ONKYO

TX-NR696 7.2-Channel Network A/V Receiver

BLACK SILVER

Next Generation Network Audio

CERTIFIED BY THX™ · THX SELECT™ · 4K HDR ULTRA HD — HDR10, HLG, BT. 2020 · COMPATIBLE DOLBY VISION · DOLBY ATMOS · dts X® · dts VIRTUAL:X™ · Dynamic Audio Amplification · 384 kHz / 32-bit

Works with Apple AirPlay · Wi-Fi CERTIFIED · ONKYO · Bluetooth® · Works with SONOS · Chromecast built-in · works with the Google Assistant · dts Play-Fi®

FlareConnect · DEEZER · TIDAL · Spotify · Spotify® · amazon music · TUNE IN · AccuEQ ROOM CALIBRATION

ZONE B · POWERED ZONE 2 · Hi-Res AUDIO

Future-ready home entertainment with THX® Certified Select™

A harmonious mix of tech and tradition, the TX-NR696 adapts to entertainment life and finds the emotion in every sound source, from 3D film-scores to vinyl records. Next-Generation Network Audio gathers Chromecast built-in*1, Works with Sonos, AirPlay 2, and DTS Play-Fi® with streaming services for smooth multi-room audio evolved by support for the new high-speed 802.11ac (2x2 MIMO) Wi-Fi® specification*2. Dolby Atmos® and DTS:X® pull audiences deep into movies and games, THX Certified Select assuring a cinema-reference experience. If a 5.2.2-ch setup isn't possible, Dolby Atmos Height Virtualizer*3 and DTS Virtual:X™*3 can create a 3D sound-field from horizontal speaker layouts. Zone 2 outputs bring amped multi-source audio to two rooms, while a flexible new zone line-out/front L/R pre-out terminal lets you listen how you want, where you want. With revitalized DAA system, 4K/60p/HDR HDMI® terminals, and many extras, this product excels in every aspect.

*1 The unit may automatically download and apply an Over-the-Air software update during setup. *2 Some countries or regions have regulations that affect wireless signal strength and the use of Wi-Fi channels. *3 Enabled with a future firmware update.

PRODUCT HIGHLIGHTS

- 175 W/Ch THX® Certified Select™ DAA system
- Works with Sonos, Chromecast built-in*1, AirPlay 2, DTS Play-Fi®, FlareConnect™*2, Spotify®, Amazon Music, TIDAL, Deezer, TuneIn*3
- Supports 5.2.2-ch Dolby Atmos® and DTS:X® playback
- Dolby Atmos Height Virtualizer*4 and DTS Virtual:X™*4
- HDMI Sub/Zone 2 output shares media to a second display or projector
- Quad-core SoC supports 802.11ac (2x2 MIMO) Wi-Fi® specification*5
- Zone 2/Zone B line-out/Front L/R pre-out with DAC shares D/A audio (including HDMI/SPDIF*6) or connects power amp
- Zone 2 outputs distribute D/A audio sources (including HDMI/SPDIF*6)
- Stereo Assign Mode to switch Front playback to Height channels
- DSP-based Vocal Enhancer improves dialog audibility
- GUI with OSD via HDMI features media input/output data display function
- HDMI supports 4K/60p, 4K HDR, 4:4:4/24-bit, BT.2020, HDCP 2.2
- AccuEQ Advance with AccuReflex™
- One-touch volume memory-presets for A/V inputs

AMPLIFIER FEATURES

- 175 W/Ch (6 Ω, 1 kHz, 10% THD, 1 channel driven)
- THX Certified Select certified 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
- New dual-transistor amp output stages (L/R/C) doubles instantaneous current output for stunning dynamics and bass impact
- Strengthened power-supply line for high-current dynamics
- Refined HDMI grounds, short signal paths reduce noise
- SoC board remote from audio paths to reduce noise
- High-current drive handles 4-ohm speaker loads
- High-grade AKM (AK4458) 384 kHz/32-bit multichannel D/A conversion

- VLSC™ (Vector Linear Shaping Circuitry) filtering (Front L/R)
- PLL (Phase Locked Loop) anti-jitter technology for S/PDIF audio
- Tone controls (bass/treble) for front L/R channels
- Pure Audio Mode and Direct Mode for high-fidelity sound

VIDEO & AUDIO SUPPORT

- Supports HDCP 2.2, 4K/60p, HDR (Dolby Vision, HDR10, HLG), BT.2020, 4:4:4 color-space, 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® decoding
- Dolby Atmos Height Virtualizer and DTS Virtual:X 3D processing
- Dolby Surround® and DTS® Neural:X upmixing technology
- THX listening modes for movies, music, and games
- Sound optimization for games (Rock, Sports, Action, and RPG)
- SACD (Super Audio CD) playback via HDMI (2.8 MHz 2-ch/multichannel)
- Theater-Dimensional virtual surround-sound function

