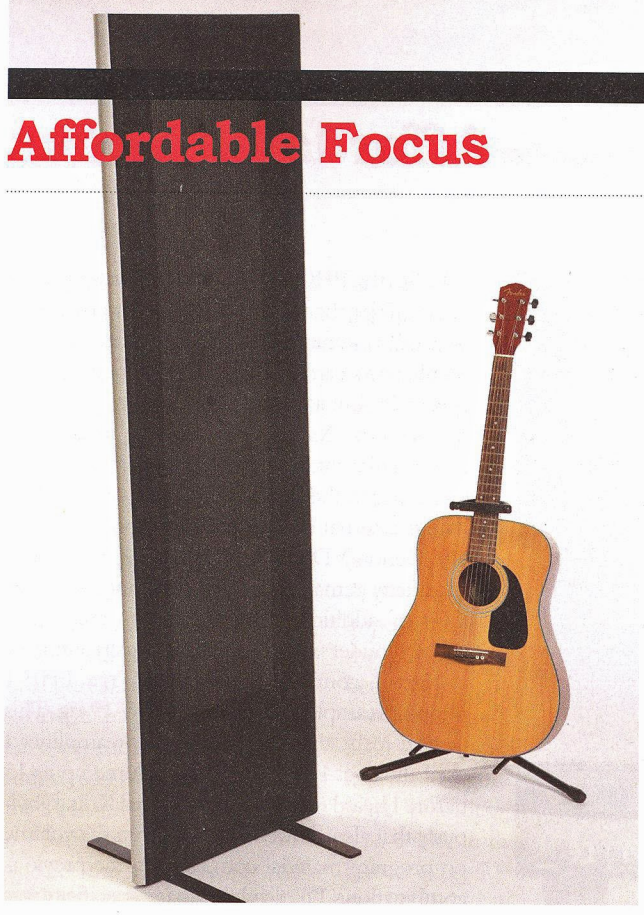

Magnepan MG1.7i Loudspeaker

A Gem at a Bargain Price

John Nork

Like many long-term music/audio enthusiasts, I have seen (and heard) a long succession of conventional speakers (drivers-in-a-box). Unfortunately, that description ("conventional") aptly summarizes the sonic caliber of many. Simply put, live music does not sound like drivers in a box.

Of course there have been some truly inventive exceptions along the way. These include the original Quad electrostatic, the KLH Nine, and a scant few others.

In more recent times, there have been some outstanding (and musical) achievements in the ubiquitous drivers-on-baffles-in-boxes. These would certainly include offerings from Wilson Audio and (more recently) from Magico. Both of these companies have exercised almost super-human design efforts to banish spurious sounds from speaker enclosures and the drivers themselves. The goal, as always, has been to let the music flow through the speaker unaltered. Much easier said than done.

The first time I encountered a Magneplanar Tympani I did not know what to make of it. No cones, no box, what the heck was this thing? It looked more like a hinged, multi-panel room-divider than a speaker. When I first got the Tympani 1 speaker, many visitors to my home wandered around the listening room wondering where the speakers were. Given the customary appearance of box speakers, they were truly surprised!

The Magneplanar Tympani was designed by Jim Winey, a music-loving engineer for 3M in the Minneapolis area. Winey fashioned highly unusual drive elements for the speakers (planar-magnetic strips, radiating sound equally from both the front and the back of the speakers—dipolar). There were no enclosures to speak of, and no conventional "drivers," either.

These hinged three-panel behemoths were distributed by Audio Research (the undisputed king of high-end electronics back in the 1970s). Not surprisingly, Magneplanars were frequently paired with ARC electronics, in high-end audio shops and audiophile listening rooms alike.

One thing that has been consistent to this day about Magneplanar/Magnepan products is their ongoing evolution and improvement over time. For example, the Tympani 1D was a big improvement on many levels over the original Tympani 1, although they looked identical.

One weekend long ago, I conducted initial listening tests of the Tympani 1D and the legendary Dahlquist DQ-10. Much to my surprise, the bottom end of the Maggies was the best I had ever heard. It was quick and clean and had exemplary pitch definition, which was not the case with many of the woofers in monster dynamic systems. It was uncannily lifelike with percussion, especially lower-pitched drums like tom-toms.

On the other hand, as good as they were, I noticed some minor flaws and colorations in the midrange of the Magneplanars. The vital midband was slightly hooded and hollow sounding, especially with certain instruments (e.g., when listening to a two-track mastertape of a local bluegrass band, the Dahlquist conveyed a more realistic tone from fiddles and male vocals than the Magneplanar did). The Magneplanars also sounded a bit veiled, with a discernible fine-grain structure superimposed on the midrange (and to a lesser degree) on the top end. Of course, they obliterated the DQ-10 in bass performance, which was not that speaker's forte. Still, a very instructive comparison for speakers of the time.

