

TX-NR616AE 7.2-Channel Network A/V Receiver

BLACK



Microphone for Audyssey



Escape into THX®-Certified Surround Sound—Now with AirPlay

Movie, music, and gaming enthusiasts can now step up to realistic THX® Select2 Plus™-certified surround sound for less money down with the TX-NR616AE Network A/V Receiver. Onkyo's WRAT system with three-stage inverted Darlington amp circuitry delivers cinema-like power. With Audyssey DSX® expansion, you can add Front Height channels, while 2EQ® acoustic correction guarantees optimal performance in any room shape. Eight HDMI® inputs handle 3D content, HD audio, and up to 4K video upscaling with Qdeo™ technology. The MHL™ input lets you connect a smart phone for smooth 1080p playback on your TV. Music lovers are treated to wireless audio streaming from iPod touch, iPhone, iPad, and personal computer via the integrated AirPlay system. Network access also offers a choice of preconfigured internet radio and cloud-based music streaming services, along with multi-format audio streaming from PC or NAS. Intuitive control across multiple zones comes via Onkyo remote apps for iPod touch/iPhone and Android phone, while a Quick Set-Up button on the remote is available for instant mid-program adjustments. Visual input selection with InstaPrevue™ technology rounds out what is an exceptionally refined and affordable THX receiver.

ADVANCED FEATURES

- Wireless Audio Streaming via AirPlay
- THX® Select2 Plus™ Certified
- HDMI® Support for 3D, Audio Return Channel, DeepColor™, x.v.Color™, LipSync, Dolby® TrueHD, DTS-HD Master Audio™, DVD-Audio, Super Audio CD, Multichannel PCM, and CEC
- Three-Stage Inverted Darlington Circuitry
- HDMI Video Upscaling to 4K with Qdeo™ Technology by Marvell
- MHL (Mobile High-Definition Link) for Smart Phone Content on HDTV
- Direct Digital Connection of iPod/iPhone via Front-Panel USB Port
- Picture-in-Picture Input Source Preview with InstaPrevue™ Technology
- Internet Radio and Cloud Music Streaming Service Connectivity (Last.fm, Spotify, AUPEO!, Simfy, vTuner)*¹
- Playback of Audio Files Through Local Network (MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, LPCM)
- Supports Onkyo Remote Apps for iPod touch/iPhone*² and Android Phone*³
- Audyssey DSX® and Dolby® Pro Logic® IIz for Expanded Surround Channels
- Overlaid On-Screen Display (OSD) with Quick Set-Up and Home Menu
- Powered Zone 2 and Zone 2/3 Line-Outs for Distributed Audio Playback in Multiple Rooms

¹ Availability of services depends on region. Some services may require a firmware update. ² Compatible with iPod touch (3rd generation or later) and iPhone 3GS or later. All models require iOS 4.2 or later. ³ Requires Android OS 2.1 or later.

AMPLIFIER FEATURES

- 160 W/Ch (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC); 175 W/Ch (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
- WRAT (Wide Range Amplifier Technology)
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- Discrete Output Stage Circuitry
- 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
- Theater-Dimensional Virtual Surround Function
- Direct Mode and Pure Audio Mode

CONNECTION FEATURES

- 8 HDMI Inputs (1 Front/7 Rear) and 2 Outputs
- 2 USB Ports (1 Front/1 Rear)
- Mass Storage Class USB Memory Playback Capability
- Compatible with Optional UWF-1 Wireless LAN Adapter via USB
- HDTV-Capable (720p/1080i) Component Video Switching (1 Input and 1 Output)

- 5 Composite Video Inputs (1 Front/4 Rear) and 1 Output
- 4 Digital Audio Inputs (2 Optical and 2 Coaxial)
- 6 Analog Audio Inputs
- 2 Parallel Subwoofer Pre-Outs
- Color-Coded, Banana Plug-Compatible Speaker Posts (Except Zone 2)

OTHER FEATURES

- Audyssey 2EQ® for Room Acoustic Correction
- Audyssey Dynamic EQ® for Loudness Correction
- Audyssey Dynamic Volume® to Maintain Optimal Listening Level and Dynamic Range
- Hybrid Standby Function to Reduce Power Consumption
- Independent Crossover Adjustment for Each Channel (40/50/60/70/80/90/100/120/150/200 Hz)
- A/V Sync Control (Up to 800 ms at 48 kHz)
- Tone Control (Bass/Treble) for Front L/R Channels
- Light Dimming (Display: Normal/Dim/Dimmer; Volume Knob LED: On/Off)*
- RDS (PS/RT/PTY/TP)
- 40 FM/AM Random Presets
- Certified with Windows® 7 and DLNA Version 1.5
- Firmware Updates via Ethernet and USB
- RIHD (Remote Interactive over HDMI) for System Control
- Preprogrammed RI (Remote Interactive) Remote Control

*Note: Volume knob LED is always off when display is dimmed.



