

TX-NR797 9.2-Channel Network A/V Receiver



BLACK



Think big, go bigger with exhilarating sound by Onkyo

This 9.2-channel Onkyo SMART A/V Receiver™ plays the lead role in your whole-home audio experience. Works with Sonos, Chromecast built-in[†], AirPlay 2, and DTS Play-Fi[®] are enhanced by high-speed 802.11ac Wi-Fi[®] while speaker outputs with DACs can power D/A audio in three rooms. With nine channels of high-current power on tap, roll up the volume to THX[®] Certified Select™ reference level and wrap your family in 5.2.4 channels of Dolby Atmos[®] or DTS:X[®] sound, or feel IMAX[®] Enhanced[‡] content as the filmmakers intended. Dolby Surround[®] upmixes legacy sound for height-enabled systems while Dolby Atmos Height Virtualizer creates a 3D sound-field using horizontal speakers. DAA features an upgraded power-train while anti-noise refinements result in a wider soundstage. AccuEQ Advance 9-point calibration eliminates standing waves so audio is expressed naturally. All this and more helps the TX-NR797 shape entertainment to your life. *1 The unit may automatically download and apply an Over-the-Air software update during setup. *2 Enabled with a future firmware update.

PRODUCT HIGHLIGHTS

- 220 W/Ch THX[®] Certified Select™ DAA system
- SMART AV Receiver Works with Sonos, Chromecast built-in[†], AirPlay 2, DTS Play-Fi[®], FlareConnect™[‡], Spotify[®], Amazon Music, Pandora[®], TIDAL, Deezer, Tunes³
- 9.2-ch amps support 5.2.4-ch Dolby Atmos[®] and DTS:X[®]
- Dolby Atmos Height Virtualizer[‡]
- IMAX[®] Enhanced[‡] certified for IMAX[®] digital remasters
- Refined HDMI[®] grounds, SoC board, and power amps
- HDMI Sub/Zone 2 output for a sub-display or projector
- Quad-core SoC supports 802.11ac (2x2 MIMO) Wi-Fi[®][‡]
- Zone 2/Zone B line-out with DAC shares D/A audio (including HDMI/SPDIF[®])
- Supports 5.2-ch Main + Powered Zone 2 + Powered Zone 3 speaker outputs for simultaneous/independent D/A audio distribution[†]
- Stereo Assign Mode supports Height-channel playback
- DSP-based Vocal Enhancer improves dialog audibility
- OSD features media input/output data display function
- HDMI supports 4K/60p, 4K HDR, BT.2020, HDCP 2.2
- AccuEQ Advance 9-point calibration with AccuReflex™
- Volume memory-presets for A/V inputs via front panel
- IP control, RS-232C, 12 V trigger output, and IR input

AMPLIFIER FEATURES

- 220 W/Ch (6 ohms, 1 kHz, 10% THD, 1 channel driven), 100 W/Ch (8 ohms, 20 Hz–20 kHz, 0.08% THD, 2 channels driven, FTC)
- Certified for IMAX Enhanced and THX Certified Select
- Dynamic Audio Amplification
- Custom High-Current Low-Noise Power Transformer
- Large custom-made audio power capacitors
- Non-phase-shift amp topology with discrete output stage
- Strengthened power-supply line for high-current dynamics
- Refined HDMI grounds and short signal-paths reduce noise
- Isolated SoC board reduces interference
- High current capability for 4-ohm speaker drive
- AKM (AK4458) 384 kHz/32-bit multichannel D/A conversion
- VLSC™ (Vector Linear Shaping Circuitry) noise filtering (Front L/R)

- PLL (Phase Locked Loop) anti-jitter technology for SPDIF audio
- Independent tone controls for all channels (excluding Zone 2/3)

VIDEO & AUDIO SUPPORT

- Supports HDCP 2.2, 4K/60p, HDR (Dolby Vision™, HDR10, HLG), BT.2020, 4:4:4 color sub-sampling, 24-bit color, 3D Video, ARC (Audio Return Channel), DeepColor™, x.v.Color, and LipSync via HDMI
- Dolby Atmos, DTS:X, Dolby[®] TrueHD, and DTS-HD Master Audio[®]
- Dolby Atmos Height Virtualizer 3D processing
- Dolby Surround[®] and DTS[®] Neural:X upmixing technology
- IMAX Mode for IMAX Enhanced content
- THX[®] listening modes for movies, music, and games
- Sound optimization for games (Rock, Sports, Action, and RPG)
- Theater-Dimensional virtual surround-sound function

