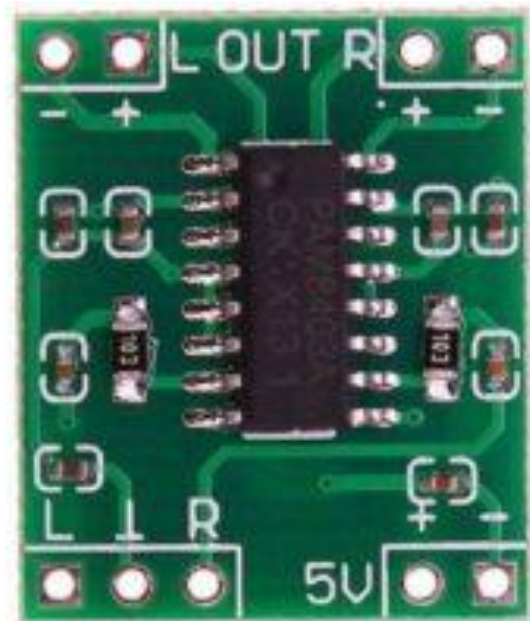


# PAM8403 5V Two-channel Stereo Mini Class-D 3W+3W Audio Amplifier

The **PAM8403 5V Two-channel Stereo Mini Class-D 3W+3W Audio Amplifier** is a compact and efficient amplifier board designed for portable audio projects. With its small size and powerful output, this module is perfect for DIY electronics, speaker systems, and battery-powered devices. The Class-D design ensures low heat generation and high efficiency, making it a popular choice among hobbyists and engineers looking for a reliable and affordable amplifier solution.



## Key Features of PAM8403 Audio Amplifier

- **Stereo Output** – Provides 3W + 3W dual-channel audio output.
- **Compact Design** – Miniature PCB ideal for portable projects.
- **Class-D Efficiency** – Low power consumption and minimal heat.
- **Wide Applications** – Suitable for speakers, radios, toys, and DIY audio systems.
- **Simple Operation** – Requires only a 5V power supply for full functionality.
- **High Sound Quality** – Produces clear and noise-free audio with proper setup.

## ⚡ Technical Specifications

- **Model:** PAM8403 Audio Amplifier Module
- **Operating Voltage:** 2.5V – 5.5V DC
- **Output Power:** 3W + 3W at 4Ω speakers
- **Amplifier Type:** Class-D, high efficiency
- **Channels:** 2 (stereo)
- **Board Size:** Ultra-compact PCB for easy integration
- **Applications:** Portable speakers, DIY audio projects, educational electronics

## Applications of PAM8403 Stereo Amplifier Module

The **PAM8403 mini amplifier board** is versatile and can be used in many projects:

1. **Portable Speakers** – Build small, battery-powered Bluetooth or wired speakers.
2. **DIY Audio Systems** – Enhance projects with stereo sound output.
3. **Toys & Gadgets** – Add clear sound to electronic toys and handheld devices.
4. **Educational Projects** – Teach students about audio amplification.
5. **Radio & MP3 Players** – Boost output for compact music systems.
6. **Prototyping** – Quick integration into prototypes requiring small audio output.

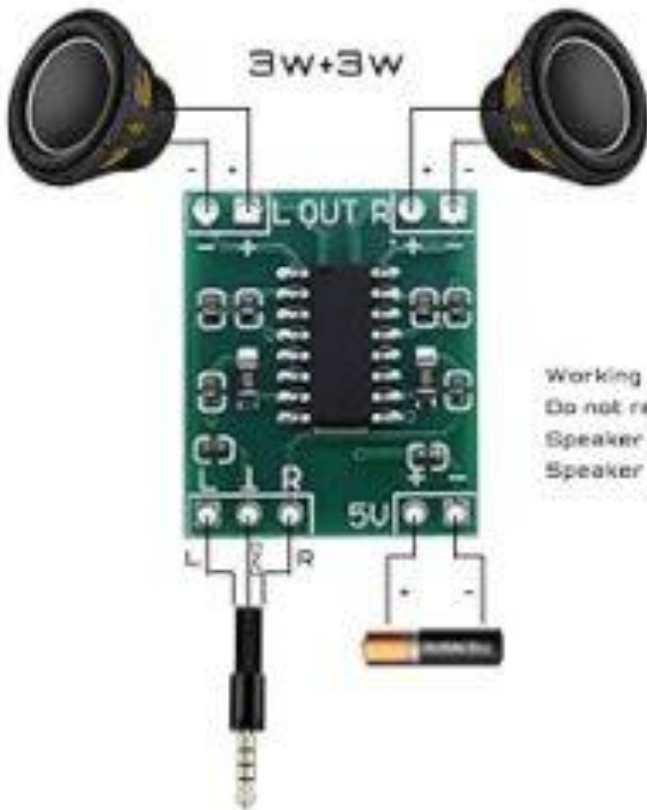
## **How the PAM8403 Module Works**

The **PAM8403 amplifier board** uses a Class-D design, which means it operates with high efficiency by rapidly switching transistors on and off to amplify the signal. Unlike traditional Class-AB amplifiers that generate significant heat, Class-D amplifiers waste less energy and stay cool, making them ideal for battery-powered devices.

When connected to speakers, the board delivers a clean 3W+3W stereo output at 5V, suitable for small and medium-sized audio applications. Because it is highly efficient, it can be powered directly from USB power banks, lithium-ion batteries, or standard 5V adapters, making it a flexible solution for portable audio.

## ✓ **Benefits of Using PAM8403 Audio Amplifier Board**

- **Energy Efficient** – Runs on low voltage while producing quality sound.
- **Portable & Compact** – Easy to integrate into handheld or mobile devices.
- **Cost-Effective Solution** – Affordable option for DIY audio enthusiasts.
- **Noise-Free Output** – With proper circuit design, ensures clear stereo sound.
- **Versatile Use Cases** – From simple toys to advanced custom speaker systems.



Working voltage: 2.5V-5.5V  
 Do not reverse the power supply  
 Speaker with: 4-8 ohms  
 Speaker power: 2-8W

A. Applications: LCD TV, monitors, laptops, portable speakers, portable DVD players, game consoles, mobile phones/hands-free phones, etc.  
 B. You can use the 5V power supply of the computer USB port, or use the 5V power supply of the mobile phone charger USB port, or use the lithium battery power supply.  
 C. High efficiency 98%, 4Ω load and 5V power supply conditions, can provide 3W (left channel) +3W (right channel) output power.

## 🔧 Who Should Use This Module?

- **DIY Makers** – Building custom speakers or audio gadgets.
- **Students & Educators** – Learning about amplification and audio circuits.
- **Technicians & Engineers** – Developing prototypes with integrated sound.
- **Hobbyists** – Enhancing personal projects with stereo audio.

## **Conclusion: Why Choose PAM8403 5V Stereo Mini Audio Amplifier?**

The **PAM8403 5V Two-channel Stereo Mini Class-D 3W+3W Audio Amplifier** is the go-to solution for anyone looking for a **compact, efficient, and reliable amplifier module**. With its **stereo output, energy efficiency, and affordable price**, it is ideal for portable speaker systems, DIY electronics, and educational projects.

Whether you are repairing a device, building a custom music player, or experimenting with audio circuits, the **PAM8403 module** delivers excellent performance in a small package. Affordable, versatile, and easy to use, this amplifier is a must-have component for your next audio project.