

Teac UD-701N Streaming DAC – More Than Just a Streamer

January 27, 2025 Anton



One of the really cool products that came back from Capital Audiofest was the Teac UD-701N. If you don't know who Teac is, they are a Japanese electronics company under the same umbrella as Esoteric and Tascam. Teac represents a more entry-level range of Hifi Products, however, they may be entry-level prices, but they are far from entry-level performance. What they learn developing their flagship Esoteric devices gets applied to the Teac gear albeit to not quite the same level, know you are getting top-notch designs. The 700 series represents Teac's highest line and their highest performance designs as a result. The UD-701N comes in at a very reasonable price of \$4299.99 (U.S.) but you get more than a streamer for that price. The UD-701N can be used as your preamp as it has both digital and analog inputs, as well as volume control, meaning if you want a simple system you can use it for much more than streaming. You could plug a phono stage in, or a CD transport and skip a separate preamp. The value proposition is pretty great on paper, but does the actual sound back it up? Well, let's take a listen and see how it stacks up.



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double-sided tape and they do offer a softer landing than the metal feet if you are stacking this on top of another piece of gear. You have a lot of connectivity options on the back, there are balanced and unbalanced analog inputs, balanced and unbalanced analog output, coax input, optical input, USB, Ethernet, Bluetooth, external clock input, and a headphone output. Teac really gives you all the tools to set the UD-701N up in any way your system requires or supports. It is worth highlighting the clock input as not a ton of digital devices at this price point have this connection. Interestingly Teac did not include Wifi on this model, however, I recommend Ethernet even when you have a device with Wifi due to it being a much more stable and fast connection.



I connected the Teac to my network via the ethernet as well I plugged my CD-11 via Coaxial input. I also connected an external drive with FLAC files. When Streaming I used both Spotify as it is supported and Qobuz through Roon. The UD-701N is a Roon Ready endpoint so you get full support. For output, I used the RCA as none of the Preamps I currently have available have balanced inputs. As for cabling, I used my usual suspects of SR Foundation, AudioQuest Forest, and lately the Esprit Celesta cables. The last thing to set up is the App, which is a pretty good app. Often times hardware companies have trouble making intuitive UIs and can be pretty hard to use, but I like the Teac App. It puts all your streaming



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options in one place as well as any connected USB media so you can easily find and play your favorite tracks. All set up we are off to the races.

UD-701N Sound

The UD-701N is somewhat unique in that it uses a proprietary DAC, the Delta Sigma DAC, well actually it uses two of them. That isn't where the doubling stops, this is a full dual mono design with completely separate power and signal circuitry from start to finish meaning an extremely clean output. The UD-701N is a very neutral device that does not seem to impart any tonality or filtering to any source you use with it meaning you can pair it with anything easily. The resolution and detail are the most obvious impact on sound and were easiest to notice when comparing the normal output of my CD-11 vs using the Teac as the D/A converter. The CD-11 is a great player for the money, but it certainly isn't a flagship model even for Rotel let alone among the incredible [CD players](#) available in the high-end market. Using it as a transport is an easy way to get two upgrades in one with the UD-701N, basically, you can have a much better CD player without buying a whole new player on top of a streamer. As I said the detail that the UD-701N offers is better than that from the DAC in the CD-11. With better detail, I also noticed that imaging was more precise and the sound stage opened up a bit. These improvements to the sound mean a more enveloping sound and a closer connection to the music

I am going to change the format of this review a bit as there is so much to compare I will be breaking it down by each type of input and output available as opposed to talking about the gear in general while listening to different music samples.





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One of the albums I played both with the CD-11 as a transport and as a player is “The Legend of Johnny Cash”. I have bought this CD twice now, having worn out my childhood copy from sliding it in and out of my CD binder to play so many times. This album as well as Modest Mouse’s “Good News for People Who Love Bad News” have been in constant rotation since I was a young teenager. Back then I played them in my portable CD Player either through Headphones or my killer MCS stereo from the 80’s, oh how far I have come. Now that I am done waxing nostalgic let’s talk about these albums played in two different ways. Johnny Cash has a very distinct voice that can probably be recognized the world over and while musically he has a varied discography, I think “The Legend of Johnny Cash” is pretty representative of his career making it a great sampler for this type of listening test. I will say simply the Teac sounds better than the CD-11. Johnny’s vocals are more defined and nuanced, especially noticeable in songs like Hurt and The Wanderer. Hurt is an emotional song and the impact can be felt even more when you get the level of detail and density from the UD-701N’s DAC.