NETWORK FEATURES

- SMART AV Receiver supports multi-room audio, streaming services, and Onkyo Controller[®] remote streaming app
- Works with Sonos for the Sonos Home Sound System[™]
- Chromecast built-in and voice control with the Google Assistant[†]
- AirPlay 2 multi-room audio and voice control with Siri^{††}
- DTS Play-Fi multi-room audio via Onkyo Music Control App[®]
- FlareConnect multi-zone audio with compatible components
- Quad-core SoC supports high-speed 802.11ac (2x2 MIMO) Wi-Fi
- Hi-Res Audio playback via network (DSD 11.2 MHz/5.6 MHz/2.8 MHz^{‡‡}; FLAC, WAV [RIFF], AIFF, and ALAC to 192 kHz/24-bit^{‡‡})

CONNECTION FEATURES

- 7 HDMI inputs (1 front), 2 outputs (Main [ARC], Sub/Zone 2)
- 1 component video input (assignable)
- 2 composite video inputs (assignable)
- 2 digital audio inputs (optical and coaxial, assignable)
- 6 analog RCA inputs (assignable)
- 1/8" (3.5 mm) mini-stereo analog input (front)
- 1 phono input with built-in MM equalizer for turntable
- 1/8" (3.5 mm) setup mic input for AccuEQ (front)
- 1/4" (6.35 mm) headphone jack (front)
- 2 subwoofer pre-outs
- Zone 2/Zone B analog RCA line-level output
- 9 banana-plug-ready screw-type speaker posts
- Bi-directional Ethernet terminal for network and IP control
- USB input (5 V/1 A) for audio playback (rear)
- RS-232 serial input for control
- IR (infrared) input for remote-control extenders

- 12 V trigger output (Main, assignable, 100 mA)
- AC power socket for detachable power cord

ADVANCED FEATURES

- AccuEQ Advance 9-point calibration with AccuReflex™
- Vocal Enhancer DSP clarifies dialog via remote or front-panel controls
- Bluetooth[®] technology with Wake on Play Standby, auto input selection for voice control with selected smart speakers
- Advanced Music Optimizer improves compressed audio playback
- Zone 2 and Zone 3 outputs support synced/independent multi-source D/A audio distribution (including HDMI/SPDIF)
- Front to Height speaker switching in Stereo Assign Mode
- Zone 2/Zone B line-out (analog RCA) with Zone 2 DAC connects compatible audio systems for synced/independent D/A playback (including HDMI/SPDIF) in Main and Zone 2; connects compatible transmitters for wireless headphones
- One-touch volume memory-presets for A/V inputs via front panel
- 1080p to 4K upscaling via HDMI
- GUI with overlaid OSD via HDMI featuring media input/output display
- 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)
- Various standby modes and HDMI pass-through
- Optional rack-mounting kit (IRK-155-3D)
- IP control for home automation, SmartGrid-ready
- 3-Mode display dimmer (Normal/Dim/Dimmer)
- 40 FM/AM random presets
- Redesigned simple remote control

*1 The unit may automatically download and apply an Over-the-Air software update during setup. *2 FlareConnect is a proprietary network protocol that shares select audio sources between supported components. Please visit the Onkyo website for product compatibility information. *3 Service availability varies with region and subscriptions may be required. *4 Enabled with a future firmware update. *5 Some countries or regions have regulations that affect wireless signal strength and the use of Wi-Fi channels. *6 When set to Zone 2, HDMI audio is available on inputs 1–3. SPDIF and HDMI support PCM signals only. Simultaneous playback of multiple audio sources is enabled. When set to Zone B, encoded and PCM audio playback for all inputs is enabled in Main and Zone B. *7 Zone 2 HDMI audio is available on inputs 1–3. SPDIF and HDMI support PCM signals only. Simultaneous playback of multiple audio sources is enabled in Main, Zone 2, and Zone 3. Zone 3 supports analog/NET/Bluetooth. Output via Zone 2 output and Zone 2/Zone B line-out enabled. *8 Available free at the App Store and Google Play for iPhone, iPad, and Android™ devices. Please check device and OS requirements before installation. *9 Requires a Sonos Connect (sold separately). *10 Voice control requires a smart speaker featuring the Google Assistant. *11 Voice control with Siri requires an Apple HomePod. *12 Converted to PCM. DSD playback over Wi-Fi cannot be guaranteed in all network environments. *13 Supported sampling rates may vary depending on network environment. ALAC supported to 96 kHz.