My next Magneplanar experience came from the fertile mind of the late, great HP. By this time, I had moved up to the Infinity QRS as my reference speaker system. That ambitious, creative design had some small drawbacks, though, and one big one. The big one was the attempted (but unsuccessful) blending between fast low-mass midrange (EMIM) and high-frequency (EMIT) drivers and the massive 15-inch woofer. The QRS woofer did everything you'd expect in terms of extremely low-frequency reproduction and visceral impact. However, the vaunted pitch definition of the Tympani put it to shame. The woofer was sluggish, thick, and distractingly discontinuous with the rest of the QRS system.

HP reached the same conclusion and came up with a truly creative idea. Why not use the Magneplanar panels for bass reproduction, and replace the earth-shaking Infinity woofer with the Tympani 1D? We both had the impressive Carl Marchisotto-designed Dahlquist DQ-LP1 electronic crossover, which made the merger of dissimilar speakers work very well. This change single-handedly removed our significant reservations about the rough sutures between the big bad woofer and the nimble upper ranges of the speaker. I remember tying a long piece of twine to the Magneplanars and living in fear that the whole contraption would come crashing down on the floor. Luckily it did not.

Perhaps even more stunning than the greatly improved sense of coherence and continuity was the incredibly lifelike soundstage the system produced (uncannily like real music being played in real space). The unerring placement and spacing of performers in the venue were truly remarkable.

Specs & Pricing

Type: Three-way, dipole loudspeaker with quasi-ribbon drivers
Frequency response: 40Hz–24kHz ±3dB
Sensitivity: 86dB/500Hz/2.83V
Impedance: 4 ohms
Dimensions: 19" x 65" x 2"
Weight: 95 lbs. per pair (shipping)
Price: $2400 per pair

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The Present

The balance of this review will now focus on the Magnepan MG1.7i speaker. However, a number of the themes outlined previously are very applicable to the 1.7i and touch directly on the speaker's remarkably lifelike sound (and "lifelike" is perhaps the most noteworthy attribute that can be bestowed on an audio component).

The 1.7i sounded "good" when first unpacked and connected to my audio system. However, as I came to realize, it is far better than "good." Attaining the qualities that make it exceptional requires some work and effort. To wit:

The speaker *requires* significant break-in time before certain sonic constraints gradually melt away, leaving a far better transducer. Prior to break-in, the 1.7i displays limited dynamic range, detail, and bass impact. Initially it can sound overly polite and a bit lifeless.

Finding proper positioning and placement for the 1.7i is also somewhat of a challenge. Again, it can sound good without tedious placement experimentation, but some of the speaker's magic will not be evident. The instructions in Magnepan's owner's manual are very helpful and down-to-earth (similar to the company itself, in my experience). First, obtain an instructive recording of quality bass material of varying frequencies. Play it, while slightly moving the speakers on the long axis of your room. Ideally, the varying bass frequencies should be uniform in amplitude (e.g., minimum room resonances, peaks, and valleys). Although these speakers will not generate shuddering subsonic notes (such as a pipe organ can deliver), they are capable of quick, clean bottom-end reproduction with excellent pitch definition.

Magnepan's manual indicates that the tweeters can be placed on the inside or outside of the speaker panels. The speakers are mirror-imaged pairs. My conclusion was to use the inside edge for the tweeters, if you want the absolute best imaging and spatial presentation they are capable of. Placing the tweeters on the outside edge of the speakers does offer a larger listening position (sweet spot). However, you lose some imaging specificity, lifelike (there's that word again) dimensionality, and verisimilitude of image space. Also, the speakers must be slightly canted to allow the lower-mass tweeter to be slightly farther away from the listener than the bass/midrange elements for proper coherence.

Unless your room is very large (i.e., the speakers are far away from the rear wall), you will need some kind of sonic damping material on the walls behind the speakers to reduce the ratio of reflected-to-direct sound. This is one of the unavoidable drawbacks of dipole speakers. Placing these speakers too close to the back wall mars the lateral imaging precision. The same thing holds true for undamped, reflective rear walls. Worst case, this overly reflective combination renders the sound somewhat splattered and diffuse in terms of the placement specificity the speakers are capable of.

To make things more challenging, like most stellar speakers, the Magnepans are very revealing of the flaws in associated equipment and source material. I made several changes during my testing sessions, and easily detected the "personality" of the upstream gear and source. When properly set up, the Magnepan 1.7i can sound very good with a wide range of components and recorded music. Until you have tried them with truly commensurate components and music, though, you won't fully experience what the speaker is capable of.

Last but not least, these speakers present a challenge for amplifiers to drive (4 ohms impedance at best). Although I was able to get enough volume out of various amplifiers, even ordinarily unstressed amplifiers got much warmer than normal after a lengthy listening session with the 1.7i. These are not the speakers for puny (if sonically glorious) single-ended triode (SET) amplifiers. Like all Magnepan/Magneplanar designs I have worked with over the years, a high-current amplifier (with impeccable sound, of course) is best.

