

**DA-10**

PORTABLE HEADPHONE AMPLIFIER WITH D/A CONVERTER

## PORTABLE HEADPHONE AMPLIFIER WITH D/A CONVERTER

A new world of sound quality – that fits in the palm of your hand: The Denon DA-10 is a sound quality marvel, developed for outdoor and indoor usage alike. When on your ways, you can now boost the sound quality of smartphones, laptops and alike. The DA-10 takes the audio signal from your mobile device and by means of digital to analogue conversion, dramatically improves the audio stages. It also allows you to drive higher quality headphones effortlessly. In addition, the DA-10

makes your analogue home Hi-Fi system digitally compatible – you can now enjoy all your stored digital music in best audio quality. Despite its size, it delivers Denon High Quality Sound thanks to the integrated Advanced AL32 Processing. It emits High Resolution audio up to 192kHz/24bit, comes with DSD 2.8MHz and 5.6MHz capability and thus delivers a new level of sound quality from any source. For all your connection needs, USB-A, USB-B micro and AUX input are integrated.

PCM & DSD → **micro USB-B**ADVANCED *AL32* PROCESSING

## Personalized Listening

While portable audio players, smartphones and tablets can easily power ordinary ear buds, their analogue audio output stages typically can't handle higher impedance headphone types, and the quality of their internal D/A conversion isn't up to the standard that serious music listeners desire. That's where the DA-10 changes the game and takes over. With its advanced audio technologies engineered by Denon audio expert the DA-10 brings all the details, all the bass, all the excitement back to life. This is not only noticeable by high price audiophile headphones, but also easily noticeable with standard, yes even ordinary in ear buds. Just get more punch, more finesse and just play it louder and with more dynamic.

## 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-10 for the highest possible sound quality. The computer recognises the DA-10 as an external soundcard, completely bypassing its own lower quality audio

## NEW FEATURES

- High definition, portable headphone amplifier with D/A Converter
- USB Audio and Micro USB-B inputs
- Analogue input and output
- Universal bit-transparent, asynchronous playback of digital audio file formats and streaming audio from computers via Micro USB-B; up to 24 bit, 192 kHz and DSD 2.8MHz and 5.6MHz native support
- Headphone amplifier stage, for superb listening with all kinds of headphones or in ears
- Up to 7 hours run time rechargeable battery

electronics. Any digital audio format that can be played from the computer's own media player can be processed by the DA-10 – including MP3/MP4, AAC, ALAC, WAV and FLAC HD (up to 24 bit, 192 kHz) and DSD (in 2.8MHz and 5.6MHz resolution). Transmission of the digital audio stream from the computer to the DA-10 is in bit-transparent, asynchronous mode, to ensure a bit-perfect datastream for high definition Advanced AL32 Processing and High-Precision 32 bit, 192 kHz digital to analogue conversion.

## 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

## STATE-OF-THE-ART DENON SOLUTIONS FOR MAXIMISING CONTENT 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
- Discrete Current Buffer for Headphone Output
- 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

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.

## 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 computers and other devices with digital audio outputs
- Input selector switch and headphone volume control
- Portability design and functionality for outdoor use
- Carrying pouch
- Micro USB cable (Micro B), Lightning USB cable, 30pin USB cable, Stereo mini plug cable are supplied



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

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## Technical information

### Features

<b>Advanced AL 32 Processing</b>	•
<b>DAC</b>	32bit / 192kHz
<b>Analogue input/output</b>	••
<b>USB input</b>	USB-Audio / Micro USB-B
<b>PCM resolution (USB-B)</b>	24bit / 192kHz
<b>DSD Streaming USB-B</b>	DSD2.8MHz / DSD5.6MHz
<b>Asynchronous Mode</b>	•
<b>Bittransparent mode</b>	•
<b>Headphone output</b>	•
<b>Headphone gain control</b>	Normal / High

### Specifications

<b>Frequency response</b>	2 Hz - 50 kHz (-3dB)
<b>Signal-to-noise ratio</b>	108dB (Volume max, 2V)
<b>Total harmonic distortion</b>	0.003% (1 kHz, audible range)
<b>Headphone Power</b>	40mW + 40mW (32 ohms, 1% distortion) 18mW + 18mW (600 ohms, 1% distortion)

## General

<b>Max. dimensions (W x H x D)</b>	64 x 139 x 29 mm
<b>Weight</b>	0.24kg

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