

## GoldenEar Technology Triton One.R Loudspeakers



The bigger, the better, right? The old adage doesn't always hold, but so far, it's been true of my own experiences of reviewing loudspeakers from GoldenEar Technology: the Aon 3 bookshelf (\$998.98 USD per pair), the Triton One floorstander (\$4999.98/pair), and their flagship, the Triton Reference (\$8999.98/pair), each bigger and costlier than the one before. And as the speakers increased in size and price, their sound quality and build quality, too, have improved.

With the Triton One.R (\$5999.98/pair), I take a step down in Tritons. The One.R is the same size as the One (which remains available), which makes it smaller than the Reference. Though some of the One.R's technology and features have trickled down from the flagship design, I couldn't help wondering, as I unpacked the Triton One.Rs, if I'd also be taking a step downward in sound.



## Description

Like all GoldenEar floorstanders, the Triton One.R has a slender front baffle, and its top panel slopes down toward the rear. The Triton One.R's cabinet measures 54" high at its tallest point, in the front, by 16.6" deep, but it's only 5.75" wide in front and 8" wide in back -- same as the Triton One. It weighs 80 pounds and, as with all GoldenEar speakers, its cabinet is made of MDF. The Triton Reference's cabinet is 4" higher and 2" wider and deeper, and weighs 28 pounds more. The difference in size might not sound like much, but it is in person. The One.Rs looked much more elegant and less intrusive in my room than their overall dimensions imply, and that was a good thing. My room's pretty big -- the listening area is 16' by 18' -- but the References overpowered it visually. In fact, their size was the only thing about them I didn't like.

The Triton One.R has an important cosmetic touch in common only with the Triton Reference: a high-gloss finish of black paint on its sides, top, and rear panels that looks much better than the black cloth sock that covers the same surfaces of the other models (though all of those also have shiny, black-plastic top panels). The only places you'll see cloth on the One.R and Reference are on the front, attached to the rounded metal grille that runs the entire height of the baffle to conceal the main drivers, and covering the passive radiators mounted on the lower halves of both side panels.



The One.R's shiny black base, made of a thick composite, measures 12.4"W x 19.75"D -- wide and deep enough to make the entire speaker stable. The base is attractive: narrower in front than at the back, rounded on all sides, with a top surface that slopes down toward the edges, to give it a pleasing shape. Into the base's bottom you can screw rubber footers or spikes (both are provided).

Unlike the many speaker brands that use off-the-shelf drivers, GoldenEar Technology has at its disposal extensive engineering resources, as I've seen on visits to their main engineering facility, in Arnprior, Ontario. They not only design their own drivers, they often design completely different drivers for each speaker model. And if a driver is shared between models, it can be customized to each model it's used in. So while the One.R and the One seem to have the same number and sizes of drivers, I was told that the drivers, crossover, and internal wiring are different in each model.

Those drivers are: a High-Velocity Folded Ribbon (HVFR) tweeter (it's actually an Air Motion Transformer, or AMT); two 5.25" midranges, one each above and below the tweeter; three 5" x 9" rectangular woofers, all below the lower midrange; and, on each side panel, two 7" x 10" passive radiators. The One.R is more than just a One with a fancier cabinet.



When I learned that the One.R's drivers are different from the One's, I first asked about the tweeter. I was told that it's essentially the same as the one used in the Triton Reference. This was important -- one criticism I'd had of the One was that I thought its tweeter lacked dynamic prowess, which could make it sound dull when I raised the volume. The Triton Reference's redesigned tweeter didn't have that problem.

The tweeter and midranges hand off to each other at 3200Hz and are driven by whatever external amplifier is connected to the One.R. At 100Hz, the two midranges are crossed over to the three woofers, which are driven by a built-in, 1600W, class-D amplifier designed by GoldenEar -- as are the amps in all their subwoofers and other speakers with powered bass sections. This amp includes a 56-bit DSP engine to assist in manipulating the woofers' outputs for optimal linearity and maximal bass extension. Aiding the woofers' outputs are the four passive radiators, two per side panel. As the name implies, a passive radiator isn't driven by an amp; instead, it's tuned to work with the active woofers to boost



bass output at certain frequencies -- not unlike how a port is used in a bass reflex speaker design.

