

SOUND & VISION[®]

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IN THE LAB

	MIRAGE OMNISAT 6	MISSION fs1	MOREL SOUNDSPOT APPLAUSE
Frequency response (at 2 meters) front left/right center surround subwoofer	110 Hz to 13.7 kHz \pm 4.9 dB 110 Hz to 13.5 kHz \pm 4.5 dB 110 Hz to 13.1 kHz \pm 4.6 dB 28 Hz to 113 Hz \pm 2.6 dB	360 Hz to 9.9 kHz \pm 4.5 dB 360 Hz to 5.5 kHz \pm 2.9 dB 360 Hz to 9.8 kHz \pm 4.4 dB 39 Hz to 120 Hz \pm 2.2 dB	130 Hz to 16.3 kHz \pm 5.7 dB 130 Hz to 16.4 kHz \pm 5.6 dB 130 Hz to 15.5 kHz \pm 6.0 dB 42 Hz to 113 Hz \pm 2.2 dB
Sensitivity (SPL at 1 meter with 2.8-volt pink-noise input)	87 dB	85 dB	85 dB
Impedance (minimum/nominal)	4.3/6 ohms	4.4/5 ohms	6.2/12 ohms
Bass limits (lowest frequency and maximum SPL with limit of 10% distortion at 2 meters in a large room) satellite subwoofer average SPL maximum SPL	80 Hz at 74 dB SPL 20 Hz at 71 dB SPL 100 dB from 25 to 62 Hz 105 dB at 50 Hz	125 Hz at 72 dB SPL 25 Hz at 73 dB SPL 90 dB from 25 to 62 Hz 103 dB at 62 Hz	80 Hz at 72 dB SPL 25 Hz at 78 dB SPL 96 dB from 25 to 62 Hz 108 dB at 62 Hz

All of the response curves in the graphs are weighted to reflect how sound arrives at a listener's ears with normal speaker placement. Because each of these systems uses the same or a very similar satellite speaker for the main channels, the different curves mostly reflect how we weight the response. The curves for the front L/R speakers reflect response averaged over a $\pm 30^\circ$ window, with double weight at 30° . Center-speaker response was averaged over $\pm 45^\circ$, with double weight directly on-axis, and the surround curves reflect response averaged over $\pm 60^\circ$, with double weight at 60° .

Subwoofer bass limits were measured with them set to maximum bandwidth in the optimal corner of a 7,500-cubic-foot room. In smaller rooms, expect 2 to 3 Hz deeper bass and up to 3 dB higher sound-pressure level (SPL).

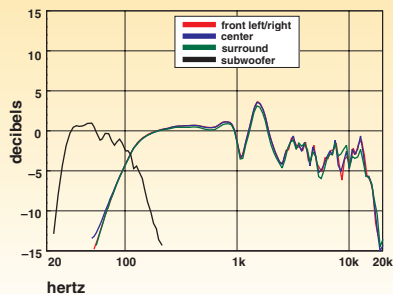
The response of the Mirage Omnisat was virtually identical at every listening angle, though with limited bandwidth at either end of the spectrum and a 4-dB peak at 1.5 kHz. The LF-150 subwoofer had good extension and relatively strong output with an unusually even distribution of SPL (102 dB or more at every frequency between 32 and 62 Hz). There was little interaction between the frequency and volume controls, but the acoustical turnover frequency varied only from 60 to 113 Hz.

Response of the Mission fs1 satellite was very similar in the left/right front and surround positions at any listening angle, with limited bandwidth at both ends of the spectrum and significant roughness in between. In the center position, with a horizontal orientation, it had similar directivity and shape except that its high-

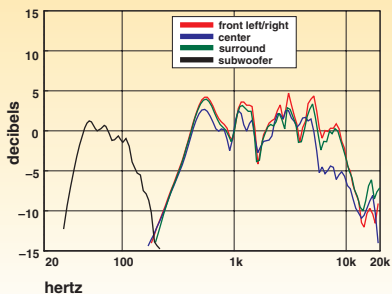
frequency response fell more rapidly at wider radiating angles. The subwoofer had good extension but limited dynamic capability.

Response of the Morel SA-2 satellite was very similar at any listening angle. Every trace reflected a two-octave, 10-dB depression centered at 5 kHz and limited low-frequency output. Response fell slightly at high frequencies at wider radiating angles. The IS-9A subwoofer had good extension, but its stronger SPL capability was limited to the upper end of its range. For example, it delivered a strong 108 dB SPL at 62 Hz but could not muster more than 97 dB below 50 Hz. There was a moderate (3-dB) frequency/volume-control interaction, but the acoustical turnover frequency varied only between 75 and 115 Hz although the indicated limits are 40 to 160 Hz. — Tom Nousaine

MIRAGE



MISSION



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