

HT-R648 5.1-CHANNEL NETWORK A/V RECEIVER

BLACK



Microphone for Audyssey



HDMI

DOLBY TRUEHD

DTS-HD Master Audio

AUDYSSEY 2EQ DYNAMIC VOLUME

CINEMA FILTER

192 kHz/24-Bit

((TUNER))

NETWORK

DLNA CERTIFIED



USB RIHD

Theater-Dimensional

RI

Made for iPod iPhone

Affordable Network Receiver Brings Your Media to Life

Looking for a HD receiver that delivers the best return on your investment? Onkyo's network-ready HT-R648 smoothly handles all hi-def codecs, including Dolby® TrueHD, DTS-HD Master Audio™, and 3D video. Four HDMI® inputs—plus an Audio Return Channel for TV—provide ample connectivity for gaming consoles and Blu-ray players. Home network access enables playback of your PC-based audio library through the amp and speakers, with a wide variety of audio formats supported. Once connected, you can enjoy a big selection of internet radio stations and music streaming services in superb high-fidelity sound. Additional inputs include a front-panel USB for a clean digital link to iPod/iPhone and other flash memory devices. Set-up is stress-free, with Audyssey's 2EQ® microphone calibrating the surround sound performance to match your room's acoustics. An HDMI-supported On-Screen Display makes mid-program adjustment easy, and you can download a free Onkyo Remote App to turn your iPod touch or iPhone into an easy-to-use system controller. With its abundance of media-enhancing features, silky audio/video processing, and immersive surround sound, the HT-R648 is a smart choice for value-conscious home theatre fans.

ADVANCED FEATURES

- HDMI® Support for 3D, Audio Return Channel, DeepColor™, x.v.Color™, LipSync, Dolby® TrueHD, DTS-HD Master Audio™, DVD-Audio, Super Audio CD, Multichannel PCM, and CEC
- Dolby® TrueHD and DTS-HD Master Audio™ Decoding
- Direct Digital Connection of iPod/iPhone via Front-Panel USB Port
- Supports Onkyo Remote Apps for Control of A/V Receiver via iPod touch/iPhone®1 and Android Phone®2
- Playback of Audio Files Through Local Network (MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, LPCM)
- Internet Radio and Music Streaming Connectivity (vTuner, AUPEO!®3)
- Certified with Windows® 7 and DLNA Version 1.5
- Firmware Updates via Ethernet and USB
- Audyssey 2EQ® for Room Acoustic Correction
- Zone 2 Line-Out for Distributed Audio Playback in Another Room
- Overlaid On-Screen Display (OSD) via HDMI

*1 Compatible with iPod touch (3rd generation or later) and iPhone 3GS or later. All models require iOS 4.2 or later. *2 Requires Android OS 2.1 or later. *3 Required firmware update for AUPEO! to be announced.

AMPLIFIER FEATURES

- 130 W/Ch at 6 Ω, 1 kHz, 1%, 1 Channel Driven, FTC;
- 130 W/Ch at 6 Ω, 1 kHz, 1%, 1 Channel Driven, IEC;
- 160 W/Ch at 6 Ω, 1 kHz, 1 Channel Driven, JEITA

- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- Optimum Gain Volume Circuitry
- PLL (Phase Locked Loop) Jitter-Cleaning Circuit Technology for S/PDIF Audio

PROCESSING FEATURES

- TI Burr-Brown 192 kHz/24-Bit DACs for All Channels
- Advanced 32-Bit Processing DSP Chip
- 4 DSP Modes for Gaming: Rock, Sports, Action, and RPG
- Advanced Music Optimizer for Compressed Digital Music Files
- Mass Storage Class USB Memory Playback Capability
- Theater-Dimensional Virtual Surround Function
- CinemaFILTER™
- Direct Mode
- Pure Audio Mode
- Double Bass Function
- Non-Scaling Configuration
- A-Form Listening Mode Memory

CONNECTION FEATURES

- 4 HDMI Inputs and 1 Output
- Universal Port for Onkyo Peripheral Devices Such as UP-A1 Dock for iPod/iPhone
- HDTV-Capable (720p/1080i) Component Video Switching (2 Inputs and 1 Output)

- 5 Composite Video Inputs (1 Front/4 Rear) and 2 Outputs
- 4 Digital Audio Inputs (2 Optical and 2 Coaxial)
- 6 Analog Audio Inputs (1 Front/5 Rear) and 1 Output
- Subwoofer and Surround Back Pre-Outs
- Color-Coded, Banana Plug-Compatible Speaker Posts
- Headphone Jack

