

TX-SR309 5.1-CHANNEL HOME CINEMA RECEIVER



HDMI
RDS RI

DOLBY TRUEHD

dts-hd

192 kHz/24-bit

CINEMA FILTER

USB

RIHD

Theater-Dimensional

Made for
iPod iPhone



An Easy Entry Point into the World of Fully Immersive Home Cinema

Continuing our mission to bring quality to every level of home entertainment, Onkyo presents the TX-SR309—an entry-level A/V receiver fine-tuned to power your system right out of the box. Set-up is simple and adjustments are easy, thanks to a new overlaid on-screen display. Also new at this level is PLL jitter-cleaning circuit technology to reduce distortion, and a front-panel USB port that provides a high-quality digital link to your iPod/iPhone. To get the best from your compressed audio files, the TX-SR309 employs Onkyo's proprietary Advanced Music Optimizer. Naturally, the receiver also handles high-def, lossless audio in the form of Dolby® TrueHD and DTS-HD Master Audio™. These are carried by three HDMI® inputs that also support immersive 3D video content. And whether you're gaming in 3D or not, you can choose from four customized audio modes to match your gaming content. It all adds up to one high-value proposition.

ADVANCED FEATURES

- HDMI® Support for 3D, Audio Return Channel, Deep Color™, x.v.Color™, LipSync, Dolby® TrueHD, DTS-HD Master Audio™, DVD-Audio, Super Audio CD, Multichannel PCM, and CEC
- Direct Digital Connection of iPod/iPhone via Front-Panel USB Port
- Dolby® TrueHD, DTS-HD Master Audio™, Dolby® Digital Plus, DTS-HD High-Resolution Audio™ Decoding
- Overlaid On-Screen Display (OSD) via HDMI

AMPLIFIER FEATURES

- 100 W/Ch at 6 Ω, 1 kHz, 1%, 1 Channel Driven, IEC
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- Optimum Gain Volume Circuitry
- PLL (Phase Locked Loop) Jitter-Cleaning Circuit Technology for S/PDIF Audio

PROCESSING FEATURES

- TI Burr-Brown 192 kHz/24-Bit DACs for All Channels

- Advanced 32-Bit Processing DSP Chip
- 4 DSP Modes for Gaming: Rock, Sports, Action, and RPG (Role Playing Game)
- Advanced Music Optimizer for Compressed Digital Music Files
- Mass Storage Class USB Memory Playback Capability
- Theater-Dimensional Virtual Surround Function
- CinemaFILTER™
- Direct Mode
- Double Bass Function
- Non-Scaling Configuration
- A-Form Listening Mode Memory

CONNECTION FEATURES

- 3 HDMI Inputs and 1 Output
- HDTV-Capable (720p/1080i) Component Video Switching (2 Inputs and 1 Output)
- 5 Composite Video Inputs (1 Front/4 Rear) and 2 Outputs
- 3 Digital Audio Inputs (2 Optical and 1 Coaxial)

- 6 Analog Audio Inputs (1 Front/5 Rear) and 1 Output
- Subwoofer Pre Out
- Speaker A/B Terminals
- Color-Coded Speaker Terminals
- Headphone Jack

OTHER FEATURES

- Crossover Adjustment (40/50/60/70/80/90/100/120/150/200 Hz)
- A/V Sync Control (Up to 400 ms at 48 kHz)
- Tone Control (Bass/Treble) for Front L/R Channels
- 3-Mode Display Dimmer (Normal/Dim/Dimmer)
- RDS (PS/RT/PTY/TP)
- 40 FM/AM Random Presets
- RIHD (Remote Interactive over HDMI) for System Control
- Compatible with RI (Remote Interactive) Dock for iPod/iPhone
- Full-Function RI Remote Control



TX-SR309 5.1-CHANNEL HOME CINEMA RECEIVER

HDMI® Support for 3D Video and Audio Return Channel

The three HDMI inputs on the TX-SR309 let you simultaneously connect high-def sources such as a Blu-ray player, a gaming console, and a cable/satellite tuner. A single output then sends a pristine signal to your connected high-resolution display. The HDMI implementation on this receiver supports both 3D video and an Audio Return Channel. 3D video brings exciting possibilities to home entertainment, with movie, game, and broadcast content on the increase and 3D-compatible TVs coming to market. The TX-SR309 also offers the convenience of an Audio Return Channel via HDMI. Audio content received directly by your HDTV's tuner can be sent "upstream" to your A/V receiver, without the need for a separate S/PDIF audio cable.

Direct Digital Connection of iPod/iPhone via Front-Panel USB Port

The TX-SR309's front-panel USB port lets you access MP3, WMA, AAC, and FLAC audio files stored on a USB flash drive or iPod/iPhone. As the audio signals are transported in digital form, rather than analog, there is much less chance for signal degradation. End result: your music sounds cleaner and more faithful to the original. Another benefit of the USB input is that it lets you use the system's remote controller to play back audio files on the connected device.

Decoding of High-Definition Surround-Sound Codecs

The TX-SR309 can decode Dolby® TrueHD and DTS-HD Master Audio™—two lossless formats that enable delivery of a bit-for-bit soundtrack identical to the studio master track. These codecs take advantage of the high data capacity of the Blu-ray format. The TX-SR309 also handles two "lossy" audio formats: Dolby® Digital Plus and DTS-HD High Resolution Audio™. Dolby Digital Plus is designed to accompany high-definition video delivered via disc media, broadcasts, and online content. DTS-HD High Resolution Audio, meanwhile, offers a greater bit rate, a higher sampling rate, and more channels than the core DTS technology.