NETWORK FEATURES

- Next-Generation Network Audio with multi-room audio, streaming service integration, and remote app control
- Works with Sonos certified for the Sonos Home Sound System*7
- Chromecast built-in and voice control with the Google Assistant*8
- AirPlay 2 multi-room audio and voice control with Siri*9
- DTS Play-Fi® multi-room audio via Onkyo Music Control App*10
- FlareConnect™ multi-zone audio with compatible components
- Quad-core SoC processing evolves network functions and supports high-speed 802.11ac (2x2 MIMO) Wi-Fi specification
- Supports Onkyo Controller remote and music streaming app*10
- Hi-Res Audio playback via network (DSD 11.2 MHz/5.6 MHz/ 2.8 MHz 2-ch/multichannel; FLAC, WAV [RIFF], AIFF, and ALAC to 192 kHz/24-bit*12)

CONNECTION TERMINALS

- 7 HDMI inputs (1 front), 2 outputs (Main [ARC], Sub/Zone 2)
- 2 digital audio inputs (optical and coaxial, assignable)
- 4 analog RCA inputs (assignable)
- 3.5 mm mini-stereo analog input (front)
- 1 phono input with built-in MM equalizer for turntable
- 3.5 mm setup mic input for AccuEQ (front)
- 6.35 mm headphone jack (front)
- 2 subwoofer pre-outs
- Zone 2/Zone B line-out/Front pre-out (analog RCA)
- 7 screw-type speaker posts
- Ethernet terminal for network connection and IP control

- USB input (5 V/1 A) for audio playback (rear)
- AC socket for detachable power cable

ADVANCED FEATURES

- AccuEQ Room Acoustic Calibration and AccuReflex
- DSP Vocal Enhancer boosts dialog audibility via remote keys or front panel
- Bluetooth® wireless technology and Wake on Play Standby with auto input selection supporting select smart speakers
- Advanced Music Optimizer™ improves compressed audio playback
- Zone 2 speaker outputs for powered simultaneous multi-source D/A audio distribution (including HDMI/SPDIF) with Zone 2 DAC; output via Zone 2 and Zone 2 line-out
- Front/Height/Surround Back switching (layout dependent) for ambient listening in Stereo Assign Mode
- Zone 2/Zone B line-out/Front L/R pre-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; connects power amp for Front L/R speakers
- One-touch volume memory-presets for A/V inputs via front panel
- 1080p to 4K upscaling and GUI with overlaid OSD via HDMI
- 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
- IP control for home automation systems via LAN
- 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, and 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 Requires a Sonos Connect (sold separately). *8 Voice control requires a smart speaker featuring the Google Assistant. *9 Voice control with Siri requires an Apple HomePod. *10 Available free at the App Store and Google Play for iPhone, iPad, and Android™ devices. Please check device and OS requirements before installation. *11 Converted to PCM. DSD playback via Wi-Fi cannot be guaranteed in all network environments. *12 Supported sampling rates may vary depending on network environment. ALAC supported to 96 kHz.

TX-NR696 7.2-Channel Network A/V Receiver

THX® Certified Select™ cinema-reference sound

THX Certified Select guarantees the same reference volume and sound quality of at a commercial cinema in rooms where the viewing position is about 3.5 m from the screen. To deliver THX reference movie sound, 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® formats allow engineers to map sound anywhere in 3D space, effects moving from speaker to speaker all around the room and wrapping your audience in the latest films and games. You can also enjoy your 3D speaker layout with classic titles. Dolby Surround® and DTS® Neural:X find overhead cues in legacy soundtracks and upmix for awesome spatial realism.

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.

Flexible 3D sound with DTS Virtual:X™

DTS Virtual:X* is a surround virtualization technology that creates an immersive 3D sound-field from horizontal speaker layouts without requiring height-speaker connection. It uses DSP algorithms to create a sense of 3D spatiality and is effective in rooms of any size and shape. DTS Virtual:X works with DTS:X, DTS® formats, and non-encoded stereo soundtracks. *Enabled with a future firmware update.

Dynamic Audio Amplification

Refined over 70 years to deliver an emotional listening experience, DAA features a custom High-Current Low-Noise Power Transformer, customized capacitors, and discrete amp output stage. Unique circuit topology prevents phase-shift for accurate sound, while high current improves speaker control for thrilling dynamics. Driving 4-ohm loads through all channels, DAA has power to move you.

