

MAGICO Q7 LOADSPEAKER

Equipment report

A Landmark Achievement

By Robert Harley | Jul 23rd, 2013



Let's indulge ourselves for a minute and imagine that we could conjure up the ideal loudspeaker without regard to physics or the limitations of today's technology. Our fantasy allows us to specify the transient speed of a full-range ribbon, but with the weight behind those transients provided by moving-coil drivers. We'll take the transparency of an electrostatic with the dynamic contrasts and "jump factor" of a horn design. Since this is all wishful thinking, we can specify no horn colorations to go with the horn-like sense of immediacy and dynamic verve. We're free to order up the visceral bass weight and body of a large ported enclosure accompanied by the dynamic agility, textural resolution, and pitch definition provided by a small sealed enclosure. And while we're at it, our dream speaker will exhibit no box coloration, have high sensitivity, and be an easy load for a power amplifier.

Although such a speaker is obviously merely a creation of our imaginations, there's one loudspeaker that comes closer to that ideal that I ever thought I would hear. That loudspeaker is the Magico Q7

Before tackling this ambitious loudspeaker I'd like to settle something. It's been suggested by some that Magico receives a disproportionate amount of coverage from *The Absolute Sound*. After all, how many relatively new loudspeaker companies have had so many positive reviews, awards, and cover stories? None. But how many other new companies have pushed the envelope in loudspeaker design the way Magico has in the past five years? None. It's our job to report on the high-end landscape as we see it and let the chips fall where they may. If another loudspeaker company wants the same amount of attention that Magico has received, let it be as consistently innovative as Magico.



With that addressed, let's first consider the Q7 purely in numerical terms. Five drivers in a four-way configuration. Seven hundred and fifty pounds apiece out of the crates. One hundred and eighty-five thousand dollars a pair. Six hundred and thirty-five bolts in the three-axis internal bracing. One hundred and one machined components. Three continents required to produce the drivers. Ten hours of machining to create the 90-pound baffle (not to mention the 70-pound interior baffle).

In purely physical (and financial) terms the Q7 is obviously a formidable product. But that's not the Q7's most compelling story. What's most interesting about the Q7 is the sophisticated technology underlying the loudspeaker and the passion that brought it to realization. Everything about the Q7 stretches beyond the existing art, from the custom Nano-Tec drivers with diaphragms made of the same material used in helicopter blades, highly advanced new driver motors created especially for the Q7, a massive all-aluminum enclosure with an extensive internal lattice structure to increase rigidity, and state-of-the-art crossovers built from cost-no-object inductors and capacitors.

It's natural to look at the Q7 and see it as "merely" a scaled-up Q5, with more and larger drivers and a bigger enclosure. Although the two loudspeakers are obviously based on the same technology platforms, the realization of those technologies is considerably more elaborate and sophisticated in the Q7. (See the sidebar for a detailed technical description and comparison of the Q5 and Q7.)

In practice, the Q7 is large but not nearly as imposing as many flagship-level loudspeakers. The vertical baffle is complemented by slightly angled top and rear panels, chosen for both technical and aesthetic reasons. Seen from the side, you can discern that the enclosure is made from two sections delineated by a copper strip that also adds visual interest. A curved chamfer in the lower side panels softens the appearance, and perhaps not coincidentally, combines with the copper strip to form what could be interpreted as the number "7." No bolts are visible on the front, top, or side panels. Two pairs of binding posts are provided for bi-wiring, although you can order the Q7 with only one pair connected. This option allows you to connect the speaker with single wire without using jumpers.

At 750 pounds each out of the crate, installing and positioning the Q7 requires both thoughtful planning and plenty of muscle power. The shipping crate opens into a ramp, allowing the Q7 to roll out on its casters. Moving the speaker isn't that difficult until you encounter a step that requires lifting all that weight. Once inside the listening room you insert the supplied jack beneath the speaker to raise the enclosure and remove the casters. Round isolation feet, designed and made by Magico, are supplied in lieu of spikes.

I had expected that installing and setting up the Q7 would take an entire day, but three hours after opening the crate we had found the final placement. It was one of the easiest installations of a major speaker I've experienced.

