

TX-SR503

7.1-CHANNEL HOME THEATER RECEIVER

ONKYO
IMAGINATIVE SIGHT & SOUND



Available in Black or Silver

Complementing Video Brilliance with Audio Excellence

Finding the perfection of HDTV is an undeniable pleasure. The discovery of home theater is a revelation. Anchored around Onkyo's build quality and proprietary technologies—Wide Range Amplifier Technology (WRAT) and Optimum Gain Volume Circuitry—the groundwork is laid for powerful audio reproduction without the noise and distortion that limits other receivers. The TX-SR503 7.1-channel home theater receiver incorporates 192 kHz/24-bit digital-to-analog converters for all 7.1 channels to preserve the quality of your audio, and it also offers HDTV-capable (50 MHz) component video switching to give you connectivity and versatility with the latest displays (with still enough options for those who haven't made the change). With superb functionality and ease of use, the TX-SR503 is perfectly suited for those looking to explore quality home theater in the HDTV environment, now and in the future.

Wide Range Amplifier Technology (WRAT)

Originally developed for our high-end receivers, WRAT is a collection of proprietary technologies that achieves three fundamental goals in the pursuit of superior home theater:

- 1) Wider frequency response
- 2) Reduced amplifier distortion at high volume
- 3) Better control of current and electro/mechanical kick-back from speakers.

WRAT ensures that you're getting the audio performance necessary for a range of video content and it also sets the platform for quality playback from high-resolution formats, like DVD-Audio and Super Audio CD, as well as other digital and analog music sources.

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.

HDTV-Capable Component Video Switching (3 Inputs and 1 Output) at 50 MHz

On top of S-Video and composite video connections, component video switching enables the connection of up to three HD-capable sources, such as DVD and universal players, terrestrial or satellite tuners, cable boxes, DVRs, or D-VHS VCRs. With a frequency range out to 50 MHz, the TX-SR503 has more than enough bandwidth to pass a progressive scan DVD signal (at least 12 MHz needed) and 720p (at least 37 MHz needed). Also, the TX-SR503's bandwidth gives it the capability to pass a flawless signal to progressive HDTV (at least 30 MHz needed).

192 kHz/24-Bit DACs for All Channels

The TX-SR503 incorporates 192 kHz/24-bit DACs for all channels—a superb feature for any receiver. With a much higher resolution than the incoming signal, these DACs enable the TX-SR503 to generate a more accurate audio playback. Also, the DACs 128x oversampling rate optimizes the signal-to-noise ratio and increases clock jitter tolerance.

CinemaFILTER

The tonal balance of a film soundtrack will be edgy and "bright" when played back over audio equipment in your home. This is because film soundtracks are designed to be played back in large theaters using different equipment. Onkyo's CinemaFILTER restores the correct tonal balance for watching a movie soundtrack in your smaller home theater.

Direct and Pure Audio Modes

For unaffected audiophile music quality the TX-SR503 incorporates two modes. In Direct mode, the analog signal is routed to the front left and right speakers only, with minimal signal manipulation and no analog-to-digital conversion. Pure Audio mode is the same, but blacks out the front-panel display and shuts off the video circuitry to minimize any signal-degrading noise to the left and right channels. Whenever the volume is turned up or down, the front-panel display lights up briefly so you can see what the volume level is, and then turns off.



Silver model

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Amplifier Features

- 75 watts per channel minimum into 8 ohms, 20 Hz-20 kHz, FTC
- Wide Range Amplifier Technology (WRAT)
- Reduced Negative Feedback (NFB)
- H.C.P.S.—massive high power transformer
- Optimum Gain Volume Control Circuitry
- Discrete output stages for all channels
- Full bandwidth power to all 7 main channels
- Oversized electrolytic capacitors
- High-current, low-impedance drive for all channels
- Auto-protection circuitry
- High-grade aluminum heatsink

