

SOUND & VISION®

from test report on the NAD L70 DVD player/receiver in the May 2003 **S&V**.
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in the lab

DVD-VIDEO PERFORMANCE

Measurements were made from a variety of DVD test discs, all through the player's composite-video output except as noted.

Maximum-white level error.....+1 IRE

Setup level+7.5 IRE

Differential gain, phase2%, 1°

Luminance frequency response

(re level at 1 MHz)

at 4, 5, and 6 MHz.....-0.54, -1.31, -2.27 dB

at 6.75 MHz (DVD limit).....-2.73 dB

Onscreen horizontal resolution540 lines

In-player letterboxingfair

Component-output level error (interlaced)

(Y/P_r/P_b)+12.3/-0.9/+5.1%

Component-output timing error (interlaced)

(P_r/P_b).....20/+19 nanoseconds

DOLBY DIGITAL PERFORMANCE

All data were obtained from various test DVDs using 16-bit dithered test signals, which set limits on measured distortion and noise performance. Reference input level is -20 dBFS, and reference output is 1 watt into 8 ohms, obtained with the volume control set to read 69. Except for subwoofer-related tests, all speakers were set to "large," subwoofer on. All are worst-case figures where applicable.

Output at clipping (1 kHz into 8 ohms)

1 channel driven.....68 W (18.25 dBW)

5 channels driven.....50 W (17 dBW)

Distortion at 1 watt (THD+N, 1 kHz)

8 ohms.....0.055%

Noise level (A-wtd, 16-bit signals).....-70.7 dB

Excess noise (with sine tone)

16-bit (EN16).....+4.9 dB

Frequency response

20 Hz to 20 kHz +0.018, -0.45 dB

MULTICHANNEL PERFORMANCE, ANALOG INPUT

Reference output level is 1 watt (8 ohms) from a 200-mV input. Volume setting for reference output level was 65.

Distortion (THD+N, 1 kHz, 8 ohms).....0.028%

Noise level (A-wtd).....-77.1 dB

Frequency response

20 Hz to 88.5 kHz +0, -3 dB

BASS MANAGEMENT

Measured results with Dolby Digital test signals.

Subwoofer-output frequency response

21 dB/octave rolloff above -6-dB point of 80 Hz

High-pass-filter frequency response

12 dB/octave rolloff below -3-dB point of 80 Hz

Maximum unclipped subwoofer output

(at reference volume setting, subwoofer trim at -5).....6.5 volts

Subwoofer distortion (from 6-channel, 30-Hz,

0-dBFS signal; master volume at reference level; subwoofer trim set to -5).....0.1%

Response consistency: same with all

inputs/sources and formats

Input/source consistency: no bass manage-

ment for external multichannel audio input

Format consistency: no bass management for

two-channel material unless a DSP mode is engaged

Speaker-size selection: all channels can be

set to "small"

Speaker-distance compensation: see text

On the whole, the L70 gave good, if not stellar, performance. The player's luminance frequency response was rolled off slightly, and the result may be visible with extremely critical material (probably only test patterns are this revealing) as a slight softening of the picture. Audio noise was very slightly elevated. In typical rooms and with typical program material this should be of

little consequence, though I expected better from 24-bit D/A converters. Output power was more than adequate for middle-size rooms even with all channels driven. If you set the subwoofer-output trim control to -5 or lower, it will not overload with worst-case program material. All recordable DVD formats were played except DVD-RW in VR mode and DVD-RAM. — D.R.