



Saving on the Highest Level

You can't really call a network player that costs around €16,500 a bargain. In STEREO's exclusive review, however, the new T+A PSD3100HV emerged as a relatively affordable alternative for demanding high-end listeners.

Matthias Böde



It is truly a dream device: T+A's network player SDV3100HV, equipped with almost every refinement, comfort and the best ingredients. It offers practically everything that the heart of a high-end fan might desire, including superb sound, and also fascinated us when we reviewed it in STEREO 6/2019. Just as ultimate as the quality and possibilities offered by this jack-of-all-trades is, unfortunately, its price of around €29,000. That's where many a dream suddenly shatters.

Thus, we were all the more excited for the smaller model, the PSD3100HV, which is now ready for series production. It does

indeed come in the same armored cabinet-like housing typical of the HV line from the German manufacturer and only identifies itself as the smaller one when you look at the nameplate. With a similar technical complexity and range of functions, it however comes at a price of €16,500; still quite a lot of money, but considerably cheaper than its SDV brother.

The most important external differences are that it lacks the balanced analog input and a coaxial digital input as well as the second headphone jack. Some of the connection jacks are also one step simpler. Internally, the PSD mainly lacks the „Network Audio Adapter“ (NAA), which is especially aimed at the ultimate lover of highest-resolution DSD files. It enables the transmission of up to DSD1024 with 22.4 megahertz bandwidth over the network by acting as the receiver for the necessary „HQPlayer“ software. Normal streaming clients usually lack the computing power for such extreme demands.

For the newcomer, the only barely less ambitious DSD512 is the end of the line. Signals of that format can even be fed via one of the two USB interfaces for USB flash drives and hard drives. The SDV3100HV does not offer this practical advantage. The PSD can also communicate with the HQPlayer, but only when linked to PC or Mac via USB and not directly via network.

Everything On Board

The PSD generally gives a slightly more modern impression when it comes to, for example, recognizing external storage devices or accessing integrated streaming services. You can see the time gap to the SDV and the rapid progress in the digital sector. Don't get me wrong: all of that works reliably and quickly in the SDV as well, but not quite as swiftly and smoothly. It's fitting that T+A is also introducing a new app with the, naturally Roon-enabled, PSD (see box), the pre-release version of which already worked well. By the way, T+A is currently working on an update to the streaming generation 3 for the SDV.

And actually, you don't even know which button on the interface you want to press first, which program to listen to first, so rich is the selection. And we don't even have



RUNNING ORDER

If you press the „Source“ button on the PSD, you can scroll through the numerous source options via a turn of the knob. It feels like an almost endless list ...



DIRECT CHOICE

The metal remote control offers, among many other things, the option of directly accessing the digital section and flipping through its inputs.



CONSIDERATE

If you place the PSD in a piece of furniture so that it is visually invisible, you can still operate it remotely without any problems thanks to external infrared receivers (right). T+A includes two of these, as well as practical BNC adapters for the antenna and coaxial digital inputs. Two Wi-Fi antennas are also included.

to mention the numerous digital inputs for that, including one in USB for computers plus three in HDMI for connecting TVs and Bluray players. Amazon Music, Deezer, Qobuz, Tidal and Spotify are also just a touch away. Those who want to listen to the radio do not have to rely on one of the thousands of Internet stations, but have a sufficiently sensitive, low-noise FM tuner at their disposal. Its stations can be stored for quick access, just like those from the DAB+ network. A corresponding receiver is included. The detailed, well-structured user manual explains what is possible and how everything works, and you'll probably browse through it again and again, since it always reveals new, unknown details.



A Complete Menu

This is especially true for the extensive menu of the PSD3100HV, which is accessed via the large display or the app. The device after all is only puristic in looks with its tidy appearance. For example, the inputs can be named individually in the menu, so that

FULL HOUSE

the name of a device appears instead of the simple input label. You can also adjust the brightness of the greenish display, activate an automatic shutdown that switches to standby after a longer pause, select a multi-level adjustable loudness, adjust bass and treble as desired, or shift the balance. Like the SDV, its smaller brother is also a „real“ preamplifier that drives power amplifiers or active speakers via a pair of RCA or XLR sockets.

The connoisseur can choose between four digital filters for PCM and two converter styles for DSD files, fitting the T+A-typical multitude of choices. For PCM

signals, that opens up the choice between an explicitly frequency- or pulse-optimized filter. Two others are supposed to deliver a particularly „analog“ sound or more dynamics-focused results, respectively. For DSD, the available settings are either geared towards highest noise elimination or lowest distortion. No matter the format, you can switch back and forth through the filters via the remote or the app from your listening position. Although the differences are subtle, they are still recognizable. And you might find personal favorites for different styles of music. The fact that the overall phase can be flipped by 180 degrees almost seems like a minor aspect.