Another great track on the album is “Highwayman” which also has Willie Nelson, Kris Kristonoff, Waylon Jennings, and the Highwaymen. The song is loaded full of distant transients that build the background and ambiance of the song and you get more definition of them with the Teac over the CD-11. The added depth of the soundstage is also immediately noticeable as those transients seem off in the distance and



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without them, the stage shrinks significantly. I also want to mention, when I was listening to some of the older recordings on the album such as “Cry! Cry! Cry!” the UD-701N is a little less forgiving. You can hear the flatness of the early recording which is a product of its time. It doesn’t sound bad per se, but it doesn’t have the same level of sound quality as his later better recordings and on a less resolving system it may not be as noticeable.

Switching to Modest Mouse is a bit of a different situation as it’s not a compilation of songs all through their career, rather it was a studio album. One of my favorite songs both musically and lyrically from “Good News for People Who Love Bad News” is “The View”. Listening through the album I noticed the CD-11 is tonally warmer than the UD-701N which makes sense based on who designed it. Ken Ishiwata who designed Marantz amps designed the CD-11 Tribute, which is where it gets its name. Marantz is somewhat known for having a warmer sound. I prefer warm to cold-sounding gear if I had to choose but when it comes to sources my true preference is neutral. It makes pairing gear easier and I tend to like to use my speakers as the final voice of the system which is much easier when the majority if not all of your chain up to that point is neutral. It will come as no surprise to long-time readers that I like warmer speakers so too much warmth in the chain and it can be overbearing. Playing through the very neutral Java Integrated amp the sound was very natural and clear. When I played through the Marantz SR7009 and my MC250 there is added warmth and the midrange gets more forward but these results are very much the result of the differing amplification. The MC250 is a very tubey-sounding solid-state amp and has a very rich midrange and smooth top end so it is pretty far from neutral.

In all listening tests, I overwhelmingly prefer the UD-701N to my CD-11. The DAC section is possibly the best you will find in something at this price point, especially something that isn’t just a DAC, but also a streamer, pre-amp, and headphone amp.

Streaming

The sound streaming is not much different from using it as a CD transport as it is another digital source and so long as you are feeding it Hi-Res files it should handle much the same as when being fed a raw CD data stream. I listened to both Qobuz and Spotify as it supports both. Sorry guys I’m not a Tidal User, I don’t care for their app interface and found during a trial period I preferred Qobuz in sound and ease of use. I keep Spotify though, and I know for audiophiles it’s sacrilege but I no one has managed to beat their suggestion algorithm and some of the music in my playlists still isn’t on Qobuz. I used Qobuz through Roon on my MacBook Air as I could not figure out how to connect the desktop app version of Qobuz to the Teac, though my iPhone 14 Pro was able to airplay Qobuz to the UD-701N. Granted I prefer to use Roon as it also has my music server of FLAC files available as well. I also connected an external drive of those same FLAC files to test out the app navigation of a connected drive. I will say how you organize the drive is somewhat important, I had a bunch of other stuff (photo and file backups) on there as well as it showed those folders as well so I did have to navigate through them. If you just drop albums on you should be good to go.

