

TPA3118 Mono Amplifier Module TPA3118 Mono Amplifier Pinout

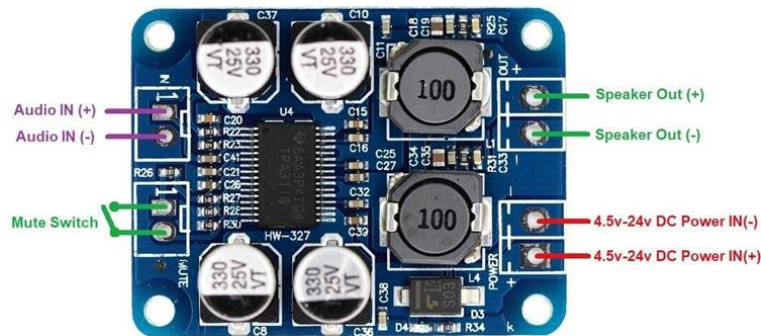
TPA3118 Mono Amplifier is a Class-D stereo efficient, digital amplifier that can drive speakers up to 60W/8Ω. TPA3118 mono amplifier's advanced oscillator/PLL circuit gives multiple switching frequency options to avoid AM interferences. TPA3118 mono amplifier is fully protected against faults with short-circuit protection and thermal protection as well as over-voltage, under-voltage, and DC protection.

TPA3118 Module Pinout Configuration

Pin Name	Description
Audio In(+)	Audio Input Positive edge
Audio In(-)	Audio Input Negative edge
Mute (Short Circuit Port)	Short circuit Jumper circuit for active Mute
Power In (VCC/+)	4.5v-24v DC power VCC

Power In (GND/-)	4.5v-24v DC power Ground
Speaker Out(-)	Speaker Negative Output
Speaker Out(+)	Speaker Positive Output

The pinout can be easily seen in the Board Legend.



TPA3118 Mono Amplifier Module Features

- Operating Voltage: Wide power supply ranges from 4.5V to 24V DC
- Multiple Switching Frequencies
 1. AM Avoidance
 2. Master and Slave Synchronization
 3. Up to 1.2-MHz Switching Frequency
- Feedback Power-Stage Architecture
- Differential and Single-Ended Inputs
- Stereo and Mono Mode With Single-Filter Mono Configuration
- Integrated Self-Protection Circuits
 1. Overvoltage
 2. Undervoltage
 3. Overtemperature
 4. DC-Detect

5. Short Circuit With Error Reporting

- Dimensions(LxWxH) in cm 13 x 11 x 6

Note: Complete technical details can be found in the **TPA3118 Datasheet** linked at the bottom of this page.

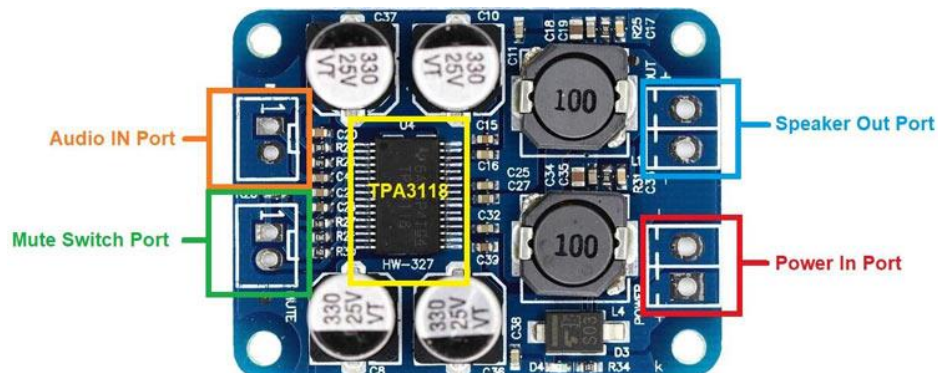
Alternative products

Alternative products for TPA3118 based amplifier module boards are listed below-

1. **LM386** Mono audio amplifier module Board.
2. **TDA8932** Based Amplifier Board.

TPA3118 Mono Amplifier - Overview

The main Voice Recorder/Playback IC is **TPA3118**.



TPA3118 device is a highly efficient Class-D audio amplifier with integrated 120mΩ that allows output currents up to 7.5A. The device can be configured for either master or slave operation by using the SYNC pin, which helps to prevent audible beats and prevent audible beats noise. An internal ADC is used to detect the 8 input states. The first four

stages set the GAIN in Master mode in gains of 20, 26, 32, 36 dB respectively, while the next four stages set the GAIN in Slave Mode In gains of 20, 26, 32, 36 dB respectively.

TPA3118 employs a shutdown mode of operation designed to reduce supply current to the absolute minimum level during periods of non-use for power conservation.

The TPA3118 contains a complete set of protection circuits carefully designed to make system design efficient as well as to protect the device against any kind of permanent failures due to short circuits, overload, over-temperature, and under-voltage.

Interfacing Diagram

The interfacing is quite easy. Connect Power along with an audio input. Users can connect the speakers across the amplifier output directly.



Application of TPA3118 Mono Amplifier

- Mini-Micro Component, SpeakerBar, Docks
- After-Market Automotive
- CRT TV
- Consumer Audio Applications

2D Model

The dimensions of the **TPA3118 Mono Amplifier** Module is shown below:

