ONKYO

TX-RZ820 7.2-Channel Network A/V Receiver

RZ SERIES

Next Generation Network Audio

BLACK SILVER

CERTIFIED BY THX · THX SELECT · DOLBY ATMOS · dts X · Hi-Res AUDIO · WiFi CERTIFIED · Bluetooth · Spotify · TIDAL

pandora · COMPATIBLE DOLBY VISION · Chromecast built-in · 384 kHz/32bit · AccuEQ ROOM CALIBRATION · Dynamic Audio Amplification · dts Play-Fi music is home · ONKYO

FireConnect Powered by BLACKFIRE · VLSC · AirPlay · Made for iPod iPhone iPad

Monumental Sound & Vision Delivered Without Compromise

Upgrades to the TX-RZ820 Network A/V Receiver—our THX® Certified Select™ 7.2-channel flagship—result in genuinely spectacular sonic performance. Dynamic Audio Amplification delivers instantaneous high-current power to full-scale speakers for thrilling energy and lifelike transient response across a wide 5 Hz–100 kHz spectrum. VLSC™ on all channels and non-phase-shift circuitry clarify details floating in three-dimensional space. Multi-room network and analog audio, including streaming over Chromecast built-in* and DTS Play-Fi®*, are served to NCP-302 wireless speakers via FireConnect™ powered by Blackfire. Powered and pre-/line audio distribution adds app-controllable audio in up to three zones simultaneously. Decoding Dolby Atmos® and DTS:X™, the receiver also supports Dolby Vision™, HDR10, HLG (Hybrid Log-Gamma), and BT.2020 video pass-through, and is set up for custom installs. Simply, it's the no-compromises 7.2-channel powerhouse you've been waiting for. *Enabled with a future firmware update.*

HIGHLIGHTS

- THX® Certified Select™ Reference Sound
- Dynamic Audio Amplification with 180 W/Ch, 5 Hz–100 kHz Frequency Response, and VLSC™ On All Channels
- Supports 5.2.2-Channel Dolby Atmos® and DTS:X™ Playback
- 7 HDMI® Inputs (1 Front[*1]) / Main Out/Zone 2 Out Supporting Dolby Vision™, HDR10, HLG, and 4K/60p Pass-through and HDCP 2.2
- Ready for Chromecast built-in[*2] and DTS Play-Fi[*2]
- 5 GHz/2.4 GHz Wi-Fi®, AirPlay, Spotify®, TIDAL, Deezer, Pandora®[*3], TuneIn[*4]
- FireConnect™[*5] Wireless Multi-room Audio, Powered Zone 2, Zone 2/3 Pre-/Line Outs, and 7.2-Channel Pre-Outs

ADVANCED FEATURES

- THX Certified Select for Cinema-Reference Volume and Sound Quality
- HDMI Terminals Supporting Dolby Vision, HDR10, HLG, BT.2020, 4K/60 Hz Pass-through, and HDCP 2.2
- Zone 2 HDMI (4K/60 Hz/HDCP 2.2) for Distributed Video
- Supports 5.2.2-Channel Dolby Atmos Playback and Dolby Surround Upmixing
- DTS:X Object-based Audio Reproduction and DTS Neural:X™ Upmixing for Legacy Soundtracks
- AccuEQ Room Acoustic Calibration with AccuReflex Phase Alignment for Dolby Atmos-enabled Speakers
- Ready for Onkyo Controller App Integrated Multi-room Intuitive Operation[*6]
- 5 GHz/2.4 GHz Wi-Fi for Stable Network Connection
- Features Chromecast built-in Wireless Audio Streaming Platform
- DTS Play-Fi Shares Music from Apps to Receiver and Wireless Speakers
- AirPlay Audio Streaming from iTunes and iPad, iPhone, and iPod touch
- Supports Hi-Res Audio Including Direct DSD 11.2 MHz[*7], DSD 5.6 MHz/2.8 MHz[*7], 192 kHz/24-bit FLAC, WAV, AIFF, and ALAC, and Dolby® TrueHD[*8]
- Supports Spotify, TIDAL, TuneIn, Pandora, and Deezer Services
- FireConnect™ Multi-room Network and Analog Audio Distribution to Supported Wireless Speakers[*9]

