

TX-DS494

DIGITAL SURROUND HOME THEATER RECEIVER

ONKYO
IMAGINATIVE SIGHT & SOUND



Shown: North American model (Black only) Europe: Black/Silver Asia: Black/Gold

Offers the Ideal Balance of Sophistication, Functionality and Value

For movie fans who want a cost-efficient yet respectable home theater that's exceptionally easy to use, the TX-DS494 is one of the very best surround receivers you can buy. It not only offers maximum digital home-theater flexibility, but also sound and build quality that has no peer in this class. What's more, in addition to S-video switching and heavy-duty speaker binding-post for *all* channels (extremely rare in this price range), the TX-DS494 features three assignable digital inputs, a 5.1-channel input to handle future needs, a frequency response out to 100 kHz to support DVD-Audio and Super-Audio CD playback, state-of-the-art 96 kHz/24-bit DACs for *all* channels, a powerful preprogrammed* remote, and Dolby Digital and DTS decoding.

Unmatched Ease of Use

Compared to any other receiver in this class, the TX-DS494 is the most straightforward, easy-to-use home-theater centerpiece available today. Take speaker setup, for example. Well thought-out display graphics and menu prompts make it so simple and intuitive, even first-time home-theater users are amazed how easy it is. Another plus: unlike many receivers, there are direct-access source-input buttons on both the front panel and remote—so you don't have to cycle through a menu maze just to play your DVDs, CDs, videotapes and other sources. The remote, which is refreshingly straightforward, groups buttons of different shapes, sizes, and colors to vividly differentiate between functions. It's also preprogrammed* to control other manufacturers' gear (TV cable, satellite, VCR, DVD)—so you don't have to go through the annoying process of searching for and entering a number. What's more, the receiver has automatic digital/analog signal detection and switching to take the guesswork out of what format to choose or input to use—so you can just hit a button, sit back and enjoy the show.

*North American models

Wide Range Amplifier Technology (WRAT)

While WRAT was originally developed for our high-end amplifiers to handle the sonic demands of such high-resolution formats as DVD-Audio and Super-Audio CD, it also provides an improved dynamic S/N ratio and better delivery of momentary power peaks from all software, including regular CDs and DVDs. How? By: 1) Using an innovative low negative-feedback design that virtually eliminates the influence of counter-electromagnetic force from the speakers; 2) Eliminating ground-potential fluctuations that could adversely affect the signal; and 3) Delivering high instantaneous current—enough solid clean power to effortlessly drive even "difficult" low-impedance loads—just what's needed to handle today's home-theater speaker systems. The result is movie-theater impact and sound purity that conventional receivers simply cannot match.

Dolby Pro Logic II

This new surround-sound decoding process delivers Dolby Digital-like, quasi-5.1-channel sound from stereo music recordings, and from stereo- and Dolby Surround-encoded movie soundtracks. It also provides significantly better channel separation than standard Dolby Pro Logic, and offers *stereo* surround channels, which is a big improvement over plain Pro Logic's single, mono surround channel.

