

SOUND & VISION®

from test report on the Onkyo DV-SP800 DVD/SACD player in the April 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. Video mode set for CRT, DVD noise reduction off, picture controls at factory defaults.

Maximum-white level error0 IRE

Setup level (see notes) ...+6.0/0 IRE (switchable)

Differential gain0%

Differential phase2°

Luminance frequency response

(re level at 1 MHz)

at 4 MHz+0.09 dB

at 5 MHz+0.17 dB

at 6 MHz+0.09 dB

at 6.75 MHz (DVD limit)±0 dB

Onscreen horizontal resolution540 lines

In-player letterboxingfair

Component-output level error (interlaced)
(Y/P_r/P_b)+3.26/+0.73/+0.06%

Component-output timing error (interlaced)
(P_r/P_b)+4/+3 nanoseconds

DVD-AUDIO PLAYBACK

All tests were done using a custom-made test DVD-R consisting of computer-generated test signals containing dither, which sets limits on measured distortion and noise performance. All speakers were set to "large," subwoofer on, fixed-level output. All data are for the left front channel (see notes).

The standout here is video resolution, as evidenced by the unusually flat luminance response. In-player letterboxing was better than we normally find, but progressive-scan behavior was not. There was a hint of the common "chroma upsampling bug" as well as scan-line effects on the rooftops at the start of Chapter 11 of *Star Wars II: The Attack of the Clones*.

Noise levels in both SACD and DVD-Audio playback were slightly higher than we'd like to see in a player of this price (equivalent to only around 17-bit resolution). The bass-management/speaker-distance-compensation functions

Maximum output1.88 volts

Noise level (re -20-dBFS, A-wtd, 24-bit signals)
96-kHz sampling rate-81.7 dB

Frequency response (96 kHz sampling rate)
20 Hz to 42 kHz +0, -0.35 dB

Excess noise (re perfect 24-bit performance)
96-kHz sampling rate+46.1 dB

Noise modulation
all sampling rates<0.5 dB

SACD PLAYBACK

All tests were made with the Philips multi-channel test SACD. Same test conditions as for DVD-Audio.

Maximum output1.88 volts

Frequency response
20 Hz to 74.8 kHz +0, -3 dB

Noise level (re -20 dBFS)-83.2 dB

BASS MANAGEMENT

Subwoofer-overload tests were performed using worst-case Dolby Digital signals on a custom DVD-RW. Center and surround outputs were set to "small," subwoofer on, and all channel-balance controls to 0. See notes.

Subwoofer low-pass frequency response
-12 dB/octave rolloff above -3-dB point of 100 Hz

Main-channel high-pass frequency response
-12 dB/octave rolloff below -3-dB point of 100 Hz
(see notes)

Maximum subwoofer output
1.3 volts with 0.085% THD+N

are a mess. You can't set the front L/R outputs for "small" speaker operation, there is no bass management for DVD-Audio or CD playback, and the high-pass filter slopes change from -12 dB/octave in Dolby Digital/DTS operation to -6 dB/octave with SACD. Speaker-distance compensation is provided for DVD-Video and DVD-Audio playback but not SACD playback (all too common these days).

The player handled all recordable and rewritable DVD formats except DVD-RAM. It did not produce intertrack mutes with continuous DVD-Audio material. — David Ranada