

# A/V Surround Receiver AVR-4306

# DENON

## 7.1-channel A/V Surround Receiver with varied media connectivity



### Audio Section

#### ■ Full discrete 7-channel high power amplifier

Front	130 W + 130 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
Center	130 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
Surround	130 W + 130 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)
Surround back	130 W + 130 W	(8 ohms, 20Hz - 20kHz, 0.05 % THD)

#### ■ 'New DDSC-Digital,' for dramatically improved processing performance

The New DDSC (Dynamic Discrete Surround Circuit)-Digital is a high-quality surround sound reproduction circuit designed by Denon, and forms the core of the design concept that Denon pursues for all its A/V amps: to faithfully reproduce the original intent of content producers. Denon has succeeded in developing a fully discrete design for the New DDSC-Digital in which high-performance ICs are used in independent blocks to form a signal processor that reproduces surround sound, and the discrete design ensures that all channels are endowed with identical response and quality of sound.

#### ■ New powerful 32-bit floating point DSP for the decoder

- 24-bit/192-kHz D/A Converter
- High-performance A/D converter of 24-bit/192-kHz quality has been used to significantly boost S/N and dynamic range.

#### ■ 'AL24 Processing Plus,' for high sound quality

#### ■ Digital interface receiver supporting 24-bit/192-kHz signals

#### ■ High-quality surround reproduction of analog sources via high-performance 24-bit/192-kHz D/A converters for all channels

#### ■ DENON Link (3rd), for high-speed, high-grade digital signal transmission

#### ■ Newly-developed large-current power transistors in 7-channel power amps of uniform quality for all 7 channels

#### ■ Large-output power amp section and power supply configuration, for stable high-power output

#### ■ Stable power supply for high-quality sound and picture playback

#### ■ Pre-amp with Variable Gain Volume

#### ■ Chassis construction to suppress internal/external vibration

#### ■ Pure Direct mode, for the pure enjoyment of music in high-quality sound

#### ■ Supports the most advanced surround playback formats

- Dolby Digital EX • Dolby Digital • Dolby Pro Logic IIx
- DTS-ES • DTS 96/24 • DTS Neo:6 • DTS • HDCD

#### ■ Configurable surround back amplifiers

- **Multi-zone system:** a 5.1-channel theater in the main room and a stereo environment in a second and third rooms.
- **"Bi-amp" system:** Front (L/R) channels are bi-wired in a 5.1-channel theater to improve playback quality in the front for enhanced listening enjoyment.

### Video Section

#### ■ HDMI digital video interface supporting high-quality video of 1080p (\*1)

The AVR-4306 has HDMI digital video interface terminals (3 inputs and 1 output) that can be switched for high-resolution 1080p video signal transmission. These HDMI terminals also support digital input of multi-channel audio signals.

\*1) Version 1.1 compliant. Since HDCP is also supported, video cannot be viewed on a non-HDCP display connected to the AVR-4306; please connect a HDCP-compliant display when viewing video material.

#### ■ Video Up/Down conversion capable of output to HDMI port

The AVR-4306 includes a video up/down conversion function that allows the unit to be connected to the video monitor via a single cable regardless of the video input signal's format as follows:

- 1) Composite video signals are converted to HDMI (\*2), component video, & S-video;
- 2) S-video signals are converted to HDMI (\*2), component video, & composite video;
- 3) Component video signals are converted to HDMI (\*2), composite video (\*3), & S-video (\*3).

\*2. Output signal up-converted to HDMI retains the resolution of the input signal.

\*3. Down-conversion from component video to composite or S-video applies only to 480i input signals.

#### ■ Simultaneous output of component video and HDMI

#### ■ High-speed, high-accuracy 12-bit/216-MHz Video DAC

#### ■ I/P conversion and scaling

#### ■ Composite and S-video signal processing

The AVR-4306 uses a time base corrector (TBC) in converting composite video & S-video signals to component video to suppress jitter in the video signal during playback.

### Connectivity/Expandability

#### ■ Denon's new home network function

The AVR-4306 is equipped with an Ethernet port that lets you build various types of network environments. You can use these network environments to take advantage of 3 new home audio network functions:

#### (1) Audio Media Client from Music Server

The AVR-4306's Audio Media Client function lets you stream audio over the network from the Music Server. This network connection uses 2 standard technologies: The Designed to DLNA (DLNA: Digital Living Network Alliance) Guidelines, and Windows® Media Connect. Supported audio formats are MP3, WAV (LPCM), and WMA.

#### (2) Internet Radio

Internet Radio is a system that lets you hear radio broadcasts from stations on the Internet. A wide variety of stations, both large and small and some which are operated by individuals, can be found on the Internet. Until now, radio stations could only be heard if you were within listening range of their radio waves, but with Internet Radio, you can listen to broadcasts from all over the world. The list of stations that the AVR-4306 uses comes from the vTuner radio station database that has been customized for Denon.

#### (3) A/V Receiver Network Setup (Web control)

This function lets you set up and control the A/V receiver over a network using Internet Explorer on a PC. The AVR-4306's Ethernet port also supports serial controls that use Crestron and others.

