

IRS2092S Audio Amplifier kit – brief description

The IRS2092S Audio Amplifier kit module is a Class D Audio Amplifier Kit based on IRS2092S class D amplifier modulator and driver made by International Rectifier®. The design of this board is in accordance with the manufacturer datasheet and recommendations, as well as the reference designs. Furthermore, some improvements has been made to make the board more compact and suitable to use both in new designs, in which the user will adopt the preferred housing, input stages and power supply, and can be used also as a drop-in replacement for existing audio amplifiers, which already have housing, transformer, and input stage.

Amplifier Features:

- Output Power: 200W at 4Ω, or 120W at 8Ω, with less than 0.1% THD+N, at +/- 45V Supply Voltage.
- Output Power: 350W at 4Ω, or 180W at 8Ω, with less than 0.1% THD+N, at +/- 60V Supply Voltage.
- Output Power: 500W at 4Ω, or 270W at 8Ω, with less than 0.1% THD+N, at +/- 72V Supply Voltage.
- Audiophile sound Quality: 0.02% THD+N at 100W at 4Ω or 50W at 8Ω.
- High efficiency: Up to 96.4% at 270W at 8Ω or up to 94% at 500W at 4Ω.
- Output over-current and short-circuit protected, power supply over-voltage and under-voltage protection.
- Mute control pin for easily controlling the amplifier status within the system.
- Dedicated output MOS-FET choices for each power version for maximum performance and efficiency.
- Compact size, 100x70x35mm, low weight, just 120 grams.
- Optimized double layer 1.6mm thick PCB with thick copper traces, for lowest stray inductances.
- Only THD components used, except IRS2092S IC which uses SMD case and is pre-soldered.

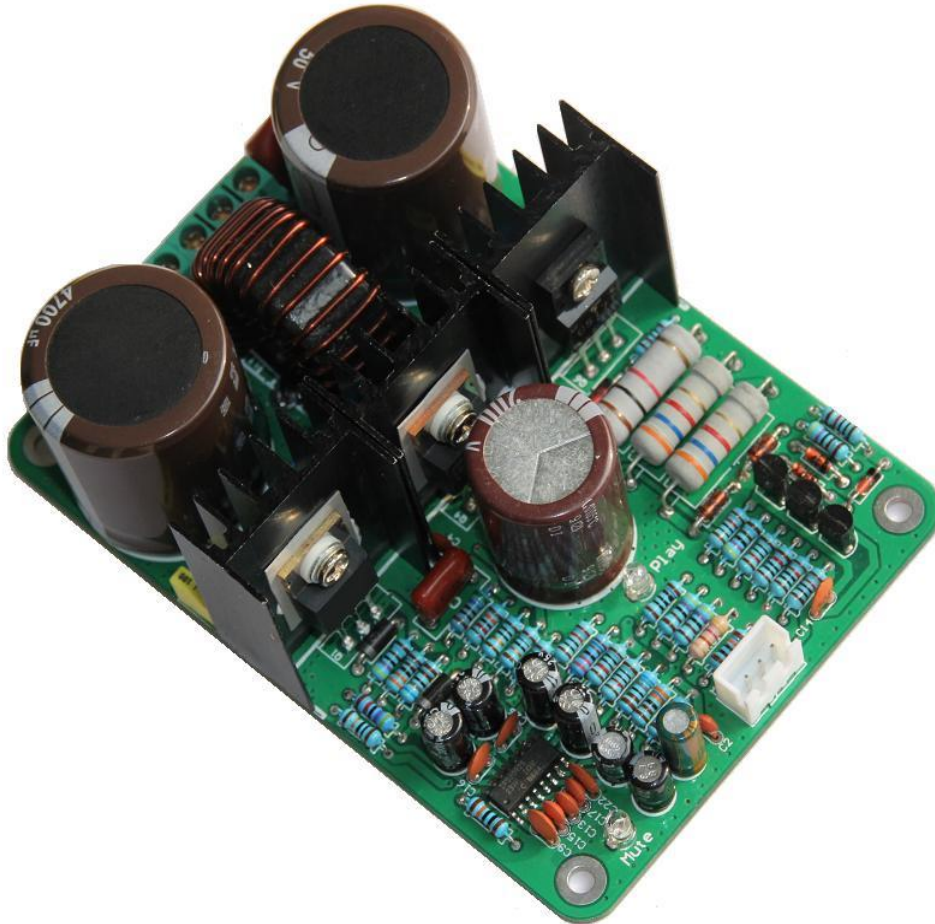


Figure 1: IRS2092S Audio Amplifier Kit

This is a brief description manual only: Full product manual containing schematic, PCB silkscreen BOM assembly instructions and test procedures available upon purchasing the kit. This brief manual along with full product manual contains proprietary information which shall not be used in any commercial purpose, copied or distributed without Connexelectronic written agreement.

With special thanks to DIYaudio fellows which made *“this”* possible.

Disclaimer:

The IRS2092S Audio Amplifier kit Module shall be used according with the instructions provided in this document. The user must respect all the instructions provided in this document and should NOT attempt to modify or change any of the parameters of this product, which can lead to malfunction. The designer and manufacturer of the product, and the official distributor, **Connexelectronic**, will not be liable for any kind of loss or damage, including but not limited to incidental or consequential damages. Due to the high level of voltages on this board, the user should take all the caution measures needed when working with high voltage levels, should not touch any unisolated part of the board or connectors, or short-circuit any part of the board or connectors. Any misuse will be made on user responsibility.

The designer and manufacturer **Connexelectronic** reserve the right to make changes or modifications on both the product functions and performances without notice. The IRS2092S Audio Amplifierkit Module schematic and PCB design is **Connexelectronic** proprietary and shall not be distributed, copied or published without written agreement. **Connexelectronic** does not offer any kind of warrant for this product since it is sold as unassembled kit where user has the responsibility to assembly correctly, and any mistake can damage the circuit and components. **Connexelectronic** reserve the right to offer limited support for the boards purchased directly from **Connexelectronic**, and no support at all for the similar boards which aren't purchased directly from **Connexelectronic**, or future listed resellers, and from various reasons they look or pretend to be similar or exactly same products.

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