TX-NR616AE 7.2-Channel Network A/V Receiver

Liberate Your Music with AirPlay

Expand your playback options and revel in the freedom of fully integrated AirPlay for iPod touch, iPhone, iPad, and iTunes-equipped personal computers. Just select your home cinema as the destination for your wireless audio stream, sit back, and immerse yourself in the superlative sonic performance of your Onkyo A/V system. Personal computers (both Mac and PC) with appropriate iTunes software can also send high-fidelity audio over the network to your home cinema.



Wireless Cloud Streaming, Internet Radio, and PC-Based Music

Connecting to your home network wirelessly via a UWF-1 Wireless LAN Adapter (sold separately), or using a standard LAN cable, the TX-NR616AE makes streaming audio and internet radio easy. You can also play MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, and LPCM audio files stored on your PC through your Onkyo home cinema system with stunning power and fidelity. The receiver offers easy access to internet radio channels from Last.fm and vTuner, plus cloud-based music streaming from Spotify, AUPeol, and Simfy*.

*Availability of services depends on region. Some services may require a firmware update.

Mobile High-Definition Link for Smart Phone Movies and Photos on HDTV

The TX-NR616AE's front-panel HDMI port is designed for the connection of mobile phones and other portable electronic devices using the new MHL™ standard. MHL allows you to display full 1080p video and still images on your HDTV with up to 7.1 channels of surround sound. Use the receiver's remote to control playback from your phone as it receives a handy recharge.

InstaPrevue™ Technology Makes Switching Sources Easy

The TX-NR616AE incorporates InstaPrevue visual port management technology, making input source selection much easier. InstaPrevue technology provides a live video thumbnail of the available content on your devices connected via HDMI. You no longer have to remember that your gaming console is connected to Port 4, or your Blu-ray player to Port 1, for example—you can see what's playing and choose accordingly.

THX® Select2 Plus™ Certified

THX Select2 Plus certification is specified for rooms where the screen-to-seat viewing distance is three to four meters and the room volume is around 56 cubic meters. To achieve

THX Select2 Plus certification, the TX-NR616AE had to meet the world's most demanding standards for home cinema audio quality and performance, and play at reference volume levels with minimal distortion.

4K Video Upscaling and Processing via Qdeo™ Technology

The TX-NR616AE offers full 4K (4096 x 2160) upscaling of standard video sources such as 480i/p, 720p, and 1080i/p. Interlaced-to-progressive conversion and scaling are performed by high-quality Qdeo technology from Marvell. Qdeo is a versatile video processor that uses algorithms designed to erase video noise and artifacts such as jaggies and feathering. Played back on a compatible wide-screen display, your Blu-ray Discs and DVDs will look more detailed and cinematic than ever.

Note: 4K video playback requires a 4K-compatible TV. HDMI pass-through of 4K content from source devices is not supported. 4K upscaling of analog video is only available at 480i.

Onkyo Remote Apps for iPod touch/iPhone and Android Phone

The Onkyo Remote App 2 for iPod touch/iPhone®1 and Onkyo Remote for Android phone®2 both provide an intuitive way to operate Onkyo network A/V receivers. Control input sources, adjust settings, and play audio stored in a smartphone wirelessly using the application's interactive graphical display. The two remote apps are available separately as free downloads.

*1 Compatible with iPod touch (3rd generation or later) and iPhone 3GS or later. All models require iOS 4.2 or later. *2 Requires Android OS 2.1 or later.

Innovative Design and Premium Build Deliver Spectacular Sound

The TX-NR616AE incorporates three-stage inverted Darlington circuitry, a high-quality enhancement to Onkyo's proven WRAT (Wide Range Amplifier Technology). The circuit design ensures low negative feedback for reduced distortion and improved handling of speaker impedance fluctuations. Quality circuitry dovetails with a heavy-duty power supply to deliver instantaneous current in response to signal gains. The result is clear, effortless sound under heavy loads. Furthermore, the TX-NR616AE features separate electronic components at the output stage—there are no cheap shortcuts to THX sound.

