

HT-R690 7.1-CHANNEL NETWORK A/V RECEIVER

BLACK



Feature-Packed HD Receiver an Instant Classic

The HT-R690 network A/V receiver offers a perfect balance of audio performance, content integration, and media-enhancement features at an affordable price. This model adds Qdeo™ video upscaling, which smoothly converts standard video to stunning 4K (3840 x 2160) resolution; home network connectivity for PC-based audio, internet radio, and music streaming; an easy-access USB for iPod/iPhone; and Powered Zone 2 outputs for distributed audio playback in another room. Four HDMI® inputs and high-quality processing chips easily handle at the latest high-definition formats, such as Dolby® True HD, 3D, and DTS-HD Master Audio™. An HDMI Audio Return Channel brings spectacular sound to your favorite TV shows. The HT-R690 also incorporates a suite of technologies from Audyssey. Acoustic correction customizes the surround sound balance for your room, while Dynamic EQ® and Dynamic Volume® adjust the audio mix automatically, so you aren't deafened by commercials or straining to hear dialogue in a movie. The HT-R690 has the muscle to deliver 7.1 channels of immersive surround sound in larger rooms thanks to Onkyo's acclaimed amplifier design. We think you'll be hard-pressed to find a better-equipped or better-sounding A/V receiver in this category.

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
- HDMI Video Upscaling to 4K with Qdeo™ Technology by Marvell
- 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
- Dolby® Pro Logic® IIz for Expanded Surround Channels
- 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
- Analog RGB Video Input (D-sub, 15 pin) for PC
- Powered Zone 2 and 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

- 110 W/Ch at 6 Ω, 1 kHz, 0.9%, 2 Channels 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

- Dolby® TrueHD and DTS-HD Master Audio™ Decoding
- 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
- Direct 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
- Compatible with UWF-I Wireless LAN Adapter (via USB)
- 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 and 1 Output
- Subwoofer Pre-Out
- Color-Coded, Banana Plug-Compatible Speaker Posts (Except Zone 2)
- Headphone Jack

OTHER FEATURES

- Audyssey 2EQ® for Room Acoustic Correction
- 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 800 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
- Firmware Updates via Ethernet and USB
- RIHD (Remote Interactive over HDMI) for System Control
- Full-Function RI (Remote Interactive) Remote Control



HT-R690 7.1-CHANNEL NETWORK A/V RECEIVER

HDMI® Support for 3D Video and Audio Return Channel

The four HDMI inputs on the HT-R690 let you simultaneously connect high-def sources such as a Blu-ray player, a game 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-R690 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-R690 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-R690'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® and the Onkyo Remote App for Android® 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-R690'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.

4K Video Upscaling and Processing via Qdeo™ Technology

The HT-R690 offers full 4K (3840 x 2160) upscaling of standard video sources such as 480i/p, 720p, and 1080i/p. Interlaced-to-progressive conversion and scaling are performed by high-quality Qdeo technology from Marvell. Qdeo is a versatile video processor that uses algorithms designed to erase video noise and artifacts such as jaggies and feathering. Played back on a compatible wide-screen display, your Blu-ray Discs and DVDs will look more detailed and cinematic than ever.

Dolby® Pro Logic® IIz Adds New Dimensions to Surround Sound

On the HT-R690, Dolby Pro Logic IIz enables you to incorporate two "front high" speakers into your surround-sound set-up as an alternative to the two surround back speakers. The front high channels carry ambient, non-directional audio that helps immerse you even more deeply into your movies and games.

Convenient Overlaid On-Screen Display via HDMI

Changing your A/V receiver's settings is now more seamless than ever; thanks to the HT-R690'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.

A Suite of Audyssey Technologies for the Ideal Listening Environment

The HT-R690 comes equipped with three sound-enhancing Audyssey technologies.

(1) **Audyssey 2EQ®** tailors multi-channel audio for your home theatre 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

A/V RECEIVER

Amplifier Section

Power Output	Front L/R	110 W/Ch (6 Ω, 1 kHz, 0.9%, 2 Channels 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	110 W (6 Ω, 1 kHz, 0.9%, 2 Channels 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	110 W/Ch (6 Ω, 1 kHz, 0.9%, 2 Channels 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)
	Surround Back L/R or Front High L/R	110 W/Ch (6 Ω, 1 kHz, 0.9%, 2 Channels 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)
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Damping Factor	60 (Front, 1 kHz, 8 Ω)
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Input Sensitivity and Impedance	200 mV/47 kΩ (Line)
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Rated RCA Output Level and Impedance	200 mV/2.2 kΩ (Rec Out)
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Maximum RCA Output Level and Impedance	2.0 V/2.2 kΩ (Rec Out)
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Frequency Response	20 Hz–50 kHz/±1 dB, -3 dB (DSP Bypass)
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Tone Control	±10 dB, 50 Hz (Bass)
	±10 dB, 20 kHz (Treble)

Signal-to-Noise Ratio	100 dB (Line, IHF-A)
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Speaker Impedance	6 Ω–16 Ω
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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/Cb, Pr/Cr)
		1.0 Vp–p/75 ohms (Composite)

Component Video Frequency Response	5 Hz–100 MHz/0 dB, -3 dB
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Tuner Section

Tuning Frequency Range	FM	87.5 MHz–107.9 MHz
	AM	522 kHz–1,611 kHz
		530 kHz–1,710 kHz

FM/AM Preset Memory	40 stations
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General

Power Supply	AC 230 V~, 50 Hz
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Power Consumption	460 W
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Dimensions (W x H x D)	435 x 173.5 x 328 mm
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Weight	9.0 kg
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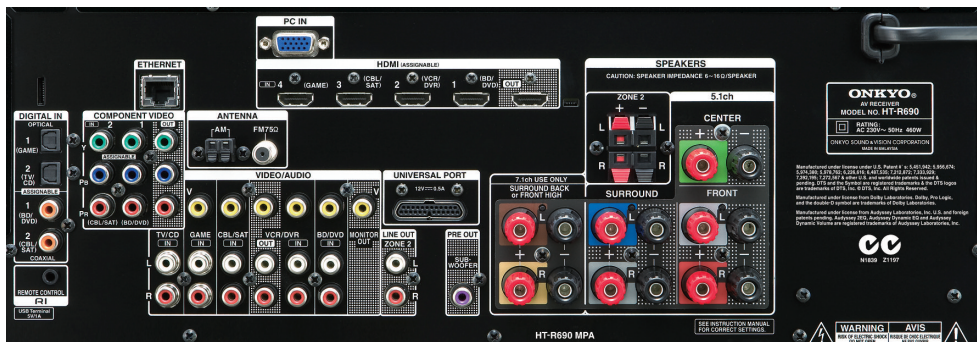
CARTON

Dimensions (W x H x D)	570 x 297 x 423 mm
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Weight	11.5 kg
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Supplied Accessories

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



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