

# DA-300USB

Audio DAC with USB-B

# DENON®



AVAILABLE AT  
DIGITAL CINEMA



ADVANCED *AL32* PROCESSING

## HIGH DEFINITION AUDIO USB-B COMPACT DAC

The new DA-300USB DAC boasts the same high definition signal processing and ultra-high precision 32 bit, 192 kHz digital to analogue conversion technologies that delivers the astounding sound quality of Denon's top of the range CD / SACD players.

Simply connecting the minimalist styled DAC via USB-B provides incredible quality computer-audio – with headphones or powered speakers – for computer stored music files or streaming audio over the internet. Alternatively, the DA-300USB is a major hi-fi upgrade; enabling audiophile playback of computer music libraries and streaming audio (from any PC or Mac) via your hi-fi, at the same time dramatically improving the sound quality of other digital audio devices, like media players, CD and DVD players, TV's and

set top boxes, Apple TV, and games consoles, by connecting them to the additional coaxial and optical digital inputs.

The DA-300USB features universal digital file format support for PCM and DSD (the native file format for SACD) digital audio signals on the USB-B input, for bit-transparent, asynchronous playback of digital music files and streaming audio from connected PCs, and PCM signals, up to 24 bit, 192 kHz, via the SPDIF and optical digital inputs. Denon Advanced AL32 Processing and High-Precision 32 bit, 192 kHz digital to analogue conversion feeds the line level outputs for connection to a hi-fi amplifier or desktop speaker system and an integrated headphone amplifier that drives all types of headphones and in-ears, for exceptional listening quality.

## Universal audiophile playback of digital music files and streaming audio

The USB-B input enables computer stored music files or streaming audio from internet music, video and film services to be processed and played via the DA-300USB for the highest possible sound quality. The computer recognises the DA-300USB as an external soundcard, completely bypassing its own lower quality audio electronics. Any digital audio format that can be played from the computer's own media player can be processed by the DA-300USB – including MP3/MP4, AAC, ALAC, WAV and FLAC HD (up to 24 bit, 192 kHz) and DSD (in 2.8 and 5.6 resolution). Transmission of the digital audio stream from the computer to the DA-300USB is in bit-transparent, asynchronous mode, to ensure a bit-perfect datstream for high definition Advanced AL32 Processing and High-Precision 32 bit, 192 kHz digital to analogue conversion.

### Additional digital audio inputs

Three additional digital audio inputs – one coaxial and two optical – allow the DA-300USB's advanced audiophile circuitry to connect to and provide vastly improved sound reproduction for other

## PRINCIPAL FEATURES

- High definition DAC with 1 x USB-B, 1 x coaxial and 2 x optical digital inputs
- Universal bit-transparent, asynchronous playback of digital audio file formats and streaming audio from PCs via USB-B; up to 24 bit, 192 kHz and DSD2.8 and DSD5.6 native support by DoP (DSD over PCM)
- 3x SPDIF (coaxial/optical) inputs for upgrading sound from other digital audio devices (up to 24 bit, 192 kHz) with the DA-300USB's advanced high definition signal processing
- Audiophile analogue signal (line level) output and headphone amplifier stage, for connection to hi-fi amplifier or desktop speaker system and superb listening with all kinds of headphones or in ears

digital audio devices, like media players, CD and DVD players, TV's and DVB set top boxes, Apple TV, and games consoles. The coaxial and optical digital inputs support PCM input signals up to 24 bit, 192 kHz.

### High definition signal processing and D to A conversion

Denon's Advanced AL32 Processing and High-Precision 32 bit, 192 kHz digital to analogue conversion delivers audio quality far in advance of usual high definition, wide bandwidth conversion techniques. Just as advanced Blu-ray players can deliver full HD video from standard definition DVD, the Advanced AL32 processor up-converts and up-samples all input signals to a 32 bit, 192 kHz high definition datastream, which is interpolated, using a highly advanced proprietary algorithm, to provide a full scale, accurate reproduction of the original sound recording. The Advanced AL32 processor is matched with an High-Precision 32 bit, 192 kHz D to A conversion (DAC) circuit to fully exploit the Advanced AL32 high definition processing. Quantization noise, inherent in standard resolution digital audio conversion, is rendered inaudible and digital processing and filtering artifacts are moved far beyond the range of human hearing, so as to reproduce the purist, highest possible quality analogue output signal.