GoldenEar specifies the low end of the One.R's frequency response as 13Hz, which is incredibly low -- below the threshold of human hearing -- but that spec probably depends on your setting of the bass level using the dial on the speaker's rear panel. I began with the dial at 12 o'clock, midway between the Min and Max settings, which gave acceptable bass output -- but I nudged it up to 12:30 to get a little more oomph down low (we left this dial at 12:30 for our measurements as well). I can't imagine anyone but real bassheads going past 1 o'clock. Also on the rear panel are the binding posts, a single RCA LFE input, an IEC inlet for the power cord, and a blue LED to indicate that the woofers' amp is turned on. This amp has an auto-sensing circuit: it turns on when it receives an audio signal, and turns off after several minutes without sensing one.



GoldenEar specs the One.R's sensitivity as 93dB/2.83V/m -- that's high, but not outlandish compared to other GoldenEars we've measured. The models with powered bass sections tend to have highish sensitivities. The impedance is "compatible with 8 ohms," dropping to a little below 4 ohms at about 200Hz -- a pretty typical load for most amps.

## System

GoldenEar recommends that the Triton One.Rs be powered by amplifiers capable of outputting 20-650Wpc. I first drove the One.Rs' tweeters and midranges with Constellation Audio's Revelation Taurus Mono solid-state monaural amplifiers, which are very powerful -- 500W into 8 ohms or 1000W into 4 ohms each -- and very expensive: \$40,000/pair. But because of the high claimed sensitivity and average load, I also drove them via the 8-ohm taps of a pair of JE Audio's VM60 all-tube monaural amps. The VM60 is moderately

powerful (60W into 8 or 4 ohms) and considerably less expensive: \$6400/pair. I was happy to use these amps, because tubes are anything but heresy in GoldenEar's world -- cofounder Sandy Gross likes to use a Line Magnetic stereo tubed amp to drive his own GoldenEar speakers in his Manhattan loft. Speaker cables for both amp pairs were from Meitner (sister brand to EMM Labs), supplied to me when they sent review samples of EMM's MTRX2 mono amps.



Up front were EMM's Pre preamplifier and companion DA2 Reference DAC, the latter fed via its USB input from an Asus UX303U laptop running Windows 10 and Roon. The USB link from computer to DAC was AmazonBasics, and the interconnects from DA2 Reference to Pre and from Pre to the Constellation or JE Audio monoblocks were Crystal Cable CrystalConnect Standard Diamond.

## Sound

Not long after I pushed Play on Roon's desktop app to stream Michael Bublé's new live album, *Bublé!* (24-bit/48kHz FLAC unfolded to 24/96 MQA, Reprise/Tidal), which largely comprises songs from the Great American Songbook, I heard from the Triton One.Rs the qualities that GoldenEar floorstanders are known for: wide, deep soundstages, outstanding bass extension, and general neutrality throughout the audioband -- no frequency or frequencies sounded emphasized or deemphasized. These big speakers made a big, accurate sound. I also found that, though I ended up positioning the speakers to fire straight at me -- they and my listening seat formed a 9' equilateral triangle -- they didn't sound too bright. The highs had a liveliness I really liked, and they remained lively even at high volume levels, something the original One's highs didn't do -- when I'd cranked the earlier speakers, their mids and bass came up appropriately, but the highs seemed compressed, somewhat dulling the sound.

Bubl  's voice, smack in the center on all tracks as an unwavering aural image, was reproduced very naturally, with a fine sense of presence and a healthy dose of detail -- with this male voice, at least, the tonality of the One.Rs' midrange sounded spot on. But with "My Funny Valentine," "La Vie en Rose," and "Such a Night," what really stood out was the quality of the bass: it plunged toward the bottom of the audioband (20Hz) with ample energy that nonetheless didn't sound too full or weighty -- that is, not overblown. Instead, it underpinned the music with a solid foundation that was commendably tight and in control -- not quite as much as my reference speakers, Revel's Ultima2 Salon2s (\$21,998/pair), but just as deep, and surprisingly close to the Revels' tautness. That's quite an achievement for a speaker that costs considerably less than one-third the Revel's price.



