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➤ Compact Speaker Systems

Atlantic Technology System 4400 Speaker System

By Mark Fleischmann



To Atlantic Technology, home theater is not a necessary evil. This is not a loudspeaker company that specializes in two-channel audio and tosses out a few centers and subs as an afterthought. The brand has been firmly rooted in home theater from day one. The company cares about dialogue clarity, panning, surround effects, and bass dynamics. The first two alone are worth a thousand-word essay: You want to catch every word, but you also want pans to be seamless across the three front channels. How do you go about reconciling those two requirements? You do a lot of listening and experimenting. After about a third of a century, Atlantic Tech has gotten pretty good at it.

Like so many historic speaker brands, Atlantic Tech was born in New England. The company has amassed a comprehensive line of products from satellite/subwoofer sets to towers. Its in-wall and on-wall speakers are as carefully engineered as its freestanding speakers. Atlantic Tech is a veteran in THX-certified systems. Some of its product lines represent extended trains of thought. So it is with the System 4400 reviewed here, successor to the System 4200e.

Toggles for Tweakers

The System 4400 satellites are THX Select certified. That means they can achieve volume levels of up to 105 decibels in rooms of up to 2,000 cubic feet with a screen-to-seating distance of 10 to 12 feet. Please note that you're not obliged to play anything at 105 dB—that includes 20 dB of headroom for unrestrained peaks above the standard 85 dB reference level. It's not a prescription for listening pleasure or auditory health.

As someone who has adopted chunky stand-mount speakers as my reference standard, I was immediately comfortable with the System 4400's basic configuration. The 4400 LR is 15 inches tall and includes a sweet silk-dome tweeter and a 5.25-inch GLH woofer. GLH stands for graphite loaded homopolymer (plastic). Like the other speakers, the 4400 LR has curved metal grilles that attach magnetically, which makes for easy grilles-on versus grilles-off comparisons. Gloss Black side panels dress things up a bit. Two keyhole mounts and a couple of toggle switches are located on the back.

One of the switches is labeled Boundary Compensation. When the speaker sits close to a wall, proximity to the room boundary naturally boosts the bass output. You can use the two-way toggle to shave down what otherwise might be bloated midbass. The other switch is a three-way Hi Energy toggle that sculpts the tweeter's rolloff slope to account for both room acoustics and taste. Your choices are 0 (Average), + (Damped Room), and – (Reverberant Room). This labeling scheme is pretty self-explanatory: The plus sign indicates more treble for a damped room, one that has lots of absorptive elements. The minus sign indicates less treble for a reverberant room, one that has lots of hard reflective surfaces.



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Whatever the acoustic character of your room may be, Atlantic Tech diplomatically recommends that you try each of the tweeter-toggle positions to see which one you like: "You may decide that you prefer them set in a particular manner inconsistent with your room's acoustics but which sounds best to you. Experiment. It will be worth it." I was usually satisfied with the middle setting (with one exception that I'll note later on).

The 4400C center speaker has an unusual five-sided profile, sort of like a rectangular solid with the top back edge lopped off. This presumably works against bass-mangling standing waves, or unwanted sonic reflections, in the enclosure. Again, the Gloss Black side panels lend some formal beauty. The

driver array is a slightly unorthodox variation on the woofer-tweeter-woofer array, with the two 5.25-inch GLH woofers spaced close together and the tweeter pushed slightly above them rather than directly in between. The Boundary Compensation and Hi Energy toggles reappear, so that the center can be consistent with whatever settings you choose for the front left and right speakers. This speaker doesn't have keyhole mounts to match the others. But it does come with a wooden cradle that allows for vertical angle adjustments. The center can sit higher or lower than the left and right speakers, yet still angle downward or upward toward the sweet spot.

The 4400 SR surround includes dual pairs of 1-inch silk-dome tweeters and 4.5-inch GLH woofers. You can toggle them between bipole and dipole operation (acoustically in phase or out of phase with each other). However, the Hi Energy and Boundary Compensation switches in the three front speakers do not reappear. Dual keyholes are provided for mounting.

The 334 SB subwoofer has a 10-inch front-firing driver in a sealed enclosure. This should eliminate the time domain and turbulence problems that are sometimes associated with ports. I like the arch at the bottom of the front baffle because it relieves the relentless cube shape. Another interesting twist is the front-mounted volume control. It sits beneath the grille, so you'll probably use the sub with the grille off for a few weeks until you've dialed in a universally acceptable volume setting. Most people start with the sub too high and then back it off over time until the crossover between the satellites and the sub is unnoticeable to all but the most critical listeners. It also has a crossover bypass switch if you prefer to set the crossover in your A/V receiver or surround processor.

