### Specification

#### Video Section
- Video Input:
  - S-Video: 1 Vp-p (with 75 Ω load, sync, negative polarity)
  - Component: 0.7 Vp-p (with 75 Ω load)
- Video Output:
  - S-Video: 1 Vp-p (with 75 Ω load)
  - Component: 0.7 Vp-p (with 75 Ω load)
- Audio Signal output (Fixed):
  - DVD Linear audio
  - CD audio

#### Audio Section
- Audio Signal output (Variable):
  - DVD Linear audio
  - CD audio
- S/N: 118 dB
- Dynamic Range: 108 dB
- Total Harmonic Distortion: 100 dB
- Frequency response:
  - 48 kHz sampling: 2 Hz to 22 kHz
  - 96 kHz sampling: 2 Hz to 44 kHz

#### General
- Weight: 17 kg
- Dimensions: 434 (W) x 135 (H) x 374 (D) mm (excluding protruding parts)
- Power supply: AC 230 V, 50 Hz

#### Sampling Frequency
- DVD/CD
- DVD
- CD

#### Power supply
- DVD/CD
- DVD
- CD
State-of-the-Art DVD Player for Superior A/V Entertainment and Future Expandability

The DVD-5000 is a reference-class DVD video player featuring DENON’s latest digital technology known as AL24 Processing which produces the ultimate analog waveform fidelity to suit next-generation media. In order for AL24 Processing to perform at its maximum potential, the DVD-5000 also incorporates a 4-DAC 24-bit D/A converter section which supports up to 96 kHz sampling.

With the DENON DVD-5000, the audiophile becomes enveloped in a digital sound of an order they have never experienced before. The DVD-5000 is further equipped with HDCD decoding that has been combined with DENON’s digital technology to bring out the highest quality in sound that is possible with HDCD-encoded CDs.

Newly-developed AL24 Processing

AL24 Processing has inherited the technology of the original ALPHA Processing that was used in DENON’s highly-successful 31 series of reference-class audio components. AL24 Processing further reduces quantization distortion and represents the ultimate analog waveform reproduction technology designed to support the higher numbers of bits and higher sampling rate of next-generation media.

AL24 Processing senses the nature of the digital data being input and interpolates the data so that it faithfully replicates the original analog waveform. AL24 Processing supports not only 16-bit digital data but also 18-, 20- and 24-bit data, as well as input data with a sampling frequency of up to 96 kHz.

Multiple 24-bit, 96-kHz D/A Converter

The DVD-5000 uses a 4-DAC 24-bit, 96-kHz Sampling D/A Converter system in order to convert 24-bit data obtained from AL24 Processing with utmost fidelity. This design achieves a signal-to-noise (S/N) ratio of 118 dB and a dynamic range of 108 dB, to bring out the beautiful sound of high-bit, high-sampling-rate technology.

High-speed, Precision 10-bit, 27-MHz Video D/A Converter

The highly accurate video decoder processes the DVD video data (the component luminance and color difference signals) in order to output the high-quality digital data with its original parity bit preserved. The DVD-5000 achieves a high-speed, high-precision 10-bit, 27-MHz video D/A converter. This design improves the readability of extremely minute details so that the picture viewed on the screen is completely faithful to the original image in both its colors and high resolution.

HDCD Decoder

HDCD represents encoding/decoding technology that drastically reduces digital recording distortion while maintaining compatibility with the existing CD format. HDCD uses Peak Compensation and Low-level Extension technology to convert 24-bit data in the 16-bit data format of existing CDs without sacrificing the high quality of 24-bit sound. This technology produces the sound from becoming distorted during peak periods, and boosts the low-level signals to improve the S/N ratio for a substantially wider dynamic range.

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Conventional AL24 Processing

Figure 1: AL24 Processor Block Diagram

Figure 2: How AL24 Processing Works on Audio Signals

A. Data generated at higher-order bits (1-16)
B. Data added to lower-order bits
C. Data generated at lower-order bits (17-24)

Parts strictly selected for sound quality

Three separate transformers have been employed for the audio, video, and control sections. Transformers specially constructed with vibration-resistant materials are used in the audio and video sections. In addition, the same strictly-selected parts whose performance has proven to be reliable during the development of DENON’s ST series of audio components — such as the neodymium ultra-thick AC-power transformer, very low ESR electrolytic capacitors, film capacitors, and carbon resistors — are used for high sound quality, and the high-tuned operational amplifiers are selected for highest sound quality.

High-performance Pickup and Digital Servo Technology

In order to read the maximum of 8.5 gigabytes of data that can be recorded on one side of a DVD, the DVD-5000 uses a self-locked pickup type read laser with a wavelength of 650 nm to ensure stable, low-noise performance. In addition, the pickup lens used with this laser employs an integral holding mechanism that enables DVD and CD program sources to be read by the same optics. As a result, the DVD-5000 features the shortest possible signal paths, a simplified construction, and superior reliability.

Gold-plated Audio and Video Terminals

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Easy-to-use Graphical User Interface (GUI)

Employing the latest GUI technology, the DVD-5000 provides control functions and parameters with ease through a fully-graphical interface. The display is extremely easy to read and simple to navigate.

Easy-to-use Remote Control with Backlit Keys

The DVD-5000’s remote control is simple yet highly functional. It is equipped with backlit keys for easier operation in the dark. The remote control also features a line output jack for use with amplifiers. It is further equipped with a 4-DAC 24-bit D/A converter section which supports up to 96 kHz sampling.

AL24 Processing

AL24 Processing has inherited the technology of the original ALPHA Processing that was used in DENON’s highly-successful S1 series of reference-class audio components. AL24 Processing has inherited the technology of the original ALPHA Processing that was used in DENON’s highly-successful S1 series of reference-class audio components. AL24 Processing supports not only 16-bit digital data but also 18-, 20- and 24-bit data, as well as input data with a sampling frequency of up to 96 kHz.

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