GoldenEar Technology Triton One Loudspeaker Reviewed
By: Dennis Burger, November 9, 2014

In his masterpiece Pale Blue Dot: A Vision of the Human Future in Space, the great Carl Sagan wrote, "It does no harm to the romance of the sunset to know a little bit about it." This ethos was echoed (although perhaps less succinctly) by physicist, lecturer, and bongo player Richard Feynman in The Pleasure of Finding Things Out. That notion was on my mind recently when my friend Steve Guttenberg posted a simple question to his personal Facebook page: "Can you describe what good sound quality sounds like to you?"

My reply, I felt, was pretty succinct: tonally neutral, dynamic, and clean, with good time alignment between drivers, non-directional bass, and minimal interference from the room itself. The bulk of the replies, though, were dominated by culinary metaphors and unicorn tears. Which is totally fine, mind you. I'm all for freedom of religion. But despite the fact that no one came right out and said it, I got the sense that most of Steve's followers approach high-end audio the way that Sagan's critics approach sunsets: that to quantify is to diminish. That only the magic matters.

To those listeners, I say this: if you wish to enjoy a speaker like GoldenEar Technology's new flagship Triton One in purely spooky terms, there's an awful lot of magic to enjoy here. But take a long, hard, scrutinizing look at the components that make up this majestic monolith -- how they fit together, how they work together -- and I daresay there's an even greater sense of wonder to be discovered.

The Triton One, of course, follows three previous tower speakers in the Triton Series lineup: the relatively diminutive Triton Seven, the somewhat larger Triton Three, and the larger-still Triton Two. The Triton One most closely resembles the latter, of course -- so much so that a brief glance at its spec sheets might lead you to believe that the Triton One is merely a scaled-up Triton Two with a larger footprint and more of the same drivers: three 5-by-9-inch Long-Throw Quadratic Subwoofer Bass Drivers instead of two; four 7-by-10-inch Quadratic Planar Infrasonic Radiators instead of two; and a pair of GoldenEar's proprietary 5.25-inch High-Definition Cast-Basket Multi-Vaned Phase Plug Upper-Bass/Mid Drivers in contrast with the Triton Two's 4.5-inch MVPP drivers.

If that's as deep as you dig, though, you're missing out on some really cool under-the-hood stuff that makes the Triton One far more than merely a Triton Two on steroids. The crossover network, for example, has been completely revamped, not only in the fact that the crossover frequency has been moved
from 160 Hz down to 100 Hz, but also in the fact that it relies on an all-new balanced topology that results in a vastly cleaner signal path. The drivers and baskets sport a new, stiffer design. The amplifier that powers the Triton One's built-in subs has also been redesigned with numerous separate power supplies rather than the single larger supply of past designs, an element borrowed from truly high-end standalone amps. Plus, the DSP has been upgraded from a 48-bit/96-kHz design to 56-bit/192-kHz.

I could go on and on. Suffice it to say, virtually every internal component of the GoldenEar Triton One has been tweaked, tinkered with, or outright redesigned from scratch. So, to merely call it a bigger, better, badder version of the speaker that HomeTheaterReview.com called "arguably one of the best loudspeakers under $5,000" would be doing it a serious disservice.

The Hookup
Well, there's no denying that it is bigger and badder. When my FedEx delivery guy deposited a pair of Triton Ones on my front porch, the neighbors all sort of gathered and stared, with a collective look that said, "Why on earth does anyone need two new refrigerators?" Each box stands nearly five-and-a-half feet tall and weighs right at 99 pounds. I've had smaller girlfriends. And if you know me, you'll understand what I mean when I say that it's a minor miracle I survived the unboxing process without sustaining any fatal injuries.

Freed from their 19 pounds' worth of packaging, the Triton Ones are a little easier to manage, although the socks that cover the speakers from top to bottom do make them a little slippery. As a result, moving the speakers very far is a two-person job. Aside from that, hookup is pretty straightforward for such a sophisticated speaker. Around back and way down low, the Triton One features a pair of binding posts arranged vertically and a little too close together for my tastes, with an LFE input and volume control for the internal 1,600-watt Class D ForceField amplifier.

We'll set the LFE input aside for a bit and come back to it later, because I spent the bulk of my time with the Triton One installed in my home office two-channel system, attached to Peachtree Audio's nova220SE integrated amplifier via a pair of Kimber Kable 12TC speaker cables. My primary source was my Maingear gaming and media PC, connected to the nova220SE via USB, with JRiver Media Center 19 (and later 20) handling the software side of things.