Streaming Spotify happens natively in the app, if you click on devices you will show the UD-701N as a connectable device and it worked very well. You basically use your phone as a remote, it is not using

Bluetooth but rather the UD-701N is running its own Spotify session. Sound quality-wise, it's not bad, while limited to what Spotify has available I think most people would be more than happy with what they get from it. I have said it before and I will say it again, I would rather listen to lower-quality music than not be able to listen to it at all, and some smaller artists I listen to don't produce physical media, and sometimes Spotify is the only place it is published. I'll take the reduced quality if it means I still get to hear songs I like. I listened to one of my favorite artists, Paul Conrad. He released a new album and a new single recently, the album is a departure from LXXXVIII, it is more of an ambient instrumental vibe. Paul is an Australian artist who also got his law degree while making music and now practices law, which is really cool to me. Paul has afforded Hifi Chicken some rare opportunities, we got to listen to his second album before it was publicly published as well as having interviewed him and kept up online. We also debuted his single off his second album when it came out which was a lot of fun. But as to the sound, 88 has some great bassy synths and heavily layered instrumental backing tracks and this is probably the best I have heard this album. Even though I am listening to Spotify it sounds elevated and more open. "California" is the song that got me hooked, Paul's moody dark vocals over the distant drums in the intro are simply sublime. The chorus brings everything to the foreground with a cymbal ride and adds more layers to the drums. Overall for Spotify, I am happy with the sound.



Streaming Qobuz and Flac Files from Roon is definitely a step up in sound quality. I played a few songs from albums that are on both Spotify and Qobuz and there is a clear difference in clarity, imaging, and dimension. One of the tracks I played was "Foolmuse" by Peter Cat Recording Co. off their latest album Beta. The Qobuz version of the song made the Spotify version sound closed in and veiled comparatively. Something I gleaned from this experiment is that even with how great the UD-701N sounds if you aren't



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feeding it the best you will not get all it has to offer. While streaming Hi Res through the Teac it made me appreciate digital so much more than I have in the past. I love vinyl and if you look at my analog front end it is clear as I have invested far more into it than my digital by an order of magnitude and then some. I am now reconsidering and thinking I need to put some more money into the digital side of my system. I am getting smooth clear sound that rivals analog, there is nothing harsh or cutting about the sound from the UD-701N. The dynamic range of digital is typically better than vinyl but something about analog captivates me, the silky mids draw me in every time. The bass extension and resolution of this digital sound is quite tantalizing especially when contrasted by airy highs and the speed and agility that digital offers. There is no moving mass in digital, you don't have to worry about losing detail from a stylus being overdriven by momentum. I have had a digital awakening.

The Headphone Section

I used two different pairs of headphones to check out the headphone section of the UD-701N, my Meze 99 Classics with their balanced silver cable, and my Beyerdynamic DT990 Pro (250Ω). The UD-701N balanced output is an XLR-style connector so you may need an adapter if your current balanced headphones use the 4.4mm or 2.5mm connection. The single-ended connection is the common 1/4" port. I prefer balanced output over single-ended anytime it is available and this time it is no different. In my experience, you get better channel separation and better imaging. I have both cable options for my Mezes, my DT990 Pros have an integrated cable so no balanced option for them without modifying them, which at some point I may do. A feature I really like about the UD-701n is when you switch outputs it returns the volume to 0 so you won't blow your ears out if you had it higher when listening to a set of speakers. I enjoyed listening to my headphones out of the UD-701N, if you are a serious headphone user, this could be the ultimate device. You get a really good headphone amp, loads of connectivity, a built-in streamer, and DAC section, and you can hook it up to any 2 channel system, as well. Sometimes the Headphone section of a non-dedicated device can feel like an afterthought, think of AVRs that have them, I can't imagine a lot of people are using an 11.2 channel AVR for a headphone amp. The UD-701N feels more like they wanted this to be used as a headphone amp as much as a 2 channel streamer, which is made more obvious by the inclusion of a balanced output.

Meze 99 Classics (balanced and unbalanced)

The 99 Classics are warm somewhat bassy headphones, which some may like, but if you pair them with a warm amp they can be overly bassy and get into the muddy territory. The UD-701N remains a neutral device in the headphone output which reels in the Mezes to a point where the warmth is fun and tempered. I played a variety of music through Roon and I was impressed regardless of the selection. An amplifier can not correct the limitations of closed-back headphones, but if it has an open spacious sound it can help with sound stage and imaging. Closed-back can be heady sometimes, meaning it sounds like the music is inside your head and not coming from the left or right. The UD-701N certainly aids in getting the stage wider and more outside of your ears. The balanced output also builds on that with better separation and imaging. With the single-ended cable, you can tell you are not getting everything possible out of the amp section, but for those of you with single-ended headphones, it still sounds good. Clarity is great regardless of connection type, meaning micro details and transients are tangible.



