

TX-NR509 5.1-CHANNEL NETWORK A/V RECEIVER

BLACK



Microphone for Audyssey



Affordable Home Theater Centerpiece with Audio Network Capability

New at the entry level, the networking ability of the TX-NR509 takes you one step closer to fully integrated home entertainment. Audio files on your computer and streaming internet radio can both now be played through your main system, with fidelity far beyond what you're used to on a PC. When it comes to setting up the TX-NR509, Audyssey 2EQ® works to adapt the soundstage to the unique dimensions of your room. On-the-fly adjustments to audio and video settings are simple, thanks to the user-friendly overlaid on-screen display. Additional system control is provided by Onkyo's Remote App, which lets you use your iPod/iPhone as a remote controller. The receiver's four advanced HDMI® inputs handle stunning high-definition audio from Dolby and DTS, as well as dynamic new 3D video. Further connectivity highlights include a new front-panel USB port that offers a clean digital link for both iPod/iPhone and USB storage devices, and Zone 2 line-outs that let you send a stereo audio signal to a second room equipped with an amp and speakers. All in all, the TX-NR509 offers a superb feature set for the value-conscious home theater fan.

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
- Supports Onkyo Remote App for Control of A/V Receiver via iPod/iPhone*
- Dolby® TrueHD and DTS-HD Master Audio™ Decoding
- Overlaid On-Screen Display (OSD) via HDMI
- Audyssey 2EQ® for Room Acoustic Correction
- Playback of Audio Files Through Local Network (MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, LPCM)
- Internet Radio Connectivity Through vTuner
- Certified with Windows® 7 and DLNA Version 1.5
- Firmware Updates via Ethernet and USB
- Zone 2 Line-Out for Distributed Audio Playback in Another Room

* Compatible iPod/iPhone models: iPod touch 3rd generation or later; iPhone 3GS or later. (All models require iOS 4.2 or later.)

AMPLIFIER FEATURES

- 160 W/Ch at 6 Ω, 1 kHz, 1 Channel Driven, JEITA; 130 W/Ch at 6 Ω, 1 kHz, 1%, 1 Channel Driven, IEC; 80 W/Ch at 8 Ω, 20 Hz–20 kHz, 0.7%, 2 Channels Driven, FTC

- 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
- Advanced Music Optimizer for Compressed Digital Music Files
- Mass Storage Class USB Memory Playback Capability
- Theater-Dimensional Virtual Surround Function
- CinemaFILTER™
- Direct Mode
- Pure Audio Mode
- Double Bass Function
- Non-Scaling Configuration
- A-Form Listening Mode Memory

CONNECTION FEATURES

- 4 HDMI Inputs and 1 Output
- Universal Port for Onkyo Dock for iPod/iPhone (UP-A1)

- HDTV-Capable (720p/1080i) Component Video Switching (2 Inputs and 1 Output)
- 5 Composite Video Inputs (1 Front/4 Rear) and 2 Outputs
- 4 Digital Audio Inputs (2 Optical and 2 Coaxial)
- 6 Analog Audio Inputs (1 Front/5 Rear) and 1 Output
- Subwoofer and Surround Back Pre Outs
- Color-Coded, Banana Plug-Compatible Speaker Posts
- Headphone Jack

OTHER FEATURES

- Audyssey Dynamic EQ® for Loudness Correction
- Audyssey Dynamic Volume® to Maintain Optimal Listening Level and Dynamic Range
- 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)
- 40 FM/AM Random Presets
- RIHD (Remote Interactive over HDMI) for System Control
- Full-Function RI (Remote Interactive) Remote Control



TX-NR509 5.1-CHANNEL NETWORK A/V RECEIVER

HDMI® Support for 3D Video and Audio Return Channel

The four HDMI inputs on the TX-NR509 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, along with numerous high-resolution formats. 3D video brings exciting possibilities to home entertainment, with movie, game, and broadcast content on the increase and 3D-compatible TVs now on the market. Meanwhile, the Audio Return Channel allows audio content received directly by your HDTV's tuner to be sent "upstream" via HDMI to your A/V receiver, without the need for a separate S/PDIF audio cable.

Network Capability Delivers Internet Radio and Network Audio Streaming via Ethernet

As one of Onkyo's new breed of receivers that can link directly to the internet or to your home PC via a local network, the TX-NR509 takes streaming audio and internet radio to a whole new level. MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, and LPCM audio files can now be played back through your main system with unprecedented power and fidelity. The TX-NR509 also brings to life a huge array of internet radio channels through vTuner. As well as being compatible with earlier platforms, the receiver is compatible with Microsoft's Windows® 7 platform, which includes the DLNA 1.5-specified "Play To" media-streaming feature. The TX-NR509's internet connectivity has the added benefit of making firmware updates simpler than ever.

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

The TX-NR509's front-panel USB port lets you access MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, and AAC 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. A further 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.

Onkyo Remote App for iPod/iPhone*

Available as a free download, this app lets you use your iPod touch or iPhone as a remote controller to control a range of functions on the TX-NR509. As well as letting you select internet radio stations, it also lets you select streaming audio input from a DLNA-compatible server. The Remote App also enables you to perform basic playback operations and control the receiver's volume with an interface that uses the iPod/iPhone's built-in accelerometer.

