

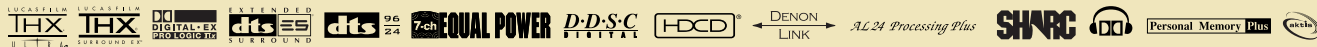
DENON

A/V Surround Receiver

## AVR-5803

## THX Ultra2 Certified A/V Surround Receiver with New Dolby Pro Logic IIx and HDCD Decoder

The AVR-5803 surround receiver inherits the critically acclaimed amplifier design characteristics of the AVR-5800 while adding Denon's much improved DDSC-Digital sound processor for greater diversity in multi-channel reproduction of digital and analog signals. The AVR-5803's objective is to bring out the maximum performance potential of all types of sound sources. This model also provides a video conversion function for greater monitor connection flexibility, the added convenience of variable subwoofer cross-over switching, that will ensure a listening environment that is as close to ideal as possible. With its support of THX Ultra2, Dolby Pro Logic IIx, HDCD decoder and a wealth of other features, the AVR-5803 has become Denon's latest "Surround Reference" A/V receiver for serious home theater enthusiasts.



#### ■ THX Ultra2 Certified 7-channel High Power Amplifier

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

The AVR-5803 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 DOLBY DIGITAL 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 the widest dynamic range. The AVR-5803 proudly bears the THX Ultra2 logo, certifying that it satisfies the newest certification standards of Lucasfilm Ltd., governing performance, features, sound quality, power, stability into low-impedance speaker loads, and ease of operation.

#### ■ Accurate Signal Transmission from the Pre-amplifier Section

Parts suitable for high attenuation have been strictly selected for use in the volume circuit that controls the signal levels of all eight channels. Since a differential D/A configuration has also been adopted for each channel, the widest possible dynamic range is secured with mutual interference effectively suppressed across the entire frequency range. The pre-amp's gain is varied to match the output level, improving S/N in the range where the volume is often used. Highly accurate volume adjustment in variable steps of 0.5 dB in the range of -80 to +15 dB is possible as well.

#### ■ High-quality Pure Audio Chassis Construction

By positioning the power transformer at the center of the unit, the AVR-5803 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.

#### ■ Wide-Range Play Capability for DVD-Audio or SACD

#### ■ New DDSC-Digital Processor, for High-quality Sound Reproduction

##### 1. 24-bit, 192-kHz Analog-to-Digital Conversion

The AVR-5803 is capable of 24-bit, 96-kHz or 192-kHz A/D conversion, improving S/N and dynamic range by approximately 10 dB. A/D conversion and DSP processing (\*) of external input signals (max. 8 channels) is also possible. The AVR-5803 is thus able to perform bass management and delay processing on DVD-Audio signals. THX post processing is also possible with this DSP.

(\*) It is possible to select whether signals are to be processed by the DSP or output as an analog signal.

##### 2. 24-bit, 192-kHz Digital Interface Receiver

The AVR-5803 employs a total of four 24-bit, 192-kHz digital interface receivers, one for every two channels, enabling multi-channel digital input through DENON Link or external digital input to perform at optimum potential.

##### 3. New SHARC Dual 32-bit Floating Point DSPs

The AVR-5803 uses a dual configuration of new HammerHead SHARC 21161 32-bit floating point DSPs from Analog Devices.

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

For optimum fidelity and transparency, the AVR-5803 features 16 of the latest Burr-Brown PCM-1738E high resolution 24-bit, 192 kHz DACs, in an eight channel, differential configuration (2 DAC channels per each audio channel). These DACs feature DSD compatibility.

#### ■ DENON's Latest Surround Technology Faithfully Recreates the Surround Sound Produced at the Dubbing Stage.

DTS-ES Discrete 6.1 / DTS-ES Matrix 6.1 / DTS NEO:6 / DTS 96/24  
 Dolby Digital / Dolby Digital EX / Dolby Pro Logic II  
 THX Surround EX / THX Cinema / THX Ultra2 Cinema / THX Music Mode

#### ■ DTS-ES Discrete 6.1 + THX Post Processing

By adding THX Post Processing to the localized sound and spatial expression of DTS-ES Discrete 6.1, your listening room is almost completely transformed into a full-featured cinema.

#### ■ DTS NEO:6

DTS NEO:6 lets you enjoy 2-channel analog, PCM, and Dolby Digital 2-channel sources in full 6.1-channel surround sound.

■ **DTS 96/24 5.1 Decoding for DVD-Video**

High-quality 96-kHz, 24-bit (96/24) sound playback from ordinary DVD-Video recordings is limited to only two channels and there are also limitations on the picture. DVD-Video recorded in DTS 96/24, however, allows high-quality 5.1-channel sound playback in full-quality, full-motion video.

