



MICROMEGA

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ARIA *AirDream*

- Non magnetic construction to avoid any Wifi signal interference.
- Total separation of Digital and Analog sections using 2 different type of power supplies: R-Core type transformer for the digital power supply and ACTS supply for the analog section
- Physical decoupling of both power supplies with rubber mounts studs.
- Balanced (XLR) and unbalanced (CINCH) audio outputs
- AES/EBU (XLR) Professional digital output
- RJ45 service connector for airport module easy configuration.
- White backlighted front panel with 3 luminosity levels.
- Very high quality selected audiophile parts
- Sandblasted finish with Black or Silver mat anodizing

This new WHiFi® player is a completely new design with some unique features. Based on an Apple Airport Express, the new AirDream module has been completely re-engineered. All four main sections, power supply, master clock, digital to analog converter and analog output have been redesigned from scratch.

First of all, in order to limit the influence of the casing on the WiFi signal, the chassis is now build from aluminum, known for its non-magnetic properties.

The power supply is separated in 2 sections: the digital supply is based on a multiple windings specific r-core transformer. The main module supply regulator is a high power type with advanced ripple rejection techniques. The master clock supply, made from a specific winding of the transformer, is an extremely low noise discrete components design featuring a total noise of less than $7\text{nV}/\sqrt{\text{Hz}}$.

The analog supply is an ACTS® type, based on a UI transformer used for some unique properties allowing a very low noise concept. A smoothing choke and a tracking type regulator help designing one of the lowest noise analog power supply.

Both of these power supplies are mechanically decoupled from the chassis using rubber mount isolators. This technique is used to avoid modulating electronic circuitry with low frequency vibrations generated by the transformers.

The 25 MHz master clock oscillator is now build specifically for us by the leader of low jitter oscillator's manufacturer. It is a Micromega part bearing the HD AUDIO logo laser engraved on. This master clock features jitter figure $<-100\text{dB}$ at 10Hz deviation from the main band. This is exceptional and guarantees a perfect digital audio stream. This oscillator and its specific ultra low noise power supply are now on a separate circuit board soldered to the shield of the airport module. This avoids any distance between the clock and the IC receiving this signal.

The D/A converter is completely new and do not use the airport D/A converter anymore. The new D/A chip is a CS4351 Cirrus Logic part which features 2V rms output level. This D/A chip is followed by discrete pure classA Jfet buffers developed specifically for this purpose. These buffers feature a $1\text{M}\Omega$ input impedance representing a very light load for the output section of the D/A converter IC. These buffers produce less than -100dB distortion from 20Hz – 20kHz and their low output impedance is a perfect match for any type of input. $1.5\mu\text{F}$ Wima polypropylene capacitors are used to isolate the biased output of the D/A converter IC from the Jfet buffers inputs. A second order Bessel filter, aligned at -3dB at 130kHz, removes all spectral rays present in the audio signal. Dynamic range is exceptional; transparency and realism are key words to describe the sonic quality of this new ARIA. The D/A converter section is on a separate pcb soldered to the shield of the airport module to avoid any induced jitter in carrying high speed signals. Specially designed 0.5mm pitch flexible pcb links the airport module to the D/A converter module.

All parts used to build ARIA are pristine and their selection was a challenge. The system is capable of such a level of reproduction transparency that each component change can be noticed easily. A long process was necessary to optimize each section and the listening result is spectacular.



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The front panel is backlighted with white leds logos for the highest readability. A small jumper located under the front panel allows to adjust the backlight luminosity to 3 different levels adapting the product to every environnement.

ARIA is equipped with balanced and unbalanced audio analog outputs, both type using state of the art connectors. AES/EBU digital out is provided and a RJ45 connector allows a very easy configuration of the airport module.

The case work with its sandblasting finish, available in two colors silver or black, is superb and the build quality is to the highest standards.

ARIA is certainly the best file player available today and is dedicated to all music lovers searching for the truth of the musical message.

TECHNICAL CHARACTERISTICS

WiFi CHARACTERISTICS

Audio file formats..... AAC, AIFF, Apple Lossless, MP3, WMA, WAV
Frequency ranges..... 2,4 or 5 GHz
Standards IEEE..... 802.11n

AIRDREAM CHARACTERISTICS

Sample rate (inherent to iTunes software)..... 16Bits / 44.1 kHz
Frequency range (± 0.5dB)..... 0Hz – 20kHz
Linearity at -90 dB..... 0.1dB
Signal to Noise ratio + THD..... <-100dB to 1kHz
Dynamic Range..... >110dB to 1kHz

AUDIO OUTPUTS

Stereo Cinch Outputs..... 1
Ouput level..... 2V rms
Unbalanced output impedance..... < 600Ω
Stereo XLR Outputs..... 1
XLR Ouput level..... 2V rms
Balanced output impedance..... < 600Ω
AES/EBU Digital Output..... 1
AES/EBU output level..... 3V p-p
AES/EBU output impedance..... 110Ω

POWER SUPPLY

Mains voltage..... 100V-120V-220V-240V
Mains frequency..... 50Hz-60Hz
Power consumption (max)..... 50 W

DIMENSIONS (mm)

Width..... 330
Height (including feet)..... 70
Depth (including knobs and antenna)..... 330

WEIGHT (Kg)

Total..... 10Kgs