TX-NR797 9.2-Channel Network A/V Receiver

SMART AV Receiver™ makes multi-room easy

SMART AV Receiver is the heart of your home entertainment system. Access streaming content from Amazon Music, Pandora®, Spotify®, TIDAL, Deezer, and TunesIn and share sound as part of a multi-room system via Works with Sonos, Chromecast built-in*, AirPlay 2, DTS Play-Fi®, and FlareConnect™.



* The unit may automatically download and apply an Over-the-Air software update during setup.

Works with Sonos

The TX-NR797 can join your existing Sonos Home Sound System, or be the start of a new one, just by pairing it with a Sonos Connect®. The AVR ties into the Sonos ecosystem, waking, changing inputs, and playing at the desired volume on command from the Sonos app*.

* Sonos Connect sold separately. Sonos app is available free for iPad, iPhone, and Android™ at the App Store and Google Play. Please confirm device and OS compatibility before installation.

Chromecast built-in with the Google Assistant

Stream any music from your smartphone, laptop, or PC to the receiver 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. If you have a smart speaker featuring the Google Assistant, you can cue, play, and control music playback by voice.

Note: The unit may automatically download and apply an Over-the-Air software update during setup.

Experience IMAX® Enhanced

IMAX Enhanced® A/V receivers feature DTS:X sound technology optimized for the IMAX® signature experience, reproducing the full dynamic range of IMAX theatrical sound-mixes available with digitally re-mastered IMAX Enhanced content. A pre-set IMAX Mode reproduces audio at the highest levels and delivers IMAX Enhanced content as the filmmakers intended. IMAX Enhanced versions of a range of films, from Hollywood blockbusters to documentaries, will be released for 4K HDR streaming and Ultra HD Blu-ray™.



* Enabled with a future firmware update.

THX® Certified Select™ theater-reference sound

THX Certified Select guarantees the same reference volume level of a commercial theater in rooms where the viewing position is about 10–12 ft. from the screen. To gain certification for reference sound within strict THX® sound-quality parameters, receivers must pass 2,000 bench-tests in 75 categories covering 14,000 data points.



Dolby Atmos® and DTS:X® – setting sound free

Dolby Atmos and DTS:X map sounds in the movie to their corresponding positions in your room, so audio is localized or free move among your speakers and around the audience in sync with the action on screen. This 9.2-ch receiver expands object-based sound-field coverage with a 5.2.4 or 7.2.2-ch layout. Enjoy classic titles through your height-enabled system with Dolby Surround® and DTS® Neural:X upmixers for legacy soundtracks.

Dolby Atmos Height Virtualizer

When playing any Dolby® format, engaging Dolby Atmos Height Virtualizer® enables a more immersive listening experience, creating a virtual surround and height effect from traditional speaker layouts without employing additional surround or height speakers. * Enabled with a future firmware update.

Dynamic Audio Amplification

Refined over 70 years to deliver emotion in high fidelity, DAA features a custom High-Current Low-Noise Power Transformer, customized capacitors, and discrete amp output stages. Unique topology prevents phase-shift while high current improves speaker control for true dynamic speed. Driving 4-ohm loads through all channels, DAA has power to move.

New upgrades reduce noise and boost power

The TX-NR797 adds new refinements that control noise, boost power, and improve S/N performance. A new HDMI® board has shorter signal-paths and large, carefully finished grounds for clean A/V signals. SoC is isolated to reduce interference noise. The power-supply line is strengthened in pursuit of power and the results are evident in improved speed, force, and localization across an expanded soundstage.



