Making Waves as the Best in High-Definition, Networked Home Entertainment

Meet the standout leader of Onkyo's new range of home theater heroes. Embracing all of the technologies synonymous with the 2007 line-up—including HDMI 1.3a, Dolby® TrueHD, DTS-HD® Master Audio, THX® Ultra2® and Audyssey MultEQ® XT—the TX-NR905 7.1-channel home network receiver has a number of advantages that propel it into the home theater super league. Look to the TX-NR905's network (interfacing with Windows Media Player and Windows Media Connect) to open up a huge reservoir of internet and computer-based audio resources. And enjoy the edge in high-definition 1080p video processing from the world's first receiver to incorporate HQV Reon-VX. In line with Onkyo's impeccable track record, under the hood of the TX-NR905 you'll find an innovative power supply, remarkable amplification design, and high-performance parts from the likes of Texas Instruments. “Complete” is a tag not given lightly, but the TX-NR905 earns it in style.

Network* for Streaming Audio Files and Internet Radio

The TX-NR905's network gives you access to digital music files (AAC, WMA, MP3, WAV) via an Ethernet network between the TX-NR905 and your computer. It also enables you to access music files from a USB mass storage device or a portable audio player through the USB port on the TX-NR905's front panel. At the heart of the network is Windows Media Connect or Windows Media Player (the TX-NR905 is Microsoft PlaysForSure certified), which enable the TX-NR905 to play DRM music downloads from Napster and CD-quality files from MusicGiants. For internet radio, you can access stations that use MP3 or WMA streaming. You can enter URLs (including those for podcasts) directly into your computer's web browser, or you can enter them with your remote control. The TX-NR905's user-friendly interface lets you easily access and store your favorite channels.

*This network also enables installation configuration and set-up of Crestron and AMX controllers with your home theater system or network.

HQV Reon-VX Chip for High-Performance Video Processing (with 1080p Upscaling)

The TX-NR905 is the world's first A/V receiver to incorporate HQV Reon-VX video processing. HQV Reon-VX will scale all video signals to 1080p without the visible inconsistencies found in less competent scalers. It also provides the ultimate support for standard and high-definition deinterlacing for fibring of jaggies and artifacts and for the reduction of random “mosquito” and block (creek) noise. HQV Reon-VX enables color region enhancement and the rendering of more than one billion colors.

Processing 1080p Video and High-Resolution Audio via High-Definition Multimedia Interface (HDMI 1.3a)

With four HDMI inputs, you can receive and switch the latest high-definition components—Blu-ray Disc and HD DVD players, satellite and cable boxes, media centers, and gaming consoles—for a simple, one-cable digital connection to an HDTV through either of the two assignable HDMI outputs (Main and Sub). HDMI delivers the latest high-definition audio formats—Dolby TrueHD, DTS-HD Master Audio, Dolby® Digital Plus and DTS-HD® High Resolution Audio—which are processed by the TX-NR905's onboard decoders. These new formats enable unprecedented quality, including bit-for-bit reproduction (in TrueHD and Master Audio). Also, HDMI 1.3a gives you greater bandwidth to deal with higher resolutions, 36-bit Deep Color™ and high frame rates.

THX Ultra2® Certification for a Better Class of Home Theater

Ultra 2 certification means that the TX-NR905 can easily handle the requirements of a home theater where the viewing distance from screen to seat is greater than 12 feet and the room volume is greater than 3000 cubic feet. Among its technologies, Advanced Speaker Array (ASA) digitally reconfigures surround speakers for three listening modes: movies, music and gaming. You also benefit from Boundary Gain Compensation (BGC), which realizes a true, more accurate bass response. THX Ultra2® certification is a powerful endorsement of the receiver's amplifying abilities.
Compatible front configurations.

