

## Studio C100 High linearity preamplifier

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preamplifier



- Balanced input and output
- Stabilized power supply
- Wide frequency response
- Signal processing circuits via HDCA
- Volume control with BurrBrown PGA2310 digital potentiometer

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

These include proven **HDCA** input stages, semiconductor-stabilized power supplies in Darlington configuration, and DC-coupled signal paths without distortion capacitors for accurate bass reproduction.

### Highlights of the power supply

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

The circuitry is completely discrete and offers the ability to respond quickly to immediate energy demands and not be affected by all the most severe network voltage fluctuations.

Oversized for a preamplifier, the power supply is equipped with a 35 VA toroidal transformer and over 10,000  $\mu\text{F}$  capacity per channel.

The chassis is in 3mm steel and the PCB is developed on 4 layers with separate ground planes and a pair 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 preamp circuits.

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



## Features

**Solidity** - efficient solidity of the structure consisting of a 30/10 steel chassis to minimize vibrations and resonances at high listening volumes

**Galvanic insulation** – Microprocessor-based system power supplies and control circuits confined within the control chassis. Sensitive audio circuits insulated and resined in a soft iron case

**PCB** Circuits implemented on 4-layer military level PCBs for minimal energy retention. On board also numerous common GND points for extended internal grounding.

**Volume** - Dual-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, accuracy and channel balance at any GAIN setting. The volume can be adjusted from 0 dB to -90 dB dB from the multi-role control knob on the front panel, as well as from the multifunction remote control. The control knob's quick revolutions adjust the volume by 1 dB increments.

**Film resistor** – all the resistors are low noise and with a tolerance of 1% to minimize the thermal noise of the active circuitry

**Nativ balanced circuitry** – the preamplifier uses a native balanced circuit for the processing of audio signals via XLR from in to out

## **datasheet**

### **Input**

- 1 pair XLR input
- 3 pair line input via RCA

### **Output gain**

- 1 pair XLR output - 4 Vrms / 0.5 ohm
- 1 pair RCA output - 2.8 Vrms / 1.8 ohm

### **THD+N**

- Balanced Output: <0.0003%, 20 Hz to 20 kHz, @ 4 Vrms 22 Kohm terminated

### **Input impedance / Vrms**

- 47Kohm XLR / 1.5 Vrms max
- 22Kohm RCA/ 1.2 Vrms max

### **Signal to noise ratio**

- >110 db "A" weighted

### **Frequency response**

- 5 Hz to 100 Khz +/- 0.5db

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