

SOUND & VISION

from test report on the Infinity Beta home theater speaker system in the July/August 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/right86 dB
center.....	.86 dB
surround81 dB

Impedance (minimum/nominal)

front left/right.....	.5/14 ohms
center.....	.4/1/10 ohms
surround.....	.3/8/10 ohms

Bass limits (lowest frequency/maximum SPL,

10% distortion limit at 2 meters in a large room)

front left/right.....	.40 Hz at 69 dB SPL
center.....	.80 Hz at 90 dB SPL
surround.....	.80 Hz at 83 dB SPL
subwoofer20 Hz at 79 dB SPL

98 dB average SPL from 25 to 62 Hz
100.2 dB maximum SPL at 32 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 Infinity Beta 20 front left/right speaker had a small (2-dB) elevation between 600 Hz and 2 kHz, with tightly controlled directivity. The Beta C250 center speaker began "lobing" by 15° off-axis, and lobing became severe at wider radiating angles. The Beta ES250 surround had a generally rising character, with a wide peak between 700 Hz and 1.7 kHz.

The bass limits for the CSW-10 subwoofer were measured with it 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 moderate SPL capability but extraordinarily uniform dynamic capability, as indicated by its 98% bandwidth uniformity.

The sub's RABOS module is essentially a single-band parametric filter intended to reduce the peaking response that plagues virtually every subwoofer to some degree. It quickly fixed a 6-dB peak at 70 Hz at one position in my listening room. Additional measurements

confirmed that the controls worked as intended. The click-stop knobs are much easier to use than the screwdriver slots/holes found on earlier RABOS subs. The crossover frequencies closely matched the marked frequencies at each end of the dial, and there was a moderate (2-dB) level interaction over the full range. The overload-protection circuitry, while limiting extreme volumes, kept the sub from ever being driven into audible distortion. — *Tom Nousaine*