In addition to the Triton One.R's natural-sounding midband and extraordinary bass extension, I found its entire top-to-bottom tonal balance pretty much perfect at any volume level. Bubl  ! sounded so fabulous through the One.Rs that I listened to all 34 minutes of it more than 20 times during this review cycle, and each time liked it more. Overall, the One.Rs sounded very even-handed -- I could listen to them over the long term with ease.

Lately, to gauge audio components' reproduction of women's voices, I've been listening to Carpenters albums. Richard Carpenter's backing vocals irritate me to no end, but Karen Carpenter's pure-sounding contralto mesmerizes me, and it's her voice that's always front and center in the mix. One of their best albums for evaluating gear is *With the Royal Philharmonic Orchestra* (24/48 FLAC unfolded to 24/96 MQA, A&M/Tidal), a new album comprising remasterings of already-recorded Carpenters hits with overdubbed accompaniment by the Royal Philharmonic Orchestra, conducted by Richard Carpenter, who oversaw all production. Richard has the reputation of being a perfectionist, and from what I heard he got it right -- this is one smooth, clean-sounding recording.



In “For All We Know,” the GoldenEars rendered Karen’s voice so clearly that I was spellbound -- she hovered unwaveringly in space between the speakers, sounding clean, clean, clean. Had I not been going back and forth between the One.Rs and the two-way, stand-mounted Focal Kanta No1s (\$5999/pair), also in for review, I’d have had trouble dredging up a single complaint about the One.Rs in that area. But the Kantos reproduced the sound of Karen Carpenter’s voice just a little bit more purely and a touch more openly than did the One.Rs. Don’t read that as a knock against the Triton One.Rs -- they were surprisingly close to the Kantos even in this regard, and in the bass they cleaned the little Kantos’ clocks, as you’d expect a couple big floorstanders to do against a pair of minimonitors.



But I wanted to hear if the One.Rs could rock. To ratchet up the intensity and the volume level, I turned to AC/DC’s Back in Black (16/44.1 FLAC, Albert/Atlantic/Tidal). I have several copies of this album on my music server, but for this test I turned to Tidal’s stream and cued up “You Shook Me All Night Long,” first at a moderate volume level, then at “11” (actually, -23.5dB on the EMM Labs Pre’s dial). It was loud enough that I knew I shouldn’t keep it there long -- I could feel my ears overload, which means damage can ensue -- but I listened long enough to hear that Brian Johnson’s voice and Angus Young’s lead guitar remained completely clean, with the right amount of bite. But unlike the original Ones, which sounded a little dull in the highs when I turned them up too loud, the Triton One.Rs, like the Triton References, remained lively and dynamic throughout.

The real highlight with this track was Phil Rudd’s drumming, which sounded big, ballsy, and powerful. It was reproduced as an incredible image several feet wide -- the front wall of my listening room is about 6’ behind the speakers, and I could “see” Rudd’s drums

about 3' beyond the wall. The sound was so realistic that I'm guessing the drums must have been recorded about that far back in the studio.



The next change of gear, from Constellation Audio's Revelation Taurus Mono amps to JE Audio's VM60s, was also a shift from solid-state to tubes. Did the sound disappoint?

When I played "Fly Me to the Moon," from *Bublé!*, I was wide-eyed. Through the JE Audios the sound wasn't quite as smooth and pure in the midrange and highs as with the Constellations -- super-smoothness is one of the Taurus's calling cards -- and there was far more electronic noise from the tubed VM60s. But man oh man, did *Bublé's* voice ever have presence and palpability -- a reach-out-and-touch-it sound that the Constellations couldn't quite muster. The other instruments also sounded more full and more dimensional.

Given what *Bublé's* voice had sounded like in "Fly Me to the Moon," I expected Karen Carpenter's to practically leap out at me from *With the Royal Philharmonic Orchestra*. It didn't -- the level of "presence" with the JE VM60s was pretty much the same as it had been with the Constellations. Only in "Superstar," in which she pitches her voice a bit lower, did I think I heard more palpability -- but only a touch. Were the VM60s embellishing only the lower midrange, where more of *Bublé's* range lives? Maybe. Overall, I wasn't as awestruck with this album through the One.Rs as driven by the VM60s as I'd been with *Bublé!*.

