



## Antelope Audio Zodiac Platinum DAC DSD review



M O S N T O E H P A B G C B I E

Antelope Audio Zodiac Platinum DSD DAC is among few modern dacs, that instantly capture the attention. Not only with its appearance, but also with the story behind the brand and with charismatic Igor Levin. You can read my interview with him [here](#).



## MEET THE ZODIAC PLATINUM

So what is new and special about this golden musical box. The clear addition is the DSD and Platinum operate at 24bit/384kHz with up to DSD256 rate (format). The handy feature of DSD capable playback is something rather unusual, but interesting. The DSD up sampling option. This upsample the DSD files up to the mighty 12.288MHz. I'll be getting deeper into the sonics later on, but the difference it's there.

For the purist among us, that have second thoughts regarding the handling of the gain in preamplifier stage in digital domain Antelope introduced resistor ladder attenuator. It seems more and more manufacturers are

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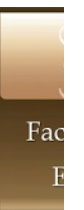
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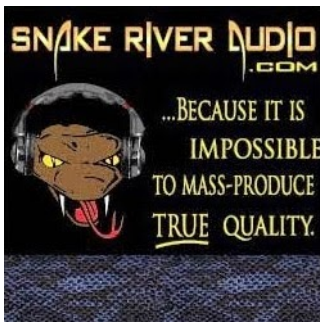




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taking the role of preamplifiers much more serious and as Antelope Audio Zodiac Platinum DAC can be not only your digital HUB, but a complete front end control centre the need of high quality preamp section becomes almost mandatory.

I've seen the drastic change of public opinion about the need of preamplifier when used with digital front ends. Many argued, that the purity is only gained when used the digital volume directly from software or ITB (in the box). Lately, even some of the hard core followers of this approach recognised the clear benefits of dedicated analog preamplifier stage. In my opinion its almost always needed. It gives much more life and there dimensionality to the music.

And in my listening notes I've highlighted the preamp section as something of a must being mentioned. It added a substantial feeling to the reproduced music.

Let us look into some of the unique features of Platinum:

#### WIDEST DSD SUPPORT

Support for DSD64, DSD128, via USB (DoP) and a unique DSD upsampling mode to DSD256.

#### HIGHEST SAMPLE RATES

An Antelope-designed custom USB chip offers ultra-low jitter and streaming support for up to DSD128 and 384kHz PCM – four times higher than similar devices.  
DSD Upsampling

The unique DSD upsampling mode from DSD64 and DSD128 to DSD256 takes advantage of lower-order modulators and gentler noise reduction filters for the purest possible reproduction... All the detail that DSD is capable of.

#### Direct-To-Analog DSD conversion

The Zodiac Platinum converts DSD directly to analog for optimum performance – it does not convert to PCM then on to Analog as others do.

#### FPGA PCM Upsampling

For natural detail and stunning stereo imaging even in PCM mode, switchable 64-bit precision 8x linear phase upsampling using a dedicated FPGA (Field Programmable Gate Array)

#### Quad DAC architecture

Independent dual DACs per channel to eliminate crosstalk and improve dynamic range and linearity.  
Acoustically Focused Clocking technology  
Antelope AFC with 64-bit DSP, backed by an ultra-low jitter, oven-controlled crystal oscillator for detailed and focused sound.

#### Precision Relay Control

Fast, quiet, precise, and dedicated stepped relay attenuators for left and right outputs – accurate to 0.05dB.  
Relay-based Input and output trims with front panel control.  
Dual, variable impedance headphone outputs  
Headphone outputs are relay-based, fed by dual-stage drivers with impedance control.

#### New Voltikus PSU Included

Antelope's 2nd generation, triple regulated power supply with integrated power line filtering, new high-performance power cable, and precision locking power connection.

#### Atomic Clock Input

Direct connection for the 10M – Antelope's 10MHz Rubidium atomic master clock for the ultimate reference, ultimate quality, and ultimate imaging.

#### Zodiac Control Panel

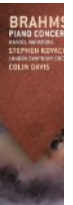
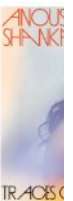
Control application for Mac, PC, and mobile gives full access to Zodiac functionality.  
Auto-update

Automatic, internet-based device updates  
Aluminum IR remote  
Main volume, headphone volume

## FIRST IMPACT

I would dare to say that Platinum is quite a huge step from Antelope Audio Zodiac Gold 384kHz DAC I've reviewed [here](#). And Zodiac Gold 384kHz was already a performer worthy of mentioning.

