

Studio C100 native true balanced preamplifier

STUDIO C100 - native balanced preamplifier



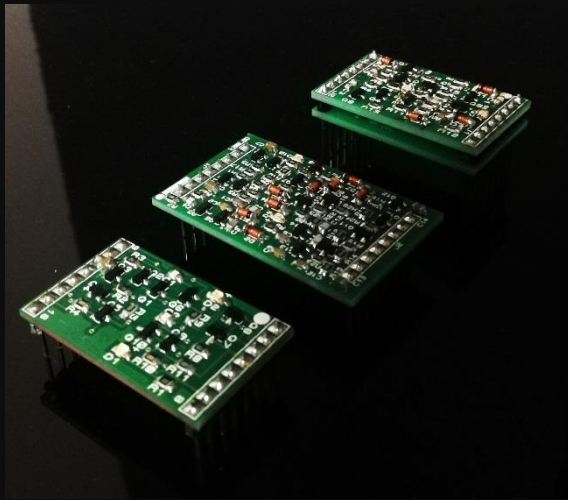
- • Native balanced circuitry
- • Stabilized power supply
- • Extended and linear frequency response
- • Amplification stage via HDCA
- • Volume control with dual BurrBrown PGA2310 digital potentiometer
- • Instrumentation components for maximum reproduction fidelity

The **Studio C100** preamplifier perfectly combines high quality sound with an attractive visual appearance.

Its operation is simple and intuitive and guarantees a realistic listening experience being the ideal component for the Studio series amplifiers.

As a member of the Eamlab preamplifier family, it benefits from technological and engineering advances that mark, for example, the performance of the C301 reference line preamplifier.

Among these, the proven HDCA input stages, the semiconductor-stabilized power supplies in the Darlington configuration and the DC coupled signal paths without distorting capacitors for precise bass reproduction.



HDCA₃ – conversion, processing and amplification of signals

The heart of the C100 preamplifier is based on the HDCA technology that we have developed and tested in its third version.

The HDCA chip uses state-of-the-art instrumentation components which effectively treat and amplify the delicate audio signals, guaranteeing a wide and flat frequency response with a 35V swing voltage.

This high voltage makes it possible to manage dynamic peaks with a crest factor of over 26 db to the advantage of a practically zero dynamic compression and a fast and precise transient response.