OTHER FEATURES

- Audyssey Dynamic EQ® for Loudness Correction
- Audyssey Dynamic Volume® to Maintain Optimal Listening Level and Dynamic Range
- Crossover Adjustment (40/50/60/70/80/90/100/120/150/200 Hz)
- A/V Sync Control (Up to 400 ms at 48 kHz)
- Tone Control (Bass/Treble) for Front L/R Channels
- 3-Mode Display Dimmer (Normal/Dim/Dimmer)
- 40 FM/AM Random Presets
- RIHD (Remote Interactive over HDMI) for System Control
- Full-Function RI (Remote Interactive) Remote Control



HT-R648 5.1-CHANNEL NETWORK A/V RECEIVER

HDMI® Support for 3D Video and Audio Return Channel

The four HDMI inputs on the HT-R648 let you simultaneously connect high-def sources such as a Blu-ray player, a gaming console, and a cable/satellite tuner. A single output then sends a pristine signal to your connected high-resolution display. The HDMI implementation on this receiver supports both 3D video and an Audio Return Channel, along with numerous high-resolution formats. 3D video brings exciting possibilities to home entertainment, with movie, game, and broadcast content on the increase and 3D-compatible TVs now on the market. Meanwhile, the Audio Return Channel allows audio content received directly by your HDTV's tuner to be sent "upstream" via HDMI to your A/V receiver, without the need for a separate S/PDIF audio cable.

Network Capability Delivers Internet Radio and Network Audio Streaming via Ethernet

Linking directly to the internet or to your home PC via a local network, the HT-R648 takes streaming audio and internet radio to a whole new level. MP3, WMA, WMA Lossless, FLAC, WAV, Ogg Vorbis, AAC, and LPCM audio files can now be played back through your main system with unprecedented power and fidelity. The HT-R648 also brings to life a huge array of internet radio channels through vTuner. As well as being compatible with earlier platforms, the receiver is compatible with Microsoft's Windows® 7 platform, which includes the DLNA 1.5-specified "Play To" media-streaming feature. The HT-R648's internet connectivity has the added benefit of making firmware updates simpler than ever.

Onkyo Remote Apps for iPod touch/iPhone and Android

The Onkyo Remote App for iPod touch/iPhone®¹ and the Onkyo Remote App for Android®² both provide an intuitive way to operate Onkyo network A/V receivers. At your fingertips, you have the ability to control input sources, adjust settings, and enjoy your content more seamlessly than ever. The two Remote Apps are available separately as free downloads.

*1 Compatible with iPod touch (3rd generation or later) and iPhone 3GS or later. All models require iOS 4.2 or later. *2 Requires Android OS 2.1 or later.

Direct Digital Connection of iPod/iPhone via Front-Panel USB Port

The HT-R648's front-panel USB port lets you access MP3, WMA, FLAC, and AAC audio files stored on a USB flash drive or iPod/iPhone. As the audio signals are transported in digital form, rather than analog, there is much less chance of signal degradation. End result: your music sounds cleaner and more faithful to the original. A further benefit of the USB input is that it lets you use the system's remote controller to play back audio files on the connected device.

Universal Port for Single-Cable Connection of Optional Onkyo Dock for iPod/iPhone

A proprietary Universal Port located on the rear side of the HT-R648 lets you connect an optional UP-A1 Dock for iPod/iPhone. A key advantage of the Universal Port is that it accepts video and audio signals through the same cable that sends a power supply from the receiver to the devices. Net result: more connectivity, less cable clutter.

Advanced Music Optimizer to Enhance Compressed Digital Music Files

While MP3 or AAC files may sound fine through the headphones of your portable digital player, the limitations of these files can be exposed when played back through a quality home entertainment system. This is because a significant amount of high-frequency bit information is lost during the file-compression process. To counter this, Onkyo has designed the Advanced Music Optimizer to compensate for lost bit information and improve the quality of compressed audio signals. This results in a clearer and more expansive sound. Also included in this technology is a loudness correction feature that further improves the audio character of compressed files.

Convenient Overlaid On-Screen Display via HDMI

Changing your A/V receiver's settings is now more seamless than ever, thanks to the HT-R648's overlaid On-Screen Display (OSD) feature. On-screen set-up menus appear overlaid on the video image you're watching. This means you can adjust the settings immediately, without having to switch back and forth from a blank screen background.