Beyerdynamic DT990 Pro (250Ω)

When listening with my Mezes (32Ω) I had the volume at 45, with the DT990 Pros, I had to turn it up to about 70 to get the same listening volume. You should be good at 300ohms for headphones like the HD600, however, I can not say for certain if the UD-701N will push the 600Ω DT990s to a listening level you may prefer. I will say the control the UD-701N has over the DT990 Pro is tantalizing. The level of detail and spaciousness with the semi-open back design is sublime. That said the DT990s do lack the bass that the Mezes have and the Teac doesn't fill it in due to it being a neutral amp. This combo however has reference listening potential due to how balanced the DT990 Pros are. I will say if you like bassy music and that thump, this combo may not be the best for you, who've if you prefer balanced sound with great levels of detail and a spacious and wide sound stage this setup is killer. I would say another great headphone for the UD-701N would be Grados.





Specs

DAC section

DAC	TEAC $\Delta\Sigma$ Discrete DAC \times 2
Upconvert	2xFs / 4xFs / 8xFs (maximum 384kHz)

Analog audio inputs

Balanced

Connectors	XLR \times 1 pair
Input impedance	50k Ω
Maximum input level	5Vrms

Unbalanced

Connectors	RCA Pin (gold-plated) \times 1 pair
Input impedance	25k Ω
Maximum input level	2.5Vrms

Digital audio inputs

USB

Connectors	USB B-type \times 1, (USB2.0 compliant)
Supported formats	
PCM	16 / 24 / 32bit 44.1k / 48k / 88.2k / 96k / 176.4k / 192k / 352.8k / 384kHz
DSD	2.8M / 5.6M / 11.2M / 22.5MHz

Coaxial

Connectors	RCA Pin (gold-plated) \times 2 pairs
Input level	0.5Vp-p
Input impedance	75 Ω
Supported formats	
PCM	16 / 24bit 32k / 44.1k / 48k / 88.2k / 96k / 176.4k / 192kHz
DSD	2.8MHz (176.4kHz/24bit DoP format)

Optical

Connectors	Rectangular (TOS) \times 2 pairs
Input level	-24.0 to -14.5dBm peak
Supported formats	
PCM	16 / 24bit 32k / 44.1k / 48k / 88.2k / 96k / 176.4k / 192kHz
DSD	2.8MHz (176.4kHz/24bit DoP format)

ETHERNET

Connector	RJ-45 \times 1 (1000Base-T)
Supported formats	



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PCM	16 / 24 / 32bit 32k / 44.1k / 48k / 88.2k / 96k / 176.4k / 192kHz / 352.8k / 384kHz (Stereo)
DSD	2.8M / 5.6M / 11.2M / 22.5MHz (Stereo)
Supported formats	
PCM lossless	FLAC, Apple Lossless (ALAC), WAV, AIFF, MQA
DSD lossless	DSF, DSDIFF (DFF), DoP
Compressed audio	MP3, AAC (m4a container)
USB flash drive	
Connectors	USB A-type × 2 (Front × 1, Rear × 1, USB2.0 compliant)
Supported file system	FAT32, exFAT and NTFS single partation
Supported file format	
PCM	16 / 24 / 32bit 32k / 44.1k / 48k / 88.2k / 96k / 176.4k / 192kHz / 352.8k / 384kHz (Stereo)
DSD	2.8M / 5.6M / 11.2M / 22.5MHz (Stereo)
Supported file formats	
PCM lossless	FLAC, Apple Lossless (ALAC), WAV, AIFF, MQA
DSD lossless	DSF, DSDIFF (DFF), DoP
Compressed audio	MP3, AAC (m4a container)
Bluetooth®	
Bluetooth® version	4.2
Output class	Class2 (rrange: 10m)
Supported profile	A2DP, AVRCP
Supported A2DP codec	LDAC, LHDC, AAC, SBC, Qualcomm® aptX™ audio/HD audio
A2DP content protection	SCMS-T
Number of saved pairings	Maximum 8
Analog audio outputs	
Balanced	
Connectors	XLR (gold-plated pins) × 1 pair
Output impedance	220Ω
Output level settings	Selectable from Fixed (0dB), Fixed (+6dB), Variable, or Off 2.0Vrms (1kHz, Full-scale, 10kΩ loaded, Fixed at 0dB)
Maximum output level	4.0Vrms (1kHz, Full-scale, 10kΩ loaded, Fixed at +6dB) 12Vrms (1kHz, Full-scale, 10kΩ loaded, Variable)
Unbalanced	
Connectors	RCA Pin (gold-plated) × 1 pair
Output impedance	180Ω
Output level settings	Selectable from Fixed (0dB), Fixed (+6dB), Variable, or Off 2.0Vrms (1kHz, Full-scale, 10kΩ loaded, Fixed at 0dB)
Maximum output level	4.0Vrms (1kHz, Full-scale, 10kΩ laoded, Fixed at +6dB)



