Home Cinema at the Cutting Edge

Experience the cutting edge of home cinema with the 7.2-channel TX-NR646 Network A/V Receiver, the first in its class to feature the revolutionary DTS:X™ and Dolby Atmos® multi-dimensional audio formats. Onkyo’s high-current amplification system drives your speakers to reproduce soundtracks with maximum impact and fidelity at 160 W/Ch. UltraHD video capability is equally impressive, with eight HDMI® terminals including dedicated HDCP 2.2 compatible inputs for premium 4K video content and two HDMI outputs for video in separate rooms. The TX-NR646’s high-grade 384 kHz/32-bit AKM DAC not only brings movies to life, but your Hi-Res and streamed music as well. Conveniently stream music over built-in Wi-Fi®, Bluetooth, AirPlay, or internet music services including Spotify Connect and Deezer. Use the free Onkyo Remote app to stream audio stored on your mobile device, browse and select tracks from online services, and control playback in two zones. Plus, for fans of vinyl, the TX-NR646 has a phono equalizer input to connect a turntable.

ADVANCED FEATURES
• New DTS:X™ New Generation Sound Format Ready
• Supports Dolby Atmos® Format for Existing Multidimensional Sound
• 4K/60 Hz-Capable 4:4:4 HDMI® Terminals for UltraHD Entertainment
• Supports HDCP 2.2 for Future 4K Full HD Video Streaming and Broadcast
• Built-in Wi-Fi® Certified Wireless LAN Capability
• Bluetooth Version 2.1 + EDR Capability (Compatible Profile:A2DP v1.2, AVRCP v1.3) with Advanced Music Optimizer DSP Technology
• Internet Radio and Music Streaming Subscription Services Included (TuneIn Radio, Spotify, and Deezer)†
• Playback Compressed, Lossless, and Hi-Res Audio via Local Network (MP3, WMA, WAV, FLAC, WMA Lossless, AAC, Apple Lossless, DSD, 5.6 MHz, LPCM™, and Dolby® TrueHD™)
• Proprietary AccuEQ Room Calibration with Mic Included
• Advanced Music Optimizer to Improve Compressed Digital Audio

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
• PM Bass Boost for Deep Bass and Clear Mid-Range
• Bi-Amping Capability for Front Channels
• Powered Zone 2 and Zone 2 Line-Out for Distributed Audio Playback
• 2 Parallel Subwoofer Pre-Outs
• A-Form Listening Mode Memory

PROCESSING FEATURES
• HDMI Supports for 4K/60 Hz, 3D, Audio Return Channel, DeepColor™, x.v.Color™, LipSync, Dolby Atmos®, Dolby® TrueHD, DTS:X™, DTS-HD Master Audio®, DTS-HD Master Audio® Decoding
• AK4458 384 kHz/32-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

OTHER FEATURES
• Consumer Adjustment for Each Channel (40/50/60/70/80/90/100/120/150/200 Hz)
• A/V Sync Control (Up to 500 ms in 10 ms Steps at 48 kHz)
• Graphical On-Screen Display (OSD) via HDMI with Quick Set-Up
• Hybrid Standby Function with HDMI Passthrough
• Smart Grid-Ready
• Tone Control (Base/Trebbe)
• 3-Mode Display Dimmer (Normal/Dim/Dimmer)
• 40 PMAP Random Presets
• Certified with DLNA Version 1.5
• Firmware Updates via Ethernet and USB
• RHN (Remote Interactive Over HDMI) for System Control
• Preprogrammed RI (Remote Interactive) Remote Control

CONNECTION FEATURES
• 8 HDMI Inputs (1 Front/ 7 Rear) and 2 Outputs
• USB Port
• Mass Storage Class USB Memory Playback Capability
• 2 Component Inputs
• 3 Composite Video Inputs
• 3 Digital Audio Inputs (2 Optical and 1 Coaxial)
• 8 Analog Audio Inputs
• Pre-amp Input for Turntable Connection
• 2 Parallel Subwoofer Pre-Outs
• Location Numbered Speaker Terminal