Key design enhancements improve sound

While cosmetically familiar, the TX-NR696 has significant upgrades inside that control noise, boost driving power, and improve S/N performance. A new HDMI® board features larger, stronger, better-finished grounds and shortened signal-paths to reduce noise on A/V signals. New SoC processor has its own board remote from audio signal-paths to reduce noise. Power-supply line has been strengthened in pursuit of driving power, while the Front (L/R) and Center amps now feature two transistors each, effectively doubling current-handling capabilities. You can hear the result in the blistering attack speed and force of the bass, and in the clearer separation and localization of instruments across a large and spacious soundstage.

Next-Generation Network Audio

Access streaming content from Amazon Music, Spotify®, TIDAL, Deezer, and TuneIn and share network audio around your home 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-NR696 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 check 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.

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

Quad-core SoC supports 802.11ac Wi-Fi®

A quad-core SoC (System on a Chip) has power to perform multiple processing tasks at once. It evolves network functions and supports the latest high-speed 802.11ac (2×2 MIMO) specification while compatible with 802.11b/g/n dual-band routers.
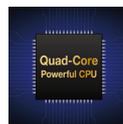
Note: Some countries or regions have regulations that affect wireless signal strength and the use of Wi-Fi channels.

Share audio flexibly in Zone 2

The TX-NR696 supports flexible 3D-ready 5.2-ch cinema-surround speaker layouts with two channels to spare for playback in another room. Zone 2 outputs distribute amplified analog, NET, *Bluetooth*®, SPDIF, and HDMI audio sources in either or both zones at the same time (there's a Zone 2 DAC). Output from Zone 2 and Zone 2 line-out is enabled.

*HDMI and SPDIF supports PCM audio only. HDMI audio available on inputs 1–3.

Share audio or listen privately

Connect an audio system via analog RCA input and the AVR's Zone 2/Zone B line-out. With Zone 2, you can play the same or different analog/digital sources (including SPDIF and HDMI) in either or both rooms at the same time. Zone B is ideal for connecting a compatible transmitter so you can listen to any source—including the TV—through wireless headphones, perfect for midnight movies and TV. Hi-fi buffs will love the ability to pass Front L/R signals to an outboard power amp in Front Pre-Out mode, and personalize the sound character through their favorite speakers.

Clearer dialog at the touch of a button

This technology solves inaudible dialog in TV programs and movies. DSP-controlled Vocal Enhancer identifies voice frequencies so you can raise or lower them with keys on the remote or via the controls on the front panel.

Relax with Stereo Assign Mode

At the touch of a button, Stereo Assign Mode switches playback from Front speakers to either Surround, Rear Surround, or Height speaker pairs. Ideal for ambient listening, BGM, or any time you want to create a relaxing atmosphere.

Selectable

Stereo (Front Speakers)   Stereo (Height Speakers)

AccuEQ Room Acoustic Calibration with AccuReflex™

AccuEQ creates a harmonious sound-field in your room. It detects speaker presence, size, impedance, and distance from a measurement position, and sets sound-pressure levels. It then selects the subwoofer crossover and EQ's all speakers, including the sub. AccuReflex optimizes 3D audio reproduction through Dolby Atmos-enabled speakers. It resolves phase-shift that arises from path differences between directional and non-directional sounds. Enjoy a cohesive 3D sound-field with vertical movement and overhead dimensionality.

SPECIFICATIONS

Amplifier Section

Power output (All channels)	175 W/Ch (6 Ω, 1 kHz, 10% THD, 1-ch driven) 165 W/Ch (6 Ω, 1 kHz, 1% THD, 1-ch driven, IEC)
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)
Input sensitivity and impedance	200 mV rms/47 kΩ (Line) 3.5 mV rms/47 kΩ (Phono MM)
Rated RCA output level and impedance	1 V rms/470 Ω (Subwoofer pre-out) 200 mV rms/2.3 kΩ (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, IHF-A) 80 dB (Phono, IHF-A)
Speaker impedance	4 Ω–16 Ω

Tuner Section

Tuning frequency range		
	FM	87.5 MHz–108 MHz 87.5 MHz–107.9 MHz (Taiwan Model)
	AM	522 kHz–1,611 kHz 530 kHz–1,710 kHz 530 kHz–1,710 kHz (Taiwan Model)

General

Power supply	AC 220–240 V~, 50/60 Hz
Power consumption	570 W
No-sound power consumption	65 W
Standby power consumption	0.15 W
Dimensions (W x H x D)	435 × 173.5 × 379.5 mm
Weight	10.0 kg

CARTON

Dimensions (W x H x D)	534 × 265 × 468 mm
Weight	12.5 kg

Supplied Accessories

• 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.

ONKYO®   http://www.onkyo.com/