Surround sound beyond the standard theater set-ups for audio, the TX-NR905 enters the world of high-end Bi-Amping and BTL (Bridged Transless, or Bridging) Capability to reduce distortion at the output stage. Meanwhile, three-stage inverted negative halves of the waveform separately amplify the positive and negative transistors on each channel to improve bass and treble performance. Bi-amping works with a 5.1-channel surround configuration. Alternatively, bridging enables you to double the power output to compatible front speakers for a 2.1-channel set-up (i.e., front speakers and a subwoofer).

Harnessing Power for Audio Performance

The TX-NR905 is driven by a massive toroidal transformer that provides efficiency and radiates less noise into the surrounding circuitry. This transformer drives the audio amplifier while two separate transformers cater specifically to the heavy demands of high-definition audio formats (DTS-HD Master Audio and Dolby TrueHD) and video processing (HQV Reon VX). You'll also find two quality capacitors (operating at up to 18,000 microfarads) that can store the charge expected from an effective power supply.

Wide Range Amplifier Technology (WRAT)—A Total Design for Amplification Power

Uncommonly Low Negative-Feedback Design—Get cleaner sounds on program peaks.

Negative feedback (NFB) is the most cost-effective way to reduce noise at lower frequencies, but it will severely inhibit an amplifier's ability to respond to musical crescendos and to produce sound at high frequencies. We've used a low-negative-feedback design with audiophile-grade, close-tolerance components at critical points in the signal path. This design achieves a frequency response out to 100 kHz for high-definition and regular DVD formats, high-resolution DVD-Audio and Super Audio CD, regular CDs, digital music files and the latest gaming software.

Closed Ground-Loop Circuits—Enjoy distortion-free audio at any volume.

If an amplifier's ground potential (voltage) fluctuates during playback, you can expect noise. In an open-loop circuit design, where all circuits are connected to the power supply via one loop (as on many amplifiers), the noise multiplies exponentially. Onkyo's sophisticated closed-circuit design enables each circuit to go and return directly to the power supply, which cancels any individual circuit noise and keeps the ground potential free of distortion.

High Instantaneous-Current Capability—Experience home entertainment with greater impact

After an amplifier outputs an audio signal, the speakers accumulate energy and start sending energy back to the amplifier. The amplifier must immediately cancel the speakers' reflex energy and instantaneously send out the next signal. A high current is necessary to handle speaker impedance fluctuations, which can force an amplifier to provide four to six times its usual current load. The instantaneous current capability of even Onkyo's least expensive WRAT receivers exceeds that of most conventional units, which commonly have less than half the current capability.

An Onkyo receiver will deliver movie soundtracks with cinema-standard dynamics and clarity.
Vector Linear Shaping Circuitry (VLSC™)

In conventional digital-to-analog methods, it is impossible to completely remove noise, which taints the analog signal and ultimately degrades the sound emitted by your speakers. With Onkyo's VLSC, data is continuously sampled between two discrete points (via a signal comparison generator), and the difference is joined with analog vectors in real time to produce a smooth output waveform. The VLSC digital-to-analog conversion method results in a smooth, virtually pulse noise-free audio signal that faithfully reproduces the acoustic detail and subtle nuances of all your audio sources, and breathes life into digital media.

Optimum Gain Volume Circuitry

In conventional volume-attenuation methods, the signal comes close to the noise floor at low volumes and is therefore susceptible to interference. Even if the amount of noise is minimal, it taints the signal as it is amplified. Onkyo's Optimum Gain Volume Circuitry adjusts the gain so that less than half the typical amount of attenuation is necessary. The signal never comes close to the noise floor, thereby eliminating the possibility of the noise contamination that plagues conventional volume-attenuation designs.

Highly Precise Onboard Burr-Brown Digital-to-Analog Converters

Using second-rate devices in the digital-to-analog process does nothing to reveal the potential of digital sources. That's why you'll find Burr-Brown 24-bit, 192 kHz stereo DACs (PCM1796) in the TX-NR905. With an advanced Texas Instruments architecture, these DACs achieve excellent dynamic performance and improve tolerance to clock jitter.

