
- Excellent bass performance
- Well-controlled upper frequencies
- Lacked some stage depth

Price: \$7999

Drivers: 1 x High Velocity Folded Ribbon tweeter, 2 x 133mm mid/bass drivers, 3 x 127mm x 229mm long throw quadratic active subwoofer drivers

Frequency response: 14-35,000Hz

Impedance: 8 ohms (‘compatible with’)

Sensitivity: 92dB/W/m

Power handling: 20-650W (recommended)

Built-in amplifier: 1600W

Cabinet: Passive radiator: 4 x 178mm x 254mm quadratic planar radiators

Dimensions (hwd): 1372 x 203 x 423mm (larger footprint with base)

Weight (each): 36.3kg

Warranty:

Five years (three years on electronics)

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