Optimum Gain Volume Circuitry

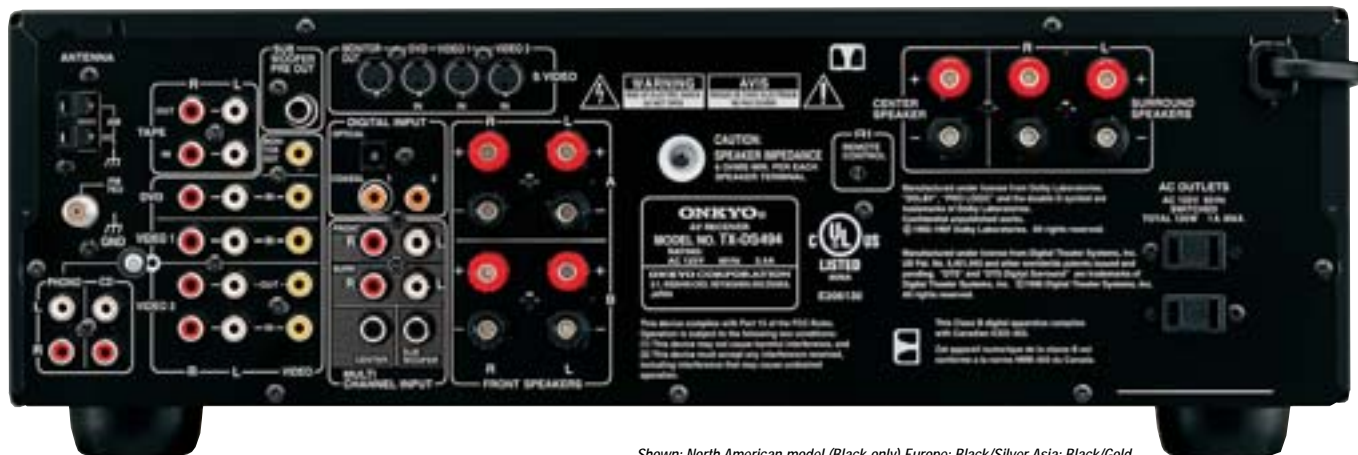
To produce volume at low levels, conventional volume-attenuation methods must initially drop a signal close to the noise floor. This often taints the signal with a small amount of noise, which becomes amplified when the signal is amplified. Onkyo's Optimum Gain Volume Circuitry solves this problem by adjusting the gain so that less than half the typical amount of attenuation is needed. This ensures that the signal never comes close to the noise floor, and thereby eliminates the possibility of noise contamination that plagues conventional volume-attenuation designs.

Designed to Handle Today's and Tomorrow's High-Resolution Multichannel A/V Sources

To accommodate the wide dynamic range of sources like DVD-Audio and Super Audio CD, the TX-DS494 delivers a stereo frequency response up to 100,000 Hz. The unit also features a 5.1-channel input, meaning it's ready for new multi-channel formats down the road.

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Amplifier Features

- 55 Watts minimum of continuous RMS power to each of the five channels into 8 Ω from 20 Hz to 20 kHz with no more than 0.08% THD (North American models, FTC rated)
- 75 Watts minimum of continuous RMS power to each of the five channels into 6 Ω at 1 kHz (European models, DIN)
- 100 Watts minimum to each of the five channels into 6 Ω at 1 kHz (Asian models, JEITA)
- Wide Range Amplifier Technology (WRAT)
- Extended Frequency Response (20 Hz to 100 kHz)
- Full bandwidth power to all 5 main channels
- High-current, low-impedance 6-Ohm drive for all five channels
- Oversized electrolytic capacitors
- State-of-the-art linear PCM 96 kHz/24-bit DACs for all channels
- Fully discrete output stages for all five channels
- Optimum Gain Volume Circuitry
- Massive isolated transformer
- 2 Large high-grade extruded-aluminum heat sinks
- A/B speaker drive
- Tone control (bass, treble) for front L/R speakers
- Auto-protection circuitry

Audio/Video Features

- Dolby® Digital, DTS®, Dolby Pro Logic II decoding
- All Channel stereo
- 7 DSP soundfields
- High Definition DSP
- Late night mode (on, off)
- "Easy-set" speaker configuration

- Extensive bass management circuitry
- 5.1-Channel input
- Automatic signal detection
- 3 Assignable digital inputs (2 coaxial, 1 optical)
- 3 S-video inputs and 1 output
- 3 A/V inputs
- 3 Audio inputs
- Phono input
- Dedicated line-level subwoofer pre out
- Full input/output cassette and VCR loops
- 7 Sets of heavy-duty multiway speaker binding posts (dual banana-plug compatible)

FM/AM Tuner Features

- Outstanding selectivity and sensitivity
- 30 FM/AM random presets
- FM auto tuning
- RDS (European models) with PS
- Red FM stereo indicator
- 75-Ohm antenna input
- FM indoor antenna supplied
- AM loop antenna supplied

Other Performance Features

- Precision digital speed-sensitive volume control
- Absolute volume display
- Separate PC (printed circuit) boards for audio and video sources
- Large bright fluorescent display
- 2-Mode display dimmer (normal, low)
- Individual input selectors for each source
- Headphone jack (standard size)
- Audio mute (remote)
- Sleep timer (remote)
- Battery-free memory backup
- 2 Switched AC convenience outlets

with a total 120 watts max (100 watts max for European/Asian models)

