



# Atlantic Technology

## System 4200 Home Theater Speakers

**H**igh-tech wonders like the DVD and Dolby Digital get much of the credit, but the home theater revolution owes just as much to a more mundane development: compact, affordable subwoofer/satellite speaker systems. Indeed, sub/sat arrays with six, seven, and even eight speakers are now the home theater standard, found in “normal” homes as often as in those of over-the-top A/V enthusiasts.

Boston’s Atlantic Technology can probably take as much credit as any manufacturer for furthering this trend. From its inception 15 years ago, all of its speaker systems have been sub/sat arrays. As home theater sound has evolved, Atlantic Tech’s offerings have grown ever more sophisticated. Case in point is its new System 4200, a THX Select-certified suite of compact satellites and a not-so-compact subwoofer. THX certification is a sort of *Good*

*Housekeeping* seal that guarantees the system has dispersion characteristics considered by Lucasfilm to be optimum for home theater playback.

The 4200 array is clearly descended from previous Atlantic Technology speakers, but its manufacturer claims several important distinctions for it beyond the new slanted-back cabinets. First, the drivers are said to be the same ones used in Atlantic Tech’s \$17,000 flagship System 8200.

Second, the System 4200 features C.O.R.E. (Custom Optimized Room Enhanced) technology to make it unusually adaptable to system conditions and room acoustics. The three front speakers have both a Boundary Compensation switch (to smooth out the sound if they’re installed close to a wall or a big TV screen) and a three-position treble adjustment. The surround speakers can be switched between dipole and bipole operation via toggles un-

der the metal-screen grilles, which attach to curiously strong magnets in the four corners. Niftoid!

The metal grilles on all the satellites are also a dramatic visual improvement over the boring black knit on many previous Atlantic Technology speakers. But the most obvious innovation is the removable decorative side panels, which bring cellphone fashion thinking to home theater. With the front speakers and subwoofer, you can choose between gloss black, maple, or matte silver. Snapping panels in place was a cinch, and they looked great.

I set up the system as usual: front L/R speakers on stands, the center speaker on top of my TV, and the surrounds (set in their dipole mode, initially) on high, side-wall shelves. Though the 642 SB subwoofer has a 12-inch driver, it’s barely smaller than my everyday 15-incher. I placed it in the best location in my room, which is to

## PLUS

Outstanding multichannel performance.  
Impressive bass, full-range dynamics.  
Bipole/dipole-selectable surrounds.  
Changeable side panels.

## MINUS

Big subwoofer.  
Center-speaker base a little too high.

the left and slightly behind the front left speaker.

The 4200 LR front speakers are true satellites, not intended for use without a subwoofer, so I began with plain stereo, but with the subwoofer hooked up, too. What I initially heard was a “close,” dry sound with a hint of male-voice chestiness — that gave me a chance to start trying out those C.O.R.E. controls.

A bit of experimentation told me that the 4200 LRs are sensitive to vertical placement. I adjusted the stands so that their tweeters were about even with my seated ear height and switched on the Boundary Compensation switches, since they stood only 18 inches to either side of my TV. The midrange became more open and relaxed,

while the treble added significant air and life to the mix. And that touch of “hoo” caused by reflections from the screen disappeared almost entirely.

The Atlantic Tech system punched out multichannel music with finesse and impressive impact. The DVD-Audio mix of Donald Fagen’s *Kamakiriad* solo album is an amazingly pristine production in both its recording and performance (almost antiseptic), and the System 4200 showed its virtues to a tee: preternatural clarity — especially noticeable on drums and guitars — and huge dynamic range.

The System 4200 also proved to be one of those speaker systems that sounds better the louder you play it. I found myself listening to Fagen’s “Snowbound” repeatedly at ever-increasing volumes, reaching a level that audibly sweated the front-speaker trio some 10 dB above THX reference level — and that’s *loud*.

One advantage of a system that’s properly designed as a sub/sat layout from the ground up is that you don’t have to fuss



***Harry Potter and the Chamber of Secrets* could have been designed as a home theater demo disc, and the Atlantic Technology System 4200 met every wizardly challenge.**

with crossover and level settings. I set the 642 SB subwoofer’s Lowpass switch to Bypass, skipping its onboard crossover in favor of my preamp/processor’s, which I set to 80 Hz. After I balanced levels, the system sounded perfectly integrated. The languid, but incredibly solid bass on “Snowbound” was deliciously rich and punchy, yet with the superb definition and “quickness” that only an excellent sub and an expertly matched sub/sat system can achieve.

The Fagen DVD also provided perfect test material for comparing the 4200 SR’s bipole and dipole modes. The verdict: bipole wins. I still prefer dipole surrounds for movie sound and naturalistically recorded music, but with mixes that put discrete material in the surround channels — like a hand-percussion shaker in the right rear — bipole clearly sounded better.

With this musical introduction, I expected nothing short of great movie sound from the System 4200, and I wasn’t disappointed. Playback was about as seamlessly integrated, solidly spatial, and colorful and dynamic as I could want.