Everything seems more balanced and Antelope team managed to bring the transparency, that doesn't go into the harsh territory as often happens with the contemporary dacs. There is still a recognisable controlled sound, that shows its potential especially with the high-res material. Antelope Audio Zodiac Platinum DSD is less studio sounding that Zodiac Gold and more closer to music. It recreates, that direct access to the recordings and the atmosphere without artificial bloom and without the curtains or layers of sound that blocks the intended replay. It feels right on the prolonged listenings. Especially with headphones this is mostly important.





There was very little digitalis with both headphone and speaker listening.

This is very revealing and potent machine, that feels like totally upgraded Swiss knife modern musical DAC. And as mentioned above, this can be your personal digital hub without thinking twice.

## THE POWER OF THE VOLTIKUS 2

It also seems that Voltikus 2 brings a lot to the Zodiac Platinum DSD DAC impact. Antelope upgraded all the crucial things and this comes clear with the overall balanced sound. I would dare to say that the more controlled, stressless and avidly projected sound was the Voltikus 2 "fault".

Ask any established audio designer what is the most important part of audio component and they'll mostly agree on the importance of power supply. It's great to see, that Antelope team did the needed to upgrade what was needed and boost the "guts".

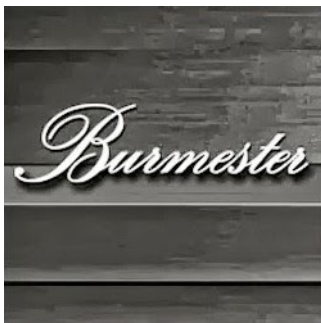
## VERSATILE INPUT/OUTPUTS



Being the true high-end audio front end Swiss knife and digital hub Zodiac Platinum DSD DAC offers a variety of inputs and outputs:

- » 2x 1/4" TRS headphone outputs
- » Balanced, trimmable analogue XLR left/right outputs
- » Unbalanced, trimmable analogue RCA left/right outputs
- » Balanced, trimmable analogue 1/4" TRS left/right inputs
- » Unbalanced, trimmable analogue RCA left/right inputs
- » AES/EBU digital input (PCM up to 192kHz, 24-bit)
- » 2x S/PDIF Coaxial inputs (PCM up to 192kHz, 24-bit)
- » 2x optical TOSLINK inputs (PCM up to 192kHz, 24-bit)
- » USB - standard B-type connector (Up to DSD128, PCM 384kHz, 24-bit)
- » 10Mhz Atomic clock / word clock BNC input
- » De-jittered AES/EBU output (PCM up to 192kHz, 24-bit)
- » 2x de-jittered S/PDIF Coaxial outputs (PCM up to 192kHz, 24-bit)