Audio/Video Features

- DTS, DTS 96/24, DTS Discrete/Matrix 6.1, DTS Neo:6, Dolby Digital, Dolby Digital EX, Dolby Pro Logic IIx
- 192 kHz/24-bit DACs for all channels
- Digital upsampling
- HDTV-capable (50 MHz) component video switching
- Non-scaling configuration
- Advanced 32-bit DSP chip
- A-form listening mode memory
- "Easy-set" speaker configuration
- CinemaFILTER
- Crossover adjustment (60/80/100/120/150 Hz) for bass management
- A/B speaker drive
- "Double Bass" function
- 3 component video inputs and 1 output
- 3 S-Video inputs and 2 outputs
- 4 composite video inputs and 2 outputs
- 2 audio and 4 A/V inputs
- 4 digital inputs (3 optical/1 coaxial)
- Color-coded 5.1-multichannel inputs for DVD-Audio and Super Audio CD
- Dedicated line-level subwoofer pre out
- Heavy-duty color-coded banana plug compatible speaker binding posts (except speaker B)

- Direct mode
- Pure Audio mode
- Late night mode (high, low, off)
- Automatic signal detection
- Rec out selector (audio/video)
- Bass and treble tone control (L/R)

FM/AM Tuner Features

- Outstanding selectivity and sensitivity
- 30 FM/AM random presets
- FM auto scan tuning
- FM stereo indicator
- 75-ohm antenna input
- FM indoor antenna supplied
- AM loop antenna supplied

Other Performance Features

- Precision digital speed-sensitive volume control
- Absolute volume display
- 3-mode display dimmer (bright, normal, low)
- Headphone jack (standard size)
- 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
- Preprogrammed RI (Remote Interactive) remote control



Preprogrammed RI (Remote Interactive) remote

SPECIFICATIONS

AMPLIFIER SECTION

Power Output

Front L/R.....	75 W + 75 W (8 Ω, 20 Hz-20 kHz, FTC)
Center	75 W (8 Ω, 20 Hz-20 kHz, FTC)
Surround L/R.....	75 W + 75 W (8 Ω, 20 Hz-20 kHz, FTC)
Surround Back L/R.....	75 W + 75 W (8 Ω, 20 Hz-20 kHz, FTC)

Dynamic Power	180 W + 180 W (3 Ω, Front)
	140 W + 140 W (4 Ω, Front)
	95 W + 95 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 (CD, Tape, etc.)

Output Level and Impedance

Rec out..... 200 mV/470 Ω (Tape, Video 1)

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..... 100 dB (Line in, IHF-A)

Speaker Impedance..... 4 Ω/6 Ω-16 Ω

VIDEO SECTION

Input Sensitivity/Output Level and Impedance

Video..... 1.0 Vp-p/75 Ω (Component and S-Video Y)

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

0.28 Vp-p/75 Ω (S-Video C)

1.0 Vp-p/75 Ω (Composite)

Component Video Frequency Response.....

5 Hz-50 MHz

TUNER SECTION

[FM]

Tuning Frequency Range..... 87.5 MHz-108.0 MHz

Usable Sensitivity

FM Stereo..... 17.2 dBf, 2.0 μV (75 Ω, IHF)

FM Mono..... 11.2 dBf, 1.0 μV (75 Ω, IHF)

Signal-to-Noise Ratio

FM Stereo..... 70 dB (IHF-A)

FM Mono..... 76 dB (IHF-A)

Total Harmonic Distortion

FM Stereo..... 0.3 %

FM Mono..... 0.2 %

FM Stereo Separation.....

45 dB at 1 kHz

[AM]

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

Usable Sensitivity

AM..... 30 μV

Signal-to-Noise Ratio

AM..... 40 dB

Total Harmonic Distortion

AM..... 0.7 %

GENERAL

Power Supply..... AC 230-240 V, 50 Hz

Power Consumption..... 590 W

Stand-by Power Consumption..... 0.2 W

Dimensions (W x H x D)..... 435 x 150 x 374 mm

Weight..... 10.2 kg

Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice.

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