

TX-NR900

THX SELECT 7.1-CHANNEL DIGITAL SURROUND RECEIVER

ONKYO
IMAGINATIVE SIGHT & SOUND



THX SURROUND EX



Available in Gold or Black

Witness the Evolution of Home Theater to Home Network—The TX-NR900

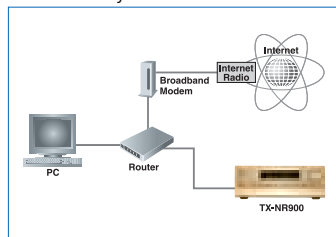
Onkyo has raised the standard of home entertainment again as the home theater receiver evolves from home entertainment to home network. Feel the power of the world's first Internet radio capable digital home theater receiver with connectivity provided by a state-of-the-art Ethernet port located on the back. Utilizing Onkyo's exclusive Net-Tune™ protocol, the TX-NR900 serves as your gateway to virtually limitless selections of music. Of course you'll also get the latest in decoding with Dolby Digital EX, DTS-ES, DTS 96/24 and THX Surround EX. And we haven't forgot the audiophile grade parts like massive power transformers, logically laid out circuit boards and precise 192 kHz/24-bit D/A converters for each main channel. Don't just take our word for it, get connected to movies, music and the Internet revolution with the TX-NR900.

The Latest Decoding Formats

In addition to the formats you've come to expect from Onkyo's high-end receivers, THX Surround EX, Dolby Pro Logic II, DTS-ES, etc., you'll find two of the latest decoding formats for home theater. Dolby Digital EX, for six full-bandwidth channels from 5.1-channel sources and DTS 96/24 sound quality comparable to the 96 kHz, 24-bit master in full 5.1-channel surround sound glory.

Net-Tune™

Unprecedented access to radio stations around the world is made possible by Onkyo's exclusive Net-Tune™ protocol. Hook up your TX-NR900 to a router connected to your broadband modem via a high-speed Ethernet cable. Press the



Net Audio button on the front panel or the remote and you're ready to surf the airwaves of cyberspace. You can also add new life to the existing content on your computer by hooking it up to the TX-NR900 via a broadband router. You'll agree, your MP3, WAV, WMA files and Internet radio have never sounded so good.

Minimum Internet Connection Requirements:

- Broadband Internet Connection
- DHCP (Dynamic Host Configuration Protocol) based network (requires a DHCP-enabled router)
- 100Base-TX switch built-in broadband router (recommended)

Minimum PC System Requirements:

600 MHz Intel Pentium III CPU or better, Windows 98SE, Me, XP, or 2000 OS (operating system), more than 20 MB of free hard disk space, RAM (Windows 98SE, Me, 2000; requires 128 MB, XP; requires 256 MB) and Ethernet port. Not compatible with Macintosh systems.

*For copyright protection purposes, it is not possible to make a digital output signal from Ethernet input signals.

**For copyright protection purposes, Net-Tune™ Central is not for use with clients that do not feature the Net-Tune™ logo.

User-Friendly Design

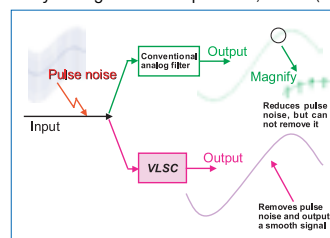
Some impressive additions are to be found on the inside and outside of the TX-NR900. Color-coded multichannel input, pre out and dual banana plug terminals take the guesswork out of matching the correct wires to the correct terminals for fast and easy connection. Also, Crossover Adjustment for bass management lets you set the frequency at 40, 60, 80, 100 or 120 Hz, depending on your speakers' bass playback ability.

Dual 32-Bit DSP Chips

These powerful and highly accurate dual 32-bit DSP processing chips combined with the ultra-precise 192 kHz/24-bit audio DACs featured in the TX-NR900 give you a highly accurate digital signal to faithfully recreate a wide variety of surround sound from digital sources for pure audio perfection.