Potential owners of the PSD3100HV will be pleased to note that the general DAC topology has not changed compared to the SDV: T+A still relies on its discrete solution for DSD, while the parallel PCM branch uses a total of four 1795 quadruple chips from Texas Instruments. The PSD however lacks the buffer stages at the output of the branches, which consistently separate them in the large T+A and – even more importantly – allow certain individual optimizations with regard to the achievable reduction of noise and distortion. Our laboratory confirms the PSD's extremely low values in certain areas. Omitting the SDV's super-accurate femto oscillators should have a similarly marginal effect. The PSD is somewhat less elaborately equipped in terms of its clock as well as in other sectors and is rather oriented towards the also



You can already see some parts of the large DAC/preamp board through the hole in the lid. This is how it looks in all its glory.

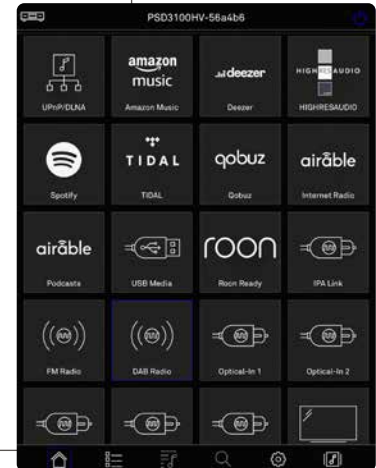
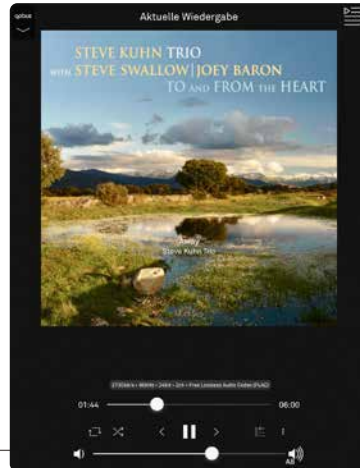
T+A-APP WITH NEW POSSIBILITIES

There are a few important changes coming in the new T+A app. These only do little to the clearly structured interface (below right), which provides a good overview of the variety. In fact, not all functions are shown here yet. You can still scroll down...

What is rather more important is that from now on, the smartphone or tablet in control of the playback does not have to stay connected to the app all the time when playing playlists. Instead, the PSD3100HV pulls the data into its internal memory and plays the music from there. This is convenient and also helps when the home network bandwidth fluctuates because someone in the family might be streaming a 4K video.

In addition, multiple control devices can now be connected to the app, which already ran smoothly and without problems in the previous version. Start a stream via your phone in the office and change it from the living room via iPad? No problem! The processes are mirrored so that you have a full overview from

every device. These improvements and enhancements were made directly in response to customer requests and suggestions, says T+A. The new version of the app now fulfills these requests.



high standard of T+A's R or 200 series of devices. Accordingly, the uncompromising SDV has „everything at full throttle“.

Analog Close To The Master

The power supplies, in comparison, are identical, and again separate up to the power input for the digital and analog circuits. This also applies to the analog input and output stages as well as the precise resistor array of the volume control. Thus it should come as no surprise that the PSD was very close to the SDV in terms of sound via the already short analog path. Anyone who operates a high-quality phono preamp via this path, for example, does not have to fear any compromises.

Now, however, we got to the really

exciting part, as we started feeding our favorite test songs to the new T+A streaming-preamp. At first, our sometimes ambitiously high-res, tracks came from a USB flash drive. On top of that, we were cruising through our own playlists as well as the whole musical universe via Qobuz. And in doing so enjoyed the fast and fluid reaction the amp showed to any commands given to it via the app.

During all that, the PSD 3100 HV displayed its full potential, playing extremely open, transparent as well as three-dimensional. Monty Alexander's particularly tenderly woven, fanned-out and delicate „Almost Like Being In Love“ glimmered with detail and grace, coming as a 24 Bit/192 kHz-File. Maria Pihl's „Malvina“ shone in exactly the

TEST DEVICES

Media Player:

T+A MP3100HV

Streaming-Preamp:

T+A SDV3100HV

Power Amps:

Audio Research Reference 160 M, Accoustic Arts Amp 2/4

Headphones:

T+A Solitaire P-SE

Loudspeakers:

B&W 801 D4, PMC Fact Fenestria

Cables:

HMS Suprema

(NF/Bi-LS),

In-Akustik NF-/LS-

2404 (Bi-Wire)

Fitting to the many possibilities it offers, the back of the PSD3100HV is packed with connections of all kinds – including two inputs for power.





