

# DV-SP504

UNIVERSAL DVD/CD PLAYER

**ONKYO**  
IMAGINATIVE SIGHT & SOUND



Available in Silver or Black

## Scaling the Heights of A/V Perfection with Multi-Format Capability and Untainted Audio Signals

Following up on the success of its predecessor, the DV-SP504 universal DVD/CD player stands out as a versatile player that is well-positioned for the emergence of high-definition entertainment. It's the inclusion of the High-Definition Multimedia Interface (HDMI) that makes the DV-SP504 a superb choice for delivering high-definition movies in 720p or 1080i formats, high-resolution music, and more recent formats like HD JPEG (megapixel images with enhanced resolution). On the audio front, the inclusion of three Cirrus Logic CS4398 digital-to-analog converters takes audio performance into a totally different league. Onkyo's own technologies come into play with Vector Linear Shaping Circuitry (VLSC) and Direct Digital Path to protect audio signals from the most destructive elements to quality movies and music—pulse noise and noise emanating from a player's internal components.

### HDMI Interface for High-Bandwidth Connectivity to HDTVs and AV Receivers

HDMI on the DV-SP504's rear can output uncompressed video—480p/576p, 720p and 1080i—to a compatible display. You can pass video directly to an HDMI-enabled HDTV or pass multichannel audio to your AV receiver, including Dolby Digital and DTS signals. Since HDMI carries all channels on video and audio, there is only one cable to plug into any HDMI-enabled source and display device, which means no unsightly cable mess and a straightforward connection process.

### Getting the Best Match from High-Definition Displays

As high-definition displays become the norm, and HDMI becomes the A/V transport of choice, you will want the flexibility to get the best resolution out of your display. The DV-SP504 can be automatically set at the native resolution of the connected display. The default setting of 480p or 576p can be output by component video or HDMI, and the HDMI setting can be changed through the resolution button on your remote controller or front panel. You also have the choice of 720p or 1080i settings (via HDMI) which are compatible with the best HDTV displays available.

### Multi-Format Playback Capability

Broadening your entertainment options beyond DVD videos and PCM audio CDs, the DV-SP504 enables a range of playback options. With expanded content and audiophile quality, DVD-Audio and Super Audio CD gives you superior audio quality and the opportunity to experience multichannel recordings that reveal an entirely new dimension to music. As for your computer-based digital files, MP3- and WMA-encoded music discs can be played back with the full sound and energy missing on PCs and portable music devices. Also, movies and video content in DivX® can be downloaded and burnt to disc for playback with your entertainment system.

### Direct Digital Path for Clean Audio Signal Transfer

Unlike other DVD players that use inexpensive PC board copper traces to transfer the digital audio signal, the DV-SP504 use a high-purity, heavy-gauge, shielded cable to directly output digital or PCM bitstreams straight from the disc to the back panel. This way, the cable protects the audio signal against potential noise from nearby microprocessors and power supplies giving you the cleanest possible signal.

### Vector Linear Shaping Circuitry (VLSC) for Pure Signal Processing

Essentially, a player's primary purpose is to read digital information and convert that information into an analog signal to feed to an amplifier or A/V receiver. Digital audio signals cannot escape pulse noise (which is particularly harmful in compressed formats). Conventional digital-to-analog conversion methods reduce digital pulse noise at the conversion stage but can't remove it completely. Onkyo's VLSC is a unique conversion circuit designed to overcome this problem. Data is converted between the sampling points, and these discrete sampling points are joined with analog vectors in real-time to produce a smooth output wave form. This ensures that the DV-SP504's disc drive emits the cleanest possible signal from DVD-Video, DVD-Audio, Super Audio CD, PCM audio CDs and MP3-/WMA-encoded discs.

### Progressive Scan with 108 MHz/14-Bit Digital-to-Analog Processing

Progressive scan capability—the ability to produce video in complete frames with no motion artifacts, a scan-line free image, vividly clear color and incredibly sharp detail—is now commonplace among home entertainment playback components. The DV-SP504 will transmit progressive or interlaced signals through component video to match the resolution, like 720p or 1080i, of your connected display. Also, the DV-SP504's onboard 108 MHz/14-bit DAC gives you the precise video conversion needed for quality output via component, S-Video and composite video.

