

# TX-SR504

7.1-CHANNEL HOME THEATER RECEIVER

**ONKYO**  
IMAGINATIVE SIGHT & SOUND



Available in Gold, Black or Silver



Remote Control

## Adding More Options to the Home Theater Experience

Want more than a superb balance of precise surround sound processing, powerful amplification and signal-enhancing technologies to bring out the very best in your home theater? The TX-SR504 goes above and beyond by giving you the capability to switch up to three high-definition components for simple connection to HDTVs. So, on top of sensational DVD movies and your own music catalog, the TX-SR504 easily integrates recorded video content, live high-definition broadcasts and the most gripping console games. While this receiver's sophistication can't be denied, it's also designed to make operating your home entertainment a stress-free, simple exercise. A perfectly laid out rear panel features color-coded ports, while the preprogrammed RI (Remote Interactive) remote control and accessible front panel controls do all the work for you. In more ways than one, the TX-SR504 will set you up for the best home theater entertainment yet.

### Wide Range Amplifier Technology (WRAT)

WRAT is the backbone of the TX-SR504's amplifier design and is centered on three core elements:

- 1) A low-negative-feedback design that ensures a fuller sound at higher frequencies;
- 2) Closed ground-loop circuits that mitigate individual circuit noise and keep the ground potential free of distortion;
- 3) A high-instantaneous current capability that effectively handles reflex energy from the speakers and impedance fluctuations to offer dynamics similar to those experienced in a movie theater.

WRAT ensures the audio performance necessary for a range of video content with surround sound, as well as providing a solid platform for reproducing music sources like DVD-Audio, Super Audio CD, PCM CDs, and digital files like MP3s.

### Component Video Switching (50 MHz) with HDTV Connectivity

With three component video inputs, you can have up to three of today's latest A/V components—think DVD/universal players, cable/set-top boxes, DVRs and the latest gaming consoles like the Xbox®—connected simultaneously for output to the latest high-definition displays. With a frequency range out to 50 MHz, you have more than enough bandwidth to pass a progressive scan DVD signal (at least 12 MHz needed) and a 720p signal (at least 37 MHz needed) to high-definition displays with no video signal deterioration. Also, the convenience and simplicity of one component video output for all sources fit well with the TX-SR504's focus on ease-of-setup.

### Incorporating the Most Advanced Surround Formats Available

The TX-SR504 has the onboard codecs—Dolby Digital EX, Dolby Pro Logic IIx, DTS-ES, DTS 96/24 and DTS Neo:6—to effectively reproduce stereo and multichannel sources in enveloping 6.1 or 7.1 surround sound. And with the upcoming release of HD-DVD and Blu-ray Disc, Dolby Digital and DTS have prepared audio formats that represent the future of digital audio entertainment. By connecting an HD-DVD or Blu-ray Disc player with the respective high-definition audio codecs to the TX-SR504 via its 7.1-multichannel inputs, you will be able to enjoy superior audio quality with a bit-rate of up to 1.5 Mbps\*, almost twice that of existing codecs. The new codecs are back-compatible with existing codecs.

\*Confirmed for DTS-HD

### Extended Crossover Adjustment

Crossover control determines the frequency at which the subwoofer takes over bass-reproducing responsibilities from the main speakers. If the crossover is too low, there'll be a dip in the mid-bass response. If it's too high, there'll be frequency duplication (resulting in a muddy bass sound). Your room's acoustical environment can also influence the crossover setting. The TX-SR504 lets you choose from a wide range of frequencies—40/50/60/80/100/120/150/200 Hz—which enables you to accurately set the correct crossover for different speaker packages. You'll also be able to better mix and match different speaker brands.