- Heavy-duty power cord
- Large non-resonant feet
- Heavy-gauge, anti-resonant, reinforced-steel chassis
- Vibration-resistant cover
- Brushed aluminum front panel
- Powerful preprogrammed* remote (*North American models only)



Shown: North American model (Illustration)

SPECIFICATIONS

AMPLIFIER SECTION

Power Output	
North American Models	
Front Main L/R	55 W/ch min. RMS, (8 Ω, 20 Hz-20 kHz, FTC, 0.08 % THD)
Center	55 W min. RMS, (8 Ω, 20 Hz-20 kHz, FTC, 0.08 % THD)
Surround L/R	55 W/ch min. RMS, (8 Ω, 20 Hz-20 kHz, FTC, 0.08 % THD)
Front Main L/R	70 W/ch min. RMS, (6 Ω, 1 kHz, FTC, 0.1 % THD)
Center	70 W min. RMS, (6 Ω, 1 kHz, FTC, 0.1 % THD)
Surround L/R	70 W/ch min. RMS, (6 Ω, 1 kHz, FTC, 0.1 % THD)
European Models	
Front Main L/R	75 W/ch min. RMS, (6 Ω, 1 kHz, DIN)
Center	75 W/ch min. RMS, (6 Ω, 1 kHz, DIN)
Surround L/R	75 W/ch min. RMS, (6 Ω, 1 kHz, DIN)
Asian Models	
Front Main L/R	100 W/ch (6 Ω, 1 kHz, JEITA)
Center	100 W (6 Ω, 1 kHz, JEITA)
Surround L/R	100 W/ch (6 Ω, 1 kHz, JEITA)
Dynamic Power (front) (Calculated on basis of IHF dynamic headroom)	
8 Ω, 1/4 Ω/8 Ω	140 W/ch / 110 W/ch / 75 W/ch
Total Harmonic Distortion	0.08 % at rated power/0.08% at 1 W output
Frequency Response	20 Hz-100 kHz, +1 dB, -3 dB
Signal-to-Noise Ratio	
Phono	80 dB (IHF-A, 5 mV input)
CD/TAPE	100 dB (IHF-A)
Phono Overload	110 mV RMS, (1 kHz, 0.5 % THD)
Damping Factor	60 at 8 Ω
Input Sensitivity and Impedance	
PHONO	2.5 mV, 50 kΩ
LINE (CD, TAPE, DVD, VIDEO-1, 2)	200 mV, 50 kΩ
DIGITAL-2 (COAXIAL)	0.5 Vp-p, 75 Ω
DVD, VIDEO-1, 2	1 Vp-p, 75 Ω
Output Level and Impedance	
Rec out (TAPE, VIDEO-2)	200 mV, 2.2 kΩ
Pre out (SUBWOOFER)	1 V, 2.2 kΩ
VIDEO (VIDEO-2, MONI)	1 Vp-p, 75 Ω
Tone Control	
BASS	± 10 dB at 50 Hz
TREBLE	± 10 dB at 20 kHz

TUNER SECTION

Usable Sensitivity	
FM Mono	11.2 dBf, 1.0 μV (75 Ω IHF), 0.9 μV (75 Ω DIN)
FM Stereo	17.2 dBf, 2.0 μV (75 Ω IHF), 23 μV (75 Ω DIN)
AM	30 μV
Signal-to-Noise Ratio	
FM Mono	76 dB, IHF
FM Stereo	70 dB, IHF
AM	40 dB
Harmonic Distortion	
FM Mono	0.2 %
FM Stereo	0.3 %
AM	0.7 %
FM Stereo Separation	45 dB at 1 kHz/30 dB at 100 Hz-10 kHz

GENERAL

Dimensions (W x H x D)	17-1/8" x 5-7/8" x 13-1/8" / 435 x 150 x 333 mm
Weight	21.4 lbs./9.7 kg (North American Models) 10.3 kg/22.7 lbs. (European Models) 11.1 kg/24.5 lbs. (Asian Models)

Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice. *Dolby®, "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. "DTS" is a trademark of Digital Theater Systems, Inc.



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