





UD-507 USB DAC/Preamp/Headphone amplifier, Silver

253892

SRP 1'899.00 CHF

UD-507 is a completely redesigned 500 Series DAC/Preamp/Headphone amplifier with our proprietary 'TRDD 5' discrete DAC, designed with musicality as the top priority. Following in the footsteps of TEAC's acclaimed 701 series, the new 'TRDD 5' discrete DAC offers a clear soundstage and accurate imaging, providing listeners with a truly immersive musical experience. Featuring three separate headphone output options, balanced inputs and outputs, Bluetooth, and various digital input options, UD-507 is a brilliant centerpiece for both desktop and traditional stereo setups.

Colour




PRODUCT DETAILS

Proprietary “TEAC Reference Discrete DAC: TRDD 5”
All digital signals input to the UD-507 are processed at 64bit/512Fs by the delta-sigma modulator in the FPGA, which incorporates a proprietary algorithm, and converted to analog signals by 16 elements per channel (one element is a pair of logic circuits and a low-pass filter with high-precision resistors). The DSD signal is processed directly, while the PCM signal is converted to a 1-bit signal by a delta-sigma modulator before being output as a high-quality analog signal. 22.5MHz DSD and 384kHz/32bit PCM playback is possible. Two operating methods can be selected according to your preference: the multilevel (multi-bit) delta-sigma method or the 1-bit delta-sigma method.

In Addition to 44.1kHz and 48kHz Internal Clocks, 10MHz External Clock Input Is Supported
For USB audio playback, the UD-507 supports the USB Asynchronous Transfer Method, which controls PCM and DSD data transfer by synchronizing to the clock generated by the UD-507’s internal high-precision crystal oscillator, instead of synchronizing to the unstable and noisy PC clock. The internal clock is equipped with two types of dedicated clocks, 44.1kHz and 48kHz series, each of which applies an audio-grade high-precision crystal oscillator with low phase noise to input signals at integer multiples, greatly minimizing the effect of jitter on sound quality and faithfully reproducing the original sound. The UD-507 also supports a 10MHz external clock input that can be synchronized to an external master clock signal. Synchronization with a high-precision external clock enables an upgrade to even higher quality music reproduction.

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Dual Monaural Construction
The D/A converter section is independent of the left and right channels, and a luxurious dual monaural circuit is used throughout the analog output stage. The dual monaural configuration, with two monaural circuits for each channel, prevents interference between L/R signals and reproduces music with a spacious and three-dimensional soundstage.

Fully Balanced Signal Transfer
Fully balanced transmission of the L/R analog output signals from the D/A conversion stage to the final output stage greatly improves signal-to-noise ratio and expands the dynamic range, enabling pure reproduction of the spatial information contained in high-resolution sound sources.

Two Large Toroidal Core Transformers / Non-feedback Power Supply Circuit
The UD-507 is equipped with one toroidal transformer each for the analog (including the analog section of the DAC) and digital processing boards. By separating the analog and digital power supply sections, mutual interference is avoided and the purity of the analog signal is improved. In addition, a no-feedback circuit is used for the analog power supply circuit to provide more musical reproduction capability.

Preamplifier with Analog Volume Control – 4 Digital Inputs and 2 Line Inputs (RCA/XLR)
The UD-507 has two digital inputs each for coaxial and optical digital, as well as RCA and XLR analog inputs, allowing it to be used not only as a USB DAC, but also as a high-quality analog preamplifier.
The TEAC-QVCS (Quad Volume Control System), which uses a variable gain controller with four independent circuits for left, right, positive, and negative (L+, L–, R+, R–), is placed on the audio signal path to minimize the signal path and prevent audio signal degradation due to signal line routing. The TEAC-QVCS also provides fine volume control in 0.5dB increments, allowing you to set the volume level that best suits your audio system and headphones.

Improved TEAC-HCLD2 Enhanced-Current Output Buffer Circuits
The UD-507 is implemented with TEAC-HCLD2 output buffer circuits, which are enhanced versions of our TEAC-HCLD (TEAC High Current Line Driver) circuits. These increase the current transfer capabilities that are important in analog output circuits. Each channel has a positive and negative dual circuit structure with high current transfer diamond buffer amplifiers used as line drivers. The drive is differential for balanced output and parallel for unbalanced output. By increasing the current handling capability, it is possible to transmit the dynamics of audio signals without loss.

Headphone Amplifier with 4-Pin XLR and Pentaconn Jack with Switchable Balanced/Active Ground
The UD-507 is equipped with a dedicated headphone amplifier that uses four diamond buffer circuits, one positive and one negative circuit on each channel, to allow the connection of balanced headphones. The amplifier can bring out the potential of various types of headphones, including high-impedance headphones of 600 ohms. The active ground method uses the principle of a balanced circuit configuration to electrically drive the cold side to 0V by means of an amplifier circuit. Since the ground potential is always fixed at 0V, this method is not only more ideal than the usual method of grounding the cold side, but also has the effect of suppressing the effects of hum from the power supply, and the lower noise floor makes the system quieter, allowing the listener to feel the artist's breath and sound textures more closely.