Listening

The Q7 is exceptional in every way, but there's one area that stands out above all others—realism. The sense of actually hearing instruments rather than a recreation of them—that "fool you" palpability of texture, truth of timbre, vividness of imaging, naturalness of dynamics, and degree of resolution—is the Holy Grail of music reproduction. It's when the sound is no longer perceived as sound but purely as musical expression. Realism is the culmination of all the individual qualities we value in reproduced music; they each contribute in some way to the impression of being in the presence of live music.

If I had to sum up the Q7's sound with one word it would be the elusive "R word." But unlike some loudspeakers that deliver this realism occasionally with a few recordings, or over a narrow range frequency range, or only with certain types of music (unaccompanied female vocal, for example), the Q7 summons up this shocking sense of live music on virtually every recording, over the entire frequency range, and with every style of music. There isn't one aspect of reproduced sound in which the Q7 exhibits less than state-of-the-art realism; tone color, low-level resolution, macrodynamics, microdynamics, bottom-end extension, bass pitch definition—the list goes on and on. The result is a total suspension of any thought of listening to a hi-fi system. This quality isn't fleeting and ephemeral

the way it is with many great systems—a few passages here and there on select recordings—but rather is concrete and tangible from the first notes of just about any recording. It's as though the Q7's musical realism is pursuing *you* rather than that you are pursuing the realism.

I could name any number of recordings to illustrate this quality, but I'll mention the track "La Barrosa" from Paco de Lucia's *Live in America*. This piece begins with de Lucia playing a beautiful solo figure on his flamenco guitar surrounded by the hall's ambience. You can sense the other musicians on the stage waiting to come in, and the audience at attention. These cues are extremely subtle and low in level, but when they are reproduced the way the Q7 portrays them, the result is electrifying. The guitar is just *right there* in front of you, completely unencumbered by any sense that you are experiencing an electro-mechanical facsimile of the original musical event. The sound is vivid in a completely natural way, rather than a goosed-up hi-fi vividness.



I chose this example because this disc sounds very good, but it's not by any stretch the most realistic-sounding in my collection. It's a commercial CD—we haven't yet talked about the Q7's reproduction with SACD, high-res PCM, or 45-rpm vinyl spun on the Basis Inspiration. Yes, the Q7 brings this music to life in a way that I have not experienced with any other loudspeaker. Of course, the degree of realism varies tremendously with the recording, but even mediocre recordings are revealed to have previously undiscovered sonic virtues.

If "realism" is the single word that best describes the Q7, the best *two* words that describe it are "right there" because that's exactly how instruments and voices sound in the listening room. The Q7 consistently and unfailingly made all music sound so close that I felt I could reach out and touch the performers. If you want to hear the ultimate in this sense of instruments being "right there," try playing

A Meeting by the River on SACD through the dCS Vivaldi with the Vivaldi directly driving a pair of Lamm ML2.2 SET power amplifiers (no preamplifier in the signal path), or the Sheffield direct-to-disc *Michael Newman, Classical Guitarist on the Basis* table. This configuration was the single most transparent, resolved, neutral, and realistic reproduction of small-scale music I've heard in my life.

This sense of hearing music and not a loudspeaker is the result of several specific attributes that combine synergistically—primarily vanishingly low distortion, very high resolution and transparency, and the way in which the Q7 reproduces transient information.

The Q7 is so low in coloration and distortion, and so high in transparency, that it sounds like whatever source, cables, and electronics are driving it. I've never encountered a loudspeaker whose character changed so dramatically with ancillary equipment. The Q7 is a colorless, transparent window back through the playback and recording chains, laying bare everything in the signal path back to the original musical creation. Yet, the Q7 isn't analytical or "ruthlessly revealing." Despite the crystal-clear transparency and powerful resolution, the Q7 has a sense of ease and relaxation, of sinking into the listening seat totally absorbed.