The only thing even slightly out of the ordinary about the stereo setup process that deserves mention is that it takes a bit of tinkering to find the right setting for the Triton One's subwoofer level knob. Of course, that's true of any two-channel system with a sub thrown into the mix, but it did take me about half an hour of tinkering and testing to zero in on a setting that sounded equally good with N.W.A. and New Grass Revival alike.

After a few weeks of auditioning the stereo setup, I also moved the Triton Ones briefly into my main home theater system, where they were connected to my Anthem D2v 3D A/V processor and Statement A5 multichannel amplifier via Straight Wire Encore II speaker cables and a pair of custom-made subwoofer interconnects whose exact pedigree I've honestly forgotten.

Performance
I should state right off the bat that, despite my unabashed love for GoldenEar Technology's offerings to this point, I tend to harbor a bias against tower speakers as large as the Triton One. That's probably a result of the fact that I live in a relatively mid-sized suburban home, so the farthest I sit from any given pair of speakers is generally just a hair over two meters. At that distance, a very large speaker tends to
sound to my ears like a collection of disparate drivers, which is almost certainly why I tend to be drawn to electrostats, or smaller towers like the Triton Seven, in my two-channel system (where my listening position is just under two meters away).

All of that is simply to say that I expected I would have to rearrange my listening room a bit to give the Triton Ones room to breathe, to put a little more distance between me and the speakers so that their woofers and mids and that delicious High Velocity Folded Ribbon tweeter would have a bit more time to get their act together before the sound arrived at my ears.

Before going to all of that trouble, though, I decided to hook up the speakers in the usual spot just to make sure everything was in good working order. (The shipping boxes looked like the aftermath of one of those old American Tourister luggage commercials.) It took mere seconds of listening to "Our Lady of the Underground (featuring Ani DiFranco)" from Anaïs Mitchell's folk opera Hadestown (Righteous Babe Records) to realize that no significant repositioning would be necessary. The track's wonderful upright bass drunkenly meanders from one side to the other of the Triton One's 100-Hz sub-to-midrange crossover point; try as I might, I simply never could detect the handoff from one set of drivers to the next.

In quizzing GoldenEar president Sandy Gross about the Triton One's engineering, one thing I forgot to ask about was the crossover point between the mids and tweeter. To be honest, though, he could make up a number, and I would probably believe him because the transition between mids and tweeter is just as seamless as the transition between subs and mids. As a result, in most ways the Triton One really sounds like a large, full-range planar magnetic speaker or a positively gargantuan Electrostat. From bottom to top, it's spectacularly cohesive, wonderfully unified, and deliciously time aligned -- a solitary source of sumptuous sound from the depths of its frequency range (14 Hz) up to the limits of my hearing (currently around 17.2 kHz) and likely beyond.

Getting back to the DiFranco/Mitchell track, the second thing that became immediately apparent about the Triton Ones is their excellent dispersion characteristics and imaging. "Our Lady of the Underground" may not be the densest mix in the history of ever, but there's a lot going on in the track, from the big and bold but slightly lazy percussion to the delicately picked acoustic guitar; from the upfront growl of electric guitar to the subtle crowd chatter that permeates the background of the tune; from horn, vibe, and fiddle solos that stagger across the stage to DiFranco's lead vocal, which remains rock solidly centered throughout the track. Like all of GoldenEar's tower speakers, the Triton One renders them all in three-dimensional space with tremendous verisimilitude -- a wonderful aural shadowbox of musical elements layered one in front of the other and stretching from wall to wall, side to side.

Another album that shines a particular light on the Triton One's strengths is Chad Lawson's The Chopin Variations (Hillset Records). The album is worth a spin even if you're not into classical music, if only for the way it was captured. Lawson records late at night, with two sleeping children nearby, so he's developed a technique of putting felt between the hammers and strings of his piano and recording the piano from the inside. The result is an intimate, tactile, detailed audio experience that I normally prefer consuming over headphones, if only for the fact that the tiniest time misalignment really throws the entire recording out of whack. The Triton Ones do a truly marvelous job of dragging one into that piano cabinet, though, and also of keeping the different elements of the sparse mix well separated but also well integrated. The wide but rock-solid piano dominates the soundstage from one extreme to the other, while
the violin and cello waft across the room like paint strokes rendered by the world's most ephemeral roller brush. Yet somehow they still manage to sound exactly like real stringed instruments in a real space.

