



# MICROMEGA

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## AS-400 HIGHLIGHTS

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Based on IA-400, our new high power integrated amplifier, AS-400 is the first integrated amplifier to benefit from AirStream technology.

AS-400 benefits from all functionalities from IA-400 with the same electrical design and components quality. On top of this AS-400 is equipped with a completely new AirStream module which brings the AirStream technology to a new level, providing a music reproduction quality never reached before.

The new AirStream module is a completely new design with some unique features. Based on an Apple Airport Express, the new AirStream module has been completely revised. The four main sections, power supply, master clock, digital to analog converter and analog output have been redesigned from scratch.

The power supply is separated in 3 sections using a multiple windings specific r-core transformer. Three separate power supplies address each section: Main module, Master clock, D/A analog section. All of these power supplies are different from each other in order to supply the perfect DC power to each section. The main module supply 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 type featuring a total noise of less than  $7\text{nV}/\sqrt{\text{Hz}}$ . The D/A analog section supply regulator features low noise high voltage tracking regulators.

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  $<-100\text{dB}$  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 which represent a very light load for the output section of the D/A converter IC. These buffers produce less than  $-100\text{dB}$  distortion from 20Hz – 20kHz and there low output impedance is a perfect match for the AS-400 specific Air input. 1.5uF 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  $-3\text{dB}$  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 AirStream unit. Once again the D/A converter section is on a separate pcb soldered to the shield of the airport module to avoid any induced jitter when carrying high speed signals. A specially designed 0.5mm pitch flexible pcb links the airport module to the D/A converter module.

A small back lighted AirStream logo present on the front lens indicates the status of the AirStream 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.

## AS-400 TECHNICAL CHARACTERISTICS

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### AUDIO CHARACTERISTICS

MM Phono Input.....	1
Phono Input sensitivity / impedance.....	18mV/47k $\Omega$
Stereo Analog Inputs.....	4
Analog inputs sensitivity / impedance.....	280mV/100k $\Omega$
Headphone output (Front).....	1
Monitor Loop.....	1
Sub input pass-through.....	1
Sub out.....	1
Sub output cut-off frequency (-3dB).....	400Hz
Processor input.....	1
Pre Out.....	1
Output Power (both channels / 4 $\Omega$ ).....	400W
Frequency response (all loads +0/-3dB).....	10Hz – 50kHz
Power bandwidth.....	20Hz - 35kHz
Output impedance.....	< 150m $\Omega$ / f < .20kHz
Output noise (unweighted 20Hz-20kHz).....	< 30 $\mu$ V
THD (20Hz-20kHz – 1/2 power).....	< 0.01 %
Signal to noise ratio (A weighted).....	> 96 dB

### AIRSTREAM CHARACTERISTICS

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

### WiFi CHARACTERISTICS

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

### OTHER CHARACTERISTICS

IR remote control.....	Yes
IR remote protocol / frequency.....	RC5 / 36kHz
RS232 remote.....	Yes

### POWER SUPPLY

Mains voltage.....	100V-120V-220V-240V
Mains frequency.....	50Hz-60Hz
Power consumption (max).....	1000 W

### DIMENSIONS (mm)

Width.....	430
Height (including feet).....	95
Depth (including knobs and antenna).....	370

### WEIGHT (Kg)

Total.....	13Kgs
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