

SECRETS of and Home Theater High Fidelity®

GoldenEar Technology Dolby Atmos Speaker System Review



Sandy Gross and his team at GoldenEar Technology have committed their research, development, and manufacturing to creating speakers that set the benchmark for their price points and beyond, so we decided to assemble an all-star lineup from them to create a complete 5.4.4 Dolby Atmos speaker system.

While I was attending the AXPONA 2017 show this year in Chicago, I spent some time in the GoldenEar Technology room speaking with Jack Shafton, GoldenEar's VP-Sales and Marketing. At that time the Triton Reference had been shown at CES, but it hadn't been released yet. Knowing that the Triton Reference review had already been secured by SECRETS' Co-Editor Piero Gabucci, I brought up the idea of doing a complete theater system review, including the Reference. We talked about doing some kind of "Super-System", and the idea stuck. With the blessing of Sandy Gross, the GoldenEar Dolby Atmos Speaker System arrived at my house!

Highlights

GoldenEar Technology Dolby Atmos Speaker System

- System consists of Triton Reference, Triton One, SuperCenter XXL, and HTR 7000
- 4 towers with built-in subwoofer amplification means fully enveloping bass
- Reference quality sound in both 2-channel music, AND full Dolby Atmos theater reproduction.
- Synergy with all speakers coming from the same manufacturer
- Efficient speaker designs provide a lot of amplification choices.

Introduction

I decided to take an all-star approach to building this review system, as opposed to the normal “kit” configuration that many manufacturers will offer. Playing lead role for the main speakers, I chose GoldenEar’s new flagship Triton Reference, which were our 2017 Speaker of the Year winners. Normally, people will opt for much smaller speakers for the rear / surround channels, but that wasn’t going to work for this configuration. Instead, I chose the mighty Triton Ones, which were selected as our 2015 Floor Standing Speaker of the Year. For the center channels, I am using the SuperCenter XXL, which currently sits at the top of the center channel offering. And finally for the height / Dolby Atmos speakers, I am using four of their HTR 7000’s. The main objective here was to create a system and experience that would be an all-out assault on the senses. Overkill? Perhaps. But one of my favorite quotes is this: “If it’s worth doing, it’s worth over-doing!”.

Design

The Goldenear Technology Triton Reference speakers as previously stated, are their flagship speakers that were released in 2017. Not only are they bigger in features and performance than the Triton Ones, but they are also bigger in size and heft. Coming in at 58” tall and 108 lbs. a piece, they are definitely a force to be reckoned with! I would highly recommend that you recruit some help as I did when unboxing and setting these up. For a complete design overview of the Triton Reference, and to learn more about how they perform in a 2-channel setup, I recommend that you also read Piero Gabucci’s review from 2017.



Up until the release of the Triton Reference speakers, the Triton Ones were the top dogs in the lineup, and received many Speaker of the Year awards across the industry, including us here at SECRETS. While the bass from the built-in 1600 watt subwoofers took center stage, the speakers were known for much more than that. Their massive soundstage, dynamic and bold reproduction, and the ability to also be as delicate and light on their feet as one could want were all traits that made them so popular. And with a price tag of just \$5,000 per pair, they were also one of the biggest bargains out there in high end audio. It was actually an audition of the Triton Ones at the 2017 AXPONA Show in Chicago that sparked the idea for this article, and not the Triton Reference as you may think. It was my first experience with the Ones, and when I heard just how incredible they sounded at all levels, I knew that (a) the Triton Reference must be really special, and (b) if they sounded this good as mains, they would be a perfect fit to serve rear channel duty in a theater setting. You can read more details of the Triton Ones from Piero’s review from 2015.

For center channel duty, I selected GoldenEar's SuperCenter XXL, which is their top of the line offering (3 different centers to choose from). This is more of a direct match to the Triton One across the front sound stage, so at first I didn't know how well it would blend in with the Triton Reference. Timbre matching across the front is crucial, and can make a huge difference in the overall presentation. Having said that, the SuperCenter XXL is no lightweight, and utilizes four- 5-1/4" Mid/Bass drivers, two – 6-3/4" x 8" Quadratic Planar Low-Frequency Radiators, one – 7" x 10" Quadratic Planar Low-Frequency Radiator, and one – HVFR High Velocity Folded Ribbon High Frequency Tweeter.