The two most surprising things revealed by this recording are: 1) just how capable the Triton Ones at volumes bordering on the inaudible; and 2) just how wide their dispersion really is. Once, while listening to the album; my phone rang. So I turned down the volume to the point where it almost certainly couldn't be heard on the other end of the line. What struck me is just how balanced, how detailed, and how impactful it remained. The subtle movement of dampers lifting from strings. The viscous texture of resin and bow being dragged across gut strings. Even with the volume dialed so low that I could hear the hum of the ceiling fan spinning in the next room, the Triton Ones still managed to eke out fine details that penetrated well into the room.

I noticed right around this time that the speakers needed to be repositioned slightly. They're not fussy about placement at all, but I am, so I scooted forward in my rolling office chair to nudge the speakers back an inch or two and widen their stance a couple of inches while reducing their toe-in ever so slightly to tame a weensy bit of brightness resulting from my close listening position. I had to stop rolling and start listening, though, when my head got nearly in line with the face of the speakers. Even at around 170 degrees off-axis, the soundstage was still rock solid, utterly coherent, and tonally neutral, with exceptional imaging. Would it be my preferred listening position? Of course not. But it still made me giddy to hear how well the speakers performed in such unideal conditions.

To be quite frank, though, classical music (no matter how well recorded) isn't really my passion. Nine times out of ten, when listening to music for my own pleasure, I'm going to pop in a Grateful Dead live recording, either one of the Dick's Picks or Dave's Picks official releases or some bootleg FLAC soundboard recordings. Recently, I've been digging deep into the work of Hunter Seamons, who takes the best available soundboards, usually Betty Boards, and combines them with the best available audience recordings to create a matrix mix that delivers the sonic clarity of the former with the ambience and spaciousness of the latter. His matrix mix of the legendary Barton Hall concert from May 8, 1977 ("officially" released as Hunter's Trix Vol. 40), is a particular favorite. In addition to the smoking performances, it simply captures the live Dead experience like few other recordings can. It's so dynamic as to be entirely unlistenable in my car at anything approaching highway speeds.

Queue up "Scarlet Begonias>Fire on the Mountain" through the Triton Ones, and you're immediately transported into the Phil Zone, that fabled spot near the stage, right in front of bassist Phil Lesh's stack, where the show is as much felt as heard. His booming bass line resonates in the chest, forming a bedrock foundation for the rest of the mix: Keith Godchaux's keyboards rendered flawlessly off to the left of the stage; Mickey and Billy's percussion sprawled across the back wall; Jerry's vocals raining down like the voice of some mischievous god from the top of the PA system; the crowd surrounding you. At the risk of sounding corny, if I close my eyes, the Triton Ones simply transport me back in time to that storied concert. Is it the single greatest source of high-fidelity sound I could think to feed these speakers? Of course not. But the Triton Ones render it like no speakers I've ever been lucky enough to audition at home; for me, that's what high-end audio is all about -- not picking music to make the speakers sound their best, but picking speakers that make the recordings I love sound their best. And I daresay the fortunate souls in attendance at Barton Hall that evening didn't hear the band sound anywhere near this coherent, this balanced, this detailed.

As I said, after a few weeks of poking and prodding the speakers in my two-channel system, I decided to move them into home theater to see just how much bass they could handle because I don't think even my
hip-hop collection contains any notes low enough to tax the Triton Ones. When Gross caught wind of my plans, he asked if he could send along the company's SuperCenter XL to complete the system, since I was planning on using the Triton Sevens as surround speakers. I gratefully obliged and set up the system with the SuperCenter XL and Triton Sevens crossed over at 60 Hz, with the Triton Ones set to full range, and the dual LFE outputs of my Anthem D2v routed into the low-frequency inputs of the Triton Ones, with all of my other subwoofers disconnected. Max EQ Frequency in the Anthem Room Correction software was set to 300 Hz. For more information on why I went that route, check out our primer on room EQ, titled Automated Room Correction Explained.

I know this is a review of the Triton Ones, not the SuperCenter XL, but the latter does bear a bit of discussion. Despite being the largest center speaker in GoldenEar's lineup, I was a bit concerned about its size (and, if I'm being blunt, its price) mismatch with the larger towers. A 5.75-inch-tall, $800 center speaker paired with 54-inch-tall, $2,500 tower speakers? I wouldn't go so far as to say I was skeptical, but I was prepared to make excuses for the SuperCenter XL.

No such excuses were needed. As soon as I popped in the recent Blu-ray release of Godzilla (Warner Home Video), all doubts as to the SuperCenter XL's ability to hold its own were allayed. I did mount the center on a stand above my TV, rather than in the normal center-channel space in the credenza beneath, to give its pair of upward-firing 6.75-by-8-inch Quadratic Planar Low-Frequency Radiators more room to do their thing (even though Sandy says they only need a couple of inches). But even from up there, the XL wove an excellent front soundstage together with the pair of Triton Ones. Dialogue cut through the dense cacophony beautifully, with the utmost in intelligibility, and the speakers never felt even slightly out of balance, despite their significant power-handling mismatch (250 watts max versus. 650 watts max).