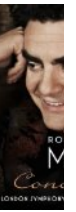


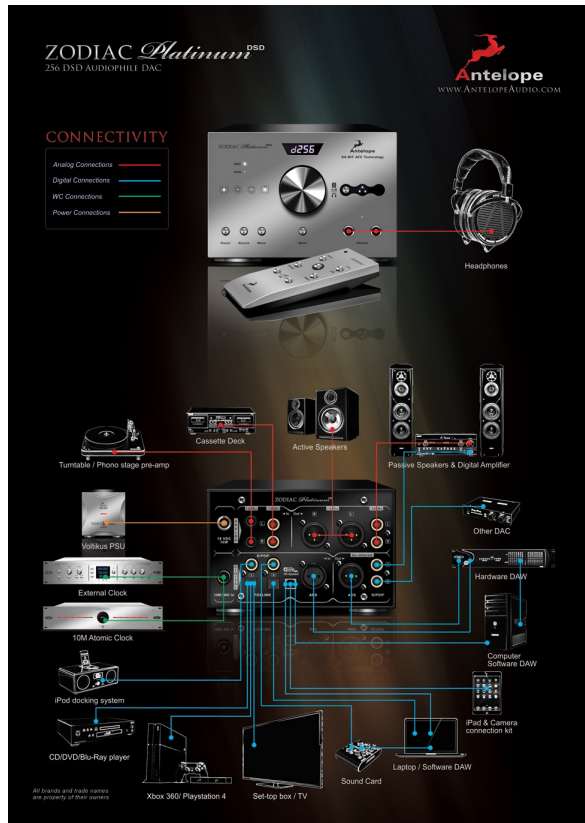
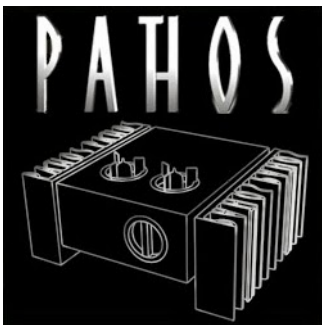
Noticed 10Mhz Atomic clock / word clock BNC input? Yes, this means Platinum can use the mighty external Atomic clock to get really into the deeper universe of zero and ones. Atomic clock might not be widely known to high-end crowd, but in pro audio side it already won over the mind of many big studios. I'll try to get my hands on this intriguing device in future as my mind is also restless regarding what external and especially Atomic clock can do. If you noticed recently the Gold Note Farvard ultimate CD player also added an option for internal fixed atomic clock. It will be interesting how this will develop inside of high-end audio market.

Here is what Antelope highlight regarding their Signature Antelope clocking

*"The foundation of the Zodiac Platinum is the renowned 64-bit, Acoustically Focused Clocking and the ultra-low jitter oven-controlled crystal oscillator, which stand as a guarantee of unprecedented sound quality - used by the best recording, mastering, and post production studios around the world.*

*In addition, the Platinum is equipped with a 10MHz input for the legendary Antelope 10M Rubidium atomic clock, providing the most accurate and stable clocking reference, and uncompromising digital to analog conversion."*

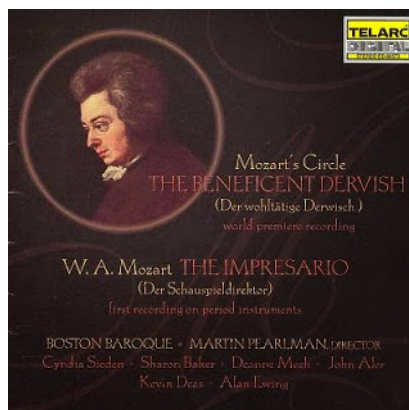




## HIGH RESOLUTION MUSICAL TAKE

While other genres do get a benefit, the real shift in performance was best shown with classical music where things go very subtle. And especially with the Opera I could spot THE CHANGE. For example with "Der Schauspieldirektor" Mozart's Circle: The Beneficent Dervish; Mozart: The Impresario. In this recording everything feels naturally transparent with such an easy life like feeling that lets you joined the feather like stage play. The soprano decay and delay in space is outstanding and recreation of the atmosphere is instantly involving. Everything feels linear across the frequency range and the vocals and stage become palpable; at the reach of the hand.

With Beyerdynamic T-1 headphones connected to the Zodiac Platinum DSD DAC headphone amplifier the performance reminded more to the Stax Omega stand out reproduction rather than typical dynamic high-end headphone system. That was quite intriguing and this rarely happened on my watch.



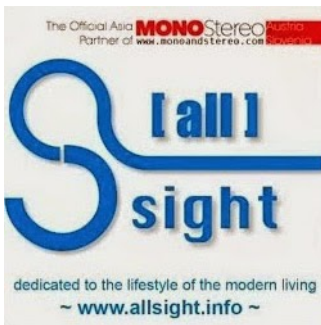
## DSD

We've seen the recent rants over the DSD impact. Some argue, that this is just a trend while others try to use its benefits. Antelope took the DSD up to their route:

*"The Zodiac Platinum DSD DAC supports up to DSD128 (Double-DSD) and 384kHz, 24-bit streaming to a custom-designed, ultra-low jitter USB connection, as well as AES/EBU, S/PDIF, and TOSLINK PCM support.*

*The DSD features include a unique 256X upsampling mode where DSD64 and DSD128 are upsampled to DSD256, thereby releasing the true potential of DSD - delivering new standards in accuracy, transparency, imaging, and dynamics."*





Below is the video of Igor Levin Talks talking about the Zodiac Platinum DSD:

I have enough material to compare music across different genres with the songs I love and know to get objective. Additionally Morten Lindberg of now legendary 2L record label helped with the high-res and DSD material to compare so called PCM vs DSD side of story.