VLSC (Vector Linear Shaping Circuitry)

Conventional D/A conversion methods reduce digital pulse noise at the conversion stage but can't remove it completely. Previously only available on Onkyo's high-end components, VLSC (Vector Linear Shaping Circuitry) employs



a unique D/A conversion circuit to overcome this problem. Data is converted between the sampling points and these discreet sampling points are joined with analog vectors in real-time to produce a smooth output wave form. The result—a noiseless, smooth analog signal based on the digital source.

TX-NR900

THX SELECT 7.1-CHANNEL DIGITAL SURROUND RECEIVER



Amplifier Features

- 180 Watts minimum of continuous power to each of the seven channels into 6 ohms at 1 kHz
- VLSC (Vector Linear Shaping Circuitry) for L/C/R
- Wide Range Amplifier Technology (WRAT)
- Extended Frequency Response (10 Hz to 100 kHz)
- Reduced NFB (Negative Feedback)
- Non-scaling configuration
- Absolute ground plate
- Linear Optimum Gain Volume Circuitry
- 192 kHz/24-bit audio D/A converters (L/C/R/SW/SL/SR)
- 96 kHz/24-bit audio D/A converters (SBL/SBR)
- 96 kHz/24-bit audio A/D converters
- Full bandwidth power to all 7 main channels
- Discrete power amplifier circuitry for all channels
- High-current, low-impedance 6-ohm drive for all channels
- Powered Zone 2 capability
- Auto-protection circuitry
- Digital upsampling
- High-grade extruded-aluminum heat sink
- Low Frequency Effect (LFE) level control
- Massive isolated transformer
- Thick bus bars
- Tone control (bass, treble) for L/C/R speakers, (Bass) for subwoofer

Audio/Video Features

- THX Select Certified
- THX Surround EX
- DTS, DTS-ES, Discrete/Matrix 6.1, DTS Neo:6, DTS 96/24
- Dolby Digital, Dolby Digital EX, Dolby Pro Logic II decoding
- A-Form Listening Mode Memory
- 2 component video inputs and 1 output
- 3 Audio & 6 A/V input terminals

- 8 digital inputs (3 coaxial, 5 optical; 7 assignable) and 2 outputs (Optical)
- 6 S-video inputs and 3 outputs
- 7.1 Multichannel input for DVD-Audio & SACD
- 7 Sets of heavy-duty color-coded multiway speaker binding posts (dual banana-plug compatible)
- Color-coded multichannel input RCA pinjacks
- Color-coded pre out terminals for L/R/C/SL/SR/SB (L/R) or Zone 2 (L/R)/Subwoofer
- Composite to S-video conversion for monitor out
- Front panel Audio, Video, S-video, Optical inputs
- 32-bit dual DSP chips
- 39 DSP modes
- Crossover adjustment (40/80/100/120 Hz)
- Pure Audio Mode
- Direct Mode
- Late night mode (high, low, off)
- Theater-Dimensional Virtual Surround
- All channel stereo mode
- Y/C mix circuit for monitor out and Zone 2
- Automatic signal detection
- Full input/output cassette and VCR loops
- Phono input
- Rec out selector (Audio & video)
- Tape & Video dubbing
- HD DSP (High Definition DSP)

Internet Features

- 30 Internet radio random presets
- Ethernet (Net-Tune™) port
- Net-Tune™ protocol function
- MP3, WAV, WMA decoding

FM/AM Tuner Features

- 40 FM/AM random presets
- 75-ohm antenna input
- AM loop antenna supplied
- Character input (Tuner presets, input selector)

- FM auto scan tuning
- FM indoor antenna supplied
- FM stereo indicator
- Outstanding selectivity and sensitivity

