

TX-SR604

7.1-CHANNEL HOME THEATRE RECEIVER

ONKYO
IMAGINATIVE SIGHT & SOUND



Available in Silver or Black

Remote Control

Giving You a Powerful Mix of High-Definition Access, System Expansion and Precise Calibration

As a centerpiece of home entertainment, the TX-SR604 presents superb functionality that will be hard to match. With connectivity to virtually any A/V source or playback component you can imagine, your entertainment choices are impressive. The TX-SR604 also packs some exclusive technologies like the Audyssey 2EQ™ function which measures and corrects the room acoustics in your home—like having your own sound engineer at your command. Moreover, this 7.1-channel home theatre receiver is ready for the high-definition revolution with High-Definition Multimedia Interface (HDMI) effortlessly transporting sublime video and audio, as well as 7.1-multichannel inputs accepting the most advanced surround sound formats available.

Wide Range Amplifier Technology (WRAT) and Vector Linear Shaping Circuitry (VLSC) for Front L/R Channels

Without a time-tested amplifier design and precise digital-to-analog conversion process, the most advanced processing features cannot deliver a higher standard of audio from the latest high-definition DVD and audio CD formats, DVDs, PCM CDs and digital music files. WRAT provides the backbone of the TX-SR604 for which some of the world's most exciting technologies and formats can be fully experienced. WRAT achieves three key objectives: 1) A fuller sound at higher frequencies; 2) The control of individual circuit noise and distortion-free ground potential; 3) The ability to handle speaker reflex energy and impedance fluctuations for movie theatre dynamics. The TX-SR604 also includes VLSC in the front L/R channels to mitigate the effect of magnified signal noise during the digital-to-analog conversion process. With VLSC, data is converted between sampling points and then joined with analog vectors in real-time to produce a smooth output wave form. The end result is a noiseless, smooth analog output signal based on the digital source.

HDMI Connectivity and Other Signals Converted to Component Video

As the most advanced interface for transporting both uncompressed high-definition (HD) video and uncompressed multi-channel audio in all HD formats including 720p, 1080i and 1080p, HDMI has become the most desirable connectivity option for home entertainment. The TX-SR604's two HDMI (version 1.1) inputs will receive pristine video from HDMI-enabled components like DVD players or set-top boxes for a single-cable output to a display device with an HDMI or DVI connection. Given you even more integration, the TX-SR604 will take up to three of the latest A/V components—including DVRs and the latest gaming consoles—connected simultaneously for one component output to the latest HDTVs. Also, any S-Video or composite signals will be upconverted to component video with the TX-SR604's time base corrector dealing with any timing inaccuracies in the process.

Access to the Most Advanced Surround Formats Available

The TX-SR604 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 5.1- or 7.1-line level outputs to the TX-SR604's 7.1-multichannel inputs, you will be able to enjoy the full potential of audio formats like Dolby Digital Plus, Dolby True HD and DTS-HD.

Audyssey 2EQ to Counteract Room Acoustic Problems

Even though loudspeakers are designed to deliver sound without distortion or coloration, the acoustic problems presented by a room's profile will determine the overall sound presentation. Walls, furniture and other objects reflect and absorb sound creating distortion that is unique to your own space. To counter this, Audyssey 2EQ detects speaker polarity & distance, and then sets levels, delays, and crossovers and measures room acoustics at two listening positions. In this way, a wider listening area is covered than by simply measuring at one position as with many systems. Some systems try to correct for multiple positions and then average the results out for a solution. However, this simply smooths out the frequency response peaks and dips. Audyssey 2EQ corrects problems in both frequency response and time domain (where most of the problems lie) in the entire listening area. The results are immediately obvious—a clear, precise and natural sound.