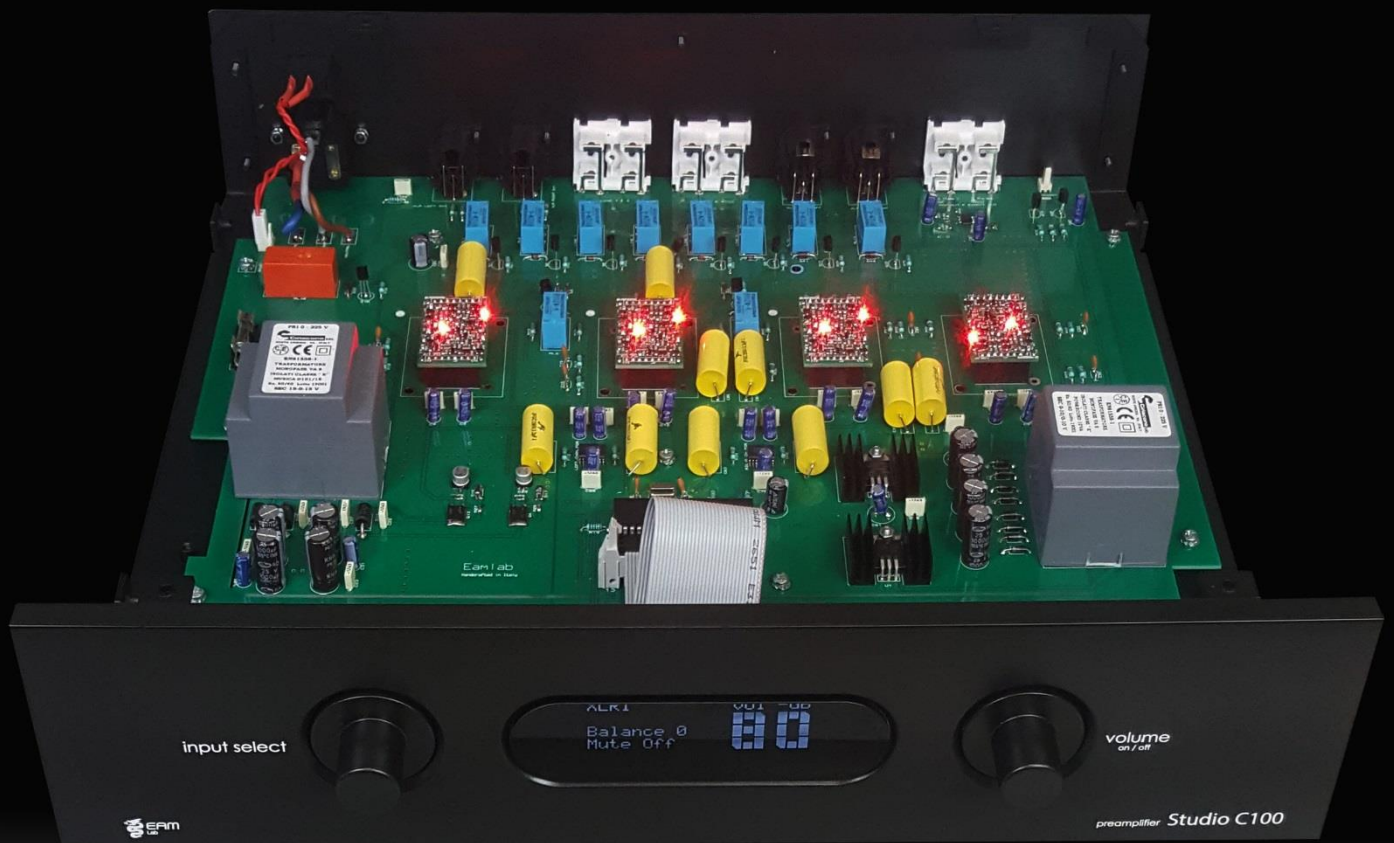
Power highlights

The Studio C100 audio circuits receive power from an analog power supply. All the power supply stages are stabilized with transistors in the Darlington configuration avoiding the typical circuitry with integrated components commonly used in many preamplifiers

The circuitry is completely discreet and offers the possibility of responding quickly to the immediate demands of energy and of not being influenced by all the most severe mains voltage fluctuations.

The chassis is in 2 mm steel and the PCB is developed on 2 layers with separate ground planes and a plane that acts as an EMI / RFI isolator. This is the ideal configuration for isolating parasitic electrical and magnetic interference from the critical signal path in the preamplifier circuits.

The power supply stage is able to supply current and voltage variations for any musical event, in any condition of use and with any level of variation of the mains voltage.



Features

Solidità - efficient solidity of the structure consisting of a 20/10 steel chassis to minimize vibrations and resonances at high listening volumes

galvanic isolation - Microprocessor-based power supplies and system control circuits confined within the control chassis.

PCB Circuits implemented on military 2-layer PCBs for minimal energy retention. Furthermore, numerous common GND points facilitate extended internal grounding for less background noise and greater rejection of electromagnetic disturbances.

Volume - The double speed volume control allows precision adjustments over a range of almost 100 dB. The volume control incorporates a permanently silent optical encoder that always maintains its tactile sensitivity for the accuracy and balance of the channels at any GAIN setting. The volume can be adjusted from 0 dB to -90dB dB from the multi-role control knob on the front panel, as well as from the multi-function remote control. The rapid turns of the control knob adjust the volume in increments of 1 dB.

Film resistor - all the resistances are low noise and with 1% tolerance to minimize the thermal noise of the active circuitry

Native balanced circuitry – the preamplifier uses native balanced circuitry for processing audio signals via XLR from in to Out

Signal process Single-ended via RCA - The input signals, from any source equipped with RCA connections, are processed internally in the preamplifier to be converted into a balancer bringing them back to the output natively. In this condition there is the best amplification of the signal, dynamically increased and free of any background noise



datasheet

Input

- 1 pair XLR input (XLR 1)
- 4 pair line input via RCA
- (CD / MM / TUNER / AUX1)

Output

- 1 pair XLR BLANCED output
- 1 pair RCA Single-ended output
- 1 pair RCA direct / Tape output

THD+N

- Balanced Output: <math><0.003\%</math>, 20 Hz to 20 kHz, @ 4 Vrms

Input impedance / Vrms

- 47Kohm XLR / 4 Vrms max
- 22Kohm RCA/ 2.8 Vrms max

Setting input GAIN

- 0 db / +10 db / +20 db
- -10 db / -20 db / -26 db

Voltage Output

- XLR : max 10 Vrms
- RCA : max 5 Vrms

Signal to noise ratio

- >110 db "A" weighted

Frequency response

- 5 Hz to 120 Khz +/- 0.5db

Dimension 420 * 330 * 85 mm - **Weight 10 Kg**

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Eam Lab produces entirely by hand in Italy - the above characteristics may undergo variations