And finally for the ceiling / height / Atmos speakers, I opted for two pair of the Goldenear HTR (Home Theater Reference) 7000 in-ceiling speakers. The drivers are mounted at precisely calculated angles so that they face the normal listening position for exceptional imaging, superior frequency response, remarkable clarity and precise focus. The driver complement combines the same superb 7" high-definition cast-basket driver used in the acclaimed Aon 3, with one of GoldenEar's signature technology HVFR™ tweeters. A complex crossover network, with a high-frequency equalization switch, assures perfect blending. Given that I already had ceiling speakers in place for my Dolby Atmos theater, installing the HTR 7000's was a piece of cake.

Setup

My system is set up so that I can enjoy both a reference-level 2-channel playback, and a full-blown Dolby Atmos theater as well. While it isn't necessarily a difficult task to accomplish, it can get a bit expensive because you're simply adding more components. Regardless of what type of home theater processor you're using, you're just not going to achieve the same level of 2-channel



playback as you can get through a dedicated 2-channel preamplifier. And if you just have a 2-channel preamplifier, you don't have the ability to do home theater. Since most of us don't have the desire / space / budget for doing 2 completely separate systems, there is a work-around to where you can blend them both into a hybrid system of sorts. But when doing such a system, you really need to settle on speakers that do a fantastic job both in 2-channel mode, and in a theater environment. Fortunately for me, and for all of you reading this review, we happen to have speakers from GoldenEar Technology that can accomplish that challenging task.



The way to set up a hybrid system like mine is to have a 2-channel preamplifier that also has a home theater bypass input. With this, you run the front / mains out from your home theater processor into the bypass input of the preamplifier. The signal then passes through (without interference), then goes into your main amplifier of choice. With mine, I am using a Pass Labs X350.8 amplifier that runs the mains, whether in 2-channel, or in theater mode. You could also run this into your multi-channel amplifier that drives the rest of your theater speakers, but I am going for a higher level of audio reproduction in my main speakers than most multi-channel / home theater amps are designed to do. So in summary, my 2-channel setup, along with all of the high-end digital and analog sources is really the premier side of the equation. And when I operate the system in full theater mode, I am getting an upgrade of sorts on the mains since it's using a dedicated, audiophile-grade amplifier.

For my 2-channel listening, I was able to set the bass output controls on the Triton Reference to suit the needs of the room since there was no secondary room correction going on. Once that was set, I could utilize the ARC room correction system in my Anthem AVM-60 processor for theater / Dolby Atmos playback.

On both the Triton Reference and the Triton Ones, they include a separate LFE input to connect to the LFE outs of your theater processor. So with this configuration, each tower speaker was running in full range mode, and it had the separate LFE connection as well. With this configuration, I was getting a true 5.4.4 (5 main speakers, 4 subwoofers, and 4 Atmos speakers) setup.

For a further breakdown of the system, I have included the listing below:

- Anthem AVM-60 Home Theater Processor (Best Surround Sound Processor 2017)
- OPPO UDP-205 4K Ultra HD Audiophile Blu-ray Disc Player (Product of the Year 2017)
- NAD M27 Master Series 7-channel amplifier
- Pass Labs X350.8 Stereo Amplifier

Other components used for 2-channel evaluation:

- NAD M50.2 Digital Music Player (Best Digital Music Player 2017)
- VPI Prime Signature Turntable
- Pass Labs XP-17 Phono Preamplifier (review pending)
- Pass Labs XP-20 preamplifier
- PS Audio DirectStream DAC
- AudioQuest Niagara 1000 Power Conditioners (x2)
- Tributaries Series 8 Cables (a lot of them!)