Multiroom Playback Capabilities through Powered Zone 2 with 12 V Trigger

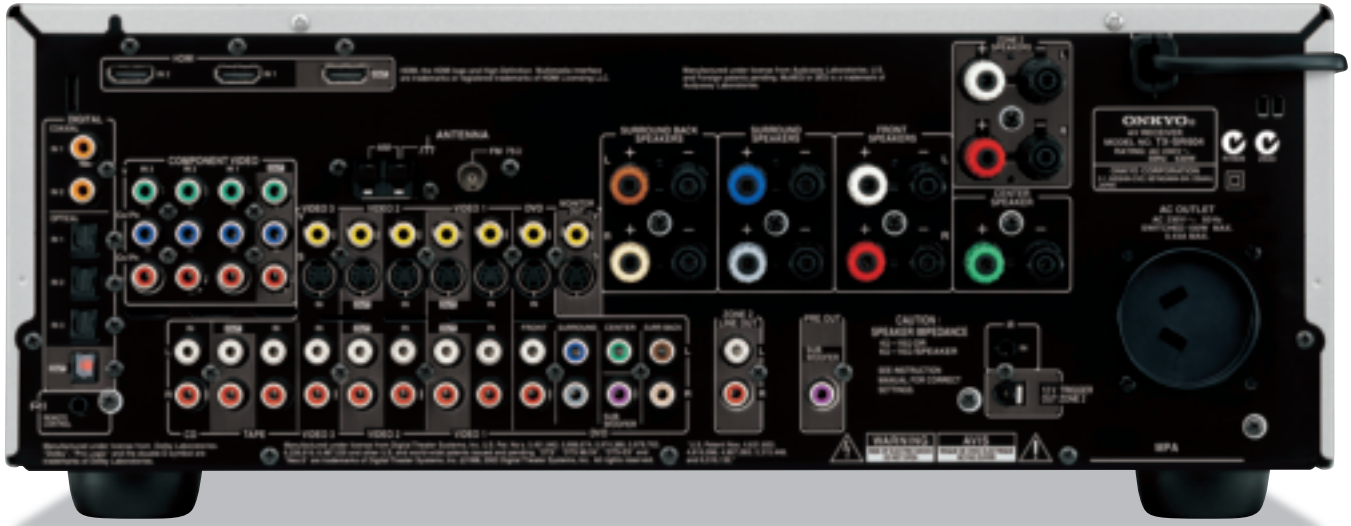
Don't think of the TX-SR604 as simply a single home theater control base. With Powered Zone 2, you can easily enjoy different A/V sources throughout your home. You can enjoy one input source in the main room by using either a receiver or amplifier in Zone 2 or using only a pair of speakers in Zone 2. If you decide to use an amplifier in Zone 2, the TX-SR604's 12 V trigger will send a signal to automatically switch it on. If you decide to only use speakers, the TX-SR604 has high-quality banana plug-compatible speaker posts to maintain the quality of your connection. Powered Zone 2 will also work effectively with peripheral devices like the RI Dock for the iPod—perfect for sharing the iPod's huge storage of audio files.

Independent Crossover Adjustment and A/V Sync Function

Crossover control determines the frequency at which the subwoofer takes over bass-reproducing responsibilities from the main speakers. The TX-SR604 lets you independently set the crossover frequencies for front, centre, surround and surround back speakers to effectively match your subwoofer. You can choose from a wide range of frequencies—40/50/60/80/100/120/150/200 Hz—giving you greater capacity to mix and match your speakers. Also, when using progressive scan on your DVD player, audio and video often fall out of synchronization. The TX-SR604 lets you delay the audio signal by up to 100 milliseconds in 10-millisecond steps to counter this.

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Amplifier Features

- 175 watts per channel minimum into 6 ohms, 1 kHz, JEITA (1 channel driven); 90 watts per channel minimum into 8 ohms, 20 Hz-20 kHz, 0.08 % FTC (2 channels driven); 110 watts per channel minimum into 6 ohms, 1 kHz, 0.1 %, FTC (2 channels driven)
- Wide Range Amplifier Technology (WRAT)
- Vector Linear Shaping Circuitry (VLSC) for front L/R channels
- 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
- 2 HDMI inputs and 1 output
- Component video upconversion with Time Base Corrector (TBC)
- Composite to S-Video upconversion

- HDTV-capable (50 MHz) component video switching
- 3 component video inputs and 1 output
- 6 digital inputs (4 optical [1 front panel]/2 coaxial) and 1 optical output (2 channels driven)
- 5 S-Video inputs and 3 outputs
- 5 composite video inputs and 3 outputs
- 5 A/V inputs and 2 outputs
- 2 audio inputs and 1 output
- Front panel audio, video, S-Video, optical inputs
- Pure audio mode
- Color-coded 7.1-multichannel inputs (Ready for new DTS and Dolby Digital formats for high-definition discs)
- Powered Zone 2/Zone 2 lineout with 12 V trigger
- IR input
- A-form listening mode memory
- CinemaFILTER
- Double Bass function
- Digital upsampling
- Non-scaling configuration
- Tone control (bass/treble) for front L/R channels
- Zone 2 volume control
- Late night mode (high/low/off)
- Speaker level adjustment
- Direct mode
- Subwoofer pre out
- Color-coded dual banana plug-compatible speaker posts (including Zone 2)