Playback of Different Audio Sources in Two Different Zones

Zone 2 line-outs on the HT-R648 allow you to enjoy surround-sound entertainment in the main room, while playing back a different stereo source in a second zone equipped with an amplifier and a pair of speakers.

A Suite of Audyssey Technologies for the Ideal Listening Environment

The HT-R648 comes equipped with three sound-enhancing Audyssey technologies.

(1) **Audyssey 2EQ®** tailors multi-channel audio for your home theater speaker set-up by measuring three room positions and applying a resolution filter to the satellite speakers to correct for room acoustics.

(2) **Audyssey Dynamic EQ®** maintains a consistent bass response, tonal balance, and surround-sound effect at different volume levels, so you can enjoy the natural dynamics of your content regardless of the volume.

(3) **Audyssey Dynamic Volume®** automatically compensates for volume fluctuations in different audio content—for example, during commercial breaks—while optimizing the dynamic range.

SPECIFICATIONS

Amplifier Section

Power Output	Front L/R	130 W/Ch (6 Ω, 1 kHz, 1%, 1 Channel Driven, FTC) 130 W/Ch (6 Ω, 1 kHz, 1%, 1 Channel Driven, IEC) 160 W/Ch (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
	Center	130 W (6 Ω, 1 kHz, 1%, 1 Channel Driven, FTC) 130 W (6 Ω, 1 kHz, 1%, 1 Channel Driven, IEC) 160 W (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
Surround L/R	Surround L/R	130 W/Ch (6 Ω, 1 kHz, 1%, 1 Channel Driven, FTC) 130 W/Ch (6 Ω, 1 kHz, 1%, 1 Channel Driven, IEC) 160 W/Ch (6 Ω, 1 kHz, 1 Channel Driven, JEITA)
	Dynamic Power	180 W (3 Ω Front) 160 W (4 Ω Front) 100 W (8 Ω Front)

THD+N (Total Harmonic Distortion + Noise)

0.08% (20 Hz–20 kHz, Half Power)

Damping Factor

60 (Front, 1 kHz, 8 Ω)

Input Sensitivity and Impedance

200 mV/47 kΩ (Line)

Rated RCA Output Level and Impedance

200 mV/2.2 kΩ (Rec Out)

Maximum RCA Output Level and Impedance

2.0 V/2.2 kΩ (Rec Out)

Frequency Response

20 Hz–50 kHz/+1 dB, -3 dB (DSP Bypass)

Tone Control

±10 dB, 50 Hz (Bass)
±10 dB, 20 kHz (Treble)

Signal-to-Noise Ratio

100 dB (Line, IHF-A)

Speaker Impedance

6 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)

Component Video Frequency Response

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

530 kHz–1,710 kHz

FM/AM Preset Memory

40 stations

General

Power Supply AC 230 V~, 50 Hz

Power Consumption 370 W

Dimensions (W x H x D) 435 x 173.5 x 328 mm

Weight 9.2 kg

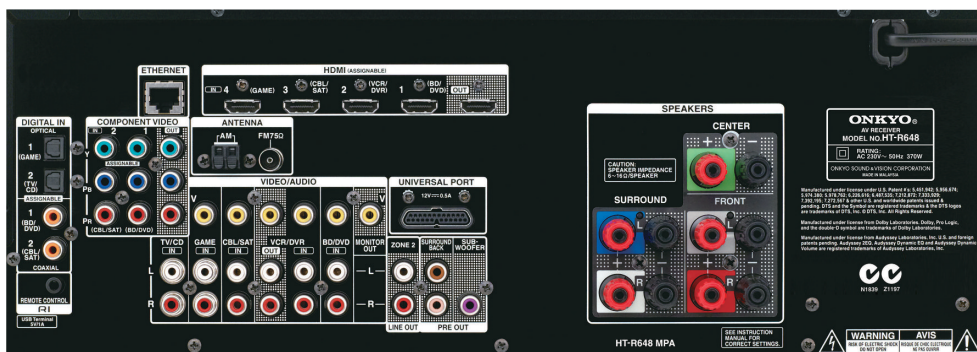
CARTON

Dimensions (W x H x D) 570 x 297 x 423 mm

Weight 11.5 kg

Supplied Accessories

- Indoor FM antenna • AM loop antenna • Speaker cable labels
- Speaker set-up microphone • Instruction manual
- Quick set-up guide • Remote controller • AA (R6) batteries x 2



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