Three High-Quality Texas Instruments Digital Signal Processing (DSP) Chips

The TX-NR905 assigns three Texas Instruments (Aureus™) DSP chips to independently handle the greater processing requirements of Dolby True HD, DTS-HD Master Audio, Audyssey MultEQ XT and post-processing.

Neural-THX® Surround Decoding Technology

Neural-THX® Surround decoder enables content to be encoded into 5.1 or 7.1 channels and transmitted to the TX-NR905, where it is decoded onboard. This technology reduces the bandwidth needed by broadcasters to deliver sound content and enables 7.1-channel support for gaming and movies.

Playback of Different A/V Sources (Including Video) in Up to Three Different Locations

The TX-NR905 gives you the option of playing back a separate two-channel source with video images (such as a movie or TV broadcast) at the same time as playing back a 5.1-channel source in the main room. Alternatively, you can use the Zone 2 and Zone 3 pre outs to connect to amplifiers in two other rooms. With the latter option, all 7.1 channels can be kept active in the main room. The TX-NR905's remote control lets you adjust volume levels and balance in both zones, as well as bass and treble in Zone 2.

RIHD (Remote Interactive over HDMI) for System Control

With HDMI version 1.3a compatibility, the TX-NR905 offers integrated system control with selected HDMI-compatible high-definition displays, DVD recorders and Blu-ray Disc players. With one remote control, you can control certain key functions, including Standby Volume Command and Direct Change. RIHD lets you seamlessly integrate your Onkyo receiver with other leading brand-name devices, including those in the Panasonic VIERA Link and Toshiba CE-Link™ ranges.

RI (Remote Interactive) System Capability and the iPod

With Onkyo's RI system, you can integrate and operate all components through a single remote control. RI also enables you to integrate virtually any iPod model with one of Onkyo's RI Docks for the iPod.

7.1 Surround Sound Experience

Upmix to 7.1
Downmix to 5.1
7.1 Encoded Game Content
7.1 Home Theater System
7.1 Channel Sound Experience

RIHD-compatible player / recorder

ONKYO A/V receiver with RIHD

connect components with RIHD-compatible HDMI

RIHD-compatible HDTV

iPod integrated for easy system control.
ADVANCED FEATURES

- THX Ultra2 Certified (with THX Processing)
- Network Capability for Streaming Audio Files and Internet Radio
- DTS-HD Master Audio, DTS-HD High Resolution Audio, Dolby TrueHD, Dolby Digital Plus Decoding
- HQV Rec� Video Processing with 300bpc (landscape of 4K Video Sources via HDMI)
- HDMI 1.3a Audio and Video Processing (4 Inputs and 2 Outputs [Main/Sub])
- HDMI Upconversion
- Component Video Upconversion
- Dual Push-Pull Amplification Design with 3-stage Inverted Darlington Circuitry
- Massive Toroidal Transformer and Two Separate Transformers for Audio and Video processing
- Burr-Brown 192 kHz/24-Bit Stereo DACs (PCM1796) for All Channels
- Three TI (Aureus) 32-Bit DSP Chips for Advanced Processing
- Bi-Amping and BTL (Bridged Transistor) Capability for Music and Movie Sound Effects
- Audyssey MultEQ XT to Correct Room Acoustic Problems and Calibrate Speakers
- VLSIC (Vector Linear Shaping Circuitry) for All Channels
- Powered Zone 2 (Audio and Video), Zone 2 and Zone 3 Pre Outs: Independent Control for Volume, Balance (Zone 2 and Zone 3) and Bass/Treble (Zone 2 Only)
- Neural-THX Surround Technology for Gaming, Movies and Broadcasting
- Onkyo RIND (Remote Interactive Dynamic HDMI) for System Control (Works with certain Key Functions of Panasonic's VIERA Link and Toshiba's CE-Link)
- Compatible with RI (Remote Interactive) Dock for the iPod

AUDIO FEATURES

- 280 W @ 6.1 kHz, 80 Hz, 1% THD (1 Channel Driven)
- 220 W @ 6.1 kHz, 80 Hz, 1% THD (1 Channel Driven)
- 280 W + 280 W (6...