In Use

After reading this far, watching my video, and looking at the all-star lineup of components from GoldenEar Technology, I think you can already see what direction this is going to go. But before we get into some of those details, let's talk a little bit about the listening experience, and how it may differ from person to person. As I try to do with all of my articles, I want the reader to have a good idea on what I like, and how I like to listen. If your listening habits are similar to mine, and I happen to really enjoy a component that I am reviewing, then there's a good chance that you will enjoy it as well. However, if our habits and likes are different, then it could definitely change your outlook. I've seen show reports where other reviewers have found a system or room to be just "ok", while I found them to be spectacular (and vice versa). It doesn't make one right and the other wrong, it's just a matter of difference in personal preferences.

For me, it's about "big and bold". I like a huge soundstage when I am listening, and bold dynamic range. I like to feel my music as well as hear it, similar to what you would experience at a live performance. While I can certainly appreciate details in the music and the notes, my preferred listening experience doesn't involve trying to determine what breath mint the saxophone player used before the performance (not that there's anything wrong with that). To me the listening experience isn't about engineering or graphs, it's about having fun, and losing yourself in the music and / or movies.

So having said all of that, let's dive into the details of our GoldenEar Technology Dolby Atmos Speaker System Review!

Given my listening and movie viewing preferences, the GoldenEar system falls right into the sweet spot of what I like. The system simply does everything that I want it to do, and then takes it all a few steps further.

I really took my time on this review process, because I wanted to have plenty of opportunity to throw everything at it that I could. I even went as far as switching out turntables, phono preamplifiers, preamplifiers, disc players, and amplifiers just so I could compare and contrast, and to see if I could find any weaknesses or inconsistencies. In the end as I went through all of my notes, all of my conclusions were the same.

In 2-channel mode, whether the source was digital or analog, I was constantly impressed with the presentation. The soundstage was big in its presence, without being overly pronounced. The dynamics were better than anything else I've had in my house, but not in the least bit fatiguing. Imaging characteristics were downright spooky at times in their pinpoint accuracy, and equally impressive was the height and depth as well. When playing Nils Lofgren – Acoustic Live from 2006 on vinyl, I would have sworn that I was listening to a huge pair of electrostatic speakers. The details, the finesse, and midrange clarity were phenomenal.

In home theater / Dolby Atmos mode, the enveloping and natural sound reproduction was nothing short of astonishing. Depending on the soundtrack, there seemed to be many more than 9 speakers active as the sound just seemed to be coming from everywhere. The choice to go with the full-range Triton Ones in the rear couldn't have been better because in high-action and high-impact scenes, I was able to hear (and feel) all of the details from behind me as much as I could in front of me.

And speaking of full-range speakers in the rear, let me take a moment to talk about the fact that I had a total of 4 subwoofers in action, with 2 in front and 2 in the rear. My previous setup included a JL Audio F113 subwoofer up front, which was an amazing sub. It may have been capable of more bass / output, but in comparison to the GoldenEars, it wasn't as good of bass. When you have just one subwoofer, it can be very difficult, if not impossible, to set it up so that you can't localize where it's coming from. It always seems to be weighted in one location or another. But when you surround the room with subwoofers, everything evens out and produces a much more natural LFE presentation. When you have a movie scene where there's something exploding from behind, you want the bass to be coming from the same spot. You don't really notice how unnatural it can be in a scene like this, with a subwoofer up front, until you have the ability to

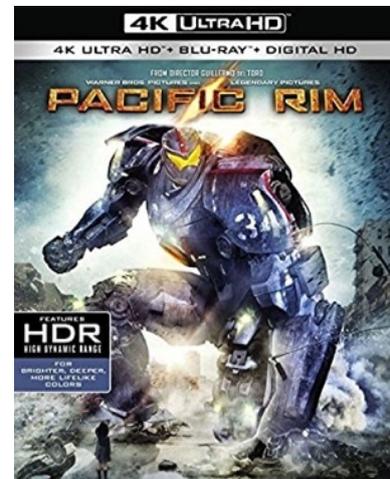
compare it to a system where there are also subwoofers from behind like in this setup. You get completely enveloped in tight, articulate bass, that puts you right into the scene.