Convenient Overlaid On-Screen Display via HDMI

Changing your A/V receiver's settings is now more seamless than ever; thanks to the TX-SR309's overlaid On-Screen Display (OSD) feature. On-screen set-up menus appear overlaid on the video image you're watching. This means you can adjust the settings immediately, without having to switch back and forth from a blank screen background.

Four Audio Game Modes for More Realistic Action

These four gaming modes create an audio experience with more realism and impact. You can select from Rock, Sports, Action, or RPG (Role Playing Game) modes to match your gaming content.

192 kHz/24-Bit TI Burr-Brown DACs Improve Jitter Performance to Deliver Clearer Sound

High-quality Burr-Brown DACs work to optimize analog audio performance on the TX-SR309. These DACs perform advanced 24-bit signal processing and support sampling rates of up to 192 kHz, while displaying high resistance to clock jitter.

Advanced Music Optimizer to Enhance Compressed Digital Music Files

While MP3 or AAC files may sound fine through the headphones of your portable digital player, the limitations of these files can be exposed when played back through a quality home entertainment system. This is because a significant amount of high-frequency bit information is lost during the file-compression process. To counter this, Onkyo has designed the Advanced Music Optimizer to compensate for lost bit information and improve the quality of compressed audio signals. This results in a clearer and more expansive sound. Also included in this technology is a loudness correction feature that further improves the audio character of compressed files.

SPECIFICATIONS

Amplifier Section

Power Output	100 W/Ch
Front L/R	(6 Ω , 1 kHz, 1%, 1 channel driven, IEC)
Center	100 W
	(6 Ω , 1 kHz, 1%, 1 channel driven, IEC)
Surround L/R	100 W/Ch
	(6 Ω , 1%, 1 kHz, 1 channel driven, IEC)
Dynamic Power	160 W (3 Ω Front)
	125 W (4 Ω Front)
	85 W (8 Ω Front)

THD+N (Total Harmonic Distortion + Noise)
0.08% (20 Hz–20 kHz, Half power)

Damping Factor 60 (Front, 1 kHz, 8 Ω)

Input Sensitivity and Impedance
200 mV/47 k Ω (Line)

Rated RCA Output Level and Impedance
200 mV/2.2 k Ω (Rec out)

Maximum RCA Output Level and Impedance
2.0 V/2.2 k Ω (Rec out)

Frequency Response 20 Hz–50 kHz/+1 dB, -3 dB (DSP bypass)

Tone Control
 ± 10 dB, 50 Hz (Bass)
 ± 10 dB, 20 kHz (Treble)

Signal-to-Noise Ratio 100 dB (Line, IHF-A)

Speaker Impedance 6 Ω –16 Ω

Video Section

Input Sensitivity/Output Level and Impedance
Video 1.0 Vp–p/75 Ω (Component)
0.7 Vp–p/75 Ω (Component Pb/Cb, Pr/Cr)
1.0 Vp–p/75 Ω (Composite)

Component Video Frequency Response
5 Hz–100 MHz/0 dB, -3 dB

Tuner Section

Tuning Frequency Range
FM 87.5 MHz–108 MHz
AM 522 kHz–1,611 kHz
530 kHz–1,710 kHz

FM/AM Preset Memory 40 stations

General

Power Supply AC 230 V~, 50 Hz

Power Consumption 300 W

Dimensions (W x H x D) 435 x 150 x 328 mm

Weight 7.5 kg

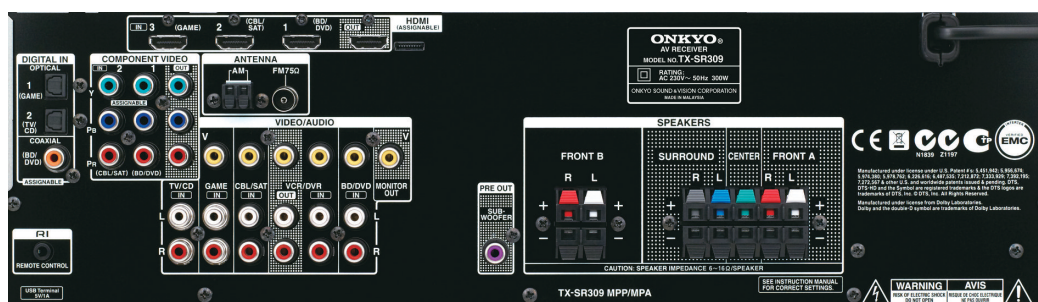
CARTON

Dimensions (W x H x D) 537 x 268 x 416 mm

Weight 10.5 kg

Supplied Accessories

- Indoor FM antenna • AM loop antenna • Speaker cable labels
- Instruction manual • Quick set-up guide • Remote controller
- AA (R6) batteries x 2



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ONKYO

Onkyo Sound & Vision Corporation 2-1 Nishin-cho, Nayagawa-shi, Osaka 572-8540, JAPAN Tel: +81-72-831-8136 Fax: +81-72-833-5222 <http://www.onkyo.com/>
Onkyo Europe Electronics GmbH Liegnitzerstrasse 6, 82194 Grobenzell, GERMANY Tel: 49-8142-4401-0 Fax: 49-8142-4401-555 <http://www.eu.onkyo.com/>
Onkyo Europe UK Office The Coach House, 81A High Street, Marlow, Buckinghamshire SL7 1AB, UNITED KINGDOM Tel: +44(0)1628-473350 Fax: +44(0)1628-401700 <http://www.onkyo.co.uk/>