

01 ATLANTIS DAC

Atlantis / DAC



01. ATLANTIS DAC



Rediscover your recordings with the most accurate and musical Digital to Analogue converter created to date. Atlantis DAC is the flagship Digital-to-Analogue converter from Wadax. It's a 2-box product, designed in a Dual Mono configuration with fully complementary design and incorporates all the latest core technologies from Wadax Labs, including the musIC 2 chip. Its construction is extremely complex and its composed of more than 4,000 parts.

- Proprietary MusIC 2 feed-forward correction of non-linearities in the decoding process.
- Real-time monitoring of PSU output makes Atlantis six-times quieter than the already outstanding Wadax Pre 1 Ultimate Trio.
- Sophisticated implementation of the super accurate Zepto clock virtually eliminates jitter before the MusIC 2 chip even gets to work.
- Completely discrete analogue output stage (a fully complementary design involving over 400 separate components) ensures that you lose none of the dynamic range, musical authority or bandwidth generated by the Atlantis DAC.

01

FEEDFORWARD PROCESS. music

The brain of Atlantis DAC is the musIC 2 chip. The musIC 2 chip improves the already outstanding results of the first generation musIC chip. The musIC process is an extremely sophisticated mathematical process based on a feed forward concept. The behavioral model of the signal path is stored in a local memory, and the musIC chip can forecast, before sending the audio data through the system, analogue output in real time and determine the error and nonlinearities. The audio stream is modified slightly before it is sent to the DACs, so these small changes added compensate with nonlinearities and errors. This approach is unique in the industry and brings closer to the music than was ever before.

Besides, Newly developed algorithms make Atlantis quicker, quieter and even more natural sounding than the original MusIC process.



02

CLOCK

Clocking is critical in a D/A converter. For the ultimate performance, Wadax developed a custom clock, exceeding the already outstanding specs of the previous Zepto clock. The Zepto 2 clocking technology is based around a proprietary OCXO improved in short term stability and other key factors, but most importantly, clock routing across the clock-sensitive elements. This involved a full circuit redesign so track lengths to all critical parts are tightly controlled. Total jitter is now 12 femtoseconds from 1-100 KHz, the lowest figure in the industry.



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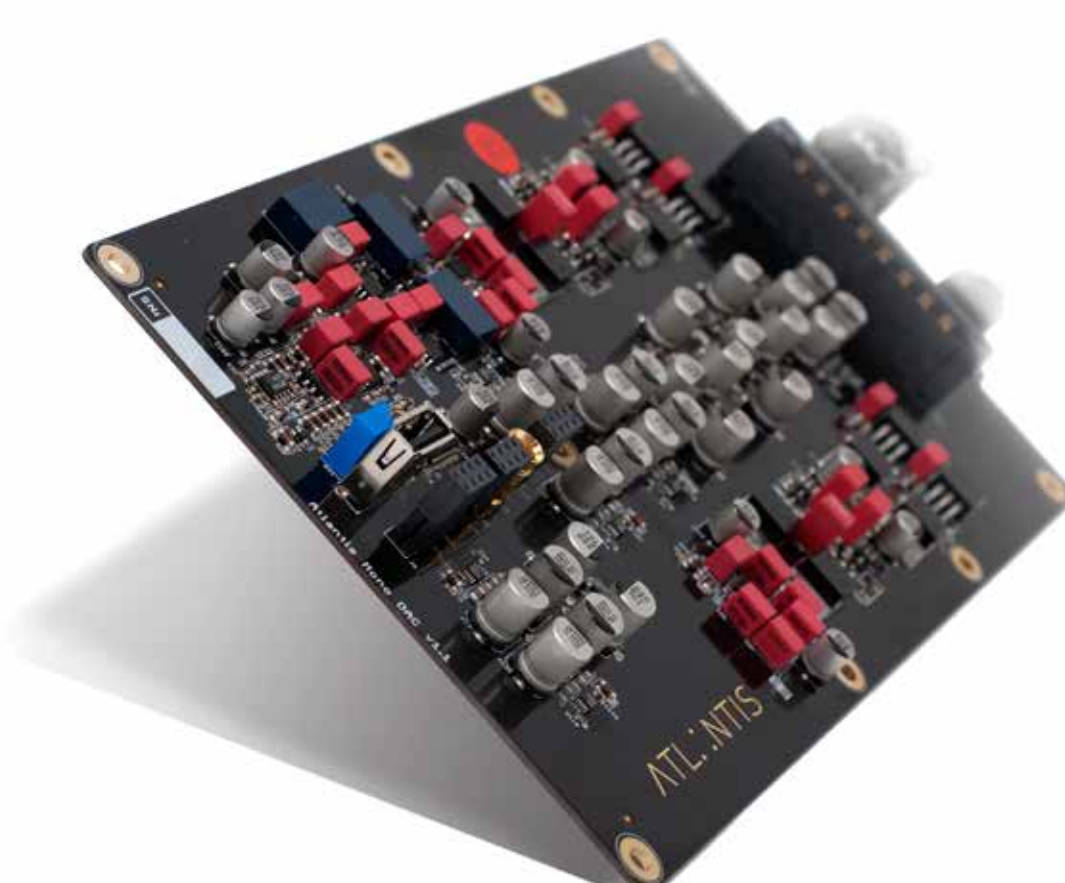
NATIVE PLAYBACK

Atlantis DAC preserves the type of audio coding that is provided by the digital audio source from beginning to end. PCM are played natively, as well as DSD are played natively. This ensures the original properties are preserved and the time base is also kept. The dual frequency clock structure of the clocking system supplies the correct frequency for each type of track so synchronous native conversion is preserved. Most High-End industry converters transcode DSD to PCM before conversion, since the DAC circuitry on-board are multi-bit type.

