

# **TDA7294**

# **Power Amplifier**

# **User Manual**

**Analog Metric**

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## INTRODUCTION

This MOSFET power amplifier uses common TDA7294 IC which is often applied in car audio that requires output power up to 100W for each channel. This kit can be configured either in stereo or mono mode (BTL). For the mono mode, it supports BTL operation, so two kits can provide stereo BTL amplifier. The required power can be supplied either by AC or DC. Testing points are added. The output current can be set by a resistor trimmer.



## FEATURES

1. Requires DC power supply +/-24 to +/-38V DC
2. Configurable to either stereo (R & L) audio channels or mono BTL channel mode
3. RMS output power:
  - (a) up to 70W+70W in Stereo Mode @4,6,8 Ohms loading
  - (b) up to 100W+100W for one BTL channel in Bridge Mode @4,6,8 Ohms loading
4. High dynamic range
5. Voltage gain 30dB
6. THD < 0.05%
7. Options: DC Servo Module for offset cancellation and speaker protection module.
8. PCB dimension: 162(H) x 49(W) mm, double layers, thickness 2.4mm, with 2oz copper.

## PRECAUTIONS

- Use a power transformer with fuse (6A) socket to limit the supply current in case of short circuit or incorrect assembly.
- Double check the assembled components with the schematics.
- Turn off the power supply if you observe any smokes or hear strange sound coming out from the transformer or board. If there is short circuit, the transformer will be getting very hot shortly.

## PROCEDURES

- Assembly all the components according to the schematic and part list. Notice the polarity of the electrolytic capacitors. There are no polarities of the thin film capacitors.
- Mount the heat sinks to the TDA7294 chips.
- Mute can be set by the jumper Header 3.
- For stereo mode, open JP1, JP2, JP3, and JP4. Apply input signal to R-IN and L-IN. Bridge+ and Bridge- corresponds to L-OUT and R-OUT, respectively.
- For mono (BTL) mode, short JP1, JP2, JP3, and JP4. Apply input signal to L-IN. Bridge+ and Bridge- corresponds to the positive and negative output voltages, respectively.
- Enjoy it.

If you have any questions on assembly, please contact us by email [tech@analogmetric.com](mailto:tech@analogmetric.com)