6.0Vrms (1kHz, Full-scale, 10kΩ loaded, Variable)

Headphone outputs

Balanced

Connector 4-pin XLR × 1
Pin assign Pin1: L+, Pin2: L-, Pin3: R+, Pin4: R-

Unbalanced

Connector 6.3mm Stereo jack (gold-plate) × 1

Maximum output power

Balanced 700mW + 700mW (32Ω loaded)
Unbalanced 500mW + 500mW (32Ω × 1 loaded)
Supported impedance 16 to 600Ω

Clock sync input

Connector BNC (gold-plated) × 1
Input frequency 10MHz
Input impedance 50Ω
Input level
Rectangle wave Equivalent to TTL
Sine wave 0.5 to 1.0Vrms

External control

Trigger Input (12V TRIGGER IN)

Connector 3.5mm Mono mini jack × 1
Input level 12V, 1mA

Trigger output (12V TRIGGER THRU)

Connector 3.5mm Mono mini jack × 1
Output level 12V
Maximum current supply 100mA

Audio performance

*Measurement conditions: Input signal: 192kHz/24-bit PCM, Measurement output: RCA, DAC low-pass filter: On
Frequency response 5Hz to 80,000Hz (+1dB/-5dB)
Total harmonic distortion 0.002%
S/N ratio 108dB (A-Weight, 1kHz)

Power

AC120V, 60Hz
AC220 – 240V, 50/60Hz

Power consumption

40W

Standby power

0.4W

Overall dimensions

444 (W) × 111 (H) × 334 (D) mm (including protrusions)



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Weight	11.8kg
Operating Temperature	+5°C to +35°C
Operating Humidity Range	5% to 85% (no condensation)
Storage Temperature Range	-20°C to +55°C
Included accessory	Power cord, Remote control (RC-1330), AAA batteries × 2, Owner's manual, Foot pad x 3

Price: \$4,299.99 (U.S)



Pros:

- Solid Build
- Great sound quality
- Great Connectivity
- Room Ready
- Neutral Tone
- Built-In balanced Headphone

Cons:

- none

Conclusion

The Teac UD-701N is a device truly deserving of the title Flagship, it represents the top-of-the-line streamer from Teac and defines its class. To get this performance for under 5k is a rarity. There are streamers that will run you this amount or more and not have the connectivity to make it a competent preamp, headphone amp, DAC, and streamer all in one. It's also fairly rare for a Streamer of this pricepoint to have a propriety in-house designed DAC section, most streamers will use an off-the-shelf



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chip and build their circuitry around it. On top of great connectivity, the UD-701N is a dual mono design, complete with separate power supplies for each channel. Everything about the design and construction has the hallmarks of a flagship product. The tactile feel of the switches and buttons and overall build quality resemble that of much more expensive pieces. This is on my own shortlist for purchase and if you are in the market for a DAC and Streamer it doesn't get much better under 5K than the UD-701N from Teac.



For more information click the link below:

<https://teac.jp/int/product/ud-701n/top>

For U.S. Distribution Contact Playback Distribution below:

<https://playbackdistribution.com>