

A/V Surround Receiver

DENON**AVR-5800**

90th
ANNIVERSARY
DENON
SINCE 1910
20th Anniversary
DENON ELECTRONICS
A DIVISION OF DENON CORPORATION (JAPAN)

World's First 7.1 Channel A/V Surround Receiver with DTS-ES 6.1 Discrete, DTS-ES 6.1 Matrix, DTS Neo:6 and THX Surround EX



■ THX Ultra Certified 7-channel High Power Amp

Front.....	170 W + 170 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
	200 W + 200 W	(6 ohms, 20Hz - 20kHz, 0.05 % THD)
Center	170 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
	200 W	(6 ohms, 20Hz - 20kHz, 0.05 % THD)
Surround	170 W + 170 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
	200 W + 200 W	(6 ohms, 20Hz - 20kHz, 0.05 % THD)
Surround back...	170 W + 170 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
	200 W + 200 W	(6 ohms, 20Hz - 20kHz, 0.05 % THD)

The AVR-5800 features an equal power 7-channel amplifier section, with identical amplifier design on all 7 channels. The Front (L/R), Center, and Surround (L/R) channels are driven by 170 watts of power each, and the two Surround Back channels, used for 6.1-channel DTS-ES and THX Surround EX sources, are also each powered with 170 watts (all channels rated into 8 ohms, 20 Hz - 20 kHz).

High current, low impedance drive-capable discrete power transistors are used for each channel, and the high power output of 170 watts per channel (into 8 ohms) ensures that the speakers are driven with ample foundation to reproduce movie and music soundtracks with superb fidelity and widest dynamic range. The AVR-5800's power section is configured with a 1200VA high current toroidal transformer and large high capacity electrolytic capacitors optimized for audio use to deliver a constantly stable, clean supply of power.

The AVR-5800 proudly bears the THX Ultra logo, certifying that it satisfies the strict standards of Lucasfilm, Inc., governing performance, features, sound quality, power, stability into low impedance speaker loads (3.2 ohms and higher) and ease of operation.

In addition, THX 5.1 and 4.0 post-processing enhancements enrich the motion picture soundtrack reproduction, providing timbre matching, re-equalization, precision time delay adjustments, dynamic decorrelation and superior bass management.

■ Chassis construction focused on high-quality pure audio

By positioning the power transformer at the center of the unit, the AVR-5800 is equipped with a chassis construction in which unwanted vibrations are suppressed and excess vented heat is minimized. The digital circuits have been placed in the lower center of the unit and are completely shielded in their own enclosure, and the power amp circuits are located on the left and right sides. In addition, the analog circuitry has been isolated from the video circuitry to completely eliminate any mutual interference. The total chassis design preserves the purity of the audio signal from input to output to give your home theater a clean yet powerful sound, alive with all the details of the original recording.

■ DDSC-Digital, for High-quality Sound Reproduction

DDSC-Digital is a circuit configuration specially designed by DENON in which all the elements of the surround processor are optimized by the use of selected high performance discrete elements, including separate A/D and D/A conversion, with sophisticated dual DSP surround decoding.

1. 24 bit, 96 kHz A/D Converters

The AVR-5800 uses highly accurate 24 bit, 96 kHz A/D converters to handle analog to digital conversion. Since the converted digital signals are at extremely high resolution, the resulting sound quality is far more faithful to the original source than with conventional designs.

2. Digital Interface Receiver Supporting 24 bit, 192 kHz Signals

The AVR-5800 includes a Digital Interface Receiver (DIR) that distinguishes various types of digital input signals, including 24/192 and 24/96 stereo PCM signals, performs the appropriate signal processing, and transmits the information to the DSP block.

3. Analog Devices SHARC Dual 32-bit Floating Point DSPs

Featuring the latest Analog Devices 32 bit floating point SHARC DSP devices, the AVR-5800 provides superb resolution and widest dynamic range of Dolby Digital, DTS and PCM audio signals.

