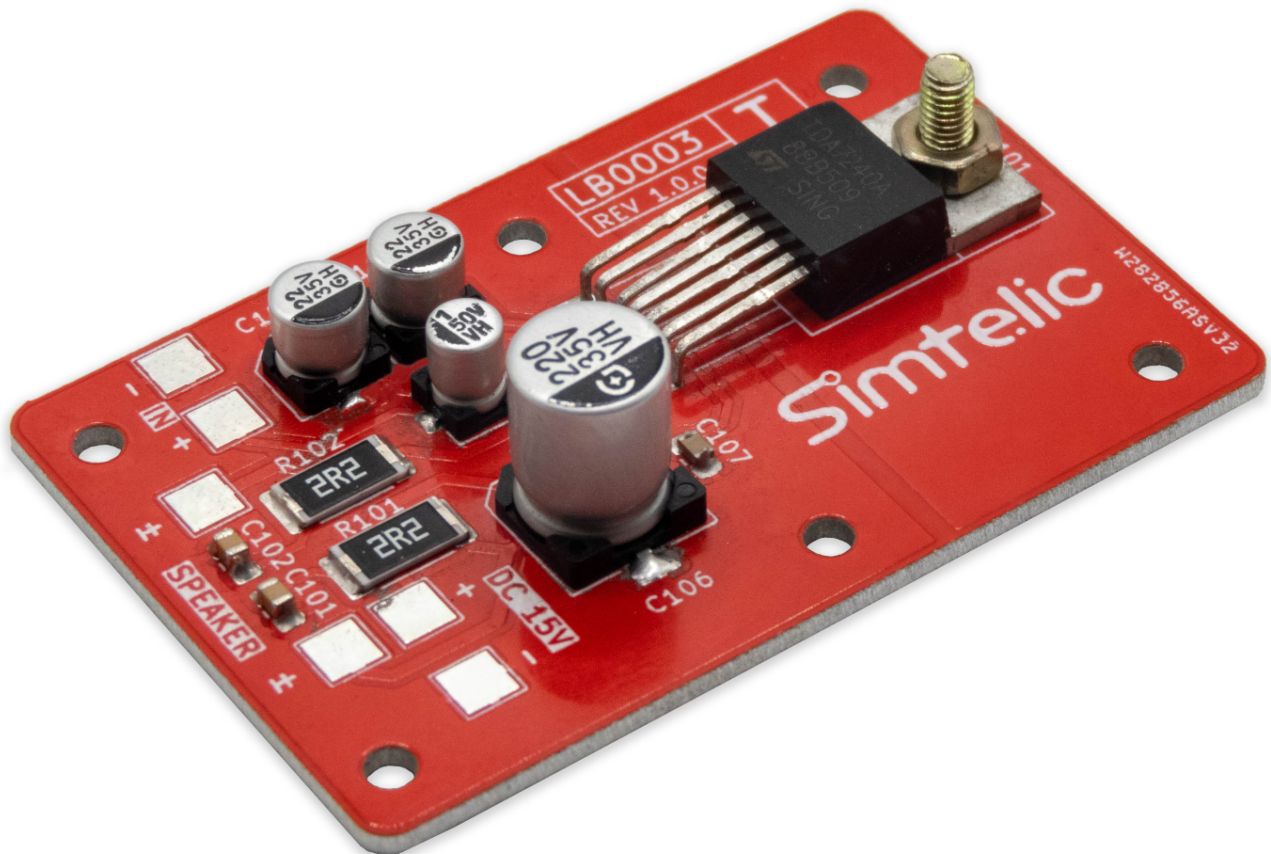


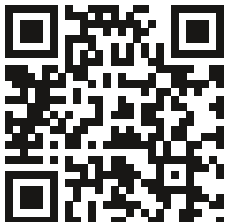
# Simtelic



## TDA7240A Power Amplifier

Thank you for purchasing this Simtelic module.