MQA Full Decoder That Also Supports Digital Inputs
MQA (Master Quality Authenticated) is a high-quality audio codec that enables playback at the same quality level as studio masters. The UD-507 has an MQA decoder that controls D/A-converted waveforms with a precision as fine as 5ms in order to achieve analog waveforms that are true to the original recordings. Playback sound that seems like the original to the human ear can be achieved by greatly reducing the “sound blurring” that occurs easily when sounds start suddenly and at other times when sound pressure differences are extreme.
Since a full decoder is included, in addition to file and network playback, MQA data from digital inputs can also be decoded. Playback of MQA CDs is possible by connecting the digital output of a CD player to the UD-507.

Up-Sampling Function

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The up-sampling function uses RDOT-NEO (Refined Digital Output Technology NEO) to smoothly augment PCM digital audio signals and upconvert their sampling frequencies 2, 4 or 8 times (384kHz maximum). RDOT, which applies an analogous interpolation method using fluency logic, is a technology that was developed to enable reproduction and playback of frequencies higher than 20kHz that are lost by 44.1kHz/48kHz digital signals. Based on the information read, analogous data is generated between the waveform samples, which also results in data above 20kHz.

Bluetooth Receiver Supporting LDAC, Aptx™ HD High-Quality Audio Communication and Multipoint Connection
The UD-507 supports LDAC™ and LHDC codecs, which are capable of transmitting high-resolution audio data (96kHz/24bit), as well as Qualcomm® aptX™ HD, which is capable of transmitting at 48kHz/24bit. The UD-507 also supports versatile codecs such as AAC, Qualcomm® aptX™ and SBC, enabling casual enjoyment of high-quality wireless playback from smartphones and DAPs (digital audio players). It also supports multi-point connectivity, allowing two devices to be wirelessly connected at the same time and seamlessly switch between them for listening.

Bulk Pet USB Transfer Technology Enables Stable Data Transmission
When transmitting large amounts of digital data by USB cable from high-resolution audio sources, large inconsistencies arise in the processing loads of both the sending computer and the receiving USB DAC, and audio dropouts and other problems can occur. Using the Bulk Pet USB transfer technology, however, the same amount of data is transmitted at a steady rate, leveling the processing loads of both sides and realizing stable data transmission. Since changes in computer load conditions can also affect audio quality, you can select from four preset transmission modes to choose the preferred audio quality.

Meticurous Vibration Control
The transformer, which is prone to vibration, is suspended from the base plate in a floating structure. The structure is designed to minimize the number of screws used to secure the board to prevent vibration from being transmitted to the board. A new mechanism, TEAC’s original Stressless Feet v2, which has a gap between the bottom plate and the foot, has been adopted to thoroughly control vibrations that affect sound quality. A new 2.8mm thick top plate has been adopted to further improve vibration control.

Teac HR Audio Player, Which Supports 22.5mhz DSD Playback with Both Windows and Mac, Provided for Free
This free dedicated software can be used to easily play 22.5MHz DSD and 384kHz/32bit PCM, which represent the next generation of high-resolution audio sources, from Windows and Macintosh computers. By simply starting the software and selecting the UD-701N connected by a USB cable, digital audio data can be transmitted reliably with optimal conditions.
Since this software is designed for use with this model, there is no need to worry about the troubles that often occur with USB audio settings, including “no sound being output even when the USB DAC is recognized” and “sound being down-converted when it is output.”

Included accessories

- Power cord
- Remote control (RC-1334)
- AAA Batteries for remote control × 2
- feet cushions × 3
- Owner's Manual (with warranty)

Specs

Product Attributes

EAN:	4907034225248
Manufacturer number:	UD-507-S
Product weight:	4.6 kilograms

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Audio Inputs

Coaxial:	1
Input level & impedance coaxial:	0.5Vp-p, 75
Optical/Toslink:	1
Input level optical:	-24.0 to -14.5dBm peak
RCA:	1
Input level & impedance RCA:	2.5Vrms, 24k
XLR:	1
Input level & impedance XLR:	5Vrms, 50k
BNC:	1
Impedance & frequency BNC:	50, 10MHz Rectangle wave: equivalent to TTL levels Sine wave: 0.5 to 1.0 Vrms
USB-B:	1
USB-C:	1

Amplification

THD:	0.01% or less (1kHz, LPF: 20Hz to 20kHz)
S/N ratio:	105
Frequency response:	5-70000
Channels:	2
12 volt trigger:	Out

Audio Outputs

4.4mm jack:	1
Power & impedance 4.4mm jack:	Active Ground: 900mW + 900mW (into 32) Balanced: 1200mW + 1200mW (into 100) Unbalanced: 900mW + 900mW (into 32)
6.3mm jack:	1
XLR (headphones):	1
Power & impedance XLR (headphones):	1200mW + 1200mW (into 100)
RCA:	1
Output level & impedance RCA:	Max output: 2Vrms, 20 20
XLR:	1
Output level & impedance XLR:	Max output, 0dB setting: 2Vrms, 40 Max output, +6dB setting: 4Vrms, 40
Audio Codecs & Formats	
Bluetooth codecs:	LDAC LHDC aptX HD aptX AAC SBC
Bluetooth version:	4.2

Energy Management

Input voltage:	220-240

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Input AC frequency:	50
Power consumption:	0.4-18

Dimensions and Weight

Product height:	8.5
Product width:	29
Product length:	24.9
Product weight:	4.9
Packaged weight:	5.74

Control Methods

Controls:	On Device Remote Control

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