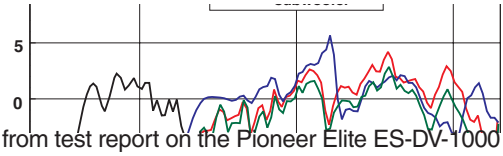


from test report on the Pioneer Elite ES-DV-1000 home theater system in the July/August 2003 ***S&V***.

in the lab

DVD VIDEO PERFORMANCE

Measurements were made from a variety of DVD test discs. Unless otherwise stated, data are for the composite-video output.

Maximum-white level error.....+3 IRE

Setup level.....+7.5 IRE

Differential gain, phase.....2%, 3°

Horizontal luminance response
(re level at 1 MHz)
4 MHz.....+0.17 dB
5 MHz.....+0.17 dB
6 MHz.....–0.26 dB
6.75 MHz.....–0.92 dB

Onscreen horizontal resolution.....540 lines

In-player letterboxing.....fair

Component-output level error (interlaced)
($Y/P_r/P_b$).....+4.7/+1.9/+1.1%

Component-output timing error (interlaced)
(P_r/P_b).....+15/+20 nanoseconds

BASS-MANAGEMENT BEHAVIOR

Results given are for left front channel only; other channels behaved slightly differently, presumably to match the supplied speakers..

High-pass-filter frequency response
DVD-Video/CD/analog: 12 dB/octave rolloff below –3-dB point at 200 Hz
DVD-Audio/SACD: 10 dB/octave rolloff below –3-dB point of 95 Hz

Response consistency: crossover frequency and high-pass slopes change depending on signal source and disc type.

Media consistency: bass management applied to all media and sources

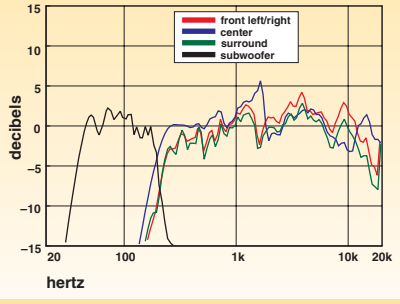
Speaker-size selection: not applicable (“small” default to match the supplied speakers)

Speaker-distance compensation: not available for SACD

SPEAKER PERFORMANCE

Frequency response (at 2 meters)
front left/right.....250 Hz to 20 kHz ±5.4 dB
center.....200 Hz to 20 kHz ±4.5 dB
surround.....250 Hz to 20 kHz ±5.6 dB
subwoofer.....40 Hz to 192 Hz ±2.6 dB

Bass limits (lowest frequency and maximum SPL with limit of 10% distortion at 2 meters in a large room)
front/surround.....80 Hz at 65 dB SPL
center.....100 Hz at 70 dB SPL
subwoofer.....25 Hz at 67 dB SPL
85 dB average SPL from 25 to 62 Hz
102 dB maximum SPL at 62 Hz



Aside from a very slight twinge of the classic “chroma upsampling bug” on the progressive-scan video output, which produced smeary scan-line effects at the borders of highly saturated colors, the Pioneer ES-DV1000’s test-bench video performance was fine.

Bass management was applied to all inputs and disc types — still a rarity even with separate components — but the subwoofer/satellite crossover frequency and high-pass filter slopes changed according to the source or disc type. Bass management should not change characteristics unless the speakers change, which isn’t an option with an integrated system like this one. Only one group of responses can be optimal for the Pioneer system’s speakers, so you may hear changes in bass balance when switching discs or inputs. And SACD playback is (as usual) denied the image-optimizing refinement of speaker-distance compensation.

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 L/R front and surround satellite had limited low-frequency capability and an upward bass-to-treble balance overall. Response was reasonably smooth, but output fell quickly at wider listening angles. The center speaker had limited low-frequency capability and erratic response at all radiating angles, with lobing off-axis, though the peak just below 2 kHz appeared in all traces.

Bass limits for the subwoofer were measured 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 Pioneer sub had extended upper bandwidth, making it a good match for the satellites. At lower frequencies it was driven into overload, developing severe port grunts and other noises, even at moderate output levels. Port noises tend to be higher in frequency and often blend with the tonal character of the system, which may account for the “boominess” Rich Warren heard. — *David Ranada and Tom Nousaine*