Magnepan 3.7i full-range ribbon/quasi-ribbon panel speakers Review

By: Constantine Soo | May 2016 Print Ar



Wendell Diller, Magnepan's marketing manager for forty-three years will not attempt to sell his company's products to you by describing the strengths or weaknesses of any of them. He has such confidence on the uniqueness and performance of his speakers that he prefers to quote his customers on their satisfactory purchases and user experiences. Diller believes their company is to survive and flourish by developing speaker models at marketable price points, as well as by dropping those that don't sell. Diller has a point. What good is a product, however resplendent it is in offering the latest in technologies if it doesn't sell?

High-end audio speakers are the bane of a self-respecting salesperson's efforts. The luckier salesperson will have a product that looks attractive, sounds spectacular, works reliably and feels right at home as the subject of its owner's flamboyancy. Market analysis is of no consequence if real-world customers don't come knocking. Therefore, the present series of speakers offered by Magnepan, according to Diller, is consisted of speakers in real demand. The subject of this review, the 3.7i, retails at \$5,000 with no option. Only one other model exists beyond the 3.7i and that is the 20.7 beginning at \$13,850 the pair, depending on finish. On looks, my wife found the resemblance of the Magnepan to large room divider panels as the least obtrusive among loudspeakers, noting that the speakers were not placed in the middle of the room. The pair of 3.7i being reviewed was finished in red aluminum trim and off-white fabric.

Specification:

Freq. Resp.: 35Hz- 40 kHz

Rec Power: Read Frequently Asked Questions

Sensitivity: 86dB/500Hz/2.83v

Impedance: 4 Ohm

Dimensions: 24 x 71 x 1.625 inches

MSRP: \$5,000 standard, \$6,000 red aluminum trin

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As a dipole, the Magnepan was highly directional with negligible side issues and thus did not require a large room in which to function properly neither, provided strategic acoustic treatment was applied. To reduce the reflection from the front wall in my 14 by 30 by 9 feet room, I placed four stacked pairs of ASC TubeTraps at primary reflection points. As a bonus, the setup also reinforced bottom-end definition without sacrificing dimensionality. Now, I got to have the cake and eat it, too. The Magnepan 3.7i were set nine feet apart inner edge to inner edge, and I sat at the tip of a near equilateral triangle eleven feet away to the center-stage, thus sitting nowhere near the rear wall.

The beaming dispersion of the dipoles necessitated toe-in to the point that the tweeters should be slightly further to the listening spot in an angle than the woofer panels. Arranging the tweeter panels onto the inside created a stronger sense of three-dimensionality while arranging them to the outside would create a larger sweet spot. This review was conducted with the tweeters on the inside.

Spatiality

Diller loves to explain how "the ideal speaker would look like a pole going from floor to ceiling," and how the 3.7i and 20.7 are created in an attempt to replicate that ideal. I had an encounter of a similar ideal a decade ago at a dealership, where I experienced a \$30k pair of line source speakers, five-times the price of the Magnepan 3.7i, featuring an array of small midrange, tweeter drivers and woofer towers over six feet tall. In creating some of the most realistic dimensionality and spatiality of symphony orchestras ever attempted by loudspeakers of any design, that line source was not as ideal in reproducing solo vocalists or instruments nonetheless. For one, all that multitude of drivers only served to recreate a bloated, out-of-place image of an otherwise small-footprint performance.

Within the Magnepan 3.7i's frame of 24-inch width and 71-inch height was a line source ribbon tweeter array at 55 inches tall and 2.5 inches wide, plus a quasi-ribbon midrange array of equal size right next to it. This is equivalent to 137.5 square inches of radiating area for the tweeter and midrange each! And these ribbon arrays' behavior bore no resemblance to that of the other, \$30k line source. With a crossover frequency of 300 and 2k Hz, the behavior of the tall and narrow Magnepan ribbon tweeter and midrange sections in rendering the physique of a lone flute in track 5 of the JVC XRCD2 disc, *Dotou Banri* by Ondekoza would best be described as delicate and coherent.

