# TX-NR636 7.2-Channel Network A/V Receiver





DOLBY ATMOS	Ultra	HD HO	<b>mi</b> hd			dts-HD Master Audio	Qdeo	WIDE RANGE AMP TECHNOLOG		MAJFILTER
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# Bringing Next-Generation Entertainment to Your Home

The TX-NR636 wins prime position on your gear rack for three reasons. Firstly, it's among one of the few A/V receivers to support Dolby Atmos® multidimensional sound following a quick firmware update. Dolby Atmos very accurately places and moves sound around the cinema, including overhead, for a breathtakingly realistic movie experience. This receiver is also ready for Ultra HD streaming and 4K gaming at 60 fps with the latest 4K/60 Hz HDMI<sup>®</sup> inputs and HDCP 2.2 compatibility. Qdeo<sup>™</sup> upscaling technology is included to convert low-res video into pin-sharp Full HD or Ultra HD. Secondly, it sounds incredible, with high-current Three-Stage Inverted Darlington Circuitry on the L/R/C channels for all-enveloping surround sound and musical two-channel audio. Thirdly, it's simple to use with Wi-Fi<sup>®</sup> and Bluetooth for universal audio streaming via PC, NAS, and mobiles, plus there's a huge selection of music streaming services waiting for you to explore. Overlaid menus with InstaPrevue<sup>™</sup> technology make loading content quick and easy. Throw in a phono equalizer and Powered Zone 2 and you've got a value-packed powerhouse ready for the next wave of high-resolution entertainment.

#### ADVANCED FEATURES

- Supports New Dolby Atmos<sup>®</sup> Format for Exciting Multidimensional Sound
- 4K/60 Hz-Capable HDMI® Terminals for Ultra HD Entertainment
- Supports HDCP 2.2 for Future 4K/Full HD Video Streaming and Broadcast\*2
- Built-in Wi-Fi<sup>®</sup> Certified Wireless LAN Capability
- Bluetooth Version 2.1 + EDR Capability (Compatible Profile: A2DP vI.2, AVRCP vI.3) with Advanced Music Optimizer DSP Technology
- Three-Stage Inverted Darlington Circuitry for Front and Center Channels
- HDMI® Video Upscaling to 4K with Qdeo"
- Processing Technology by Marvell
- Internet Radio and Music Streaming Subscription Services Included (TuneIn Radio, Pandora®, Spotify, AUPEO!, and Deezer)\*3
- Playback Compressed, Lossless, and Hi-res Audio via Local Network (MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, Apple Lossless, DSD 5.6 MHz, LPCM<sup>\*4</sup>, and Dolby<sup>®</sup> TrueHD)
- Proprietary AccuEQ Room Calibration with Mic Included
- Dolby<sup>®</sup> Pro Logic<sup>®</sup> IIz Upmixing for Seven-Channel Surround Sound
- Advanced Music Optimizer to Improve Compressed
- Digital Audio Quality (Bluetooth Included)
- Control and Stream with Free Onkyo Remote Streaming Apps for iPod touch/iPhone\*s and Android Devices\*
- Frontside MHL<sup>™</sup> for 1080p Video and Stills from Smartphone and Tablet
- Input Source Preview with InstaPrevue<sup>™</sup> Technology
- PM Bass Boost for Deep Bass and Clear Mid-Range
- Powered Zone 2 and Zone 2 Line-Out for

#### Distributed Audio Playback in Another Room

• Bi-Amping Capability for Front Channels

In-ramping Capability for Front Channels J 4/Kolb Evides is supported on FDMI input, J12/14 the fontside input, Main Out, and Xab Out. \*2 HDCP 2.2 is supported on HDMI Input. 3 and Main Out, and \*3 Availability of structures depends on region. Some services may require a paid subscription and firmware update. Availability of third-party services advertised here is accurate at the time of publication. It may be subject to change without notice. \*4 LPCM is supported via DLNA onk, \*5 Compatible with Hod tauk.13 generation or lately and Hhome 3GS or later.All models require IOS 4.2 ar late: \*6 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) litter-Cleaning Circuit Technology for S/PDIF Audio

#### PROCESSING FEATURES

- HDMI Support for 4K/60 Hz, 3D, Audio Return Channel, DeepColor™, x.v.Color™, LipSync, Dolby Atmos<sup>®</sup>, Dolby<sup>®</sup> TrueHD, DTS-HD Master Audio DVD-Audio, Super Audio CD, Multichannel PCM, and CEC
- Dolby<sup>®</sup> TrueHD and DTS-HD Master Audio<sup>™</sup> Decoding
- TI Burr-Brown 192 kHz/24-Bit DAC (8 Channels x 1)
- Dual 32-Bit Digital Signal Processing Engines
- · 4 DSP Modes for Gaming: Rock, Sports, Action, and RPG
- Theater-Dimensional Virtual Surround Function CinemaFILTER
- Direct Mode
- Pure Audio Mode Double Bass Function

