

DENON®

Product Information

DCD-2500NE



DCD-2500NE

SUPER AUDIO CD PLAYER

PREMIUM CD/SACD PLAYER WITH ADVANCED AL32 PROCESSING PLUS FOR PURE PERFORMANCE

Denon is one of the rare audio brands that continued to actively develop Hi-Fi components and accumulate, refine, and pass down Hi-Fi audio technologies. The 2500NE series, designed for today's age, has been developed by both veteran engineers and talented young engineers who have inherited the Denon technologies and expertise that have been cultivated over many years and decades. The DCD-2500NE focuses on achieving the essence of a disc player: ultra-high precision in reading discs and supplying high-quality audio signals to the amp. To achieve this, the signal paths are as short as possible and the

whole circuitry is minimized. The engineers also redesigned the disc drive mechanism brackets and the chassis to eliminate vibration, the great enemy of disc players, and achieve ultra-vibration-resistant performance. The information on the disc is now read with impeccable accuracy and a clean, high-grade signal is supplied to the DCD-2500NE's Advanced AL32 Processing Plus circuitry. Besides CD and Super Audio CD playback, the DCD features playback of audio recordings up to PCM192/24 or DSD5.6 recorded on a DVD R/RW for full flexibility and extended access to high resolution audio.



ADVANCED *AL32* PROCESSING
Plus



MP3

WMA



www.denon.eu

DENON®

Product Information

PMA-2500NE



PMA-2500NE

INTEGRATED AMPLIFIER WITH DAC-MODE

PREMIUM INTEGRATED AMP REPRESENTING A NEW ERA OF AUDIO ENJOYMENT

Denon is one of the rare audio brands that continued to actively develop Hi-Fi components and accumulate, refine, and pass down Hi-Fi audio technologies. The 2500NE series, designed for today's age, has been developed by both veteran engineers and talented young engineers who have inherited the Denon technologies and expertise that have been cultivated over many years and decades. And the performance of the PMA-2500NE goes well beyond that of Denon's previous PMA-2000 series. With its ultimate built-quality, unique Denon technologies and state-of-the-art connectivity, the

PMA-2500NE truly is a masterpiece of sound technology. Thanks to the rear USB-B input and embedded high quality D/A converter, the PMA plays high resolution files up to 384kHz/32bit and DSD up to 11.2MHz from a computer in impeccable sonic quality. For the best performance from analogue inputs, the PMA features an Analog Mode which allows to switch off all unutilized sections like the digital input circuitry or the low noise display for an unaltered audio reproduction.

ADVANCED
Ultra High Current MOS
SINGLE PUSH-PULL CIRCUIT



ADVANCED *AL32* PROCESSING
Plus



www.denon.eu

Advanced Ultra-High Current (UHC)-MOS Single Push-Pull Circuit for balancing Power and Details

To achieve impeccable balance between delicate details and vigor in sound, the PMA-2500NE employs Ultra High Current MOS (UHC-MOS) FETs, capable of producing ample current in a single push-pull configuration which deliver superior linearity in the output stage throughout the sonic range from musical details to robust current. The technique of driving multiple amplifier devices in parallel to secure robust current has solved the problem of muddiness in sound caused by uneven performance among the devices. And to achieve musical expression filled with the delicate nuances of sound, Denon has continued to focus on amplification performed by one pair of devices. The PMA-2500NE is endowed with high-voltage, large-capacity UHC-MOS FETs (peak current of 210A). In addition, the Dual FET + cascode bootstrap connection maintains a constant voltage for the UHC-MOS while improving temperature stability, to reliably bring out the superior acoustic characteristics of UHC-MOS.