I personally enjoy watching concerts on Blu-ray, and when doing them through the GoldenEar system just raised the experience a few notches. And to make it even better, I would switch the output on the processor to Dolby Surround, so that it also sends signals up to the Atmos speakers. A well-done concert, with music firing from in front, behind, and above you makes for a dramatic listening experience. It's much more of a "you are there" experience than simply listening in 5.1.

Now let me go into some details on specific movie and music selections.

Pacific Rim

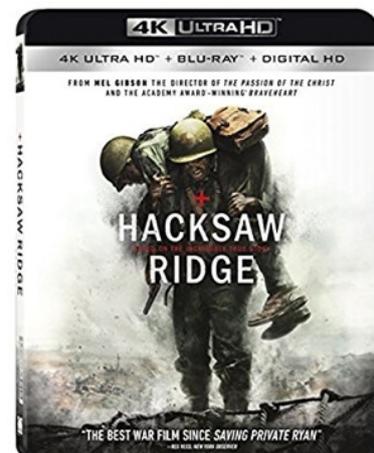
This is one of my favorite movies to watch and listen to on 4K Ultra HD. You've got giant robots, monsters, and gratuitous amounts of sound...what more could you ask for in an action movie? In chapter 10, there's a scene where people are hiding underground in the public Kaiju bunker. The Kaiju (monster) is walking in the streets above, and the Atmos track is firing in full force! The deep crashes from the footsteps hit strongly from the ceiling, then as dirt is falling down onto the people, you can clearly hear it falling in my listening room...first from above, then all around me. Very cool effects. Then later on in that same chapter, Gipsy Danger (robot, or "Jaeger") walks down the street to challenge the Kaiju, while dragging a ship in its hand to use as a weapon. The individual footsteps are thunderous, along with a dramatic score that builds up in anticipation of the battle. Once the battle commences, it's a complete onslaught of sounds and crashes, with strong, impactful footsteps as they move through the streets. All of this action is taking place through all 9 speakers, creating an immersive soundfield that puts you right in the middle of the actions.



During this barrage of explosive sound effects, the GoldenEar system never flinches, and asks for more! In a system with a traditional subwoofer, the sounds from behind you would have the LFE coming from a sub in the front. But with the mighty Triton Ones in the back, you're literally hit with low level effects from behind you as it should be.

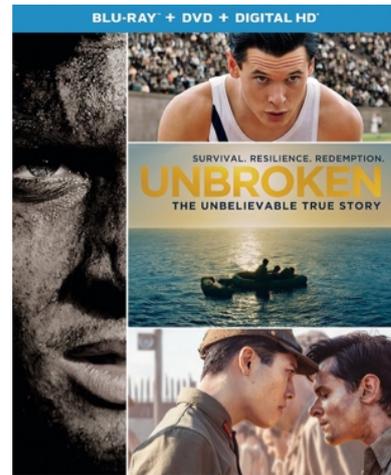
Hacksaw Ridge

Based on a true story, this World War II movie follows the life of Desmond Doss, who was a combat medic, and a conscientious objector. At first he was viewed as a coward, but the main battle scenes show how heroic he was with his efforts to save the lives of 75 men. In chapter 9, once they scale the wall of the ridge, it doesn't take long for the action to start. The American soldiers are slowly making their way forward on the battlefield through the smoke left behind by the rounds dropped in from the Naval ships just off shore, when all hell breaks loose. It starts with a single shot, then all of the sudden there are bullets flying from all directions around the room with stunning clarity. They don't seem to be coming from individual speakers, but rather from everywhere as if there were twice as many active speakers. Then once the mortars start to hit, I'm greeted with explosive bass from the ground, while debris caused by the explosion falls from the ceiling and then all around me. I'm literally on the battlefield in the scene. We follow Private Doss as he works to save lives of the wounded soldiers, as the bullets fly and explosive rounds continue to fall all around. This is one of the most intensive war scenes you will find, and a clear winner for a demo to impress your friends. Regardless of the type of sound effect, the GoldenEar Technology speakers recreated them with total authority.