- Non-Scaling Configuration
- A-Form Listening Mode Memory

#### CONNECTION FEATURES

- 7 HDMI Inputs (1 Front/6 Rear) and 2 Outputs
- USB Port (Front)
- Mass Storage Class USB Memory Playback Capability
- HDTV-Capable (720p/1080i) Component Video
- Switching (I Input and I Output)
- · 3 Composite Video Inputs and I Output
- 3 Digital Audio Inputs (1 Optical and 2 Coaxial)
- 6 Analog Audio Inputs
- Phono Input for Turntable Connection 2 Parallel Subwoofer Pre-Outs
- Color-Coded, Banana Plug-Compatible Speaker Posts

### OTHER FEATURES

- Crossover Adjustment for Each Channel (40/50/60/ 70/80/90/100/120/150/200 Hz)
- A/V Sync Control (Up to 400 ms in 10 ms Steps at 48 kHz)
- Graphical Overlaid On-Screen Display (OSD) via
- HDMI with Quick Set-Up and Home Menu Hybrid Standby Function with HDMI Passthrough
- Smart Grid-Ready
- Tone Control (Bass/Treble) for Front L/R Channels
- 3-Mode Display Dimmer (Normal/Dim/Dimmer)
- RDS (PS/RT/PTY/TP) (European Model Only)
- 40 FM/AM Random Presets
- Certified with DLNA Version 1.5
- Firmware Updates via Ethernet and USB
- RIHD (Remote Interactive Over HDMI) for System Control
- Preprogrammed RI (Remote Interactive) Remote Control





## TX-NR636 7.2-Channel Network A/V Receiver

#### Dolby Atmos<sup>®</sup> Multidimensional Sound

Onkyo is among the first to introduce Dolby Atmos sound to home cinemas. Dolby Atmos uses object-oriented mixing techniques to layer independent audio elements through discrete channels, placing and moving sound effects above and around the listener with astonishing realism. The format adapts to any home cinema layout augmented by two or more in-ceiling height speakers or Dolby Atmos-enabled front speakers to bring sound alive from all directions.

#### Future-Ready with the Latest HDMI®

Imagine playing the latest RPG blockbuster on your Ultra HDTV at a breathtaking 60 frames per second. Now add thunderous 7.2-channel surround sound from Onkyo. With HDMI terminals on your TX-NR636 receiver supporting 4K/60 Hz, this dream can be your reality. Even if you're not planning on upgrading your current display right away, it's good to know your receiver is ready for the future.

#### Supports HDCP 2.2 for 4K Streaming and TV

With Hollywood studios, satellite TV broadcasters, and video streaming services announcing a move to HDCP 2.2 copy protection for future 4K and Full HD releases, it's important that your A/V receiver can handle this new standard. The TX-NR636 is one of the first A/V receivers to support HDCP 2.2, making it ready for next-generation Ultra HD streaming and broadcasting.

#### 4K Video Upscaling with Qdeo<sup>™</sup> Technology

The TX-NR636 features Qdeo™ technology from Marvell to upscale low-res video to liquid-smooth 1080p (for HDTV) and 4K (3840 x 2160 pixels) with a compatible display. This means video from older gaming consoles and DVD players looks clean and sharp, giving old favorites a new lease on life

#### Wi-Fi<sup>®</sup> and Bluetooth Inside

The TX-NR636 has Wi-Fi and Bluetooth technology built in. Complete the setup, download our control app, and you've got a graphic remote control and range of streaming features in the palm of your hand. Or pair your Bluetooth-capable device and stream almost any audio to your home cinema. With Advanced Music Optimizer enhancement, music via Bluetooth has never sounded so good.

#### Stream Direct from Smartphone and Tablet

For lossless audio streaming, just tap on the Onkyo Remote App icon on your smartphone to find your music loaded and ready to stream with all the controls you're used to. The receiver can switch on and select your preferred playback mode automatically.

#### Stream Network-Attached Hi-res Audio

Onkyo A/V receivers are engineered for universal hi-res compatibility and ease of use. Use the remote app to locate your 192/24 and 96/24 albums (including 5.6 MHz DSD playback) on PC or NAS and bask in the clarity, depth, and detail of high-resolution music.

#### Built-in Internet Radio and Streaming

If you can think of it, you'll most likely be able to stream it. The receiver includes Spotify, AUPEO!, Tuneln, and now Deezer, the music subscription service available in over 200 countries and boasting a library of 30 million songs. You can search for available music using your free Onkyo remote app.

#### Play Lossless Music from USB

The front-panel USB port also plays almost any audio format from mass-storage-class drives. As well as compressed files. there's support for FLAC, WAV, ALAC, Dolby® TrueHD (48 kHz), and DSD. You can also connect a PC, smartphone, or music player using one of the many digital and analog inputs.

#### Engineered for High Fidelity

WRAT (Wide Range Amplifier Technology) is all about high current. You need it to stay in control when speaker impedance fluctuates, and to grip without clipping as the soundtrack explodes into action. We use a massive highpower transformer driving ultra-low-distortion Three-Stage Inverted Darlington Circuitry\*. Combined with high-resolution processing the TX-NR636 packs a colossal punch for movies while retaining musicality for two-channel playback. \* Front and center channels only

#### MHL<sup>™</sup> for Mobile Device Connection

An HDMI/MHL terminal is included to connect smartphones and other electronic devices, allowing you to display 1080p video and other media on your HDTV with 7.1 channels of surround sound.

