

Twin Phono Turntable Preamplifier With Dante®/ AES67 Network Audio Interface



TWIN PHONO AMPLIFIER

Athens 2 Network Audio Turntable Preamplifier



Highlights

- Two Stereo Phono Inputs
- Best In Class RIAA compensation
- Dante® AES67 Network Audio
- Moving Coil & Moving Magnet Inputs
- Impedance, Capacitance & Gain Settings
- Low Noise Digital DSP Design

Overview

Athens 2 is twin RIAA phono preamplifier with Dante® and AES67 network audio outputs.

It is a mains powered device with two high quality stereo turntable preamplifiers inputs. Each preamplifier has its own set of preset controls to allow accurate matching of the Athens 2 input circuitry to the turntable's cartridge. Input gain, input impedance and input capacitance can all be set for each of the two stereo inputs. The Athens 2 is suitable for use with both moving coil and moving magnet cartridges.

To provide the best possible equalisation of the RIAA curve the preamps feature high quality high tolerance analogue circuitry followed by a high quality analogue to digital converter and DSP. The combination of the analogue circuitry and DSP provides a very good quality RIAA equalisation resulting in a very flat output.



Athens 2

Network Audio Turntable Preamplifier

Features

- Redundant Network Outputs**
 The Athens 2 features our popular redundant Ethernet network interface featuring twin copper & twin SFP (suitable for use with fibre SFP modules) slots. These 4 Ethernet ports can be set to either work using Audinate's fully redundant Primary & Secondary Dante® network audio facility or set as a network switch for connecting to other devices.



- Dante® & AES67 Outputs**
 The network audio output circuits feature both Dante® and AES67. Internally Audinate's Brooklyn module is fitted providing AES67 compatibility alongside its native Dante®
- Twin Phono Preamplifiers**
 Two completely independent stereo phono preamplifiers are provided, each with their own network audio outputs. These high performance low noise amplifiers are suitable for use with either moving magnet or moving coil cartridges.
- RIAA Equalisation**
 A very important aspect of any phono preamplifier is its ability to provide accurate RIAA compensation. The Athens 2 provides best in class performance in this respect by harmonising the power of high tolerance components in the initial analogue input circuits followed by a large dynamic range analogue digital converter (ADC) and then further improvements are provided to the RIAA compensation by a digital signal processor (DSP).
- Dip Switch Setup Controls**
 Each of the two stereo audio inputs have their own associated input controls. These controls are on 'Dip Switches' and are meant as set and forget controls not used on a daily basis. As such the dip switches are mounted behind an anti tamper window to prevent unwanted fiddling by non-engineering users. To aid setup of these dip switches the Athens 2 features a printed LID providing an overview of the dip switch settings.

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Features



- Gain Settings**

An input gain range of 60 to 40dB in 5dB steps is provided. This provides suitable input gains for Moving Coil and Moving Magnet cartridges.
- Impedance Settings**

The dip switches provide 15 different input impedance settings to allow the Athens 2 to accurately match the requirements of your cartridge.
- Capacitance Settings**

If you're using a Moving Magnet cartridge then as well as providing correct gain & impedance a phono preamplifier must also offer the correct load capacitance for the cartridge. The Athens 2 provides 15 different capacitance settings.
- PPM**

Two stereo 4 LED Peak Programme Meters (PPMs) are fitted to enable a user to have confidence that the correct output levels have been set and that everything is working OK.
- Power**

Athens 2 has a low noise filtered internal mains supply. It has an industry standard IEC plug for its input and accepts a wide voltage range making it suitable for use Worldwide. An internal fuse provides an added layer of protection.
- Mechanics**

An all aluminium construction is used for added strength and low weight. Front, rear & side panels are manufactured from our own bespoke extrusion, and the unit is black anodised. Side extrusions feature fixing holes to enable the unit to be permanently screwed or fixed down are provided. Graffiti is laser etched onto the panels to provide extra long life.

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Athens 2

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Specification

NETWORK/ Dante®

Physical Interface

2 off Rj45
2 off SFP slots

Audio Sample Frequency

48kS/s

Transfer Rate

1000 Mbps

Dante™ Chipset

Brooklyn II

Note: suitable for acting as master clock for a network incorporating many Ultimo chipsets

AES67 Compliant

AES67 compliant

PHYSICAL

Mechanics

All aluminium, extruded sides & panels
black anodised with laser etching

Size

275 x 225 x 45mm (w x d x h)

Weight

1.25Kg 2.75lb

Shipping Weight

2.75Kg

Shipping Size

62 x 42 x 12 cms

Shipping Carton

Rugged export quality cardboard

POWER

Mains Voltage

100 - 240 VAC +/-10%

Mains Frequency

50 to 60 Hz

Consumption

10 Watts

AUDIO

Input Gain Range

60 to 40dB

Input Impedance (Ohms)

47000, 1000, 470, 320, 220, 180, 150, 130,
100, 90, 80, 76, 68, 60, 56

Input Capacitance (pF)

22605, 22505, 22385, 22285, 22235, 22115,
22015, 605, 505, 385, 335, 285, 235, 115, 15

RIAA Equalisation

Output <-0.2/+0.1dB 5Hz to 20kHz

Distortion THD

<0.005% @1k ref +8dBu

Noise @ 40dB gain

-87.5dBu (residual) 100r termination min gain

Equivalent input noise

-127.5dBu 100r (22Hz - 22kHz)

Crosstalk between inputs

>-91dBu @ lineup @ 1kHz

Maximum input before distortion

-22dBu @ 1kHz (min gain)

Headroom

+24dB for -24dBFs

Fs

Network outputs for both:

0dBu = -18dBFs

0dBu = -24dBFs

PPM

4 LEDs -12, -6, 0, +6 dB

0dB = -18dBFs

INCLUDED ITEMS

Handbook

Physical A5 (download also available)

Rj45 Network Cable

2 metre Cat5 Rj45plug /Rj45plug cable

Mains Cable

2 metre IEC (UK & EUROPE only)

SPECIFICATION



The name *Athens 2* was chosen for our RIAA preamp as Dante Alighieri cites the city of Athens as a place of good governance and mentions its contribution and commitment to civil law.

It is of course very important that a good RIAA preamplifier provides perfect governance of the audio and follows the RIAA equalisation law perfectly.

E & OE