FM/AM Tuner and Other Performance Features

- 40 FM/AM random presets
- Auto/manual tuning modes
- Intellivolume
- Audyssey 2EQ to correct room acoustic problems
- Display dimmer (3 modes)
- On-screen display
- 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
- Independent crossover adjustment for F/C/S/SB (40/50/60/80/100/120/150/200 Hz)
- Compatible with RI (Remote Interactive) Dock for the iPod
- A/V synchronization function (up to 100 ms [10-ms steps])
- Preprogrammed RI (Remote Interactive) remote control with mode-key LEDs

SPECIFICATIONS

AMPLIFIER SECTION

Power Output

Front L/R.....	175 W + 175 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
	90 W + 90 W (8 Ω, 20Hz-20 kHz, 0.08 %, 2 channels driven, FTC)
	110 W + 110 W (6 Ω, 1 kHz, 0.1 %, 2 channels driven, FTC)
Centre	175 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
	90 W (8 Ω, 20Hz-20 kHz, 0.08 %, 2 channels driven, FTC)
	110 W (6 Ω, 1 kHz, 0.1 %, 2 channels driven, FTC)
Surround L/R.....	175 W + 175 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
	90 W + 90 W (8 Ω, 20Hz-20 kHz, 0.08 %, 2 channels driven, FTC)
	110 W + 110 W (6 Ω, 1 kHz, 0.1 %, 2 channels driven, FTC)
Surround Back L/R ..	175 W + 175 W (6 Ω, 1 kHz, 1 channel driven, JEITA)
	90 W + 90 W (8 Ω, 20Hz-20 kHz, 0.08 %, 2 channels driven, FTC)
	110 W + 110 W (6 Ω, 1 kHz, 0.1 %, 2 channels driven, FTC)

Dynamic Power

	225 W + 225 W (3 Ω, Front)
	170 W + 170 W (4 Ω, Front)
	105 W + 105 W (8 Ω, Front)

THD (Total Harmonic Distortion) 0.08 % (Rated Power)

Damping Factor 60 (Front, 1 kHz, 8 Ω)

Input Sensitivity and Impedance

Line..... 200 mV/47 kΩ

Output Level and Impedance

Rec out..... 200 mV/470 Ω

Frequency Response..... 10 Hz-100 kHz+ 1 dB, -3 dB (Direct mode)

Tone Control ±10 dB, 50 Hz (BASS)

±10 dB, 20 kHz (TREBLE)

Signal-to-Noise Ratio 106 dB (Line in, IHF-A)

Speaker Impedance 4 Ω/6 Ω-16 Ω

VIDEO SECTION

Input Sensitivity/Output Level and Impedance

Video 1 Vp-p/75 Ω (Component and S-Video Y)

0.7 Vp-p/75 Ω (Component Pb/Cb, Pb/Cr)

0.28 Vp-p/75 Ω (S-Video C)

1 Vp-p/75 Ω (Composite)

Component Video Frequency Response .. 5 Hz-50 MHz

TUNER SECTION

[FM]

Tuning Frequency Range 87.5 MHz-108 MHz

Usable Sensitivity

Stereo 22.2 dBf (75 Ω, IHF)

Mono 15.2 dBf (75 Ω, IHF)

Signal-to-Noise Ratio

Stereo 67 dB (IHF-A)

Mono 73 dB (IHF-A)

Total Harmonic Distortion

Stereo 0.5 %, 1 kHz

Mono 0.3 %, 1 kHz

Stereo Separation 40 dB at 1 kHz

[AM]

Tuning Frequency Range 522 kHz-1,611 kHz/530 kHz-1,710 kHz

Usable Sensitivity 300 μV/m

Signal-to-Noise Ratio 40 dB

Total Harmonic Distortion 0.7 %

GENERAL

Power Supply AC 230 V, 50 Hz

Power Consumption 630 W

Standby Power Consumption 0.5 W

Dimensions (W x H x D)..... 435 x 174 x 377 mm

Weight..... 11.4 kg



Black 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. Manufactured under license from Audyssey Laboratories. U.S. and foreign patents pending. 2EQ is a trademark of Audyssey Laboratories. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC. iPod is a trademark of Apple Computer, Inc., registered in the U.S. and other countries. VLSC and CinemaFILTER are trademarks of Onkyo Corporation. All other trademarks and registered trademarks are the property of their respective holders.

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