Other Performance Features

- IntelliVolume
- On-screen display controller
- RS-232 control port
- 3-mode display dimmer (bright, normal, low)
- 12 V Trigger output for Zone 2
- 35-segment fluorescent dot-matrix display
- Absolute volume display
- Audio mute (remote)
- Battery-free memory backup
- Brushed aluminum front panel
- Headphone jack (standard size)
- Heavy-duty power cord
- Individual input selectors for each source
- IR input and output terminal
- Precision digital speed-sensitive volume control
- RIAA Phono Equalizer
- Separate PC (printed circuit) boards for audio and video sources
- Sleep timer via remote
- Powerful backlit/preprogrammed learning IR remote with Macros

Backlit/preprogrammed learning IR remote with Macros



SPECIFICATIONS

AMPLIFIER SECTION

Power Output	
Front L/R	180 W/ch (6 Ω , 1 kHz, JEITA)
Center	180 W (6 Ω , 1 kHz, JEITA)
Surround L/R	180 W/ch (6 Ω , 1 kHz, JEITA)
Surround Back L/R	180 W/ch (6 Ω , 1 kHz, JEITA)
Dynamic Power (front)	
3 Ω	280 W/ch
4 Ω	220 W/ch
8 Ω	140 W/ch
Total Harmonic Distortion 0.08 % (at rated power)	
Frequency Response 10 Hz-100 kHz (+1 dB, -3 dB)	
Signal-to-Noise Ratio	
Line in	110 dB (IHF-A, 0.5 V input)
Phono	80 dB (IHF-A, 5 mV input)
Damping Factor 60 at 8 Ω	
Input Sensitivity and Impedance	
Line (CD, Tape, DVD, Video 1, 2, 3, 4, 5)	200 mV, 50 k Ω
Phono	2.5 mV, 50 k Ω
Multi Channel Input	
Front L/C/R, Surround L/R, Surround Back L/R	200 mV, 50 k Ω
Subwoofer	36 mV, 50 k Ω
Digital Input Coaxial 1, 2, 3	0.5 Vp-p, 75 Ω
DVD, Video 1, 2, 3, 4, 5	1 Vp-p, 75 Ω
	1 Vp-p, 75 Ω (Y)
	0.28 Vp-p, 75 Ω (C)
Component Video in-1,2	1 Vp-p, 75 Ω (Y)
	0.7 Vp-p, 75 Ω (C)
	(Pa/Cs, Pw/Cn)

Output Level and Impedance

Rec out (TAPE, VIDEO 1,2)	200 mV, 470 Ω
Zone 2 Line out	100 mV, 470 Ω
Pre out	
Front L/C/R, Surround L/R, Surround Back or Zone 2 L/R	1 V, 470 Ω
Video (Video 1, 2, Monitor, Zone 2)	1 Vp-p, 75 Ω
Video (Video 1, 2, Monitor)	1 Vp-p, 75 Ω (Y)
	0.28 Vp-p, 75 Ω (C)
Component Video out	1 Vp-p, 75 Ω (Y)
	0.7 Vp-p, 75 Ω (C)
	(Pa/Cs, Pw/Cn)

Tone Control

Bass	± 10 dB at 50 Hz
Treble	± 10 dB at 20 kHz

TUNER SECTION

Usable Sensitivity

FM Mono	11.2 dBf, 1.0 μ V (75 Ω IHF)
FM Stereo	17.2 dBf, 2.0 μ V (75 Ω IHF)
AM	30 μ V

Signal-to-Noise Ratio

FM Mono	76 dB, IHF-A
FM Stereo	70 dB, IHF-A
AM	40 dB

Total Harmonic Distortion

FM Mono/FM Stereo/AM	0.2 %/0.3 %/0.7 %
FM Stereo Separation	45 dB at 1 kHz/30 dB at 100 Hz-10 kHz

GENERAL

Dimensions (W x H x D)	435 x 175 x 459 mm/17 1/8" x 6 7/8" x 18 1/16"
Weight	18.2 kg/40.1 lbs.

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