

SOUND & VISION®

from test report on the Atlantic Technology System 4300 home theater speaker system in the February/March 2004 *S&V*. Copyright © 2004 by Hachette Filipacchi Media U.S., Inc. All rights reserved.

in the lab

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 Nousaine*