- Powered Zone 2 Speaker Outputs and Zone 2/3 Pre-/Line Output with Dedicated DAC Supporting Network, S/PDIF, HDMI, and Analog Audio[*10]
- 7.2-Channel Pre-Outs, 12 V Trigger-Out, and IR Input
- *Bluetooth*® Wireless Technology for Mobiles, Laptops, and PCs (Version 4.1 + LE, Profile: A2DP v1.2, AVRCP v1.3)
- Supports Front L/R Channel Bi-Amping in 5.2-Ch Speaker Layout
- Advanced Music Optimizer Improves Compressed Digital Audio Quality, Including *Bluetooth* Audio
- 480i De-interlacing (480i to 480p) for Legacy Video Formats

AMPLIFIER FEATURES

- 180 W/Ch (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC)
- Dynamic Audio Amplification System with 5 Hz–100 kHz Frequency Response
- H.C.P.S. (High Current Power Supply) EI Transformer
- VLSC™ (Vector Linear Shaping Circuitry) Noise-filtering Technology for All Channels
- Optimum Gain Volume Circuitry
- Non-Phase-Shift Amplification Circuitry for Clarity and Detail
- Discrete Output Stage Circuitry for Low Distortion

PROCESSING FEATURES

- Dolby Atmos and DTS:X Reproduction (5.2.2 Channels)
- HDMI Support for 4K/60 Hz, HDR10, HLG, Dolby Vision, 3D, Audio Return Channel (ARC), DeepColor™, x.v.Color™, LipSync, Dolby Atmos, Dolby TrueHD, DTS:X, DTS-HD Master Audio™, DSD, DVD-Audio, Super Audio CD (SACD), Multichannel PCM, and CEC
- AKM (AK4458) 384 kHz/32-bit Multichannel DAC
- PLL (Phase Locked Loop) Jitter-Cleaning Circuit Technology for S/PDIF Audio
- 32-bit Digital Signal Processing
- THX Listening Modes for Movies, Music, and Games
- DSP Modes for Gaming: Rock, Sports, Action, and RPG
- Theater-Dimensional Virtual Surround Function
- Direct Mode for Audio Reproduction Close to Original Source Quality
- Front L/R Tone Controls (Bass/Treble) and Independent Zone 2 and Zone 3 Tone, Balance, and Volume Controls

CONNECTION FEATURES

- 7 HDMI Inputs (6 Rear, 1 Front), Main Out, and Zone 2 Output
- Powered USB Port (5 V, 1 A) for Audio Playback

- 2 Composite Video Inputs
- 2 Component Video Inputs
- 3 Digital Audio Inputs (2 Optical and 1 Coaxial)
- 6 Analog Audio Inputs
- Phono Input (MM) and Equalizer for Turntable
- 7.2-Channel Pre-Outs
- 2 Subwoofer Pre-Outs
- LAN Input with IP Control Support for Home Automation Systems and Setup via a Connected PC
- RS-232 Serial Input for External Control Commands
- 12 V Trigger Out (Main, 100 mA) for External Component Control Integration
- IR Input for Remote Control
- 6.35 mm Headphone Jack (Front)
- Speaker Posts with Screw Knobs
- 3.5 mm Speaker Setup Mic Input and Microphone

OTHER FEATURES

- Aluminum Front Panel, Volume Control, and Flap Door
- Crossover Adjustment for Each Channel (40/50/60/70/80/90/100/120/150/180/200 Hz)
- A/V Sync Control (Up to 500 ms in 5 ms Steps at 48 kHz)
- Graphical User Interface with Overlaid On-Screen Display (OSD) via HDMI
- Quick Setup Guide via GUI and Easy Connection Diagram on Rear Panel
- Economical HDMI Pass-through and Network Standby Functions
- 3-Mode Display Dimmer (Normal/Dim/Dimmer)
- 40 FM/RDS and AM Random Presets
- Rack-mounting Kit (Optional)
- Full-sized Simple Remote Control