Associated equipment included the Rotel RSX-1550 A/V receiver, Panasonic DMP-BD35 Blu-ray player, Integra DPS-10.5 universal player, Luxman PD-289 turntable, Shure V97xE cartridge, and Bell-ari VP630 tubed phono preamp. All movie selections were Blu-rays.



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Blasting, Barking, Screech and Boom

Once again, I got my action-movie fix from the Matrix series. This time, I chose *The Matrix: Revolutions* in Dolby TrueHD. Unlike the first two installments, the third film has a fairly reasonable dynamic range throughout the first half. Only in the second half does the aural mayhem escalate to the point where on-the-fly master volume adjustments are necessary.

To Atlantic Tech's credit, the volume level I considered appropriate for vocals and the lower one I preferred for the loudest effects weren't far apart. I attribute this partly to **the center's superb dialogue intelligibility, which is among the best I've heard,** and partly to the tweeter's avoidance of adding any sizzle of its own. **The three front channels have same-sized but differently deployed drivers, and panning across**

these three speakers was also top notch. I wasn't imprisoned in one position on the sofa. Also, the soundfield held together in a few thundery and rainy scenes. Note that I stuck with the factory-set bipole setting in the surrounds.

Marley & Me is a family comedy that's propelled by three charm machines: Owen Wilson, Jennifer Aniston, and a succession of Labradors who take the title role from puppy to adult to senior citizen. Although it's steadfastly conventional, the movie does develop its "world's worst dog" concept into something with more emotional resonance as the plot unwinds. *Marley*, it turns out, hates thunder and becomes lavishly destructive every time it rumbles. But I enjoyed it—I could practically smell the rain. I would classify the DTS-HD Master Audio soundtrack as a B-lister (with limited TV-like dynamic range). However, R.E.M.'s "Shiny Happy People" was a stunner.

In *The Grudge*, here in Dolby TrueHD, Japanese director Takashi Shimizu wields an international cast in a predictable but jarring story of unhappy ghosts who reach forward from the past to terrify people in the present. The soundtrack design is pretty slick. It alternates near-silences with screech-and-boom attacks that were always well timed enough to make me jumpy. It has moments of quiet loveliness too, in the form of tremulous strings. Part of the mixer's strategy was to keep the voices as low as possible so the effects would be all the more shocking. **Here the 4400 C excelled—it consistently delivered the dialogue in sotto voce situations where many other centers would have fallen short.** I got through this fairly dynamic soundtrack with one volume setting.

One and One and One Is Three

Robert Spano conducts the Atlanta Symphony Orchestra & Choruses in Telarc's *Transmigration*, a multichannel SACD. This adroit bit of programming sandwiches three new works between two well-known older ones. The latter include Samuel Barber's "Adagio for Strings" and its choral companion piece, "Agnus Dei," which uses the same thematic material as the setting for a Latin prayer. Three new works



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include John Corigliano's "Elegy" and Jennifer Higdon's "Dooryard Bloom," a setting of Walt Whitman's poem mourning the assassination of President Lincoln. Both are beautiful, but the ambitious centerpiece is John Adams' "On the Transmigration of Souls," which explores the bittersweet memories of those who lost loved ones on September 11.



The Adams piece kept the soundfield busy with wandering footsteps and spoken-word material, which includes the names of 9/11 victims. Panning was crucial, and the Atlantic Techs didn't miss a movement. A ghostly chorus, quiet at first, was luminously lovely and well resolved despite its low level. As the 23-minute work develops, crescendos arrived, with clangorous bells and brass that were fully developed and thrilling. Mounting dissonance was neither sugar-coated nor excruciating. In the other works, the Barber "Adagio" string sound was both

strongly outlined and fully fleshed out. The baritone in the Higdon selection was vibrant, even at an initially low level. And the chorus in the second Barber was both detailed and well blended. The Atlantic Techs delivered versatile and impressive performance. They mined the high-resolution 5.1-channel recording for all of its considerable drama and texture, but they didn't hype or overemphasize any particular element.