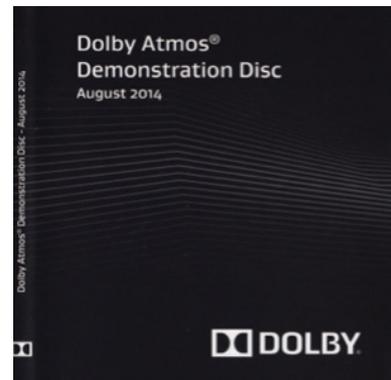
Unbroken

In yet another amazing World War II movie (directed by Angelina Jolie), the sound effects in the opening scene are second to none. The movie starts off with a fleet of American bombers entering the scene, slowly coming directly toward me. As they approach, the sounds from their engines rapidly begin to increase with thunderous precision. The focus is on one airplane, and as it flies just overhead, the thunder of it moving from the front, to the ceiling, to the rear is almost deafening. The entire room shakes with the quick fly-over. Then as the main crew are dropping their bombs on the island, anti-aircraft rounds start bursting in the sky with the sounds coming directly above your seating position. Then the explosions start coming from everywhere around the room with deep, impactful hits. Right after the bombers drop their loads, they are met in the sky with the Japanese Zeros and their machine gun fire that starts to rip through their hulls. Once the bombers start to return fire, we are greeted with some of the most intense machine gun fire ever produced in a movie. Each round goes off with such intensity that it's hard to even explain. Lesser speakers would be crying at this point, but with the GoldenEars, they remained composed well beyond the level of loudness that I can stand (and I like my movies loud!). This scene is just over 8 minutes long, and it's my most used demo that I have.



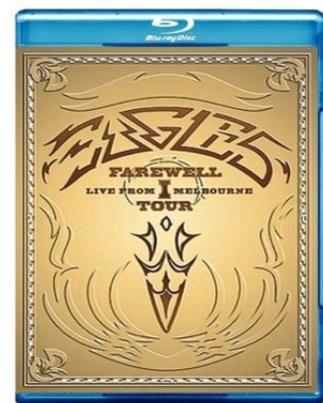
Dolby Atmos "Demo Disc"

Dolby Atmos Demonstration Disc. This disc has everything to showcase your Dolby Atmos system, and when I host parties at my house, it's usually running on a loop for some time before we sit down for some serious listening. There are delicate passages with leaves falling from trees and circling around the room to showcase the details that can be heard in an Atmos environment. And for those looking for demonstrations on impactful bass, they have included rain storms with incredibly deep thunder that fills the entire room given that the GoldenEar system utilizes 4 powered subwoofers. These are scenes designed to really show off high quality systems, and also show weaknesses in lesser systems. One of my favorite tracks on this demo disc is the music video of Bailando from Enrique Iglesias. The sound mixing in Dolby Atmos is nothing short of spectacular and I can only hope to see more music videos and concerts done in Atmos. Even when listening to this track at ridiculous volume levels, the clarity and dynamics remain intact without distortion, and it's recreated without fatiguing your ears even at (very) high levels.



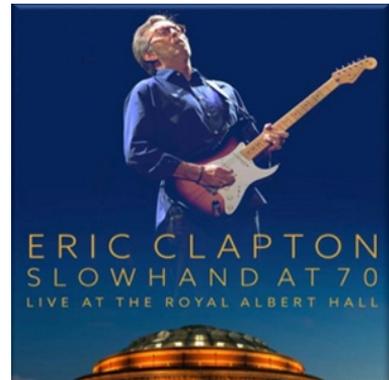
The Eagles Farewell Tour Live from Melbourne