#### Dolby® Pro Logic® IIz Seven-Channel Surround Upmixing

Dolby® Pro Logic® IIz adds height to the soundstage with two Front Height channels immersing you deeper into the film. The system upmixes stereo or 5.1 sources to 7.1 channels, and offers a number of optimized listening modes.

#### Powered Multi-Zone Audio and Bi-Amping

Powered Zone 2 speaker terminals (and a Zone 2 line-out) let you power audio in another room equipped with stereo speakers. You can also assign surround back channels to biamp your front loudspeakers

#### Fast Switching and Adjustment

If you want to quickly adjust a speaker level, switch DSP modes, or change inputs, the "Q" remote control button does it in seconds by overlaying a simple transparent menu on screen. Use InstaPrevue™ technology to preview content playing on any HDMI-connected component-the overlaid video thumbnails are great for keeping an eye on a cable channel while you're watching a Blu-ray, for example, and also make video switching very clear and simple.

#### AccuEQ Room Calibration

AccuEO optimizes surround-sound and two-channel audio to suit your listening space. In particular, AccuEQ extracts the best possible performance from your front speakers to make stereo listening more dynamic and exciting. The system analyzes speaker setup and room acoustics from one listening position (which simplifies the calibration process) and optimizes frequency response and output levels for maximum clarity.

# **SPECIFICATIONS**

	-				
Amplifier Section					
Power Output					
All Channels	160 W/Ch (6 Ω, 1 kHz, 1% THD,				
	I Channel Driven, IEC)				
	175W/Ch				
	(6 Ω, I kHz, I Channel Driven, JEITA)				
Dynamic Power					
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, I kHz, 8 Ω)				
Input Sensitivity and Impe					
input sensitivity and impe	200 mV/47 kΩ (Line)				
	2.5 mV/47 k $\Omega$ (Phono MM)				
Rated RCA Output Level					
	200 mV/2.2 kΩ (Line Out)				
Maximum RCA Output L	evel and Impedance				
	2.0 V/2.2 kΩ (Line Out)				
Phono Overload	70 mV (MM, I kHz, 0.5%)				
Frequency Response	5 Hz–100 kHz/+1 dB, -3 dB (Direct Mode)				
Tone Control	±10 dB, 20 Hz (Bass)				
	±10 dB, 20 kHz (Treble)				
Signal-to-Noise Ratio	106 dB (Line, IHF-A)				
	80 dB (Phono MM, IHF-A)				
Sneeken Imnedense	$4 \Omega -  6 \Omega$ or $6 \Omega -  6 \Omega$				
Speaker Impedance	1 22 - 10 22 01 0 22 - 10 22				
Video Section					
Input Sensitivity/Output L	evel and Impedance				
Video	1.0 Vp–p/75 $\Omega$ (Component Y)				
	0.7 Vp-p/75 Ω (Component PB/CB, PR/CR)				
	1.0 Vp-p/75 $\Omega$ (Composite)				
Component Video Freque					
•••••••••••••••••••••••••••••••••••••••	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				
AU					
	530 kHz–1,710 kHz				
FM/AM Preset Memory	40 Stations				
General					
Power Supply	AC 220-240 V~, 50/60 Hz				
i ower supply					
	(Taiwan Model: AC 120 V, 60 Hz)				
Power Consumption	630 W				
No-Sound Power Consun	nption				
	75 W				
Standby Power Consumption					
Standby rower Consumpt	015\//				
	0.15 W				
Dimensions (W x H x D)	435 x 173.5 x 329 mm				
Weight	10.5 kg				
CARTON					
	E70 x 297 x 422 mm				
Dimensions (W x H x D)					
	13.0 kg				
Weight	1 2/0 KB				

#### Supplied Accessories

Indoor FM antenna • Antenna isolator\* • AM loop antenna • Color labels for speaker cables • Speaker setup microphone • Instruction manual • Remote controller • AA (R6) batteries\*\*  $\times\,2$ 

\*Included with Chinese model or \*\*Not included with Chinese model

## Nanufactured under Dolby, Pro Logic an + ( 0 0000 $\overline{\mathbf{O}}$ 0 CEFIE 0 ∕∖∖ 0

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Onkyo Corporation Kitahama Chuo Bidg. 2-2-22 Kitahama, Chuo-ku, Osaka 541-0041 JAPAN http://www.onkyo.com/ Onkyo Europe Electronics GmbH Lugnitzertarsas 6, 82194 Grobenzell, GERMANY Tei: 49-8142-4280-10 Fax: 49-8142-4288-202 http://www.eu.onkyo.com/ Onkyo Europe Electronics GmbH (UK Branch) Luini 19, Building 6, Cravity Green Building 6, Cravity 6, Crav