*[*1] HDMI Front Input does not support 4K/60p/4:4:4/24-bit video, HDR10, Dolby Vision, HLG, or BT.2020. [*2] Requires a future firmware update. [*3] Pandora available in Australia and New Zealand only. [*4] Availability of services may vary with region. Please confirm before purchase. Subscription may also be required. [*5] FireConnect™ is a technology based on Blackfire provided by Blackfire Research Corp., USA. Sampling rates of 44.1 kHz and 48 kHz are supported. [*6] For iOS and Android™ devices. Please check App Store or Google Play™ for device and OS requirements. [*7] DSD not supported over wireless LAN. [*8] Dolby TrueHD playback via USB input only. [*9] Sharing audio from external analog inputs depends on the model and is enabled with a future firmware update. [*10] Audio distribution via S/PDIF or HDMI not supported in Zone 3.*

TX-RZ820 7.2-Channel Network A/V Receiver

Introducing the RZ Series

Our premium RZ Series A/V receivers deliver a significant boost to the dynamism, detail, and accuracy of music and movie soundtracks for a listening experience that packs deep emotional impact. The TX-RZ820 features quality components, such as large custom capacitors, to provide high instantaneous current for fast transients and wideband frequency response down to 5 Hz. Discrete non-phase-shift amp circuits clearly focus the audio image and cut distortion even at floor-shaking volumes.

Customized high-current capacitors

THX® Certified Select™ Reference Sound

THX Certified Select guarantees the same high-volume sound you experience at a commercial cinema in your home. To gain certification, amplifiers must pass the industry's most severe bench-tests covering every aspect of audio performance. THX Certified Select components are ideally suited to rooms where the screen-to-seat viewing distance is approximately 3 meters, and the room volume is approximately 57 cubic meters.

CERTIFIED BY
THX®   THX SELECT™

Unleash Dolby Atmos® or DTS:X™ Home Cinema

Object-based soundtracks allow independently mixed sound to play through any speaker in your system, moving above and around you with breathtaking realism. The TX-RZ820 reproduces 5.2.2-channel Dolby Atmos or DTS:X formats, with AccuReflex correcting the phase of direct and indirect sounds for cohesive audio imaging with Dolby Atmos-enabled speakers.

DOLBY ATMOS   dts X

Upmixing Solutions for Legacy Soundtracks

DTS Neural:X™ identifies spatial effects in multichannel soundtracks and upmixes for 3D playback through object-audio-ready speaker systems. Dolby Surround also upmixes legacy sound formats so you can experience multidimensional playback of legacy sound formats in a Dolby Atmos environment.

Music Made Easy with Chromecast built-in*

Stream any music from your smartphone, laptop, or PC to the TX-RZ820 with ease. Control playback with Chromecast-enabled apps you know and love from your iPhone, iPad, Android™ phone or tablet, Mac or Windows® laptop, or Chromebook™.

Chromecast built-in

Stream Anything with DTS Play-Fi®*

DTS Play-Fi is a protocol that works with any audio app on mobiles and PC. Flick whatever's playing to the receiver, even different sources to different components at the same time.

dts Play-Fi® music is home

FireConnect™ Wireless Multi-room Audio

FireConnect™ mirrors network audio and external analog sources connected to a master component—from streaming services to vinyl records—on FireConnect™-compatible speakers in other rooms. Music selection, speaker grouping, and playback management across the home are built into Onkyo Controller app for iOS and Android.

Fire Connect

BLACKFIRE

Note: Sharing audio from external inputs depends on the model and is enabled with a future firmware update. Sampling rates of 44.1 kHz and 48 kHz are supported. FireConnect™ is a technology based on Blackfire provided by Blackfire Research Corp., USA.