HIGHLIGHTS
• DTS:X™ Compatible
• Supports Dolby Atmos® up to 5.1.2 Channels
• 160 W per Channel
• Hi-Current Amp Design for Authentic Sound Reproduction
• HDMI® 8 In/2 Out Including 1 Front (4K UltraHD / HDCP 2.2)
• Bluetooth Audio / Wi-Fi
• HDMI
• Hi-Current Amp Design for Authentic Sound Reproduction
• Dolby Atmos® and Dolby® TrueHD, DTS:X™, DTS-HD Master Audio®, DTS-HD Master Audio® Decoding
• 4K/60 Hz-Capable 4:4:4 HDMI
• Playback Compressed, Lossless, and Hi-Res Audio via Local Network
• 8 Analog Audio Inputs
• 3 Digital Audio Inputs (2 Optical and 1 Coaxial)
• 8 HDMI Inputs (1 Front/ 7 Rear) and 2 Outputs
• USB Port
• Mass Storage Class USB Memory Playback Capability
• 2 Component Inputs
• 3 Composite Video Inputs
• 3 Digital Audio Inputs (2 Optical and 1 Coaxial)
• 8 Analog Audio Inputs
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ONKYO

2015 NEW PRODUCT RELEASE

TX-NR646 7.2-Channel Network A/V Receiver

Quality (Bluetooth Audio Included)
• Control and Stream with Free Onkyo Remote Streaming Apps for iPod touch/Phone®, and Android® Devices™
• PM Bass Boost for Deep Bass and Clear Mid-Range
• Powered Zone 2 and Zone 2 Line-Out for Distributed Audio Playback
• Bi-Amping Capability for Front Channels
• Dolby Atmos® and Dolby® TrueHD, DTS:X™, DTS-HD Master Audio®, DTS-HD Master Audio® Decoding
• 4K/60 Hz-Capable 4:4:4 HDMI
• Playback Compressed, Lossless, and Hi-Res Audio via Local Network

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• Proprietary AccuEQ Room Calibration with Mic Included
• Advanced Music Optimizer to Improve Compressed Digital Audio
Hi-Current Amp Design for Authentic Sound Reproduction

High instantaneous current enhances speaker control for accurate and dynamic audio reproduction. It's the cornerstone of Onkyo's amplification philosophy.

DTS® Compatible

DTS:X is a next-generation object-based surround sound technology that includes height to deliver a fully-immersive listening experience to your living room. DTS:X provides listeners the ultimate in flexibility, immersion, and interactivity.

Supports Dolby Atmos® Up to 5.1.2 Channels

Dolby Atmos transports you from an ordinary moment into an extraordinary experience with captivating, multidimensional sound that fills your room and flows all around you to move your mind, body, and soul.

Bluetooth Audio / Wi-Fi® with Spotify and AirPlay Stream virtually any audio from your smartphone, tablet, or PC to your home cinema for clear and powerful sound. Available internet radio and music subscription services include Spotify and many more.

HDMI® 8 In / 2 Out Including 1 Front (4K UltraHD / HDCP 2.2)

All HDMI terminals support 4K/60Hz, as well as HDCP 2.2 for next-generation UltraHD streaming and broadcasting.

DSD 5.6 MHz, FLAC 192 kHz/24-bit Hi-Res Audio Capable

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.

384 kHz/32-bit Hi-Grade DAC

A premium-quality AK4458 digital-to-analog converter from Asahi Kasei unlocks the full potential of any audio format, thanks to unique low-distortion filtering technologies for clear sound.

Sound Reproduction

4 or 6 channels of dynamic power

Power Output

160 W (8 ohm, 1 kHz, 1% THD) (All Channels)

320 W (8 ohm, 1 kHz, 1% THD) (Front, 1 kHz, 1% THD, 1 channel driven, line)

600 W (8 ohm, 1 kHz, 1% THD) (All channels, line)

Damping Factor

60 (Front, 1 kHz, 8 ohm)

Input Sensitivity and Impedance

200 mV/47 kΩ (Line)

100 mV/2.2 kΩ (Phone-MP3)

Sensitivity/Output Level and Impedance

Damping Factor

60 (Front, 1 kHz, 8 ohm)

Input Sensitivity and Impedance

200 mV/47 kΩ (Line)

100 mV/2.2 kΩ (Phone-MP3)

Sensitivity/Output Level and Impedance

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