

DENON

A/V Surround Amplifier

AVC-A1SE

TENTATIVE



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



Personal Memory Plus

■ THX Ultra Certified 7-channel High Power Amp

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

The AVC-A1SE 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 AVC-A1SE'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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE 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 Stereo-To-Surround Decoding

This mode utilizes the DTS matrix encoder to reproduce 2-channel analog and PCM recordings through 5.1 or 6.1 channels. (Provided in 2 modes: Music/Cinema)

2. THX Surround EX Decoding

3. Dolby Digital Decoding

■ Pure Direct Mode, to Deliver Pure Audio Quality

In addition to surround sound playback, the AVC-A1SE 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 AVC-A1SE 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 AVC-A1SE lets you make analog recordings of digital signal sources.

■ RS-232C Port

The AVC-A1SE 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 AVC-A1SE 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.

■ Includes the RC-871 remote control unit with large LCD touch panel

The RC-871 is a remote control unit that lets you use IR (infrared) signals to control your A/V receiver and related gear such as your TV and DVD player, as well as other control components such as a powered video screen and lighting controls in your home theater.

The RC-871 unit is equipped with a large 320 x 240 dot LCD touch display with a backlight for easy operation in the dark.

The commands of up to 23 components can be programmed into the RC-871, and its buttons can be rearranged, added, deleted, and their names changed, giving you terrific flexibility in customizing the unit for your home theater or listening room. Of course, the RC-871 also provides convenient Preset Memory, Learning, and System Call functions.

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

■ General

Power supply	AC 230 V, 50 Hz
Power consumption	— W
Dimensions	434 (W) x 216 (H) x 486 (D) mm
Weight	28.0 kg

RC-871

Distance	Approximately 7 meters (22 feet)
Battery services life	Approx. 3 months (alkaline batteries, under standard usage conditions)
Dimensions	96 (W) x 38 (H) x 168.5 (D) mm
Weight	242 g (not including batteries)

TENTATIVE



*Design and specifications are subject to change without notice.

*THX is a registered trademark of Lucasfilm Ltd.

*© Lucasfilm Ltd. & TM. All Rights Reserved. Surround EX is a jointly developed technology of THX and Dolby Labs, 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.

*DTS is registered trademarks of DTS Technology.