As driven by the Pass Labs XA200.8 pure Class A high-current monoblock amplifiers and the Xs Preamp via MIT Cables Oracle cable system, sourced from the Esoteric K-03 SACD player/G-01 rubidium clock with the Bricasti M-1 dual-mono DAC alternating as my reference DAC, all feeding from MIT Cables ACII power cables and a Z Powerbar except for the power amplifiers which were plugged directly into the AC outlets, the expeditious transients of the Magnepan was of reference caliber among speakers, and the highly focused spatial portrayal of the flute conjured up the finesse of the best of soft-dome tweeters. Considering the physical vastness of the Magnepan tweeter array, the fact that, to boot, it did not throw out a huge soundstage with a disproportionately wide flute image like the expensive line source and still managed to render the ferocious energy output of the petite flute at its maddest and mightiest was a feat.

In recreating venue acoustics, that energetic output of the Magnepan was equal to that of the \$50k Tannoy Westminster Royal SE as produced by the tweeter in the throat of the



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dual-concentric horn woofer. The coupling of air by that combination attained a speed and low-mass coefficient that vividly portrayed minute ambience details. Imagine a ribbon possessing the speed and output of such finer horns at a scant portion of the footprint and cost.

In rendering the 24/96 HDTracks Bruckner Symphony No. 9, in which Claudio Abbado (26 June 1933 – 20 January 2014) conducted the Lucerne Festival Orchestra in one of his last recorded live performances in August, 2014, the Magnepan 3.7i coerced me into taking an auditory adventure to the venue, where the acoustics of the famed Swiss concert hall was in full bloom. My audiophile mind told me to relish in the hall acoustics, while my inner child kept wanting to open my eyes to the physique of the panels. Another recording that captured a good deal of hall acoustics was Orfeo's 1996 re-release of the 1984 live recording of the late Carlos Kleiber conducting the Bavarian State Orchestra in the Beethoven Symphony No. 4. A dome tweeter in high-efficiency speakers, such as the Audio Note AN-E SEC Silver of old, captured that ambience quite spectacularly as well.



Tonal definition

As critical as the Tannoy was in rendering recordings of questionable quality, the Magnepan was more critical of suboptimal sources and powerfully transparent of various levels of recording competency. A good deal of my favorite recordings from Deustche Grammophon were now revealed as mere medium-grade whereas the likes from XRCD, Telarc and several smaller audiophile labels were now set on a higher pedestal. Thus, the high level of transparency of the Magnepan ribbon arrays was arguably its ultimate attribute among driver designs and were a natural in reproducing the piano's dynamic scale and tonal lightness within the confines of my listening room. For example, the tonal clarity of the 24/96 HDTracks *Return to Chicago* by pianist Horowitz through the Magnepan 3.7i surpassed that of the dual-concentric, double-wired Tannoy Westminster Royal SE. Per the PDF liner note, "the original analogue recordings were made using B&K 4006 microphones through a Neotek console. They were recorded two-track onto Studer B-67 tape recorders, on 1/4" tape, onto 10 1/2" reels at a speed of 7.5 inches per second,



with Dolby 'A' encoding Remastered was done at 24 bit/96 kHz."

The liquidity of the piano's tone and the beautiful, complex harmonics of its reverberation heightened a surrealism quite rare to behold. In this regard, the Magnepan sections was at their finest arguably with the Pass Labs monoblocks and acting seemingly as one single entity, producing delicate low-level detail that did justice to instruments solo or group, shooting out such precision and flamboyant tonal energy that the listening experience was the most realistic and haunting in memory. This was high-end audio at its most fun and enjoyable. The slightly larger 20.7 should surpass the 3.7i in this regard for more than twice the money, the question is by what extent. "The 20.7 is the 3.7i on steroids. As with much of high-end it is a non-linear relationship," Wendell offered. As non-linear as it is, this non-linearity is modest in all fairness to the industry.

The Magnepan 3.7i came with two extra resistors that, when inserted into the special terminals at the back, would reduce the output of the top-end. I ran the panels straight from the Pass Labs XA200.8 via the MIT Cables Oracle system without attenuation of any kind, and while I found the Maggie top-end initially to be softer than silk-dome tweeters, I had become aware later on of its accuracy and wholesomeness. Hence, it follows that these tweeters are quite possibly among the purest and most direct in passing the top-end. By the virtue of the Magnepan midrange and up, instrumentations from Louis Armstrong's otherwise archaic "We have all the time in the world" had rarely been more seductive.