### Sophisticated Cirrus Logic DAC Improves Audio Performance

The inclusion of three Cirrus Logic CS4398 192 kHz/24-bit D/A converters takes audio performance to outstanding levels. The CS4398's uses an advanced, proprietary multi-bit, sigma-delta architecture that eliminates the need for dynamic element matching (DEM) while removing potential audible artifacts that may inhibit sound quality. This advanced architecture provides a 120 dB dynamic range and -105 dB THD+N. It also includes a patented Direct Stream Digital processor that maintains the native sampling rate of 2.8244 MHz and preserves the integrity of the Super Audio CD data format.



Black model

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## Audio & Video Features

- DTS & Dolby Digital decoders built in
- Plays Super Audio CD, DVD-Video & DVD-Audio, Video CD, MP3-encoded disc, WMA-encoded disc, CD-R/RW, DVD±R/DVD±RW, DivX-encoded disc, JPEG-/HD JPEG-encoded disc, and PCM audio CD\*
- HDMI digital interface
- HD conversion (to 720p/1080i)
- Vector Linear Shaping Circuitry (VLSC)
- Direct Digital Path
- Component, S-Video and composite video outputs
- Cirrus Logic CS4398 192 kHz/24-bit audio DACs
- 108 MHz/14-bit video DAC
- Progressive scan video output
- Coaxial and optical digital outputs
- 5.1-multichannel audio outputs with surround mode switch
- Program memory and playback (up to 32 items)
- Disc Navigator for browsing disc files (DVD, VCD, audio CDs, Super Audio CDs, MP3-/WMA-/JPEG-encoded)
- DVD and CD fast forward and reverse (2x, 4x, 8x, 16x)
- Slow motion DVD playback (1/2, 1/4, 1/6 or 1/8 speed)
- Search function (title, chapter, track, folder)
- Repeat functions (Repeat, A-B repeat)
- Random play for video and audio
- Last play memory and resume (DVD-Video) functions
- Subtitle and language switching function
- Zoom function
- Multi-aspect ratio (16:9, 4:3)
- Multi-camera angle
- Parallel outputs—all outputs active

\*Discs that have not been properly finalized may only be partially playable or not playable at all.



Full-function remote

## Other Performance Features

- High-resolution on-screen display (English, Spanish, French, German, Italian, Japanese)
- On-screen set-up menus
- Display settings (messages, color, background, screen saver)
- Display dimmer (3 modes)
- Test tone for multi-channel outputs
- Center and surround delay settings
- Audio dynamic range control
- 96 kHz or 48 kHz selectable digital outputs
- Front panel control cursor
- Supplied A/V and coaxial cables
- Remote Interactive (RI) input
- Full-function remote control

SPECIFICATIONS	
<b>VIDEO SECTION</b>	
Signal System	PAL/NTSC
Composite Video Output/Impedance	1 Vp-p/75 Ω negative sync.
S-Video Output/Impedance	Y: 1 Vp-p/75 Ω negative sync., C: 0.286 Vp-p/75 Ω
Component Video Output/Impedance	Y: 1 Vp-p/75 Ω negative sync. 4-pin mini DIN Pb/Pr: 0.7 Vp-p/75 Ω
Component Video Frequency Response	5 Hz-50 MHz
HDMI	19-pin connector
<b>AUDIO SECTION</b>	
<b>Frequency Response</b>	
DVD Audio	4 Hz-88 kHz (192 kHz)
Super Audio CD	4 Hz-50 kHz
DVD Linear Sound	4 Hz-44 kHz (96 kHz)
Audio CD	4 Hz-22 kHz (48 kHz) 4 Hz-20 kHz (44.1 kHz)
S/N Ratio	106 dB
Audio Dynamic Range	96 dB
THD (Total Harmonic Distortion)	0.003 % (1 kHz)
Wow and Flutter	Below threshold of measurability
<b>Audio Output</b>	
Optical	-22.5 dBm
<b>Audio Output/Impedance</b>	
Coaxial	0.5 Vp-p/75 Ω
<b>Analog Audio Output</b>	
Front down-mix/center/Subwoofer	2 V/440 Ω
Surround 1, 2	2 V/440 Ω (Surround Mode 1) 1.4 V/440 Ω (Surround Mode 1 + 2)
<b>GENERAL</b>	
Power Supply	AC 100-240 V, 50/60 Hz
Power Consumption	17 W
Standby Power Consumption	0.4 W
Dimensions (W x H x D)	435 x 81 x 309 mm
Weight	3.7 kg

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