### Optimum Gain Volume Circuitry

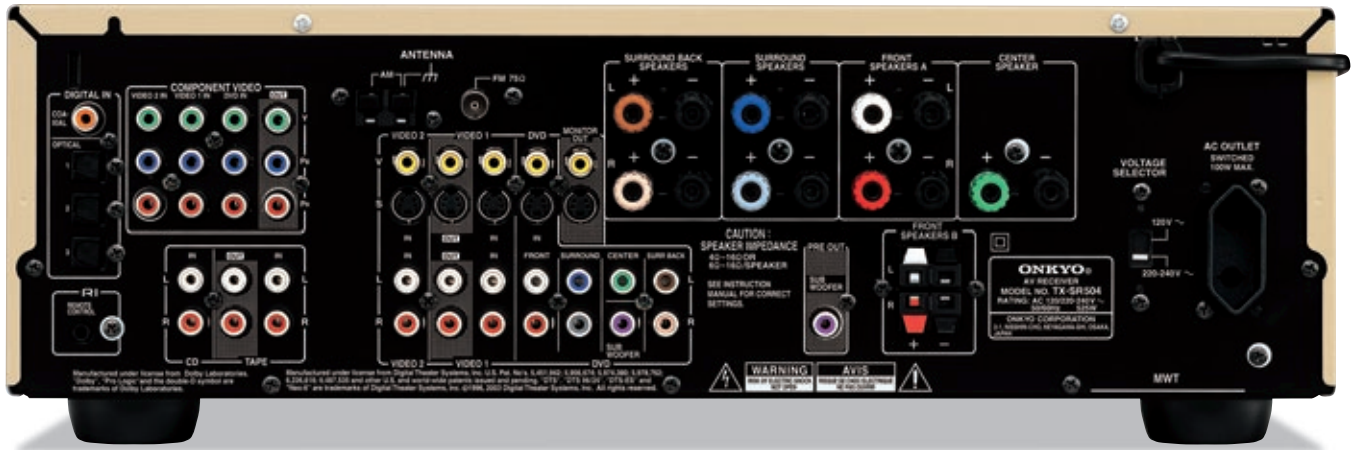
Conventional volume attenuation methods must initially drop a signal close to the noise floor at low volumes. Even though the signal is only tainted with a little noise, the amount increases when the signal is amplified. Onkyo's Optimum Gain Volume Circuitry adjusts the gain so that less than half the amount of attenuation is necessary. This signal never comes close to the noise floor, and thereby eliminates the possibility of noise contamination that plagues conventional volume-attenuation designs.

### Rear Panel with Color-Coded Connections for Ease-of-Setup

To get up and running quickly, the TX-SR504's rear panel is designed so that you can simply connect to your A/V components. You'll probably be making use of your component video inputs/output, which are conveniently located on the top left of the rear panel (as are the digital inputs for Dolby and DTS surround signals). You may also use the color-coded 7.1-multichannel inputs (perhaps to experience the splendor of Super Audio CD and DVD-Audio formats) to transfer a 7.1-multichannel signal. Last but not least, color-coded speaker posts aid in the stress-free connection of speakers.

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7.1-CHANNEL HOME THEATER RECEIVER



## Amplifier Features

- 130 watts per channel minimum into 6 ohms, 1 kHz, JEITA; 160 watts per channel minimum into 6 ohms, 1 kHz, JEITA (1 channel driven)
- Wide Range Amplifier Technology (WRAT)
- Extended frequency response (5 Hz-100 kHz)
- Optimum Gain Volume Circuitry
- H.C.P.S.—high current power supply
- Discrete power amplifier circuitry for all channels
- High-current, low-impedance drive
- Aluminum heatsink
- Auto-protection circuitry

## Audio/Video Processing and Connectivity Features

- DTS, DTS 96/24, DTS-ES Discrete/Matrix, DTS Neo:6 decoding
- Dolby Digital, Dolby Digital EX, Dolby Pro Logic IIx decoding
- 192 kHz/24-bit DACs for all channels
- Advanced 32-bit processing DSP chip
- Digital upsampling
- Non-scaling configuration

- HDTV-capable (50 MHz) component video switching (3 inputs/1 output)
- 4 digital inputs (3 optical/1 coaxial)
- 3 S-Video inputs and 2 outputs
- 4 composite video inputs and 2 outputs
- 2 audio inputs and 1 output
- Color-coded 7.1-multichannel inputs (Ready for new DTS and Dolby Digital formats for high-definition discs)
- A-form listening mode memory
- CinemaFILTER
- Double Bass function
- Tone control (bass/treble) for front L/R channels
- Late night mode (high/low/off)
- Pure audio mode
- Direct mode
- A/B speaker drive
- Subwoofer pre out
- Color-coded dual banana plug-compatible speaker posts (except speaker B)

## FM/AM Tuner and Other Performance Features

- 40 FM/AM random presets
- Auto/manual tuning modes

- 3-Mode display dimmer (bright/normal/low)
- Headphone jack (standard)
- Audio mute (via remote)
- Sleep timer (via remote)
- Battery-free memory backup
- Heavy-duty power cord
- Large, non-resonant feet
- Heavy-gauge, anti-resonant, reinforced steel chassis
- Vibration-resistant cover
- Aluminum front panel
- "Easy-set" speaker configuration
- Crossover adjustment (40/50/60/80/100/120/150/200 Hz) for bass management
- Compatible with RI (Remote Interactive) Dock for the iPod
- A/V synchronization function (set at 0/20/40/60/80/100 ms)
- Preprogrammed RI (Remote Interactive) remote control with mode-key LEDs