All the while the speaker itself was hardly breaking a sweat, I was breathless. For such a large panel to emit such feebleness and in the proportionally correct dimensionality was an extraordinary engineering feat. The last speaker that exhibited similar force and finesse, albeit a vastly different tonal palate, was the Tannoy and at eight times the price.

Depth charge

While the Magnepan 3.7i is six-foot tall, over 70% of the 3.7i's panel is dedicated to sub-300Hz outputting. The solid-state, \$10,000, 47 Lab 4739 Fuduo with 70 Wpc into 4 ohms made the quasi-ribbon bass panels expressive and meticulous, while the \$3,499, Wells Audio Majestic solid-state integrated amplifier with 150 Wpc at 8 ohms seemed to pack quite a wallop towards the bottom-end driving the 3.7i. Ultimately where budget allows, to drive the Magneplanar bass panel into complete deployment while still exerting refined top-end utterance on the speakers, the use of pure class A, high-current designs such as the Pass Labs monoblocks seemed mandatory.

The company used to recommend placing the speaker closer to the front wall to augment the bottom-end performance; these days, they encourage users to experiment. I placed the speakers five feet into the listening room initially, and the bass cut off precipitously. Now, they were three and a half feet from the front wall, and the bass drum in the 24 Bit 88kHz HDTracks download of Eiji Oue and the Minnesota Orchestra was not only strong and full, but quick, sophisticated and precise. It was room pressurizing most satisfactorily and yet overwhelming not with force but grace. To say the Magnepan bass was the most accomplished was to admit I've never experienced as evocative and natural a sound like this. Hence, the Magnepan's bottom-end was one of the most accomplished I've experienced. In other words, the dipole bass was truly exceptional.

Nowadays, I don't mind parking my car just a bit further in the parking garage so I get to



walk a bit more. Nor do I eat all the way to 110% full, despite my Texan wife's customary beckoning. On listening to music, I hit the loudness level that most conjure up the level of a live performance then I turn it down just a bit. On using the Magnepan, however, it's another story.

With such beautifully rendered bass notes, I took to rock music. Between Metallica's spellbinding music-making and the dance-worthy beats from the *Twilight* soundtrack of "Supermassive Black Hole," even Sting sounded fantastical in "Windmills of your mind" with the lovely bass lines from the rock solid drum and artsy electric bass. Pink Floyd, AC/DC, Seal even Jim Croce got air time with the Magnepan 3.7i.

I even put the 3.7i through test tracks of the landing of passenger jets, thunderstorms, fireworks and so forth, with the volume at ear splitting level. The Maggie was unharmed, the Pass Labs and MIT Cables provided clean and potent power to the 3.7i and I had a blast. The best part was, whether the Maggie was playing orchestral music or sound effects, they were the only speaker I've come across whose spectral coherency remained intact at a stand-up listening height. After sitting for hours on, I could now stand up and still enjoy the same level of performance of the Magnepans.

So, the Magnepan 3.7i was a bass panel of speed and force without equal, truly. And all for a pittance in the world of high-end audio. For the budget-minded, I say get a smaller, \$6,750 Pass Labs X150.8 stereo amplifier and revel in the wonder.

Conclusion

The Magnepan 3.7i is a world class performer that costs pittance in today's terms. Its suite of performance attributes calls for it to be priced competitively at a much higher price point. The manufacturing and materials of the Magnepan 3.7i may or may not have become revolutionarily cost-effective, it boasts a construction perfected through years of continuous refinement and its performance exceeds those of many other companies' products at the same price point. The 20.7 at \$13,850 may reflect a more economically sensible and sustainable profit-to-cost ratio in the books. Readers are advised to direct the savings gained in the purchase of the Magnepan 3.7i into purchasing a high-current power amplifier for driving the panels.

While the 20.7's superiority is almost guaranteed, the tall and slender Maggie 3.7i at 6 feet tall and 2 feet wide is only five inches slenderer, eight inches shorter than the 20.7 and costs less than half. While the degree of superiority of the larger Maggie over the 3.7i is worth the extra eight grand must reside in the ear of the beholder, the 3.7i, and the it follows that the 20.7i, too, have upped the ante of the high-end audio loudspeaker arena collectively and profoundly.

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