HIGH ROAD

Those who own the ultra-sophisticated CD drive from T+A's top series, the PDT3100HV, can route its digital signals directly to the PSD via the particularly high-quality, proprietary „IPA Link“ interface (above). This even transmits the normally locked data from an SACD.



COOL THING

The new streaming board has so much processing power that its main processor has to be cooled by the silver plate in the lower half.

right mix of quietly breathing, low-frequency smoothness and the resulting elegiac touch, essential for the feel of the song. In short: With every sound, the Newcomer proved its high level together with the sophistication stemming from that.

The PSD3100HV certainly has every right to be judged on its own, but the question immediately had to come up: How does it compare to the higher-level „benchmark“ SDV? The direct encounter between the two more so underlined the quality of the PSD, rather than the existing but small gaps tipping the scales. We meticulously made sure to have selected the same filter types in each case.

Exciting In Every Respect

When playing PCM files of every variety, the new model indeed came close to the bigger one, appearing just as multi-faceted, crisp, homogeneous and well-organized. The three-dimensionality and realistic levels of depth are impressive, which is probably at least in part due to the exorbitant channel separation. Thus, the spatial spectrum was always expansively rich, but without any diffuse exaggeration, and with precisely focused as well as crisply depicted voices and instruments. Excellent!

The PSD does all this without any artificial attitude, but with the relaxed, confident touch of an expert. And the quiet background murmur of the audience to be heard in „Saturday Night“ by the Red Norvo Quintet – which it delivered in polished perfection – even seemed a hint more defined as well as a bit further separated from the front edge of the stage than when played via the SDV.

Sure, the top model was generally surrounded by a more substantial, more colorful as well as musically more sophisticated flair. This impression was strengthened when we switched to the DSD format. This is just as much the domain of the SDV as the performances via headphones – a higher effort was also made there, which is why the established SDV clearly achieves the more dignified, high-end sound here.

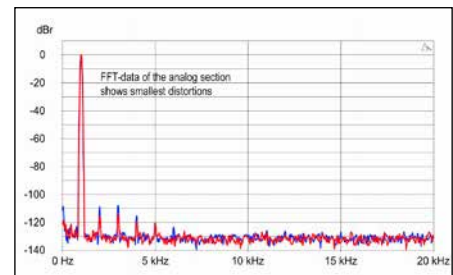
But that's almost it! If you take the hefty price difference of 12,500 Euros into account, you could hardly ever save on a higher level than with the PSD3100HV, which is exciting in every respect. ■

T+A PSD3100 HV

Price: around €16,500 (in black or silver)
Dimensions: 46 x 18 x 45 cm (WxHxD)
Warranty: 3 years
Contact: T+A Elektroakustik
 phone: +49 5221 76760
 www.ta-hifi.de

T+A fulfills the desire of many fans for a streaming preamp with extensive features, technical sophistication and high-end sound clearly below the price point of the ultimate big brother. The in all respects convincing performance of the for all that „inexpensive“ PSD 3100 HV – honored with new app – hardly makes you miss the bigger model.

Measurement Results



Maximum output voltage (1% THD)	7,8 V
Distortion factor at 0,03/0,3/1 V	0,02/0,002 /0,001 %
Intermodulation at 0,03/0,3/1 V	0,007/0,0007/0,00043 %
Signal-To-Noise ratio at 0,3/ 0,03 V	92/78 dB(A)
Output impedance RCA/XLR	60/80 Ohms
Upper cut-off frequency	>80 kHz
Volume control, synchronization error at -60 dB	0,025 dB
Stereo channel separation at 10kHz	104 dB
Power consumption standby/idling	<1/28 W

Lab Comment

Mains phase at tested device First-class measurement data, with the maximum output voltage in conjunction with the low output impedances reinforcing the suitability of the T+A PSD 3100 HV as a fully-fledged preamp; plus minimal distortion, high signal-to-noise ratios and broadband performance. Exorbitant channel separation!

Features

Links to Amazon Music, Deezer, Highresaudio, Qobuz, Spotify and Tidal, FM and DAB+, Roon Ready, Apple Airplay2, multiple digital inputs plus USB as well as three times HDMI, network capability, one high-level analog input (RCA), extensive function menu, metal remote control

STEREO - TEST

SOUND LEVEL 99%

PRICE/PERFORMANCE

★★★★☆

EXCELLENT