Studio 100 power amplifier

- Balanced inputs and outputs
- Stabilized power supply
- Wide frequency response
- Volume control with BurrBrown PGA2310 digital potentiometer

The Studio 100 amplifier 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.

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Studio 100 is a compact, high quality amplifier designed for use in home audio systems that require accurate, extremely reliable and uncompromising power.

Highlights of the power supply

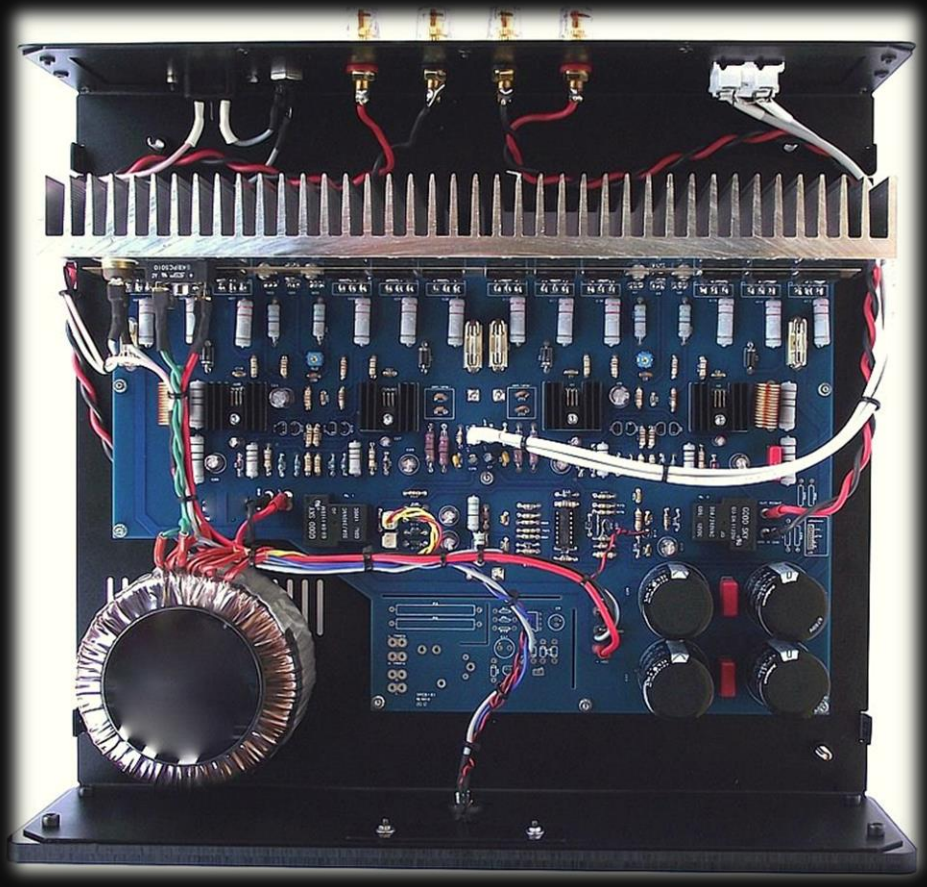
Studio 100 audio circuits receive energy from an analog power supply. All power stages are stabilized with transistors in Darlington configuration avoiding the typical circuitry with integrated components commonly used in many amplifiers

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 an amplifier, the power supply is equipped with a 35 VA toroidal transformer and over 10,000 µF capacity per channel.

The chassis is made of 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 amplification 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 isolation - Microprocessor-based system power supplies and control circuits confined within the control chassis. Sensitive audio circuits insulated and resin-bonded 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 resistors - all resistors are low noise and with 1% tolerance to minimize the thermal noise of the active circuitry

Native Balancing - the amplifier uses native balanced circuitry for processing audio signals via XLR from in to out

Datasheet

Input

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

Output

- 1 pair XLR output
- 1 pair RCA output

THD+N

- Balanced Output: <0.003%, 20 Hz to 20 kHz, @ 4 Vrms

Input impedance / Vrms

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

Signal to noise ratio

- >120 db “A” weighted

Frequency response

- 20 Hz to 90 Khz +/- 0.5db

Dimension and Weight 420 * 390 * 100 mm / 15Kg

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