"My Funny Valentine," also from *Bublé!*, showed that the VM60s weren't restricting dynamic range, at least at typical volume levels. From the deep bass that begins the track to its climax just after 1:30, the sense of power and scale belied the amps' 60W output rating. Of course, the main reason for that power and scale was that the bass amp built





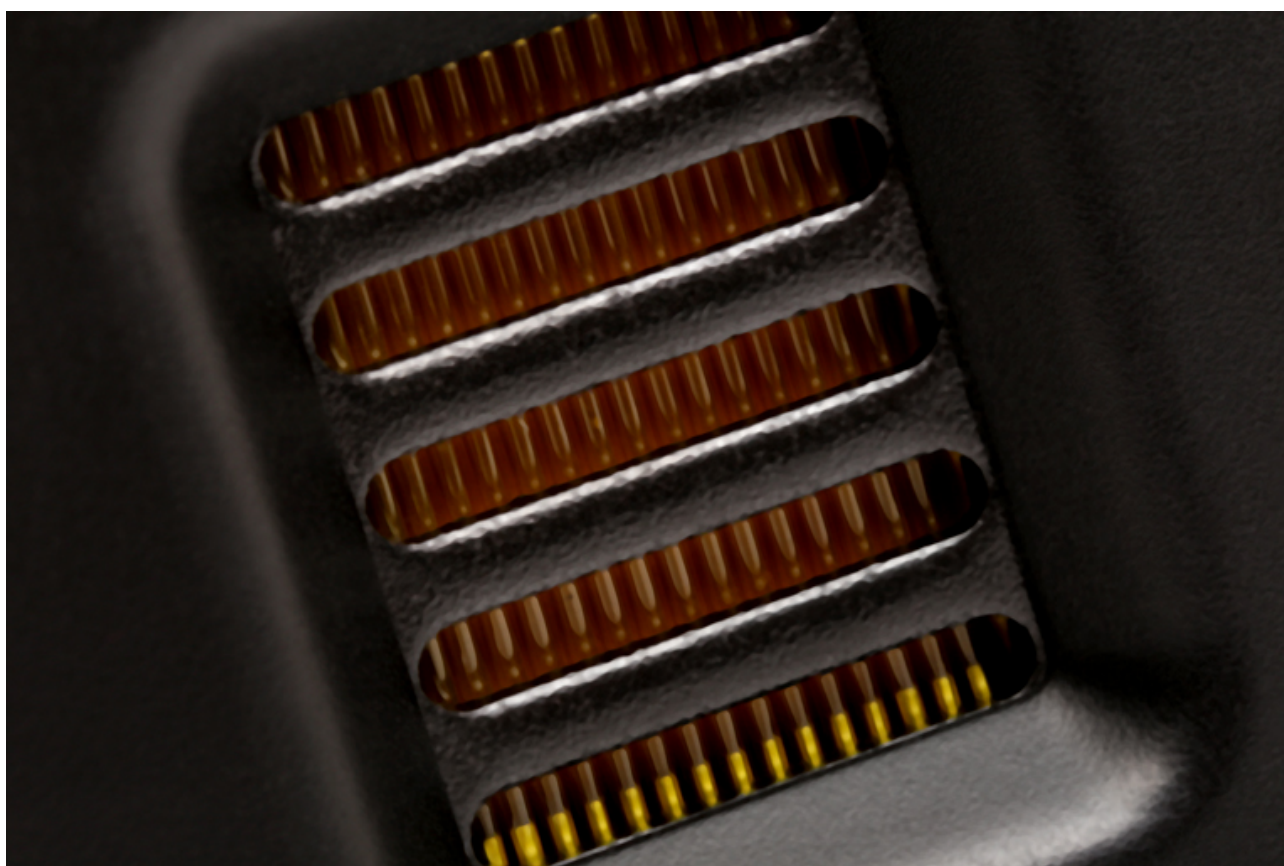
into each One.R takes on the full responsibility of driving that complex bass section, the toughest part -- a good thing for tube amps, which tend to be weaker than solid-state in the bass. But, ultimately, it wasn't the power of the bass that won me over -- with this track, again, it was the reproduction of Bublé's voice. The sense of presence the speakers conveyed was first-rate, and, even with the inherently noisier VM60s, the width and depth of the stage, and the musicians' positions on it, were in sharp relief. (Over the years, with preamps and amps of varying types in and out of my room, I've found no correlation between how quiet an amp or preamp is -- within reason -- and how precisely it reproduces aural images and soundstage width and depth.)