#### ■ Variable subwoofer crossover switching

(40/60/80/90/100/110/120/150/200/250 Hz)

# AVR-4306

## ■ Connect and control an iPod® or USB memory player

### • iPod connection terminals

The AVR-4306 provides 2 terminals for connecting an iPod: one is located behind the trap door on the front panel and the other is on the back panel. (Only one can be used at a time.) With the separately-sold connection cable AK-P100, you can connect and play an iPod that has Apple Computer's Dock connector (\*4).

\*4) Supports 3rd-generation and later iPods equipped with a Dock connector. Depending on the generation of iPod and the version of software, some functions may not work.

### • USB terminal

A USB terminal that lets you connect a USB-compatible portable music player (\*5) is provided behind the trap door on the front panel. You can connect the player to this terminal and play the MP3 or WMA (Windows Media) files directly through your AVR-4306 system.

\*5) The operation of all USB-compliant portable music players with the AVR-4306 is not guaranteed.

## ■ New Auto Set-up and Room EQ, featuring MultEQ from Audyssey, for overall listening area support using supplied microphone

### ■ Auto Surround Back Channels ON function, for auto-detection of supporting sources

### ■ Auto Surround mode

### ■ Audio Delay function (max. 6 frames or 200 msec)

### ■ 3 User Mode Buttons

### ■ Night Mode for not disturbing others

## ■ EL remote controller for easy operation

## ■ XM Satellite Radio Ready with optional 'Connect and Play' antenna\*

\*Subscription to XM services also required.

## ■ 8ch Analog EXT IN terminal

## ■ 3 Source and Zone Capability

## Other Functions

### ■ RS-232C terminal, for external 3rd party control systems and possible future upgrades

### ■ Remote IN/OUT ports

### ■ Muting level settings (∞/-40dB/-20dB)

### ■ Personal Memory Plus

### ■ Audio Level Memory, capable of correcting different signal levels for each input device

### ■ Volume Level Limiter, for setting maximum volume levels

### ■ Power-ON Volume Level Memory

### ■ Function Rename

### ■ Setup Lock

### ■ On-screen Display

### ■ HDCD® decode support

## Input/Output Terminals For Every A/V System

### Audio Inputs

#### 11 Sets Analog Input

PHONO, CD, TUNER, DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX, CDR/TAPE

#### 1 Set 8-ch Analog EXT. Input

FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER

#### 7 Digital Inputs

OPTICAL x 5  
COAXIAL x 2

### Audio Outputs

#### 1 Set 8-ch Analog PRE Output

FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER

#### 3 Sets Analog REC Output

VCR-1, VCR-2, CDR/TAPE

#### 2 Sets Analog Multi Zone Output

ZONE2 L/R, ZONE3 L/R

#### 2 Digital Outputs

OPTICAL x 2

### Video Inputs

#### 3 Sets HDMI Video Input (with Digital Audio) 1, 2, 3

#### 3 Sets Component Video Input 1, 2, 3

#### 7 Sets Composite Input

DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX

#### 7 Sets S-Video Input

DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX

### Video Outputs

#### 1 Set HDMI Video Output (with Digital Audio)

MONITOR

#### 2 Sets Component Video Output

MONITOR-1, MONITOR-2

#### 3 Sets Composite Output

VCR-1, VCR-2, MONITOR

#### 3 Sets S-Video Output

VCR-1, VCR-2, MONITOR

#### 1 Sets Multi Zone Output

ZONE2 (Composite& S-Video)

## Specifications

### Power Amplifier Section

Rated output \*THD figures are power amp stage values.

Rated output	*THD figures are power amp stage values.
Front	130 W + 130 W (8 ohms, 20Hz - 20kHz, 0.05 % THD)
	170 W + 170 W (8 ohms, 1kHz, 0.7 % THD)
Center	130 W (8 ohms, 20Hz - 20kHz, 0.05 % THD)
	170 W (8 ohms, 1kHz, 0.7 % THD)
Surround	130 W + 130 W (8 ohms, 20Hz - 20kHz, 0.05 % THD)
	170 W + 170 W (8 ohms, 1kHz, 0.7 % THD)
Surround back	130 W + 130 W (8 ohms, 20Hz - 20kHz, 0.05 % THD)
	170 W + 170 W (8 ohms, 1kHz, 0.7 % THD)

### Preamplifier Section

#### Input sensitivity/impedance

PHONO(MM)	2.5 mV/47 kohms
CD, DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX, CDR/TAPE, FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK, SUBWOOFER	200 mV/47 kohms

#### Output level/Load impedance

FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER, MULTI ZONE L/R	1.2 V/10 kohms
VCR-1, VCR-2, V.AUX, CDR/TAPE	200 mV/47 kohms

#### Frequency response

10 Hz - 100 kHz; +0, -3 dB (DIRECT MODE)

#### Signal-to-noise ratio

102 dB (DIRECT MODE)

#### RIAA deviation

±1 dB (20 Hz - 20 kHz)

#### Tone control

Treble: ±6 dB at 10 kHz, Bass: ±6 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

8.0 A

#### Dimensions

434 (W) x 171 (H) x 429 (D) mm

17-3/32" (W) x 6-47/64" (H) x 16-57/64" (D)

#### Weight

18.5 kg, 40 lbs 13 oz



Inside of the trapdoor



\* Silver version is available

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

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

\* "DTS", "DTS-ES" and "NEO:6" are trademarks of Digital Theater System, Inc.

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