

# TX-DS595

DIGITAL SURROUND HOME THEATER RECEIVER

**ONKYO**  
IMAGINATIVE SIGHT & SOUND



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

## Purposely Designed to Rise Above Mass-Market Gear

For more than ten years, our engineers have been refining and improving this receiver. That's why it's enjoyed unparalleled success as one of the world's bestselling A/V components. Important features that distinguish the TX-DS595 from similarly priced receivers include its Wide Range Amplifier Technology, which means it can handle DVD-Audio or Super Audio CD, an innovative Smart Scan Navigator that makes setup amazingly simple, and A-Form, an intelligent listening mode memory that senses the digital format and switches to the user-configured soundfield. The TX-DS595 also provides Onkyo circuit refinements, like Optimum Gain Volume control and Non-Scaling circuitry, which are found on our most expensive receivers, to deliver an unsurpassed level of sonic excellence for this class.

### 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.

### Wide Range Amplifier Technology (WRAT)

Onkyo-exclusive WRAT offers three distinct advantages: 1) Low negative-feedback design; 2) Elimination of ground-potential fluctuations; and 3) High instantaneous current capability. The advantage for movie and music lovers is sound purity and impact that conventional receivers simply cannot match.

### 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.

### A-Form

This Onkyo-exclusive feature not only remembers the surround mode you entered during the configuration process for each input source, but also the settings you made for each signal type at that source—and automatically selects your settings when you choose that source. So if your DVD player doubles as your CD player, you can set the receiver's DVD input to always playback digital surround sources (DTS/Dolby Digital) directly in 5.1-channel surround sound and 2-channel CDs in, say, *All-Channel Stereo* mode, for example.

### User-Friendly Smart Scan Navigator (SSN)

New to the TX-DS595, the SSN significantly increases flexibility by allowing you to perform less frequently needed functions—programming of tuner presets, adjusting surround sound mode parameters, or matching channel levels—with a single, simple-to-use knob in conjunction with display prompts.

### 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-DS595 delivers a stereo frequency response from 10 Hz to 100,000 Hz. The unit also features a 5.1-channel input, meaning it's ready for new multichannel formats down the road.

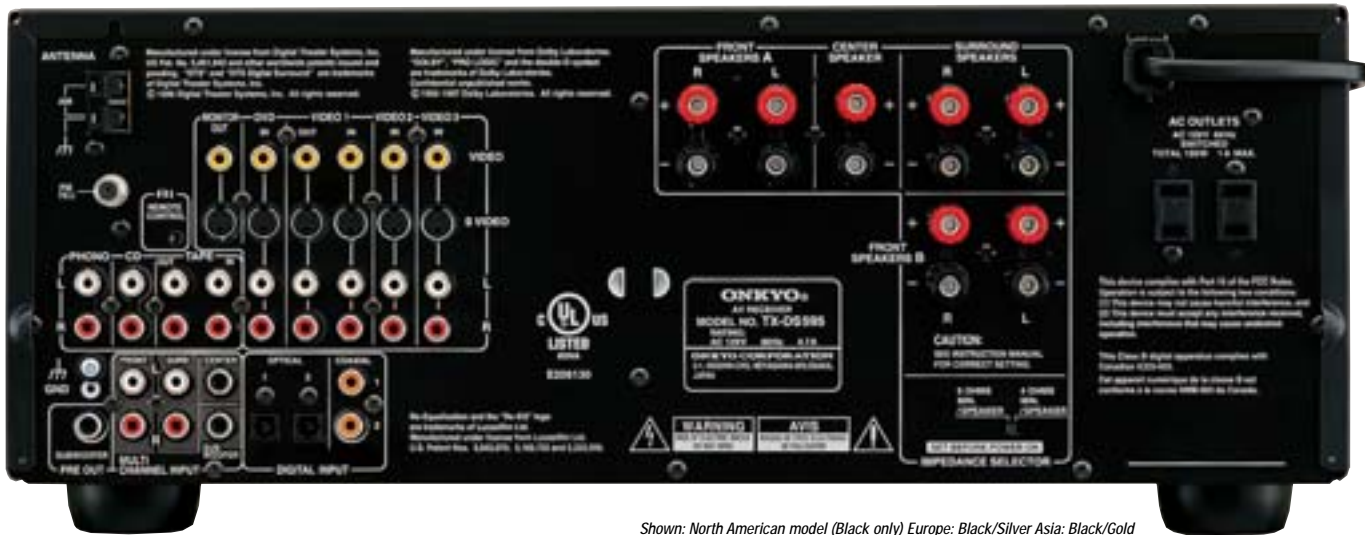
### Powerful Programmed/Learning Multibrand Remote with Macros

Unlike many other manufacturers' remotes, the TX-DS595's remote has direct-access buttons to individual inputs (DVD, VCR, TV, etc.), so you don't have to search through layers of menus just to play a source. Each input-mode button also has its own LED, which, when you press any button on the remote, will light to tell you which source is currently engaged. Another plus: the codes to control other manufacturers' gear are preprogrammed\*—so you don't have to go through the annoying process of searching for and entering a number. The remote can also "learn" the control codes of other remotes for single-remote operation of A/V equipment from other manufacturers. And its "macro" capability enables you to program a series of button operations (up to 16) into a single button.