The VM60s showed their limits when, several times in a row, I played that brief section of "My Funny Valentine" centered at 1:36, where it peaks at ever-higher levels -- all much louder than I'd typically play a song like this. Eventually the VM60s ran out of juice, the sound going from clean to a little crusty and uncontrolled. I knew this was the

fault of the amps, not the speakers -- driven by the Constellation Revelation Tauruses, the Triton One.Rs could reproduce this recording at even higher volumes without sounding strained. The moral: A 60W power rating gets you adequate listening levels with the One.Rs, but not ridiculously high ones. At typical volume levels, however, I had nary a complaint with the VM60s in charge of the speakers. Patrick Jonsson's "Our Only Hope," from the soundtrack to the documentary film *On Her Shoulders* (16/44.1 FLAC, Lakeshore/Tidal), is a dark, dreamy-sounding instrumental with some very deep bass sounds that begin 45 seconds in. The One.Rs delivered that bass with aplomb, generating room-engulfing lows that let me know that these speakers were capable of true full-range reproduction -- i.e., down to 20Hz, the lower threshold of human hearing -- while keeping the higher-frequency keyboard and string sounds (I think they're electronically generated) sounding utterly clean and completely unobscured on the soundstage. It was a superb combination of power, delicacy, and control, right across the audioband.

One of the best examples of how well tubes could drive the Triton One.Rs' midranges and tweeters was "I Like the Melody of Your Voice," from prolific Greek composer Eleni Karaindrou's 148-track, three-disc *Music for Theatre -- Original Recordings* (1986-2010): *Twenty-Two Plays* (16/44.1 FLAC, Mikri Arktos/Tidal). It's a spare recording of, I think, a single classical guitar played high in its range, in what sounded through the One.Rs like a medium-size, highly reverberant room. In fact, the One.Rs so clearly rendered those spatial cues that I felt I could tell that the room had concrete walls and a tile floor. (I'd love to see a picture of it.) This recording's dynamics don't sound compressed -- the plucked guitar strings were reproduced strongly and sharply through the GoldenEars, but not so sharply as to pierce my eardrums. There was never that edgy, jangly sound that some tweeters produce. All in all, the sound remained remarkably clean.



Playing "I Like the Melody of Your Voice," I wanted to subject the Triton One.R to one more stress test. At 2:02, the guitarist plucks one string particularly hard. I kept repeating this

passage, increasing the volume each time, and expecting at some point to wince when the sound at last turned brittle, distorted, or compressed. It never did, remaining utterly clean and precise every time. But by this point, the fact that the JE Audio VM60s didn't crap out didn't much surprise me -- "My Funny Valentine" is a recording of a voice and many more instruments that produces a lot more energy across a much wider swath of the audioband -- a big difference from the single nylon-stringed guitar that performs Karaindrou's composition. That the tweeters didn't lose it, however, did impress me.

## **Conclusions**

Of the GoldenEar Technology speakers I've reviewed, I most like the Triton One.R -- it's the one I would buy. That's not to say it will be the best GoldenEar speaker for everyone -- a pair of Triton References might be better still for certain rooms, as their bigger cabinets and drivers can generate even more bass output. But in my room, the Triton One.Rs were ideal in terms of both size and sound, whether I was driving them with Constellation Audio's super-powerful, super-expensive, solid-state mono amps, or the more sanely priced, moderately powerful JE Audio tubed monos. Even among GoldenEar speakers, bigger isn't always better.

The Triton One.R is a fabulous-sounding speaker for its price -- decidedly better than the Triton One, and pretty much on a par with the Triton Reference. Considering that it costs just \$1000/pair more than the One and a whopping \$3000/pair less than the Reference, I can't help concluding that the Triton One.R is the very best deal in a top-level loudspeaker from GoldenEar Technology.

. . . Doug Schneider