The Big Apple Bash by Jay McShann showcases the pianist, singer, and Kansas City jazz legend in a 1978 studio LP. The large ensemble includes Herbie Mann, Gerry Mulligan, Eddie Gomez, and others. Guitarist John Scofield emerged as the MVP. He was typically crisp and incisive but also unusually responsive to the other band members—his playing conveys his delight at being there. The Dolby Pro Logic II Music mode was perfect for this reverb-light recording, and it certainly helped that the 4400 SR bipole didn't draw undue attention to the surround effects. Instead, it added a little fullness to the main activity in the front channels. Reed instruments, including Mann's tenor sax and clarinet, were a treat. They combined a holographic presence with just enough articulation of the mouthpiece to remind me of what it was like to play the clarinet (badly) with the vibrating reed between my lips.

I finally got some use out of the Hi Energy toggles with the Beatles' Abbey Road, around the time of its 40th anniversary. Although I cling to the vinyl, Capitol pressed the Fab Four's American LP releases on cow manure, so I rarely play them. Instead I turned to the original CD release, which has imperfections of its own. The upper mids and highs are a little hard, and this is one album I refuse to play any way but loud, so I toggled the tweeters down to their Minus setting. While this didn't radically transform the character of the sound, it brought enough additional listening comfort to let the master volume go up a decibel or two. Moved, as ever, by the underrated brilliance of the rhythm section—including Ringo's drum solo, the most tasteful rock drum solo of all time—I also dialed up the sub.



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Again, the DPLII Music mode was the right choice, albeit a revisionist one. It de-emphasized the extreme isolation of instruments mixed solely into the left or right channels and pulled them slightly forward. Stereo, by comparison, was sterile. As side two (as I still think of it) drew to its lushly orchestrated close, the layering of voices, strings, drums, and guitar was as good as I've ever heard. This is truly one of the great moments in recorded rock, and the Atlantic Techs didn't waste the opportunity. They rose to greatness.

Atlantic Technology's System 4400 lends itself to superlatives. The price/performance ratio couldn't be more favorable: This package is a stellar performer as well as a pretty unbeatable value. I feel guilty for

writing such bland sentences because the experience of listening to these speakers was quite the reverse.

I remember flinching at the horror movie, nodding my head to the rhythm of the jazz record, and being nailed to the couch by the 5.1-channel drama of the SACD. You could have a lot of fun with these speakers. You might even be moved.

ATLANTIC TECHNOLOGY SYSTEM 4400
SPEAKER SYSTEM

PERFORMANCE ★★★★★

VALUE ★★★★★

BUILD QUALITY ★★★★★★

Features: Atlantic Technology System 4400 Speaker System

Speaker: 4400 LR

Type: Two-way, monitor
Tweeter (size in inches, type): 1, silk dome
Woofer (size in inches, type): 5.25, GLH cone (2)
Nominal Impedance (ohms): 8
Recommended Amp Power (watts): 10–150
Available Finishes: Gloss Black, Satin Black
Dimensions (W x H x D, inches): 8.3 x 15 x 9.5
Weight (pounds): 15
Price: \$1,050/pair

Speaker: 4400 C

Type: Two-way, center
Tweeter (size in inches, type): 1, silk dome
Woofer (size in inches, type): 5.25, GLH cone (2)
Nominal Impedance (ohms): 8
Recommended Amp Power (watts): 10–150
Available Finishes: Gloss Black, Satin Black
Dimensions (W x H x D, inches): 18.4 x 8.4 x 9.7
Weight (pounds): 17 (with base)
Price: \$600

Speaker: 4400 SR

Type: Two-way, surround
Tweeter (size in inches, type): 1, silk dome (2)
Woofer (size in inches, type): 4.5, GLH cone (2)
Nominal Impedance (ohms): 8
Recommended Amp Power (watts): 10–150
Available Finishes: Satin Black
Dimensions (W x H x D, inches): 10.9 x 12.4 x 7.5
Weight (pounds): 11
Price: \$950/pair

334 SB Subwoofer

Enclosure Type: Sealed
Woofer (size in inches, type): 10, sealed paper composite
Rated Power (watts): 220, RMS, Class AB
Connections: Line-level in/out, stereo, RCA Crossover
Bypass: Switchable
Available Finishes: Black
Dimensions (W x H x D, inches): 15.25 x 15 x 15.63
Weight (pounds): 35
Price: \$750