Let me just say this right now...if you even remotely like the Eagles, you need to order up this concert right now (actually finish my article first, then go order it!). When it was just available on DVD, I had it. Then when it came out on Blu-ray Disc, I had to get it as well. With this version, you get a far better picture quality, and you also step up to DTS-HD which provides a better sound mix. For my listening, I switch it over to Dolby Surround so that it also fires up the height speakers in the ceiling to provide an even more involving listening experience. In this performance, the band plays all of the favorite hits, and they also throw in some of the best songs from their individual solo careers as well. Case in point is Don Henley's Dirty Laundry from 1982. With the entire band playing, and Don's voice in top form, this is perhaps my favorite song from this performance. The louder I play it on the GoldenEars, the better it sounds without even a hint of strain. The mix is spectacular with instruments, vocals, and crowd noise coming at you from all directions. Another great demo here is Funk #49 performed by Joe Walsh during his days with the James Gang. Joe's vocals, guitar work, and classic guitar-face is absolutely on-point in this live performance, and the system just seemed to step it up another notch. Obviously, you can't talk about The Eagles without discussing Hotel California. The version they play here in Melbourne starts out with a very cool solo by their trumpet player with the sound coming from all around you as opposed to just from the front. At this point you don't even realize what song it is, then as the trumpet and lights fade, the guitar kicks in with Hotel California and the crowd erupts. Once the goosebumps start to settle down, you are treated with a fantastic rendition of the song that you'll want to play over and over. When you play this on your system, be sure to turn it up to 11! The clarity and dynamics provided by the GoldenEar speakers for this concert is absolutely stunning.



Eric Clapton “Slowhand at 70”

When you're talking about the only person to be inducted into the Rock & Roll Hall of Fame 3 times (Yardbirds, Cream, and solo), you can pretty much assume that the performance is going to be spectacular. And since the Royal Albert Hall is on my bucket list for places to see a concert, it just kicked up my enjoyment of this performance even greater. While there's a tremendous amount of great material in this concert, I did have a few standouts where the band was just ridiculously good, and the speaker system performed so well that I completely forgot that I was "reviewing" gear! Can't Find My Way Home is one of these songs, and it had a little something for everybody. Regardless of what genre of music you typically listen to, you will get a tremendous amount of joy out of this one! In an acoustical version of Driftin' Blues, the GoldenEar speakers seemed to transform into 5 big electrostatic panels with the type of sound that they produced. There was so much detail in Eric's guitar work, with silky smooth mids and highs. Not only was the front soundstage massive, but with the way it was mixed (and reproduced), his guitar seemed to be coming from everywhere. This is a song / performance that I can listen to over and over on this system, and it will undoubtedly become one of my favorite demo tracks for friends.



Conclusions

THE GOLDENEAR TECHNOLOGY DOLBY ATMOS SPEAKER SYSTEM is the most complete setup that I can imagine without reaching into the stratospheric levels of cost. It exceeds expectations both in music and in movie reproduction.

GoldenEar Technology has been knocking it out of the park for years now with the products they have been designing and manufacturing, and has been known as a value leader in the high end community. When you look at the all-star system we have assembled, it still carries a price of \$16,700, which is a lot for most people. However, when you compare this to many other manufacturers' gear at the high end level, it is an absolute bargain.

LIKES

- Stellar at music reproduction
- Great, modern looks
- Built-in subwoofers / amplification
- Totally enveloping sound
- System synergy

WOULD LIKE TO SEE

- Reference Series center channel to match

What I like so much about this system is that it is capable of doing whatever I want it to. The Triton Reference are indeed true reference speakers when it comes to 2-channel audio reproduction. Then add in their prowess in a home theater environment, and combine it with the Triton One, SuperCenter XXL, and the HTR 7000 speakers, and you have a world-class system that will bring you unlimited amounts of listening pleasure.

I tried very hard over time to come up with negatives, or nit-picking on the system, but in the end, I couldn't. I found it to be that good!

When a reviewer enjoys a product so much that he / she decides to buy it and use it as their new reference gear, it's about as much of a compliment to the manufacturer as you can imagine. And since when I was done I told Sandy Gross and Jack Shafton of GoldenEar Technology that I wanted to buy it...the entire system...they knew then just how much I enjoyed the products.

Highly recommended!