*Compatible iPod/iPhone models: iPod touch 3rd generation or later; iPhone 3GS or later. (All models require iOS 4.2 or later.)

Convenient Overlaid On-Screen Display via HDMI

Changing your A/V receiver's settings is now more seamless than ever, thanks to the TX-NR509'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.

Universal Port for Single-Cable Connection of Optional Onkyo Dock for iPod/iPhone

A proprietary Universal Port located on the rear side of the TX-NR509 lets you connect an optional UP-A1 Dock for iPod/iPhone. A key advantage of the Universal Port is that it accepts video and audio signals through the same cable that sends a power supply from the receiver to the devices. Net result: more connectivity, less cable clutter.

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.

Playback of Different Audio Sources in Two Different Zones

Zone 2 line-outs on the TX-NR509 allow you to enjoy surround-sound entertainment in the main room, while playing back a different stereo source in a second zone equipped with an amplifier and a pair of speakers.

A Suite of Audyssey Technologies for the Ideal Listening Environment

The TX-NR509 comes equipped with three sound-enhancing Audyssey technologies.

- (1) **Audyssey 2EQ®** tailors multi-channel audio for your home theater speaker set-up by measuring three room positions and applying a resolution filter to the satellite speakers to correct for room acoustics.
- (2) **Audyssey Dynamic EQ®** maintains a consistent bass response, tonal balance, and surround-sound effect at different volume levels, so you can enjoy the natural dynamics of your content regardless of the volume.
- (3) **Audyssey Dynamic Volume®** automatically compensates for volume fluctuations in different audio content—for example, during commercial breaks—while optimizing the dynamic range.

SPECIFICATIONS

Amplifier Section

Power Output	160 W/Ch
Front L/R	(6 Ω, 1 kHz, 1 channel driven, JEITA) 130 W/Ch (6 Ω, 1 kHz, 1%, 1 channel driven, IEC) 80 W/Ch (8 Ω, 20 Hz–20 kHz, 0.7%, 2 channels driven, FTC)
Center	160 W (6 Ω, 1 kHz, 1 channel driven, JEITA) 130 W (6 Ω, 1 kHz, 1%, 1 channel driven, IEC) 80 W (8 Ω, 20 Hz–20 kHz, 0.7%, 2 channels driven, FTC)
Surround L/R	160 W/Ch (6 Ω, 1 kHz, 1 channel driven, JEITA) 130 W/Ch (6 Ω, 1 kHz, 1%, 1 channel driven, IEC) 80 W/Ch (8 Ω, 20 Hz–20 kHz, 0.7%, 2 channels driven, FTC)

Dynamic Power	180 W (3 Ω Front) 160 W (4 Ω Front) 100 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 kΩ (Line)
--	---------------------

Rated RCA Output Level and Impedance	200 mV/2.2 kΩ (Rec out)
---	-------------------------

Maximum RCA Output Level and Impedance	2.0 V/2.2 kΩ (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 Y) 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 220–240 V~, 50/60 Hz
---------------------	-------------------------

Power Consumption	410 W
--------------------------	-------

Dimensions (W x H x D)	435 x 173.5 x 328 mm
-------------------------------	----------------------

Weight	9.3 kg
---------------	--------

CARTON

Dimensions (W x H x D)	570 x 297 x 423 mm
-------------------------------	--------------------

Weight	12.0 kg
---------------	---------

Supplied Accessories

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

*Not included with Chinese model.



Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice. Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories. DTS, DTS-HD, and the Symbol are registered trademarks and the DTS logos are trademarks of DTS, Inc. Manufactured under license from Audyssey Laboratories, Inc. U.S. and foreign patents pending. Audyssey 2EQ, Audyssey Dynamic EQ, and Audyssey Dynamic Volume are registered trademarks of Audyssey Laboratories, Inc. HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries. iPhone, iPod classic, iPod nano, iPod shuffle, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. "Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance. xColor is a trademark of Sony Corporation. Windows 7 and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Music Optimizer, CinemaFILTER, and Theater-Dimensional are trademarks of Onkyo Corporation. All other trademarks and registered trademarks are the property of their respective holders.



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 China Limited Unit 1 & 12, 9/F, Ever Gain Plaza Tower 1, 88, Container Port Road, Kwai Chung, N.T., Hong Kong, CHINA Tel: 852-2429-3118 Fax: 852-2428-9038 <http://www.onkyochina.com/>
 Onkyo U.S.A. Corporation 18 Park Way, Upper Saddle River, N.J., 07458, U.S.A. Tel: 1-201-785-2600 or 800-229-1687 (Toll free) Fax: 1-201-785-2650 <http://www.onkyousa.com/>
 Onkyo Europe Electronics GmbH Liegertstrasse 6, 82194 Grobenzell, GERMANY Tel: 49-8142-4401-0 Fax: 49-8142-4401-555 <http://www.eu.onkyo.com/>