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PHOTO TEAC

and even offer prehistoric cassette players. The TEAC UD-507 is a top-of-the-line device, both visually and technically, in a compact size ideal for spaces where there is simply no room for grandiose solutions. The good news is that even though TEAC "players" are and weight, their unquestionable quality has been convincing thousands of customers around the world for several decades.

three outputs for headphones with 6.3 mm, XLR 4-pin and 4.4 mm connectors and a small button for selecting a specific output. Below the display is a fast USB-C input, a MENU button and a rotary knob for selecting the input. Although small in design, it is comfortable to use thanks to the rough surface texture of its aluminium body. It also has is also found on the large potentiometer located on the far right. The rear panel offers symmetrical XLR and asymmetrical RCA analogue outputs, complemented by the same pair of analogue inputs, so the device can also function as a full-fledged preamplifier. The digital part of the

## TEAC UD-507

# Technically perfect and musically tuned

**R**In November 2023, we tested and wrote an article in our editorial office entitled Digital Magician, whose main character was the TEAC UD-701N from the top-of-the-line Reference 700 series. A digital-to-analogue converter, but also a top-of-the-range analogue preamplifier, streamer and headphone amplifier, all packed into a stylish, compact chassis with an attractive industrial design. Exactly 24 months later, I have almost the same device in front of me, from the lower 500 series and with three basic functions: DAC converter, preamplifier and headphone amplifier. Compared to the UD-701 model, the only thing missing from its equipment is a streamer, whose function will be taken over by the Aurender A200 during testing.

### Description

The TEAC Corporation, based in Tokyo, Japan, is divided into the Tascam division, which focuses on professional studio equipment, and TEAC, which we know from the world of high-quality home hi-fi components focused on DACs, amplifiers, network players, SACD/CD,

The tested TEAC UD-507 model in black has a solid construction with precisely machined aluminium. Its front panel is 29 cm wide, 8.5 cm high, and takes up a modest 24.9 cm in depth. I like its side handles, which are actually protruding 5 mm thick metal plates mounted on the sides. With really heavy amplifiers, these handles make them easy to grip and also give the components a modern, technical look. However, the TEAC UD-507 weighs a modest 4.9 kilograms, so they are really just there to give an impression of maturity and importance. The front aluminium panel offers a view of logically arranged controls, among which is a proportionally well-placed display that does not detract from the purist design concept of the device. It has with a subtle and easily legible orange font. On the far left is a protruding metal rocker switch which is in the upper position when switched on and in the lower position when in standby mode. Above it, the letters TEAC are milled into the solid front panel. This is followed by a section

USB-B port for connecting a computer or network transport, optical and coaxial S/PDIF inputs for CD players, TVs or other sources. There is also a 10 MHz BNC input for an external master clock and a 12 V trigger output for synchronised switching of other components. Power is supplied via a classic IEC connector. The entire device stands on movable anti-vibration feet, which give it stability and isolate it very well from the base.

### Under the surface

Inside, TEAC has opted for its own discrete TRDD 5 D/A converter, with all digital signals first processed by a 64-bit delta-sigma modulator FPGA at 512x sampling. Only then do its 16 discrete elements per channel convert the signal to analogue. The entire analogue path (including the headphone amplifier) is designed as a fully symmetrical dual-mono topology with separate channels and two toroidal transformers specifically for the digital and analogue sections, which significantly

improves spatial presentation and contributes to a three-dimensional sound stage. Volume control is handled purely analogically using the TEAC QVCS (Quad Volume Control System). This is a precise attenuator with four independent circuits directly in the signal path, allowing the volume to be adjusted in fine steps of 0.5 dB, enabling the UD-507 to function as a full-fledged preamplifier. The TEAC UD-507 can play up to 22.5 MHz DSD and 384 kHz / 32-bit PCM, so you don't have to limit yourself to common Hi-Res formats. TEAC solves digital signal timing inaccuracy (jitter) using two low-phase-noise crystal oscillators noise, which ensure perfect synchronisation. For the most demanding users, there is even the option of connecting a 10 MHz external clock signal, which brings timing accuracy even closer to perfection.

The headphone section works with TEAC-HCLD2 (High Current Line Driver) output circuits, consisting of four "diamond buffer" stages, thanks to which the device can easily drive even demanding 600-ohm headphones. The maximum power output is 1,200 mW at 100 Ω in balanced output, which is comparable to purist-designed

separate headphone amplifiers. The headphone stage gain is adjustable in three steps (Low / Mid / High), so it can be precisely adjusted to the sensitivity and impedance of specific headphones. The TEAC UD-507 is also equipped with a full-featured MQA decoder, allowing you to play audio recordings in top quality from all digital inputs except Bluetooth. This is particularly useful for convenient playback from a mobile phone or tablet.

The device supports modern codecs such as LDAC/aptX HD, so wireless transmission can achieve a very decent level. However, it is still a lossy compressed signal, so for serious listening and to utilise its full potential, it is necessary to use a wired connection via USB or S/PDIF. Bluetooth is more of a supplementary feature for quick music playback. Let's say a simple streamer

ming. Another technological feature is RDOT-NEO (Refined Digital Output Technology NEO), which can smoothly oversample the PCM signal 2, 4 or 8 times up to 384 kHz and supplement the missing higher frequency components above 20 kHz. The result is a more airy, natural sound that is closer to the analogue character even with standard 44.1/48 kHz sources.