## DENON STATE-OF-THE-ART TECHNOLOGIES FOR HIGHEST POSSIBLE SOUND QUALITY

- High quality audio components for rich, open, detailed sound
- Denon Advanced AL32 Processing and High-Precision 32 bit, 192 kHz digital to analogue conversion for exceptional high definition audio quality
- DAC master clock design for distortion free, fully transparent sound stage
- Independent master clock crystals (44.1kHz and 48kHz) accurately clock incoming signals at any sample frequency
- Noise isolating circuit design prevents distortion via USB connection from computer generated digital noise; ensures fully transparent and spatially accurate sound stage
- Audiophile analogue output stage matched to fully exploit high definition 32 bit, 192 kHz D to A signal conversion for the same astounding sound quality as Denon's top of the range CD / SACD players

### DAC Master Clock design

A master clock design of exceptionally accuracy been placed immediately next to the DAC circuit, to provide the greatest accuracy in the D to A signal conversion and reduce to the absolute minimum timing anomalies in the conversion process – known as jitter – that are a significant source of distortion. The design features a low jitter oscillator to generate the clock signals. Two crystals – at 44.1 and 48 kHz – are incorporated, to generate the most accurate clock for incoming signals of any sample frequency (incoming signal sample frequencies being a multiple of one or other of the crystals – e.g. 192 kHz = 4 x 48 kHz; 88.2 kHz x 44.1 kHz). The effect is to ensure reproduction of a fully realistic and transparent stereo sound stage, with accurate localization of instruments and performers.

## EASE-OF-USE

- Simple plug-and-play operation for connection to PCs and other devices with digital audio outputs
- Front panel touch input selector switch and headphone volume control
- High resolution OLED display shows selected input signal and headphone volume, and rotates automatically with horizontal or vertical positioning of the unit
- Attractive minimalist design with alternative horizontal or vertical positioning for integration with desktop or hi-fi systems



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\* Not available in all regions  
All specs can be subject to change  
Product available in Silver

EAN	DA300USBSRE2	4951035052037
EAN	DA300USBSRE2GB	4951035052037

## Technical information

Features		Specifications	
<b>Advanced AL 32 Processing</b>		<b>PCM 24/192 input signal</b>	
<b>DAC</b>	• 32bit / 192kHz	<b>Frequency response</b>	2Hz - 96kHz (2Hz - 20kHz (±0.5dB))
<b>Digital input</b>	• 1x Coaxial / 2x Optical	<b>Dynamic range</b>	105dB
<b>USB input</b>	• USB-B	<b>Signal-to-noise ratio</b>	112dB
<b>PCM resolution (opt./coax./USB-B)</b>	• 24bit / 192kHz	<b>Total harmonic distortion</b>	0.0018%
<b>DSD Streaming USB-B (DoP)</b>	• DSD64 / DSD128	<b>DSD64 input signal</b>	
<b>Asynchronous Mode</b>		<b>Frequency response</b>	2Hz - 100kHz (2Hz - 50kHz (-3dB))
<b>Bittransparent mode</b>		<b>Dynamic range</b>	105dB
<b>Analogue output</b>	• 1 (RCA)	<b>Signal-to-noise ratio</b>	112dB
<b>Headphone output</b>	• (6.3mm)	<b>Total harmonic distortion</b>	0.0018%
		<b>Output voltage (RCA)</b>	2.0V
		<b>Output voltage (Headphone)</b>	130mVrms

## General

<b>Power supply</b>	AC 230 V, 50 Hz
<b>Power consumption</b>	15 W
<b>Dimensions horizontal (W x H x D)</b>	170 x 57 x 182 mm (incl. Knob, Terminal)
<b>Dimensions vertical (W x H x D)</b>	114 x 175 x 182 mm (with Stand)
<b>Weight</b>	1.5 kg

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