Another important factor that contributed to the Q7's stunning sense of realism is its transient speed. No dynamic loudspeaker has, in my experience, approached the Q7 in the fidelity of transient reproduction. The sound of a drumstick hitting the head jumps out of the mix with a lifelike impact and immediacy, making other dynamic loudspeakers sound sluggish by comparison. And just as quickly the transient is gone with no overhang or smearing. The Q7 has a very fast "settling time"—a transient event doesn't perturb the loudspeaker and cause it to sound different in the milliseconds after the transient is over. This quality is related to "self-noise," a term that describes a kind of low-level "chatter" from a loudspeaker that follows the music's dynamic envelope like a shadow. You can hear this self-noise most easily on solo piano as a grunge superimposed on the timbre after the transient attack of the hammer hitting the strings. When reproduced by a loudspeaker with very low self-noise, the piano's

timbre has a bell-like clarity. You can also more easily hear the harmonic structure change as the note descends into the hall's ambience. Moreover, low self-noise results in better resolution of that ambience, the miniscule spatial cues that create the sometimes convincing illusion of the recording venue's acoustic replacing that of your listening room.

The Q7's startling reproduction of steep transient attacks imbues the music with a life and vividness that's missing from all but ribbons and electrostats. But unlike those planar designs, the Q7 reproduces transients with the correct weight and impact behind them—the antithesis of drums sounding like pencils striking oatmeal containers. If you want to hear just how realistic drums can sound, listen to Roy Haynes' superbly recorded kit on the SACD *Love Letters*, or Jeff Porcaro on the Sheffield direct-to-disc LP *James Newton Howard and Friends* through the Q7. The Q7's transient speed conveys the energy and vitality that great drummers bring to the music in a way I have not previously experienced. This loudspeaker can change your musical perception of familiar recordings as you discover new-found rhythmic expression and nuance. I would even call the Q7 horn-like in its dynamic verve, immediacy, and “jump factor.” This quality is revelatory on another percussion instrument: piano. So much of the dilution of a reproduced piano's sound is due to this slowing of transient attacks followed by overhang that robs the instrument of its vibrancy.

It wasn't just drums and other percussive instruments that benefited from the Q7's ability to start and stop on a dime; trumpets, for example, came to life and soared as though let out of a cage. There's a transient component in a trumpet's initial attack that, when smeared, dilutes the sense of presence. The Q7 revealed so much more of Roy Hargrove's dynamic expression on the fabulous SACD *Jazz in the Key of Blue* [Chesky]. This album also showcased the Q7's resolution of microdynamic detail in drummer Jimmy Cobb's gentle brush work and delicate cymbal strikes. The Q7 revealed to me just how important transient reproduction is to the gestalt of music listening, and why reproduced music often falls so short of the sound of live instruments.

Astonishingly, this transient fidelity wasn't confined to the midrange and treble but extended into the very lowest bass. The bottom-end impact of bass drum and timpani was startling, both in the suddenness in which the sound begins and the suddenness with which it stops. I've never heard a loudspeaker that combined such dynamic agility with deep extension and weight. The new Reference Recordings disc *Playing with Fire* contains some interesting music spectacularly recorded; the huge bass-drum whacks on the opening track will lift you out of your seat. Moreover, the Q7 was completely unperturbed by deep bass, massive bottom-end impacts, complex passages, and high playback levels—all at the same time. Even with the most demanding music at the highest playback levels the Q7 remained perfectly composed in a way that most loudspeakers do not. There wasn't a hint of congestion, hardening of timbre, or reduction in dynamics. And the Q7 goes low, with organ pedal points pressurizing the room.

Magico is a proponent of sealed enclosures, which exhibit superior transient behavior and a more gentle roll-off below resonance (12dB per octave vs. the 24dB per octave rolloff of reflex-loading). The trade-off is reflex-loading's lowering of the cutoff frequency, increased sensitivity, and greater ability to play loudly. (Technically, the acoustic gain of reflex loading can be used to either increase sensitivity or extend the cutoff frequency, but not both.) Magico has somehow managed to create an infinite baffle loudspeaker that combines deep extension, high sensitivity, and the ability to play loudly along with the traditional virtues of sealed enclosures such as pitch definition and ideal transient behavior. It's been argued that the standard measure of bass extension, the -3dB point, doesn't convey the subjective impression of bass fullness because it doesn't take into account the rolloff's steepness. Some have suggested that the -10dB point better reflects the listener's perception of bass extension. No matter the

specs or wording, I can say that I've never heard deeper extension in my listening room than from the Q7.