Wi-Fi®, AirPlay, Spotify®, and *Bluetooth*®

Selectable 5 GHz/2.4 GHz Wi-Fi® assures a stable connection so you can stream over AirPlay, the Spotify app, and the local network. *Bluetooth* wireless technology provides simple streaming from your choice of app.

Internet Radio and Streaming Services

TIDAL, Deezer, Pandora®, and TuneIn are on board to make selecting from a massive range of music and radio programs using Onkyo Controller very simple.

Note: Pandora is available in Australia and New Zealand only.

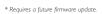## Supports HDR10, HLG, Dolby Vision™, BT.2020, 4K/60 Hz, and HDCP 2.2

Six rear HDMI® inputs, Main Out, and Zone 2 Out support pass-through of HDR10, HLG (Hybrid Log-Gamma), and Dolby Vision; the BT.2020 4K video standard; 4K/60 Hz video playback; and HDCP 2.2 for premium video content. Front HDMI terminal is ideal for video camera connection, while the Zone 2 output distributes home cinema video to a display in a second room.
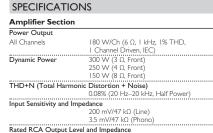
4K HDR ULTRA HD   HDCP 2.2

Wide Connectivity for Custom Setups

With 7.2-channel pre-outs, 12 V trigger, IR input, and optional rack-mount kit, the TX-RZ820 easily integrates other components (such as outboard amps) to create a full wired multi-room setup thanks to Powered Zone 2 and Zone 2/3 Pre-/Line Outputs governed by a Whole Home Audio Mode and supported within Onkyo Controller. RS-232 and IP Control via LAN are ready for home automation systems.

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* *Requires a future firmware update.*

SPECIFICATIONS

Amplifier Section

Power Output	
All Channels	180 W/Ch (6 Ω, 1 kHz, 1% THD, 1 Channel Driven, IEC)
Dynamic Power	300 W (3 Ω, Front)
	250 W (4 Ω, Front)
	150 W (8 Ω, Front)
THD+N (Total Harmonic Distortion + Noise)	
	0.08% (20 Hz–20 kHz, Half Power)
Input Sensitivity and Impedance	
	200 mV/47 kΩ (Line)
	3.5 mV/47 kΩ (Phono)
Rated RCA Output Level and Impedance	
	1 V/320 Ω (Pre Out)
	1 V/470 Ω (Subwoofer Pre Out)
	1 V/2.3 kΩ (Zone2/3 Pre Out)
	200 mV/2.3 kΩ (Zone2/3 Line Out)
Frequency Response	5 Hz–100 kHz/+1 dB, -3 dB (Direct Mode)
Tone Control	±10 dB, 90 Hz (Bass)
	±10 dB, 7.5 kHz (Treble)
Signal-to-Noise Ratio	106 dB (Line, IHF-A)
Speaker Impedance	4 Ω–16 Ω

Video Section

Input Sensitivity/Output Level and Impedance	
Video	1.0 Vp–p/75 Ω (Component Y)
	0.7 Vp–p/75 Ω (Component PB/CB, PR/CR)
	1.0 Vp–p/75 Ω (Composite)

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 220–240 V~, 50/60 Hz 60 Hz
Power Consumption	650 W
No-Sound Power Consumption	70 W
Standby Power Consumption	0.15 W
Dimensions (W x H x D)	435 x 201.5 x 395 mm
Weight	14.0 kg

CARTON

Dimensions (W x H x D)	550 x 303 x 490 mm
Weight	17.0 kg

Supplied Accessories

• Power cord • Indoor FM antenna • AM loop antenna
• Speaker setup microphone • Quick Start Guide • Basic manual
• Remote controller • AAA (R03) batteries x 2

Text on receiver may vary with region.

ONKYO®   http://www.onkyo.com/