Direct Mechanical Ground Construction to minimise unwanted vibration

The power section, mounted on a sub-chassis solidly constructed with three layers of 1.6mm thick steel plates, has been positioned in the centre of the PMA-2500NE. With heat sinks on both sides, this construction of well-balanced mass is in an ideal location to prevent unwanted vibration from affecting sound quality. In addition, the feet supporting the heavy weight of the power transformer, heat sinks, and chassis are made of highly rigid, solid Bulk Molding Compound (BMC), and high-density felt pads attached to the bottom of the feet further absorb vibration.

NEW AND UPGRADED FEATURES

- Further improved sound quality
- 2 optical and 2 coaxial digital inputs
- USB-B input for High Resolution Audio up to 384kHz/32bit and 11.2MHz DSD
- Advanced AL32 Processing Plus

Advanced AL32 Processing Plus supporting 384-kHz/32-bit PCM input

For digital input, the PMA-2500NE employs Advanced AL32 Processing Plus, the latest version of Denon's analogue waveform reproduction technology which utilizes unique data interpolation algorithms and also supports high-resolution 384-kHz/32-bit PCM signal input. These algorithms interpolate points that should exist before and after the points in large quantities of data to achieve a smooth waveform that is close to that of the original signal. By carefully restoring data that was lost during digital recording, the resulting playback sound is highly detailed, free of interference, accurately localized, richly expressive in the lower range, and beautifully faithful to the original sound. With the PMA-2500NE's digital input, high-quality analogue signals that pass through Advanced AL32 Processing Plus are sent to the amp block at the stage that follows.

6-block chassis configuration

The PMA-2500NE's chassis is configured of six independent blocks that house the phono equalizer and input circuitry, volume control circuitry, USB-DAC circuitry, amplification circuitry, power section, and the control section. The chassis constructed with 1.6mm thick steel plates protects the signal circuits from external vibration and eliminates the adverse effects of mutual interference among the circuits.

STATE-OF-THE-ART DENON SOLUTIONS FOR MAXIMISING CONTENT QUALITY

- 2x 160 W (4ohm)
- Advanced Ultra-High Current (UHC)-MOS Single Push-Pull Circuit for balancing Power and Details
- DAC Master Clock Design
- Complex chassis construction with 6 independent blocks to eliminate unwanted noises
- High-performance MM & MC Phono Equalizer
- Analog Mode switching off all digital sections to maximize performance while listening to analogue sources
- Digital isolator to eliminate high-frequency computer noise on the USB-B
- Direct Mechanical Ground Construction to minimise unwanted vibration

USB-DAC supporting up to 11.2-MHz DSD and 384-kHz/32-bit PCM

The PMA-2500NE provides USB-DAC functions that support high-resolution 11.2-MHz DSD and 384-kHz/32-bit PCM input signals. DSD transmission methods support ASIO native playback and DSD Audio over PCM Frames (DoP) with Wasapi or Kernelstreaming. Since asynchronous transfer is controlled by the PMA-2500NE's master clock rather than the clock of a computer the transfer is free of jitter. The D/A converter used in the PMA-2500NE is the same 384-kHz/32-bit DAC PCM1795 used in the DCD-2500NE to deliver a clean, high-grade sound.

Robust power supply circuitry

The PMA-2500NE is equipped with two transformers that have been mounted facing opposite directions in a leakage cancelling (LC) mount system to cancel mutual influences of magnetic flux, a source of noise, leaking from the transformers. Denon's custom-designed, large-capacity electrolytic capacitors have been used for rectification, and low-loss, low-noise, high-speed Schottky barrier diodes have been used in the rectifier circuitry. This ensures a sufficient supply of clean current. To achieve a "simple & straight" circuit configuration, the connection unit between the diode unit and the block capacitor has been removed to drastically shorten the current supply line to the power amp. Extremely thick OFC wiring material has been used for the power line to reduce impedance.