The Q7's bass is revelatory not just in extension, but more importantly in texture, pitch definition, dynamic nuance, and clarity. I discovered so much bass-range musical information in CDs and LPs I've been listening to for years that it was like opening up an entirely new vista. The entire bass region was taut, muscular, and visceral, yet at the same time delicately nuanced and resolved. Take jazz organist Joey DeFrancesco's *Take III*, in which he plays the bass lines on the Hammond B3's pedals. I've never heard the bass lines reproduced with such clarity of pitch and dynamic articulation. It's almost like a different record through the Q7. I gained a newfound appreciation for his virtuosity when I could hear each pedal note's pitch, starts, and stops. Plucked acoustic bass greatly benefited from the Q7's combination of body, resolution of timbre, pitch definition, and most importantly, ability to convey subtle dynamic shadings.

Despite everything I've said about the Q7's ability to play "big" on orchestral music and full-on rock, this loudspeaker has the ability to sound small and intimate when the music is small and intimate. Some large loudspeakers sound big on everything. The Q7 could sound like a mini-monitor on, for example, solo acoustic guitar or unaccompanied voice. On the Arturo Delmoni LP *Songs My Mother Taught Me* the Q7 got the perspective between the violin and piano just right, not to mention the ravishingly beautiful sound of Delmoni's violin.

I auditioned the Q7 with three amplifiers: the Rowland 725 (330W), Lamm ML2.2 (18W single-ended triode), and briefly at the end of the review period, the Constellation Centaur monoblocks (500W). All were significantly different from each other. The Lamm's 18W drove the Q7 surprisingly well, although it didn't come close to exploiting the Q7's dynamic potential or bass performance as did the Rowland 725 and Constellation Centaur monoblocks. Nonetheless, the Lamm was nothing short of magical in its reproduction of timbre, space, low-level detail, and other qualities that greatly contributed to the overall sense of realism. The Rowland showed me just how smooth the Q7 could sound, coupled with the combination's tremendous bass weight, warmth, and articulation. When driving the Q7 with the Constellation Centaur (and MIT's Constellation-optimized interconnects) I heard just transparent and high in resolution this loudspeaker can sound.

I should also mention the role the new dCS Vivaldi digital playback system (review pending) played in getting the performance I described. This is an extraordinary system that allows the Q7 to really shine. And as big a fan as I am of the Basis Inspiration turntable and Air Tight PC-1 Supreme cartridge, I became an even bigger fan after hearing them through such a transparent and colorless transducer.

Conclusion

The Magico Q7 was not just revelatory as a loudspeaker, it also showed me that our music libraries contain so much more information, and sound potentially more realistic, than I thought possible. That's how revolutionary the Q7 is.

If you've heard the Q7 in one setting it's hard to say that you've really heard the loudspeaker. That's because this loudspeaker is such a transparent window that it takes on the character of whatever you are driving it with. Selecting the right sources, amplification, cables, and AC conditioning is vital to achieving the sound I've described. If you are fortunate enough to consider owning the Q7, don't scrimp on the rest of the system—the Q7 gives other components nowhere to hide.

Elsewhere in this issue we have given the Q7 our Overall Product of the Year award for 2012. This honor goes to the single most impressive product we've encountered in the previous year. I'll take that several

steps further to say the Q7 is the single most impressive product—in any category—that I've come across in more than 23 years of full-time reviewing. Even for those of us who can never afford the Q7, it's inspiring and gratifying to know that the state of the art in loudspeaker technology has been moved so far forward.

SPECS & PRICING

Type: Four-way, five-driver dynamic loudspeaker

Driver complement: 12" woofer (2), 10" mid-bass, 6" midrange, 1" tweeter

Woofer loading: Sealed

Sensitivity: 94dB

Impedance: 4 ohms

Frequency response: 20Hz—50kHz

Dimensions: 15" x 60" x 32"

Weight: 750 lbs. each, net

Price: \$185,000 per pair

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