The Magnepan 1.7i is a full-range three-way system (bass/midrange, tweeter, super-tweeter) employing quasi-ribbon technology throughout. As is easily visible when examining the speaker panels, the bulk of the driver area is for the lower midrange/bass frequencies (especially the bass). The larger Magnepans do have better low-end extension (as witnessed on the large Tympani series speakers, as well as the larger current Magnepan 3.7i, 20.7, and 30.7 models).

I have had extensive experience with the predecessors of the 1.7i (the 1.6 and 1.7). Here is a relevant quote about the older models from Magnepan's website: "The 1.7 is a departure from Magnepan's 41-year history of using planar-magnetic drivers for the bass or lower midrange. The use of quasi-ribbon technology down into the lower midrange and bass will provide a new level of coherence."

This is absolutely true and, I suspect, the absence of quasi-ribbon drivers (which simply didn't exist back then) was the cause of some of the sonic anomalies in the lower midrange of the Tympani models noted above. Once broken in and placed properly, the 1.7i is noticeably purer, less colored, and more continuous/coherent than any other moderate-size Magnepan model I have heard (including its immediate predecessors, the 1.6 and 1.7). The relatively small size of the 1.7i (for a Magnepan design) helps it to excel in a wider range of room sizes than its larger brethren.

Especially for a speaker of modest cost, the 1.7i does remarkably well in accurately reproducing a wide range of musical instruments and human voices. To a large degree, related instruments (e.g., reeds, woodwinds, brass) not only sound like their larger instrument group, but uncannily like the specific instruments they are, even in musical passages featuring multiple instruments playing at the same time. The 1.7i puts most speakers to shame in this regard.

The same thing applies to vocals. For example, the 1977 Crosby, Still and Nash album (*CSN*) starts with the arresting Crosby track "Shadow Captain." As with most of their work, there are three voices singing throughout, normally in three-part harmony. There is a brief passage near the end, however, that all three sing in unison (the same notes). Even then, with the 1.7i, each individual's distinctive voice is clearly evident. Most speakers blur this section into a single whole, rather than reveal the individual vocals underlying the composite sound.

In short, the 1.7i speakers have exceptional definition and detail resolution. This ranges from subtle background instruments (such as the harp and glockenspiel) being distinctively audible during orchestral passages, but discernible in a very natural way (not like the kind of artificial "detail" that some speakers amusically offer).

An example of the musically accurate fine detail that the 1.7i conveys can be heard on the SACD version of *Alison Krauss + Union Station Live* on Rounder Records [11661-0515-6]. This live concert was performed and recorded in the beautiful and acoustically excellent 1927 Louisville Palace theatre. Especially with the SACD layer, natural detail and definition abound. This is audible from the individual bluegrass instruments (ranging from rapid-fire three-finger Scruggs banjo picking to the distinctive metallic tone of Jerry Douglas' dobro to the plectrum-struck twin strings of the mandolin to Alison Krauss' fiddle to the upright bass and various percussion instruments). The entire set is laudably three-dimensional and natural. The available detail goes all the way down to the sound of the audience applause, which is very much like what you hear at a concert in a small, acoustically distinguished venue like this. The separation of various segments of the audience applauding at different speeds and varying distances from the microphones is preserved by the Magnepans (almost, but not quite, the sound of one hand clapping). This fine sense of detail is also quite audible on the reverberant decay of a full orchestra when it completes a piece of music. Again, very natural, like an actual live concert.

In addition to natural fidelity and retention of musical detail, the 1.7i also does a remarkable job of coherently and credibly conveying the soundstage and space of live music (again, most audible on well-engineered recordings). The sound and distinctive acoustic characteristics of the venue are very well preserved. The stage is amply three-dimensional. The front-to-back placement and separation of instruments and voices can be eerily lifelike. Instruments and voices have distinct placement in the musical gestalt (again, like the real thing).

The sonorous tones of various brass instruments are also wonderfully conveyed with a true sense of musical fidelity. The distinctive pitch ranges and sounds of coronet, trumpet, French horn, trombone, and tuba are all rendered realistically. To really hear a live-music-like brass instrument, try the trombone solo in the later section of "Poor Boy," Track 9 on the *Sheffield /XLO Test and Burn-In CD* of all things. Both timbre and space are beautifully captured by the 1.7i speakers.

Conclusion

The Magnepan 1.71 is an exceptional loudspeaker, especially for its modest cost. It is a true high-end product that will be especially appreciated by those who know and treasure the beauty of live music. The use of the same improved drive elements throughout the frequency expanse works very well. The 1.7i also retains the spatial quality of live music. As Magnepan states, the company has produced a highly phase-coherent speaker without resorting to a complex crossover network (and it shows).

In summary, this is a device that does not get in the way of the music. Rather it retains most of the musical information passing through it. It is clear, detailed, and enjoyably realistic. The 1.7i affords a true high-end listening experience for far less cost than sonically competitive speakers. It is a gem and a real bargain. tas