Audyssey DSX® and Dolby® Pro Logic® IIz for Three-Dimensional Surround Sound

The TX-NR616AE incorporates surround-sound technologies from Audyssey and Dolby to offer greater flexibility in the setup of your home cinema. Audyssey DSX can expand 5.1-channel audio soundtracks to incorporate additional Front Height channels, while the Dolby system also adds two Height channels and stereo source expansion. A seven-channel set-up provides a more detailed, realistic, and three-dimensional soundtrack, with the extra channels carrying subtle directional and ambient effects.

SPECIFICATIONS

Amplifier Section

Power Output	
Front L/R	160 W/Ch (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC) 175 W/Ch (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
Center	160 W (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC) 175 W (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
Surround L/R	160 W/Ch (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC) 175 W/Ch (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
Surround Back L/R, Front High L/R, or Zone 2 L/R	160 W/Ch (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC) 175 W/Ch (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
Dynamic Power	
	240 W (3 Ω, Front)
	210 W (4 Ω, Front)
	120 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 (Line Out)
Maximum RCA Output Level and Impedance	
	2.0V/2.2 kΩ (Line Out)
Frequency Response	
	5 Hz–100 kHz/+1 dB, -3 dB (DSP Bypass)
Tone Control	
	±10 dB, 30 Hz (Bass)
	±10 dB, 20 kHz (Treble)
Signal-to-Noise Ratio	
	106 dB (Line, IHF-A)
Speaker Impedance	
	4 Ω–16 Ω or 6 Ω–16 Ω

Video Section

Input Sensitivity/Output Level and Impedance	
Video	1.0Vp-p/75 Ω (Component Y) 0.7Vp-p/75 Ω (Component Pb/Cb, Pr/CR) 1.0Vp-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

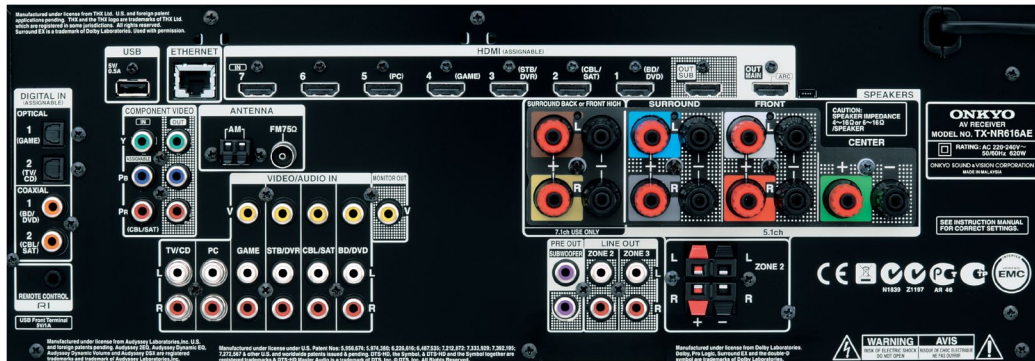
Power Supply	AC 220–240V~, 50/60 Hz
Power Consumption	620 W
Standby Power Consumption	0.2 W
Dimensions (W x H x D)	435 x 173.5 x 328 mm
Weight	11.0 kg

CARTON

Dimensions (W x H x D)	570 x 297 x 423 mm
Weight	13.5 kg

Supplied Accessories

- Indoor FM Antenna • AM Loop Antenna • Speaker Cable Labels
- Speaker Set-Up Microphone • Instruction Manual
- Quick Start Guide • Remote Controller • AA (R6) Batteries x 2



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Onkyo Corporation, Kitahama Chuo Bldg, 2-2-22 Kitahama, Chuo-ku, Osaka 541-0041 JAPAN <http://www.onkyo.com/>
 Australia: Amber Technology Ltd, Unit B, 5 Skyline Place, Frenchs Forest, NSW 2086, Sydney, AUSTRALIA Tel: +61-2-9452-8600 Fax: +61-2-9975-1368 <http://www.ambertech.com.au/>
 e-mail: consumer@ambertech.com.au
 New Zealand: Avalon Pacific Marketing Limited, 15c Vestey Drive, Mt Wellington, Auckland 1060, NEW ZEALAND Tel: +64-9-573-5933 Fax: +64-9-573-3720 <http://www.avalon.co.nz/>