Whole Home Audio, just add speakers

Orchestrate playback of different audio sources in up to three rooms at once from your smartphone. The TX-NR797 has nine amplifier channels and two zone audio DACs supporting D/A audio distribution via Zone 2 and Zone 3 outputs, including HDMI®/SPDIF/NET/Bluetooth®, and supports a variety of speaker layouts including 5.2.2-ch Main + Zone 2, or 5.2-ch + Zone 2 + Zone 3.

Note: HDMI and SPDIF support PCM audio only. Zone 2 HDMI audio available on inputs 1–3. Zone 3 supports analog/NET/Bluetooth.

Quad-core SoC supports 802.11ac Wi-Fi®

A powerful SoC (System on a Chip) processes multiple tasks at once. It evolves network functions and supports the latest high-speed 802.11ac (2x2 MIMO) specification while compatible with 802.11 b/g/n dual-band routers.



Note: Some countries or regions have regulations that affect wireless signal strength and the use of Wi-Fi channels.

Versatile Zone 2/Zone B line-out

Connect an audio system via analog RCA input to the AVR's Zone 2/Zone B line-out. In Zone 2 mode, you can play the same or different D/A sources (including SPDIF and HDMI) in either or both rooms at the same time. Zone B mode is an ideal match for a supported wireless transmitter. Listen to any source—including the TV—through wireless headphones. Perfect for midnight movies and TV.

Clarify voice dialog in-program instantly

Vocal Enhancer solves inaudible dialog in TV programs and movies. DSP technology identifies voice frequencies so you can adjust them using remote-control keys or controls on the front panel.

AccuEQ Advance with AccuReflex™

AccuEQ Advance room acoustic calibration uses nine-point measurement to remove standing waves that occur when sound from the speakers resonates with sound reflecting off the walls, altering its natural expression. During the process,

background noise is ignored to ensure accurate equalization. AccuReflex optimizes 3D sound reproduction through height speakers by resolving phase-shift. Enjoy a cohesive 3D sound-field in rooms of any shape or size.

Connections for custom installation

The TX-NR797 features a 12 V trigger output for an external component and an IR input for remote-control range extension. It supports IP control, RS-232C, and OSD output for custom installers. An optional rack-mount kit is also available.

SPECIFICATIONS

Amplifier Section

Power output (All channels)

220 W/Ch
(6 ohms, 1 kHz, 10% THD, 1 channel driven)
100 W/Ch (8 ohms, 20 Hz–20 kHz,
0.08% THD, 2 channels driven, FTC)

Dynamic power

250 W (3 ohms, Front)
220 W (4 ohms, Front)
130 W (8 ohms, Front)

THD+N (Total Harmonic Distortion + Noise)

0.08% (20 Hz–20 kHz, half power)

Input sensitivity and impedance

200 mV rms/47 k-ohms (Line)
3.5 mV rms/47 k-ohms (Phono MM)

Rated RCA output level and impedance

1 V rms/470 ohms (Subwoofer pre-out)
200 mV rms/470 ohms
(Zone B/Zone 2 line-out)

Frequency response

10 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, IIF-A)
80 dB (Phono, IIF-A)

Speaker impedance

4 ohms–16 ohms

Video Section

Input sensitivity/output level and impedance

Video
1.0 Vp-p/75 ohms (Component Y)
0.7 Vp-p/75 ohms (Component Pb/Pz)
1.0 Vp-p/75 ohms (Composite)

Tuner Section

Tuning frequency range

FM 87.5 MHz–107.9 MHz
AM 530 kHz–1,710 kHz

FM/AM preset memory

40 Stations

General

Power supply AC 120 V~, 60 Hz

Power consumption 750 W

No-sound power consumption 75 W

Standby power consumption 0.15 W

Dimensions (W x H x D) 17 1/8" x 6 13/16" x 18 7/16"

(435 x 173.5 x 379.5 mm)

Weight 23.8 lbs. (10.8 kg)

UPC CODE

(B) 889951001744

CARTON

Dimensions (W x H x D) 21" x 10 7/16" x 18 7/16"

(534 x 265 x 468 mm)

Weight 29.8 lbs. (13.5 kg)

Supplied Accessories

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



Text on receiver may vary with region.

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