*Harry Potter and the Chamber of Secrets* is a first-rate 5.1-channel production with just about every surround sound virtue. Through the sequence of the flying car catching up to the train, I was struck by how little the timbre of the engine’s pop-pop-popping changed as it swooped from channel to channel and position to position. The quidditch match a bit later might as well have been designed as a home theater demo: the whizzing balls and brooms, crashes and impacts were all spectacularly present and three-dimensional. And in the

## fast facts

|   | 4200 LR<br>(front L/R)  | 4200 C<br>(center)  | 4200 SR<br>(surround)                                    | 642 SB<br>(subwoofer)  |
|---|---|---|--|--|
| <b>TWEETER</b>  | 1-inch dome   | 1-inch dome   | two 1-inch domes   | —  |
| <b>MIDRANGE</b>   | two 5¼-inch cones   | two 5¼-inch cones   | two 4½-inch cones  | —  |
| <b>WOOFER</b>   | —   | —   | —  | 12-inch cone   |
| <b>ENCLOSURE</b>  | sealed  | sealed  | sealed   | sealed   |
| <b>POWER</b>  | —   | —   | —  | 300 watts  |
| <b>INPUTS/<br/>OUTPUTS<br/>AND<br/>CONTROLS</b>                     | gold-plated multiway binding posts; Boundary Compensation and treble switches | gold-plated multiway binding posts; Boundary Compensation and treble switches | gold-plated multiway binding posts; Bipole/Dipole switch | RCA line-level I/O; level, low-pass controls; normal/bypass, phase-invert, and auto-power switches |
| <b>DIMENSIONS<br/>(WxHxD)</b>                                       | 8 x 15 x 9⅞ inches  | 18½ x 8½ x 8 inches   | 11 x 12⅞ x 7¾ inches                                     | 19 x 21 x 18½ inches   |
| <b>WEIGHT</b>   | 14 pounds   | 16 pounds   | 11 pounds  | 65 pounds  |
| <b>FINISH</b>   | maple, gloss black, or matte silver side panels; metal-screen grille          | maple, gloss black, or matte silver side panels; metal-screen grille          | black or white; metal-screen grille                      | maple, gloss black, or matte silver side panels; black cloth grille                                |
| <b>PRICE</b><br>Total: \$3,500 in maple, \$3,600 in black or silver | \$930 a pair (plus side panels; \$70 in maple, \$105 in black or silver)      | \$550 (plus side panels; \$50 in maple, \$75 in black or silver)              | \$900 a pair   | \$920 (plus side panels; \$80 in maple, \$120 in black or silver)                                  |

**MANUFACTURER** Atlantic Technology, [www.atlanticttechnology.com](http://www.atlanticttechnology.com); 617-762-6300

## in the lab

climactic sequence, the extravagant demands of “big-sound” impacts and collisions were met with surprising realism.

In my standard checks for center-speaker performance, the 4200 C was a near perfect tonal match for the 4200 LR, and its midrange tones changed very little as I moved off-center. Vertical positioning was just as critical for the 4200 C as for the 4200 LR. Fortunately, the center speaker incorporates a tiltable base that makes aiming the tweeter easy. It’s cleverly simple and effective, but it does raise the speaker a couple of inches higher than optimal for TV-top placement.

Okay, okay, I’m nit-picking. Atlantic Technology’s System 4200 is simply an outstanding speaker suite for medium-size rooms. It might not be my first choice if all I played was stereo music — but I can’t imagine anyone seriously considering it primarily for that. For everything else, movies and multichannel music alike, it’s an undeniable winner. I don’t think you can ask for much more from so compact a speaker system. Expensive? Yes. Worth it? Absolutely.

**SEV**

**Sensitivity** (SPL at 1 meter with 2.8 volts of pink-noise input)

|                  |       |
|------------------|-------|
| front left/right | 88 dB |
| center           | 89 dB |
| surround         | 88 dB |

**Impedance** (minimum/nominal)

|                  |            |
|------------------|------------|
| front left/right | 4.5/8 ohms |
| center           | 4.5/8 ohms |
| surround         | 3.8/6 ohms |

**Bass limits** (lowest frequency and maximum SPL with limit of 10% distortion at 2 meters in a large room)

|                  |                    |
|------------------|--------------------|
| front left/right | 80 Hz at 86 dB SPL |
| center           | 80 Hz at 84 dB SPL |
| surround         | 80 Hz at 73 dB SPL |
| subwoofer        | 20 Hz at 79 dB SPL |

103 dB average SPL from 25 to 62 Hz  
105 dB maximum SPL at 62 Hz  
bandwidth uniformity 98%

All of the response curves in the graph are weighted to reflect how sound arrives at a listener’s ears with normal speaker placement. The 4200 LR left/right front and 4200 C center speakers had virtually identical on-axis response, with curious roughness above 1 kHz. The 4200 LR had extremely uniform off-axis response, while the 4200 C had some lobing at 30° and wider listening angles. The Boundary-On switch position cut output below 270 Hz by 3 dB for the 4200 C and half that amount for the 4200 LR. The HF Energy switch cut output by 1 dB above 5 kHz when set to the Reverberant position and boosted it by 1 dB in the Damped Room position. The 4200 SR had the classic relatively smooth but limited bandwidth response often seen with bipolar speakers. Measured directly on-axis in the Dipole setting, it had a 30-dB deep null that began at 150 Hz and extended to 8 kHz.

I measured bass limits for the 641 SB subwoofer with it set to maximum bandwidth and placed in the optimal corner of a 7,500-cubic-foot room. In a smaller room users can

expect 2 to 3 Hz deeper extension and up to 3 dB higher sound-pressure level (SPL). The sub had an impressively uniform power delivery across its bandwidth, delivering 100 dB SPL or greater at every frequency from 25 Hz on up. In the crossover-bypass setting, its frequency response extended to nearly 200 Hz. Because of a malfunction in my sample, I was unable to test the variable crossover. — Tom Nouseine