EASE-OF-USE

- System remote control unit to control the amplifier and CD Player as well
- Large size volume control knob for precise adjustment
- External Pre-Amplifier Input for easy integration in a Multichannel AV System
- Digital input and IR Control port for easy integration of HEOS link to add streaming and internet radio capability
- Auto Standby and low power consumption at stand-by 0.2 W

Denon is a trademark or registered trademark of D&M Holdings, Inc.
 * All specs can be subject to change
 * Available in Premium Silver

EAN	PMA2500NESPE2	4951035057865	Premium Silver
UK	PMA2500NESPE2GB	4951035057865	Premium Silver



Technical information	
Power amplifier section	
Rated output	80 W + 80 W (20 Hz - 20 kHz, 8 ohms, T.H.D. 0.07%) 160 W + 160 W (1 kHz, 4 ohms, T.H.D. 0.7%)
Total harmonic distortion	0.01% (rated output -3 dB, 8 ohms, 1 kHz)
Preamplifier section	
Input sensitivity / Impedance	
PHONO MC	0.2 mV/100 ohms
PHONO MM	2.5 mV/47 kohms
LINE	135 mV / 47 kohms (Source Direct: OFF)
Signal-to-noise ratio	
PHONO MC	74 dB (0.5 mV input)
PHONO MM	89 dB (5 mV input)
LINE	110 dB
Tone control	
Treble	± 8 dB at 10 kHz
Bass	± 8 dB at 100 Hz
General	
Power supply	AC 230 V, 50 Hz
Power consumption	310 W (Standby: 0.2 W)
Dimensions (W x H x D)	434 x 182 x 431 mm
Weight	25.0 kg

Ports	
IN	
Phono (MM/MC)	x 1
Audio input (incl. Phono)	x 5
Digital Optical	x 2
Digital Coaxial	x 2
USB-B	x 1
External Pre-Amplifier	x 1
OUT	
Rec output	x 1
Speaker out (Bi-wiring)	A/B

[V01]

Denon Europe
 Beemdstraat 11
 5653 MA Eindhoven
 The Netherlands

www.denon.eu

Advanced AL32 Processing Plus and high precision 32-bit/192kHz D/A converters, to dramatically enhance the music listening experience

The DCD-2500NE is equipped with Advanced AL32 Processing Plus, the latest version of Denon's analogue waveform reproduction technology which utilizes unique data interpolation algorithms and also supports high-resolution sound sources. These algorithms interpolate points that should exist before and after the points in large quantities of data to achieve a smooth waveform that is close to that of the original signal. By carefully restoring data that was lost during digital recording, the resulting playback sound is highly detailed, free of interference, accurately localized, richly expressive in the lower range, and beautifully faithful to the original sound.

High-precision 32-bit, 192-kHz D/A converters have been used to bring out the maximum performance of the Advanced AL32 Processor. These D/A converters transmit differential output to each channel to improve sound quality during playback.

DSD data disc playback support

In addition to CD and Super Audio CD, the DCD-2500NE can play DSD (2.8 Mhz / 5.6 MHz) files and high-resolution files up to 192 kHz / 24 bits recorded on DVD-R/RW and DVD+R/RW discs. Music files with sampling frequencies of up to 48 kHz recorded on CD-R/RW discs can also be played.

Independent digital and analogue power transformers

The power units for the digital and analogue circuits, whose signals have different characteristics, have separate transformers to eliminate mutual interference and noise. An aluminum plate has also been combined to the underside of the steel transformer base to strengthen rigidity.

NEW AND UPGRADED FEATURES

- Advanced AL32 Processing Plus and a high precision 32-bit/192kHz D/A converters PCM1795, to dramatically enhance the music listening experience
- Advanced S.V.H. Mechanism, Denon's original disc drive design
- DAC Master Clock design with low jitter oscillator and Minimal Signal Paths
- DSD data disc playback support