■ **Dolby Pro Logic IIx**

Dolby Pro Logic IIx furthers the matrix decoding technology of Dolby Pro Logic II to decode audio signals recorded on two channels into up to 7.1 playback channels, including the surround back channel. Dolby Pro Logic IIx also allows 5.1-channel sources to be played in up to 7.1 channels. The mode can be selected according to the source. The Music mode is the best suited for playing music, the Cinema mode for playing movies, and the Game mode for playing games. The Game mode can only be used with 2-channel audio sources.

■ **Dolby Headphone**

Since sound from a headphone enters the ears directly, it can cause fatigue during extended listening sessions. Dolby Headphone replicates the effects of sound from speakers in a room by localizing the sound source at the front or the side as though the listener were enjoying 3D sound at a movie theater. Dolby Headphone is effective not only with Dolby Digital or Dolby Pro Logic but with CD and other 2-channel sources as well. The AVR-5803 also lets you record signals encoded with Dolby Headphone to other recorders so that you can enjoy the effects of Dolby Headphone with a portable MD player or other device. (This is possible with both analog and digital recordings.)

■ **5 Channel & 7 Channel Stereo Modes**

■ **Dual Surround Mode Speaker Selection**

■ **Adjustable Cross-Over Switching**

The AVR-5803 supports subwoofer cross-over switching with a choice of 5 cross-over frequencies: 40, 60, 80, 100, and 120. This lets you more accurately match the performance characteristics of the subwoofer to the main speaker system.

■ **DENON Digital Link**

High-grade LPCM 24-bit, 96-kHz, 6-channel or 24-bit, 192-kHz, 2-channel (3) digital input is possible when the AVR-5803 is connected via a shielded twisted pair (STP) cable to a DVD player that supports Denon Digital Link. Since Denon Digital Link uses low-voltage differential signaling (LVDS), transfer capabilities of greater than 1.2 Gbps at a differential voltage of approximately 0.3 Vpp are possible.

■ **HDCD® Decoder for HDCD® Disc Playback**

■ **External Digital Input**

For future system expansion, the AVR-5803 provides an external digital input port that supports multi-channel (6-/8-channel PCM) input from an external unit. Multi-channel digital signal input is possible using a maximum of 4 sets of coaxial digital inputs.

■ **Pure Direct Mode, to Deliver Pure Audio Quality**

■ **AL 24 Processing Plus**

■ **High-quality Component Video In/Out Terminals (100 MHz Bandwidth)**

■ **Video Conversion**

The AVR-5803 is equipped with a video switching system that converts composite video signals to S-Video and/or composite and S-video to component video. The input signal types---whether composite, S-Video, or component---are auto detected, then the signal with the highest picture quality is given highest priority and output to the monitor. (Manual operation can be used to override auto detection.)

■ **Support for Multi Zone Configurations**

The AVR-5803 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-5803's Power Amplifier Assign function lets you assign the 2 Surround Back (SB L/R) amplifier channels when the system is not configured for 7.1, to instead drive the Multi-room Zone 2 speakers, with 170 Watts per channel output power, while still providing 5 discrete amplifier channels to drive all speakers in a 5.1 configured home theater room.

■ **2 Sets of 8-Channel External Inputs**

■ **Personal Memory Plus**

■ **RS-232C Port**

Includes a RS-232C port to support an AMX, Crestron integrated control system.

\* Design and specifications are subject to change without notice.

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 \* DTS is registered trademarks of DTS Technology.  
 \* HDCD®, High Definition Compatible Digital® and Microsoft® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

■ **+12V and +5V Trigger Outputs**

■ **Icon-based On Screen Display**

■ **Frequency Synthesis Tuning**

- 40-Station AM/FM Random Preset Memory Tuning
- Auto Preset Memory

■ **Includes the Aktis RC-8000 Remote Control Unit with Large LCD Touch Panel and the RC-8001st Charger/RF Base Station.**

■ **Input/Output Terminals For Every A/V System**

**Audio Inputs**

- 13 Sets Analog Input ..... PHONO(MM), 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
- 5 Sets Digital (Coaxial) Input ..... COAXIAL X 5
- 1 Set Dolby Digital RF ..... RF
- 1 Set DENON Digital Link ..... DENON Link

**Audio Outputs**

- 1 Set 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 (LINE OUT) x 1, L/R (PREOUT) x 1
- 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
- 6 Sets Composite Output ..... VCR-1, VCR-2, VCR-3, MONITOR-1, MONITOR-2, MULTI ZONE
- 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)
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)

■ **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 L/R.....	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 dB)

■ **AM Section**

Tuning frequency range.....	520 - 1710 kHz
Usable sensitivity.....	18 µV

■ **General**

Power supply.....	AC 120 V, 60 Hz
Dimensions.....	434 (W) x 216 (H) x 486 (D) mm 17.1" (W) x 8.5"(H) x 19.1"(D)
Weight.....	29.0 kg, 63 lbs 15 oz



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