4. 24 bit, 192 kHz All-channels Differential-mode D/A Conversion

For optimum fidelity and transparency, the AVR-5800 features the latest Analog Devices high resolution AD-1853 24 bit, 192 kHz DACs, in 16-DAC differential configuration (2 DAC channels per each audio channel).

■ DENON's latest surround technology faithfully recreates the surround sound produced at the dubbing stage.

1. DTS (Digital Theater System)

1-1) Featuring the World's First DTS-ES Extended Surround 6.1 Discrete & DTS-ES 6.1 Matrix Decoding

The AVR-5800 is the world's first AV component that is equipped with the DTS-ES (true discrete) 6.1 decoder, developed by DTS to provide dramatically improved surround sound panoramic reproduction and superior surround sound localization.

Like DTS 5.1-channel sound, the sound from the Surround Back channel of DTS-ES is also provided in a discrete configuration. The addition of a Surround Back channel to the 5.1-channel sound enables more faithful reproduction of the sound originally designed by film and music producers. When a 6.1-channel DTS ES discrete recording is played, the AVR-5800 automatically detects the signal and plays the source in 6.1 discrete mode.

1-2) Supports DTS-ES Extended Surround Matrix 6.1

ES Matrix processing, developed by DTS, produces the effect of 6.1-channel sound by extracting a Surround Back signal from the Surround Left and Surround Right channels, compatible with the growing number of movies released on DVD with DTS ES encoding. Unlike other decoders which use generic "logic" decoding to extract the sixth surround back channel, the AVR-5800 is the world's first A/V component that features DTS 5.1 decoding combined with the DTS-developed matrix algorithm for optimum DTS ES 6.1 matrix decoding.

1-3) DTS Neo:6 Stereo-To-Surround Decoding

Featuring the newest DTS matrix technology, the DTS NEO-6 function provides up to 6.1 channel surround sound from conventional stereo sources, and can be used with virtually any 2 channel source, such as CD, tape, FM, TV, or any other stereo source, analog or digital.

2. THX Surround EX Decoding

3. Dolby Digital Decoding

■ Pure Direct Mode, to Deliver Pure Audio Quality

In addition to surround sound playback, the AVR-5800 lets you enjoy pure 2-channel stereo sound as well through its Pure Direct mode. In Pure Direct mode, power to the video circuitry and the front panel display is turned off, and during analog input, power to the digital circuitry is also automatically turned off. Furthermore, during 2-channel linear PCM input, the D/A converter section is re-configured to 8 DAC dual-differential operation (4 DAC channels for each audio channel) to provide optimum D/A conversion of 2-channel PCM sound sources, such as CD with the highest transparency and widest dynamic range.

■ AL 24 Processing

The AVR-5800 includes DENON's renowned 24 bit ALPHA processing technology that reproduces digital signals in a waveform with the smoothness of analog signals. This technology thoroughly suppresses annoying quantization distortion and faithfully reproduces the delicate musical details of low-level signals. AL 24 processing works in 2-channel Stereo, Direct, Pure Direct modes.

■ Digital-to-Analog Recording

The AVR-5800 lets you make analog recordings of digital signal sources.

■ RS-232C Port

The AVR-5800 includes an RS-232C port for connection to external whole-house control systems, from companies such as Crestron, Panja and others, and provides a software/firmware upgrade pathway.

■ Supports IEEE 1394 Upgrade, via upgradeable DSP board and upgradeable digital jack panel.

■ Support for Multi Zone Configurations

The AVR-5800 provides a Multi Zone Output function and a Select function that let you output different sources to multiple zones. Sources can be selected for output to up to 2 additional zones, in addition to the main room. Multi-room Zone 1 can have variable pre-amp output along with composite video feed, and Multi-room Zone 2 can have fixed stereo audio pre-output.