### Connection and listening

The first thing I had to do was connect the individual parts of the chain. To bypass the converter in the McIntosh MA12000 integrated amplifier, I connected the TEAC symmetrically to the McIntosh's XLR inputs and used the Aurender A200 digital music server, which I had borrowed from the editorial office for testing, as the signal source. I connected it via the RCA analogue output on the Aurender to the analogue RCA input on the UD-507. The complete cabling was provided by the editorial set of Driade Flow 808 Reference speaker and signal cables.

In direct comparison with the DAC in the MA12000, the UD-507 sounds, as they say, "at first listen" noticeably more accurate and clearer in detail, especially in the microdynamics and reverberations of the instruments. The music also has a slightly better balance.

The soundstage is wider and more focused, the instruments have a clearer contour, and, to my surprise, the bass is even tighter and faster. The second-generation DAC module integrated in the MA12000 is as very good and, in principle, high quality. and musically absolutely adequate for the flagship model of the American integrated hi-fi icon. However, its sound is slightly softer, the instruments are rounder and more generous, with a typical

## TEAC UD-507





## design

Precise workmanship Accuracy, detail,  
musicality Excellent headphone amplifier



## Nothing significant

with a pompous "McIntosh" presentation. However, I like its warmer colours, very pleasant vocals and a slightly more grandiose, but less analytical view of the recording. This is exactly how they sounded when compared to each other in Leonard Cohen's recording *You Want It Darker* (2016).

In Teac's rendition, Cohen's voice was more firmly focused in the centre of the stage, with a more readable texture and subtle nuances, the bass line was faster with better contour, and more of the small details of the recording could be heard in the background.

The DAC in the MA12000, on the other hand, renders this song softer and slightly warmer, with more generous space and a typical "McIntosh" touch, which means slightly less analytical, but very pleasant and extremely relaxed. In this configuration, the TEAC UD-507 delivers higher resolution and accuracy, while the MA12000 adds its characteristic musical volume and weight to the music.

With Imagine Dragons' *Demons* (Night Visions 2012), the difference between the converters was even more pronounced, especially in terms of dynamics and bass control. The intro, with its soft piano in the background and cleaner, smoother vocals, is dominated by the DA2, but the rhythm has a more precise attack when played through the UD-507 converter. The kick drum is firmer, faster, with a more readable structure in the lower range. In the choruses, where the song thickens, the UD-507 also maintains slightly better order. The individual layers of the composition remain nicely separated under his baton, not merging into a single "block".

The DAC in the MA12000, on the other hand, adds a little more body and rock volume to this composition, slightly rounding the edges and presenting it to the listener as a compact, energetic whole.

It would be disrespectful not to try out the specially designed and highly praised headphone amplifier discreetly integrated into the TEAC UD-507. To test it, I borrowed a top-of-the-line pair of Meze Empyrean II headphones.

a single, randomly selected track from Patricia Barber's *My Girl* (A Distortion Of Love 1992) to confirm that this all-rounder can also handle relatively demanding models with ease. The headphones reveal every little detail in the recording. Patricia Barber's voice is absolutely stable in the space, with beautiful, almost perfect articulation. The piano has a balanced mix of body and attack. It has a fast attack and a clean decay without any blurring. The TEAC UD-507 once again fulfils its role as a strict, very clean and accurate source. It leaves the Meze Empyrean II enough space for their magic with micro-detail and space, but at the same time keeps the bass firm and controlled, so that even quiet, more intimate passages have a picturesque structure and do not lose their rhythm or tension.

## Conclusion

The TEAC UD-507 has proven itself in practice to be an exceptionally versatile component that can

replace a top-of-the-line DAC, a serious preamplifier and a full-fledged headphone amplifier in one compact box. In combination with the Aurender A200 and McIntosh MA12000, it acted as the "rational" element. It delivered more resolution, more precise contours and a better-focused soundstage than the integrated converter in the MA12000, while maintaining a natural, musical presentation without technical dryness. The headphone section of the UD-507 is no immature accessory. With high-quality headphones, it offers sound that a separate headphone amplifier in the price range of the universal TEAC UD-507 would not be ashamed of. If

I wanted to find some weaknesses, the TEAC UD-507 is definitely not cheap, and its potential is best exploited by a more mature setup.

Overall, however, the TEAC UD-507 comes across as a very balanced, modern and technically confident component that can take an already good setup to the next level.

## TEAC UD-507

USB DAC/preamplifier/headphone amplifier

**DAC:** discrete TEAC TRDD 5

(proprietary FPGA-controlled delta-sigma DAC)

**Supported formats:** PCM: up

to 384 kHz/32 bit (USB),

192 kHz/24 bit (SPDIF)

**DSD:** up to 22.5 MHz (DSD512) – native via USB

**MQA:** full decoder (USB, optical, coax) **Inputs:**

USB-B rear (PC/streamer)

USB-C front – mobile, tablet, laptop

Optical (TOSLINK) Coaxial  
(RCA)

Bluetooth (LDAC, aptX HD, SBC, AAC  
– depending on region)

**Analogue inputs:** 1× XLR (balanced line in), 1× RCA  
(unbalanced line in)

**Outputs:** 1× pair of XLR, 1× pair of RCA

**Headphone outputs:**

6.3 mm jack, 4-pin XLR, 4.4 mm Pentaconn

**Headphone amplifier:**

**Output power:** up to 1,200 mW + 1,200 mW  
(balanced, 100 Ω)

**Dimensions (W × H × D):** 290 × 84.5 × 260 mm

(A4 footprint – may vary slightly depending on the source)

**Weight:** 4.9 kg

**Price:** €1,899

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