Now, for some DSD might be a temporary marketing hype. We did see how instantly high-end audio market started to grow by large with devices that supports DSD on a weekly basis. More intriguingly even a hard core analog fan Chad Kassem of Acoustic Sounds started to offer DSD downloads. Hell freezes over? You'll be the judge, but there must be something in this format to move the industry at large beyond mere financial interest. Hopefully :))..

Let me look into some of the music and how it compare in PCM and DSD.



The thing, that I can clearly point out on the DSD side is the mid range. The rich and palpable warm nature of it. This feeling mostly reminds on tube like analog reproduction and that is the most evident attraction of the format along with so called unedited process. If the transfers from analog master tapes were really made directly without editing into the pure DSD format, then we could talk about clear benefits. In this case and with few albums I can confirm it. It's still not so close to the high-performing vinyl reproduction, but so far it might be the biggest step up and the closest one. The best impact was with the albums recorded in the golden age of analogy (namely 50's, 60's and 70's). These were the times when musicians and recording engineers were all shining at what they did best.

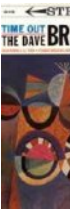
With contemporary recordings the difference in my opinion quite narrows down to the personal taste. It can be more on the exact technical side and the audible difference comes to the favourable decisions rather than deeply audio elaborated. This was clearly shown with the high-res material from 2L record label to prove the point.

On the non DSD high resolution side the Zodiac Platinum performed a bit more neutral and open and DSD gave a bit more of a warm feeling to recordings. Both approaches can be used to the good advantage in the certain system approach and with the preferable sound output.

## THE UPSAMPLING

The unique feature of the Antelope Audio Zodiac Platinum DAC is the DSD upsampling. This almost goes into the esoteric digital grounds with Igor Levin taking DSD to the new highs.

*"When I started working with DSD, I realized that there's the whole aspect of DSD that makes upsampling even more necessary, even more relevant to DSD than it ever was to a PCM. Well, why's this? Well, the DSD is a one-bit signal. It does its trick by means of upping the sample rate at which one bit conversion is performed. In the standard DSD, the conversion is performed at 64 times the sampling rate and it's got only one bit to play with and because it tries to construct all this dynamic range that would have come from having*





multiple bits, you really need this very very high frequency at which this one bit is manipulated, so the thing about the DSD, this technique of constructing multiple bits from just one bit – the higher the sample rate the better it works. So that if we could have recorded DSD instead of the 64 times using a 64 time DSD rate or single DSD rate, some people do like a dual DSD rate which runs at 128 times but the higher you run it the better it gets, so that's just the way – that just comes out of mathematics of sigma-delta modulators. Once I realized that, then I said well OK even in cases where the original material was not recorded at higher rates we can still use the same mathematics that we use in the upsampling with the PCM in order to produce higher sample rate DSD and that's going to make a big difference when the DSD is reconstructed. So, in a way I would go so far as to say, well we've built the best DSD that's ever been done by actually improving it through this upsampling process."

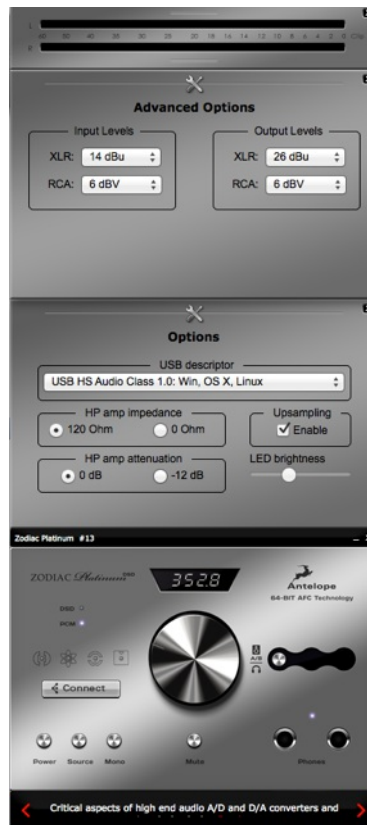
And what's my practical experience with this feature? Like with all other things in high-end audio we can always argue about the real practical application and listening results. For some even the PCM up sampling is a too much to take.