\*North American models

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## Amplifier Features

- 75 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)
- 110 Watts minimum of continuous RMS power to each of the five channels into 6 Ω at 1 kHz (European models, DIN)
- 140 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 (10 Hz to 100 kHz)
- Full bandwidth power to all 5 main channels
- High-current, low-impedance 4-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
- High-grade extruded-aluminum heat sink
- Tone control (bass, treble) for front L/R speakers
- Low Frequency Effect (LFE) level control
- Separate standby and power switches
- 6/4-Ohm impedance selector
- Auto-protection circuitry

## Audio/Video Features

- Dolby® Digital, DTS®, Dolby Pro Logic II decoding
- A-Form Listening Mode Memory
- Non-Scaling Configuration
- Cinema Re-EQ™
- 9 DSP soundfields
- All Channel stereo
- High Definition DSP

- Late night mode (high, low, off)
- Extensive bass management circuitry
- Smart Scan Navigator with LEDs
- Automatic signal detection
- 5.1-Channel input
- 4 Assignable digital inputs (2 coaxial, 2 optical)
- 4 S-video inputs and 2 outputs
- 4 A/V inputs
- 3 Audio inputs
- Phono input
- Dedicated 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
- 40 FM/AM random presets
- FM auto tuning
- Selectable character-display input of up to 8 characters
- RDS (European models only) with PS, PTY, RT, TP
- Red FM stereo indicator
- 75-Ohm antenna input
- FM indoor antenna supplied
- AM loop antenna supplied

## Other Performance Features

- IntelliVolume
- Precision digital speed-sensitive volume control
- Absolute volume display
- Separate PC (printed circuit) boards for audio and video sources
- Individual input selectors for each source
- 3-Mode display dimmer (bright, normal, low)
- 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 programmed/learning remote with macros and mode-key LEDs



(Illustration)

## SPECIFICATIONS

### AMPLIFIER SECTION

<b>Power Output</b>	
North American Models	
Front Main L/R	75 W/ch min. RMS, (8 Ω, 20 Hz-20 kHz, FTC, 0.08 % THD)
Center	75 W min. RMS, (8 Ω, 20 Hz-20 kHz, FTC, 0.08 % THD)
Surround L/R	75 W/ch min. RMS, (8 Ω, 20 Hz-20 kHz, FTC, 0.08 % THD)
Front Main L/R	100 W/ch min. RMS, (6 Ω, 1 kHz, FTC, 0.1 % THD)
Center	100 W min. RMS, (6 Ω, 1 kHz, FTC, 0.1 % THD)
Surround L/R	100 W/ch min. RMS, (6 Ω, 1 kHz, FTC, 0.1 % THD)
European Models	
Front Main L/R	110 W/ch min. RMS, (6 Ω, 1 kHz, DIN)
Center	110 W/ch min. RMS, (6 Ω, 1 kHz, DIN)
Surround L/R	110 W/ch min. RMS, (6 Ω, 1 kHz, DIN)
Asian Models	
Front Main L/R	140 W/ch (6 Ω, 1 kHz, JEITA)
Center	140 W (6 Ω, 1 kHz, JEITA)
Surround L/R	140 W/ch (6 Ω, 1 kHz, JEITA)
<b>Dynamic Power (front)</b>	
(Calculated on basis of IHF dynamic headroom)	
3 Ω/4 Ω/8 Ω	210 Wch / 155 Wch / 90 Wch
<b>Total Harmonic Distortion</b>	0.08 % at rated power/0.08% at 1 W output
<b>Frequency Response</b>	10 Hz-100 kHz: +1 dB, -3 dB
<b>Signal-to-Noise Ratio</b>	
Phono	80 dB (IHF-A, 5 mV input)
CD/TAPE	100 dB (IHF-A, 0.5V input)
<b>Phono Overload</b>	180 mV RMS, (1 kHz, 0.5 % THD)
<b>Damping Factor</b>	
Input Sensitivity and Impedance	
PHONO	2.5 mV, 50 kΩ
LINE (CD, TAPE, DVD, VIDEO-1, 2, 3)	200 mV, 50 kΩ
MULTI CH INPUT	200 mV, 50 kΩ
FRONT L/R, CENTER, SURROUND L/R	36 mV, 50 kΩ
SUBWOOFER	0.5 Vp-p, 75 Ω
COAXIAL-1, 2	1 Vp-p, 75 Ω
DVD, VIDEO-1, 2, 3	1 Vp-p, 75 Ω (Y)
	0.28 Vp-p, 75 Ω (C)
<b>Output Level and Impedance</b>	
Rec out (TAPE, VIDEO-1)	200 mV, 2.2 kΩ
Pre out (SUBWOOFER)	1 V, 470 Ω
VIDEO (VIDEO-1, MONI)	1 Vp-p, 75 Ω
	1 Vp-p, 75 Ω (Y)
	0.28 Vp-p, 75 Ω (C)
<b>Tone Control</b>	
BASS	± 10 dB at 50 Hz
TREBLE	± 10 dB at 20 kHz

### TUNER SECTION

<b>Usable Sensitivity</b>	
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
<b>Signal-to-Noise Ratio</b>	
FM Mono/FM Stereo/AM	76 dB, IHF/70 dB, IHF/40 dB
<b>Harmonic Distortion</b>	
FM Mono/FM Stereo/AM	0.2 %/0.3 %/0.7 %
<b>FM Stereo Separation</b>	45 dB at 1 kHz/30 dB at 100 Hz-10 kHz

### GENERAL

<b>Dimensions (W x H x D)</b>	17-1/8" x 6-7/8" x 16-15/16" 435 x 175 x 431 mm
<b>Weight</b>	25.4 lbs./11.5 kg (North American Models) 12.5 kg/27.6 lbs. (European/Asian Models)

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