The AVR-5800's Power Amplifier Assign function lets you assign the 2 Surround Back (SB L/R) amplifier channels to instead drive the Multi-room Zone 2 powered speaker outputs, with 170 Watts per channel power output capability, while still providing 5 full amplifier channels to drive the main and surround speakers in the home theater room.

■ Includes the Aktis RC-8000 remote control unit with large LCD touch panel and the RC-8001st Charger/RF Base Station.



*Design and specifications are subject to change without notice.

*THX is a registered trademark of Lucasfilm Ltd.

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Inc., and is a trademark of Dolby. Used under authorization.

**Dolby®, Dolby Digital®, "Pro Logic", and the double-D device are registered trademarks of Dolby Laboratories Licensing Corporation.

■ Input/Output Terminals For Every A/V System

Audio Inputs

13 Sets Analog Input	PHONO, CD, TUNER, DVD, VDP, TV, DBS/SAT, V-AUX, VCR-1, VCR-2, VCR-3, CDR/TAPE-1, MD/TAPE-2
2 Sets 8-ch Analog EXT. Input	FRONT L/R x 2, CENTER x 2, SURROUND L/R x 2, SURROUND BACK L/R x 2, SUBWOOFER x 2
6 Sets Digital (Optical) Input	OPTICAL X 6
3 Sets Digital (Coaxial) Input	COAXIAL X 3
1 Sets Dolby Digital RF	RF

Audio Outputs

8-ch Analog PRE Output	FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER
5 Sets Analog REC Output	VCR-1, VCR-2, VCR-3, CDR/TAPE-1, MD/TAPE-2
2 Sets Analog Multi Zone Output	L/R x 2
2 Sets Digital (Optical) Output	OPTICAL x 2

Video Inputs

3 Sets Component Video Input	DVD, TV, DBS/SAT
8 Sets Composite Input	DVD, VDP, TV, DBS/SAT, V-AUX, VCR-1, VCR-2, VCR-3
8 Sets S-Video Input	DVD, VDP, TV, DBS/SAT, V-AUX, VCR-1, VCR-2, VCR-3

Video Outputs

1 Set Component Video Output	MONITOR
5 Sets Composite Output	VCR-1, VCR-2, VCR-3, MONITOR-1, MONITOR-2
5 Sets S-Video Output	VCR-1, VCR-2, VCR-3, MONITOR-1, MONITOR-2

Specifications

■ Power Amplifier Section

Rated output *THD figures are power amp stage values.

Front	170 W + 170 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
	200 W + 200 W	(6 ohms, 20Hz - 20kHz, 0.05 % THD)
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■ Preamplifier Section

Input sensitivity/impedance

PHONO(MM)	2.5 mV/47 kohms
CD, DVD, VDP, TV, DBS/SAT, V-AUX, VCR-1, VCR-2, VCR-3, CDR/TAPE-1, MD/TAPE-2, FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK	200 mV/47 kohms
SUBWOOFER	200 mV/15 kohms
Output level/Load impedance	
FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER	1.2 V/10 kohms
V-AUX, VCR-1, VCR-2, VCR-3, CDR/TAPE-1, MD/TAPE-2, MONITOR	200 mV/47 kohms
Frequency response	10 Hz - 100 kHz; +0, -3 dB (DIRECT MODE)
RIAA deviation	±1 dB (20 Hz - 20 kHz)
Tone control	Treble: ±10 dB at 10 kHz, Bass: ±10 dB at 100 Hz

■ FM Section

Tuning frequency range	87.5 - 107.9 MHz
Usable sensitivity	1.0 µV (11.2 dBf)

■ AM Section

Tuning frequency range	520 - 1710 kHz
Usable sensitivity	18 µV

■ General

Power supply	AC 120 V, 60 Hz
Power consumption	11.0 A
Dimensions	434 (W) x 216 (H) x 478 (D) mm
	17.1" (W) x 8.5" (H) x 18.8" (D)
Weight	28.0 kg, 61.7 lbs



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