I can conclude my feelings regarding the DSD upsampling the same as with the PCM side. When applied properly it offers more natural and lifelike musical reproduction. The difference can range from subtle to more evident, but often depended on the musical material.

The "effect" of Antelope Audio Zodiac Platinum DAC DSD upsampling was similar. My listening notes brought up the reflecting views of the PCM side, but more interestingly the added DSD warmth character I mentioned before seems to disappear to a certain degree when upsampled. It kept somehow the vibrant nature, that it often associated with vocals and acoustical instruments, but removed some of the layers that covered more transparent sound.

## SOFTWARE PANEL

Great additional new feature is also a Platinum software panel. This connects when Platinum is plugged directly into the USB port and offers a variety of features combined with monitoring. It gives the Platinum even more credibility and flexibility.

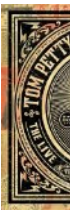


Control panel of DSD DAC

## CONCLUSION

Antelope Audio Zodiac Platinum DSD DAC doesn't impress with in your face nonsense like most cheaper siblings, but drags you in the music and then reveals its potential while you're taking your real time for true listening. I prefer it like this, as the initial fast and bumped ecstatic impressions usually quite quickly transforms into something that stand out too much. In either directions. This is often associated with more entry level DAC's.

The level of step up in quality of performance when used with the more "complex" material becomes evident after some time being spent with Zodiac Platinum. When removed from the system, you'll start noticing the benefits it bring without much overthinking. The hankering part is not most pleasant one, but it dictates the level of performance boost that Platinum holds.





It took digital audio quite some time to start making sense. At least in my world and I've been in the digital domain from the earliest start.

Antelope Audio Zodiac Platinum DAC DSD is a product, that goes beyond the trends messenger, but shows a very reasonable path to the future of digital playback.

The DSD part of audio is here. Like it or not. There is quite some material regardless of many claims against. I would avoid some modern classic recordings for their editing in cut and paste style, but there is still a large amount of contemporary classics to enjoy for really long time. And what to talk about golden year repertoire, 80's pop etc. For those having the access of SACD DSD files, the DSD capable DAC's became a petite pleasure. And this means the terabytes of high-res high quality material as seen around the nets...

DSD is not in race with PCM and I think Igor Levin understand this clearly. It compliments it.

Zodiac Platinum builds on Zodiaca Gold in a grand way and with enough twists to make it avidly stand above ordinary DAC's. This is darn serious product with the foundation, that seems to only being start taking its impact on high-end audio.

<http://www.antelopeaudio.com/en>

**What comes In The Box with ZODIAC Platinum DSD DAC:**

- Voltikus Audiophile grade PSU*
- Remote Control*
- Printed Documentation*
- High - performance DC Power supply*
- IEC Power cable*
- USB cable*
- Optical TOSLINK cable*
- Dimensions of bundle Width: 166 mm/6.5"*
- Height: 112 mm/4.4"*
- Depth: 193 mm/7.6"*
- Weight of bundle 5.7 kg/12.5 lb*



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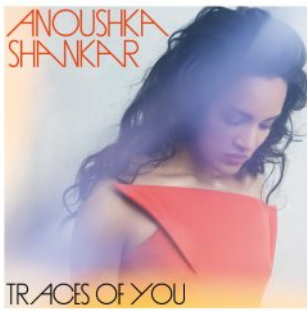
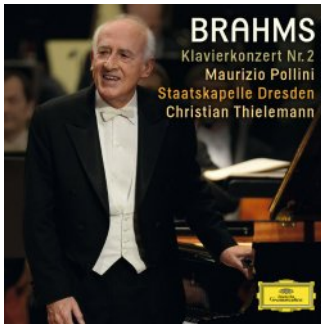
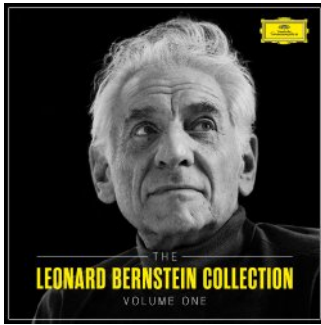
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