Advanced S.V.H. Mechanism, Denon's original disc drive design

The DCD-2500NE's disc drive is the same Advanced S.V.H. Mechanism that is used in high-end models. The circuitry that controls the pickup and decodes the signals read from the disc has been newly developed. Signal paths have been shortened to an absolute minimum and circuits have been miniaturized to ensure that excess current or noise will not occur. The various parts of the mechanism have been made with different materials such as a combination of stainless and copper plating for the top panel to strengthen rigidity, diecast aluminum for the disc tray, and 2mm thick steel for the mechanism brackets. Improvements in high-mass, vibration-resistant properties and the dispersal of resonance points contribute to a high level of vibration resistance. In addition, the mechanism's low center of gravity suppresses any vibration occurring inside the mechanism due to disc rotation, and the mechanism structure also effectively suppresses external vibration. By eliminating unwanted vibration, servo-related operations are minimized, and by also minimizing unnecessary controls and current consumption, digital signals can be read from the disc with optimum accuracy under stable conditions.

DAC Master Clock Design

To accurately synchronize digital circuits, the DCD-2500NE's DAC Master Clock Design treats the DAC as the master when clock signals are supplied. Positioning the master clock immediately adjacent to the D/A converter (DAC) suppresses jitter and ensures optimum precision in D/A conversion. In addition, the quality of the clock, which becomes the reference for semiconductor operation, is extremely important for ensuring that the digital audio circuitry performs at its maximum potential. The DCD-2500NE thus employs a clock oscillator to dramatically reduce phase noise that is the displacement of frequencies. The clock power circuit has also been vastly improved to bring out the full potential of the high-quality clock's performance. A conductive polymer capacitor with particularly outstanding high-frequency impedance characteristics for Denon's renowned sound quality has been placed at the base of the clock's power source, and an ultra-compact film capacitor that is different from layered ceramic capacitors has been placed close to the clock, to achieve an improved S/N ratio and a transparent sound with superior spatial expression. The DCD-2500NE is equipped with two clock oscillators, one for each sampling frequency (44.1 kHz and 48 kHz), that can be switched between the frequencies to thoroughly suppress jitter.

Vibration-resistant design with Direct Mechanical Ground Construction

The chassis has been designed throughout to eliminate the adverse effects on sound quality caused by subtle vibrations from the player's interior or by external vibrations from the speakers.

STATE-OF-THE-ART DENON SOLUTIONS FOR MAXIMISING CONTENT QUALITY

- High quality audio reproduction from any kind of digital media recorded on a disc
- Separated digital and analogue power supply
- Vibration-resistant design with Direct Mechanical Ground Construction
- Minimum Signal Paths, to protect signal purity
- Pure Direct mode, for pure enjoyment of music
- Parts strictly selected for high sound quality

EASE-OF-USE

- Easy-to-use remote control for CD and Amp operation
- Auto Standby and low power consumption at stand-by 0.1 W

Denon is a trademark or registered trademark of D&M Holdings, Inc.

* All specs can be subject to change
* Available in Premium Silver

EAN	DCD2500NESPE2	4951035056981	Premium Silver
UK	DCD2500NESPE2GB	4951035056981	Premium Silver



Specifications	
SACD section	
Channels	2 channels
Frequency response	2Hz - 50kHz (-3 dB)
Dynamic range	112 dB
Signal-to-noise ratio	120 dB
Total harmonic distortion	0.0008% (1 kHz, audible range)

CD section	
Channels	2 channels
Frequency response	2Hz-20kHz
Dynamic range	101 dB
Signal-to-noise ratio	118 dB
Total harmonic distortion	0.0015% (1 kHz)

Output voltage	2.0 V (10 kohms)
Digital output	0.5 Vp - p/75 ohms -15 to -21 dbm 660 nm

General	
Power supply	AC 230 V, 50 Hz
Power consumption	25W (Standby 0.1W)
Dimensions (W x H x D)	434 x 138 x 335 mm
Weight	13.7 kg

|V01|

Denon Europe
Beemdstraat 11
5653 MA Eindhoven
The Netherlands

www.denon.eu