04

OUTPUT STAGE AND ANALOG CIRCUITRY

To deliver optimum results, musIC 2 feedforward technology starts with the best possible analog circuitry. Its discrete output stage and I/V conversion circuitry are composed of 400 parts, many of them build to custom specs. The result is an unmatched capability to drive all possible loads. All analog circuitry is fully balanced.



05

MQA

Atlantis DAC is built around a modular construction. Based on the system setup, there are different input boards to accommodate different equipment combinations. MQA is probably one of the most exciting new technologies that arrived in High-End audio. Atlantis DAC is an MQA certified product. Best results are obtained when mated with the Atlantis Server.



06

UPGRADEABLE

Atlantis DAC is designed as a totally modular product. From power supply to the main DAC circuitry, all key functions are housed in modules. This ensures total upgradeability over time. Furthermore, its advanced digital control software can be updated remotely, without user intervention. For this, the unit must be connected to any router port that has internet output.

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07

CHASSIS DESIGN

In an extreme performance DAC, the chassis plays a very important role. Clocks are especially sensitive to vibrations, as are other key components in the unit. The correct chassis design prevents blurring from acoustical feedback and the own vibratory behavior of some parts.

Atlantis DAC chassis has been designed following advanced finite element analysis (FEA) to control vibration energy transfer, away from the sensitive areas of the unit and towards the built-in vibration coupling elements. Its alloy is a specific combination of different alloys so mechanical impedance is correctly layered.

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PSU

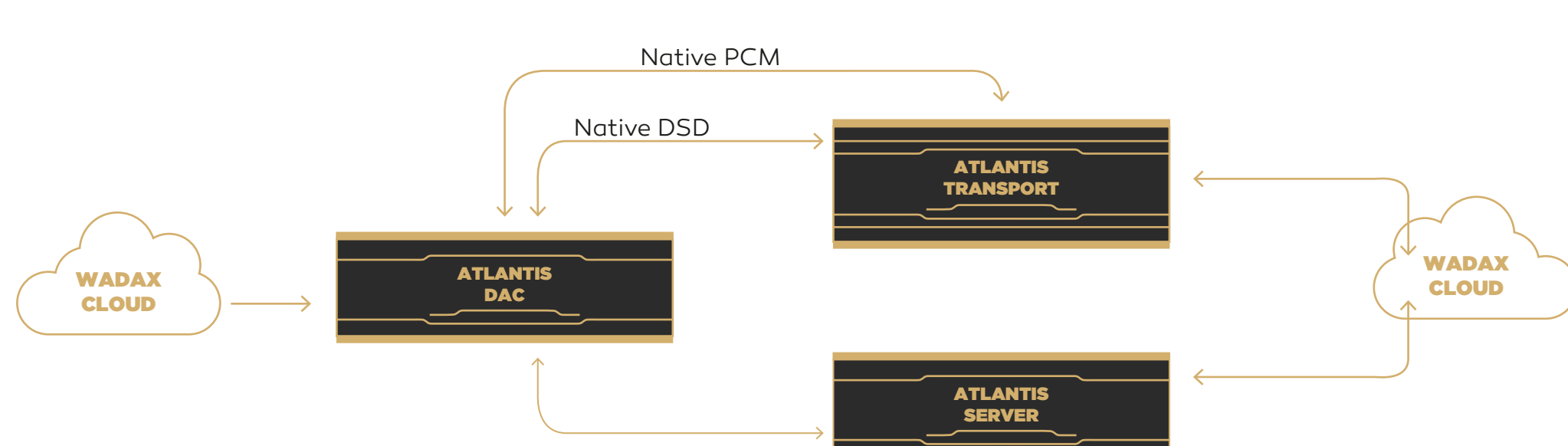
The Power Supply of Atlantis DAC is largely responsible for its unique musical skills. Extremely sophisticated and complex, its housed in an external chassis that is the same size as the main DAC unit. It is built following a symmetric dual-mono design, with two custom umbilical cords that provide power supply to the DAC unit. The heart of the design is a unique topology based on 3 custom transformers, wound around a custom formulated core and would following a specific technique to optimize noise rejection from the mains. The power supply is composed of more than 500 parts. It is the most elaborate power supply ever designed for a DAC.



09

UNIVERSAL

Atlantis DAC can be natively connected to Atlantis Server and Atlantis Transport to reach the best possible performance, in a native synchronous topology, or can be connected to any other digital equipment of any other brand. Interoperating with Atlantis Transport, Atlantis Server and compatible with Trio Phono.



Output Level: 2V / 2.25V / 2.5V
 Inputs: USB (32-384KHz, 16-24-32 bits, DSD64, DSD128, MQA), SPDIF RCA, SPDIF BNC, AES-EBU (32KHz-192KHz, 16-24 bits), Native Wadax Link (native PCM, DSD), Phono
 Wadax Link: to connect synchronously to Trio Phono.

User interface: 5 inch capacitive touch full-colour display 800x480
 IR remote control
 Power: 110/220V, switchable.
 Weight: 30Kg (main unit), 32Kg (PSU).

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ATLANTIS SERIE

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ATLANTIS TRANSPORT

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ATLANTIS SERVER

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