But there's no denying that the Triton Ones were the star of the show, especially in chapter 11 of the movie, in which Godzilla and the MUTO beasts wage their epic battle in downtown San Francisco. The speakers delivered every shattering shard of glass, every monstrous punch, every ear-piercing roar with the utmost authority. As for the bottom end? Even without another subwoofer in the system (I normally use at least three), the Triton Ones cranked out every booming bass note with visceral viciousness and begged for more.

The Downside
The one caveat I must add to that observation is that the Triton Ones did require a little more careful positioning in the home theater than they did in my two-channel system...and that's to be expected. It's worth noting that, if you're relying on the Triton Ones to deliver all of your LFE, you have to position the speakers with that in mind. Room interactions can be a booger when delivering ultra-low frequencies at these sorts of volumes. By the time I had the Ones positioned well in my home theater, they were pretty far out into the room.

That's not a knock against the speakers' design at all. It's merely the realities of physics. But interestingly, it also serves to highlight another of the Triton Ones' strengths. When I had them positioned ideally for LFE, I looked at them and thought to myself, "Self, that's just not where I would put a set of front left and right speakers. At all." And yet, they sounded incredible: as I said, beautifully mated with the SuperCenter XL atop my TV quite a bit farther back, with no gaps in the front soundstage and no weirdness at all in terms of phase problems or other timing issues.

Other than that, the only potential downside I can find is that not everyone loves the look of the Triton Ones. My wife doesn't care for them, aesthetically speaking. They're black-cloth-covered menhirs capped
in a piano-black-finished polymer. Personally I think they look fine, but they simply aren't to everyone's taste in terms of visual presentation.

**Comparison and Competition**

In terms of competition, at least as far as pricing goes, the GoldenEar Triton Ones have a fair bit. The Mythos ST-L SuperTower from Sandy's former company, Definitive Technology, comes immediately to mind as a similar-looking speaker with a similar driver configuration (aside from its slightly more traditional magnesium dome tweeter) and pretty much the exact same price. I haven't auditioned them at home, but I have listened to them at trade shows, and they sound exceptional.

Polk Audio's $2,000 LSiM707 also stands out as a very comparable speaker in many respects. It lacks the Triton One and Mythos ST-L SuperTower's integrated subwoofer, and it runs out of low-frequency energy far before either the GoldenEar or the Definitive Technology speaker. But it's also a delightfully dynamic performer with excellent imaging and oodles of detail.

Truly, though, the speaker I've reviewed that stands out in my mind as delivering the most comparable sonic experience is Wisdom Audio's $40,000 LS4 planar magnetic line source (the $30,000 LS3 is probably a closer match, but I haven't reviewed it). The Wisdom speaker is much larger, mind you, plays way louder, is a lot more sensitive (100 dB vs. 92 dB, both 2.83V/1m), and if my audio memory serves me well is a bit more dynamic. On the other hand, the LS4 only extends down to 80 Hz without a subwoofer, it doesn't quite hold up as well when played at whisper-quiet volumes, and there's no way I could ever fit a pair of them into any room in my home. Not even maybe. Oh, and did I mention that it costs $40,000? Each?

I'm not saying that a person in the market for the Triton One should be auditioning the LS4, or vice versa. Two completely different speakers made for two completely different audiences. And yet, I find myself drawn to both speakers for exactly the same reason: their similar tonal balance, their similar seamlessness and dispersion characteristics, and their comparable detail and imaging.

**Conclusion**

It's a bit hard to write about a speaker like GoldenEar Technology's Triton One without sounding outright hyperbolic. But in every criterion that matters to me, the speaker simply punches way above its weight class. Tonally neutral? Yep. Dynamic? Shockingly so. Clean? I would go so far as to say pristine. Good time alignment between drivers? I'll be damned if I can tell where one rolls off and the other picks up. Throw in its massive frequency response (14 Hz to 35 kHz), and its overall sonic performance is beyond reproach.

In a lot of ways, it's really the Carl Sagan of speakers (and I can't think of higher praise than that). In the same way that Sagan brought the knowledge of the cosmos to the common man in a wonderfully digestible way, the Triton One brings a level of performance that's usually out of reach for most consumers down to a point that can't quite be described as affordable, per se, but pound-for-pound (or dollar-for-dollar, depending on where you live), I can think of very few speakers with performance-to-price ratios anywhere close to this.