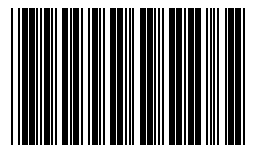
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LB0003

# Introduction

This document provides comprehensive technical specifications and operating instructions for the TDA7240A-based power amplifier module. This module is engineered for high-fidelity audio amplification, delivering up to 20W of output power. Constructed with surface-mount device (SMD) components on an aluminum printed circuit board (PCB), the module prioritizes thermal efficiency and compact integration. The aluminum PCB facilitates direct mounting to a heatsink, ensuring optimal thermal management.

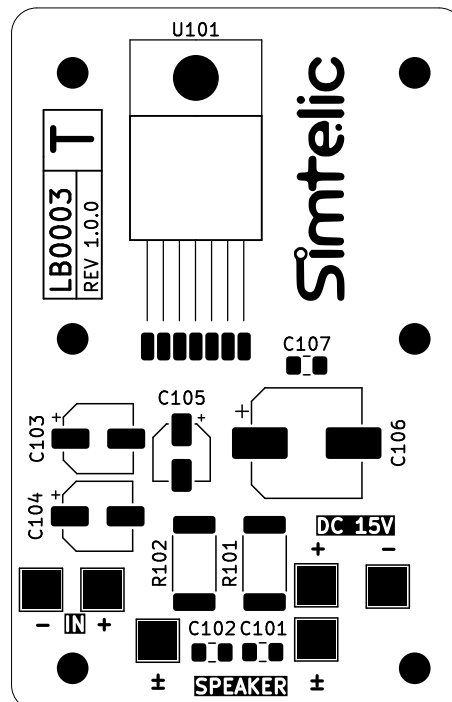
Key features of this module include:

- **TDA7240A Amplifier IC:** Providing robust audio amplification with a maximum output of 20W.
- **Aluminum PCB Substrate:** Enhancing thermal conductivity for effective heat dissipation and simplified heatsink integration.
- **Compact Form Factor:** Dimensions of 55.5mm × 35.75mm, suitable for space-limited applications.
- **Wide DC Power Input:** Designed for operation with a DC power supply up to 15V.

This datasheet will detail the module's electrical characteristics, connection diagrams, operational guidelines, and mechanical specifications, enabling users to implement the TDA7240A amplifier effectively.

## Identify connectors and components

### Top Side



<b>C101,C102</b> .....	0.22 $\mu$ F / 50	(SMD)
<b>C103,C104</b> .....	22 $\mu$ F / 35V	(SMD)
<b>C105</b> .....	1 $\mu$ F / 50V	(SMD)
<b>C106</b> .....	220 $\mu$ F / 35V	(SMD)
<b>C107</b> .....	0.1 $\mu$ F / 50V	(SMD)
<b>R101,R102</b> .....	2.2 $\Omega$	(SMD)
<b>U101</b> .....	TDA7240A	(THT)

**R101, R102** are 2W metal thin film resistors

## How to use the amplifier module

1. Connect a single rail DC power source to the DC 15V + and - terminals. The recommended maximum supply voltage for this module is DC 15V, and it is best to use a 5A DC power source for optimal output.
2. Feed the audio input into the module through the IN+ and IN- terminals. Connect the IN- terminal to the ground.
3. Connect a 4 $\Omega$  or 8 $\Omega$  speaker to the SPEAKER  $\pm$  terminals.



Before applying power, ensure that the module is securely fixed to a suitable heatsink. For proper electrical isolation, it is advisable to use nylon or fiber washers between the PCB and the bolt (from the top side of the PCB) to attach the PCB to the heatsink.

## Kit specifications

1. Dimensions of the module (width  $\times$  height) ..... 55.5mm  $\times$  35.75mm
2. Average weight ..... 25.1g ( $\pm$  0.2g)
3. Average power consumption ..... 1.2 A
4. Working voltage ..... 12.0V - 15.0V DC
5. Total harmonic distortion ..... 0.1%
6. Frequency response ..... 30Hz - 25kHz
7. Audio output power ..... 20W



**Simtelic (Pvt) Ltd. cannot be held responsible in the event of damage or injury resulting from  
(incorrect) use of this module.**

The continuous improvement of its products is the policy of Simtelic (Pvt) Ltd. who reserve the right  
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