## SPECIFICATIONS

### AMPLIFIER SECTION

<b>Power Output</b>	
Front L/R.....	130 W + 130 W (6 Ω, 1 kHz, JEITA)
Center.....	160 W + 160 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
Surround L/R.....	130 W (6 Ω, 1 kHz, JEITA)
Surround Back L/R.....	160 W (6 Ω, 1 kHz, JEITA)
Surround Back L/R.....	130 W + 130 W (6 Ω, 1 kHz, JEITA)
Surround Back L/R.....	160 W + 160 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
Surround Back L/R.....	130 W + 130 W (6 Ω, 1 kHz, JEITA)
Surround Back L/R.....	160 W + 160 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
<b>Dynamic Power</b>	
.....	180 W + 180 W (3 Ω, Front)
.....	140 W + 140 W (4 Ω, Front)
.....	95 W + 95 W (8 Ω, Front)
<b>THD (Total Harmonic Distortion)</b> .....	
.....	0.08 % (Rated Power)
<b>Damping Factor</b> .....	
.....	60 (Front, 1 kHz, 8 Ω)
<b>Input Sensitivity and Impedance</b>	
Line.....	200 mV/47 kΩ (CD, Tape, etc.)
<b>Output Level and Impedance</b>	
Rec out.....	200 mV/470 Ω (Tape, Video 1)
<b>Frequency Response</b> .....	
.....	5 Hz-100 kHz/+1 dB, -3 dB (Direct mode)
<b>Tone Control</b> .....	
.....	±10 dB, 80 Hz (BASS)
.....	±10 dB, 20 kHz (TREBLE)
<b>Signal-to-Noise Ratio</b> .....	
.....	100 dB (Line in, IHF-A)
<b>Speaker Impedance</b> .....	
.....	6 Ω-16 Ω

### VIDEO SECTION

<b>Input Sensitivity/Output Level and Impedance</b>	
Video.....	1.0 Vp-p/75 Ω (Component and S-Video Y)
.....	0.7 Vp-p/75 Ω (Component Pa/Ca, Pr/Cr)
.....	0.28 Vp-p/75 Ω (S-Video C)
.....	1 Vp-p/75 Ω (Composite)
<b>Component Video Frequency Response</b> .....	
.....	5 Hz-50 MHz

### TUNER SECTION

<b>[FM]</b>	
<b>Tuning Frequency Range</b> .....	
.....	87.5 MHz-108.0 MHz
<b>Usable Sensitivity</b>	
Stereo.....	22 dBf, 2 μV (75 Ω, IHF)
Mono.....	15 dBf, 1 μV (75 Ω, IHF)
<b>Signal-to-Noise Ratio</b>	
Stereo.....	67 dB (IHF-A)
Mono.....	73 dB (IHF-A)
<b>Total Harmonic Distortion</b>	
Stereo.....	0.5 %, 1 kHz
Mono.....	0.3 %, 1 kHz
<b>FM Stereo Separation</b> .....	
.....	40 dB at 1 kHz
<b>[AM]</b>	
<b>Tuning Frequency Range</b> .....	
.....	522 kHz-1,611 kHz/530 kHz-1,710 kHz
<b>Usable Sensitivity</b> .....	
.....	300 μV/m
<b>Signal-to-Noise Ratio</b> .....	
.....	40 dB
<b>Total Harmonic Distortion</b> .....	
.....	0.7 %

### GENERAL

<b>Power Supply</b> .....	AC 120/220-240 V, 50/60 Hz
<b>Power Consumption</b> .....	525 W
<b>Standby Power Consumption</b> .....	0.5 W
<b>Dimensions (W x H x D)</b> .....	435 x 151 x 377 mm
<b>Weight</b> .....	10.4 kg



Black model



Silver model

Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice. Dolby, Pro Logic, Surround EX and the double-D symbol are trademarks of Dolby Laboratories. DTS, DTS-ES Extended Surround, DTS 96/24 and Neo:6 are trademarks of Digital Theater Systems, Inc. iPod is a trademark of Apple Computer, Inc., registered in the U.S. and other countries. "CinemaFILTER" is a trademark of Onkyo Corporation. All other trademarks and registered trademarks are the property of their respective holders.

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