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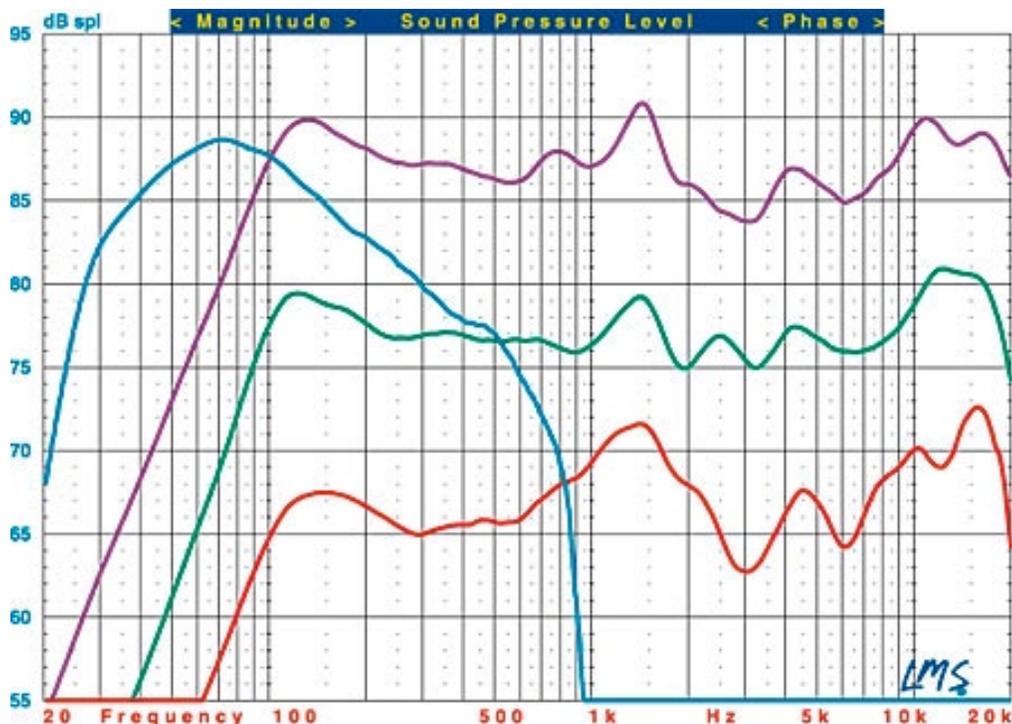
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HT Labs Measures: Atlantic Technology System 4400 Speaker System

L/R Sensitivity: 88 dB from 500 Hz to 2 kHz

Surround Sensitivity: 86 dB from 500 Hz to 2 kHz

Center Sensitivity: 86.5 dB from 500 Hz to 2 kHz



This graph shows the quasi-anechoic (employing close-miking of all woofers) frequency response of the 4400 LR L/R (purple trace), 334 SB subwoofer (blue trace), 4400 C center channel (green trace), and 4400 SR surround (red trace). All passive loudspeakers were measured with grilles at a distance of 1 meter with a 2.83-volt input and scaled for display purposes.

The 4400 LR's listening-window response (a five-point average of axial and ± 15 -degree horizontal and vertical responses) measures $+2.89/-4.19$ decibels from 200 hertz to 10 kilohertz. The -3 -dB point is at 88 Hz, and the -6 -dB point is at 77 Hz. Impedance reaches a minimum of 5.21 ohms at 186 Hz and a phase angle of -48.89 degrees at 120 Hz.

The 4400 C's listening-window response measures $+2.38/-1.90$ dB from 200 Hz to 10 kHz. An average of axial and ± 15 -degree horizontal responses

measures $+2.41/-2.12$ dB from 200 Hz to 10 kHz. The -3 -dB point is at 85 Hz, and the -6 -dB point is at 76 Hz. Impedance reaches a minimum of 5.21 ohms at 183 Hz and a phase angle of -41.39 degrees at 120 Hz.

The 4400 SR's three-face averaged response in dipole mode measures $+4.12/-4.73$ dB from 200 Hz to 10 kHz. The -3 -dB point is at 98 Hz, and the -6 -dB point is at 84 Hz. Impedance reaches a minimum of 4.81 ohms at 326 Hz and a phase angle of -40.06 degrees at 114 Hz.

The 334 SB's close-miked response, normalized to the level at 80 Hz, indicates that the lower -3 -dB point is at 40 Hz and the -6 -dB point is at 30 Hz. The upper -3 -dB point is at 137 Hz with the Low-Pass switch set to Bypass.—MJP