

GF1002-PAM8403 Stereo Audio Amplifier Module



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Description:

GF1002-PAM8403 is a filterless 3W, class-D, two-channel audio amplifier integrated circuit.

The module features high efficiency, high quality audio outputs with low harmonic distortion THD+N, has a Manual volume control switch.

The operating voltage for this module range from 2.5 V to 5.5 V. It is the right choice for your MP3 and MP4 player projects.

These module price typically ranged from \$0.8 to \$5, depending on the supplier and quantity purchased. It's always a good idea to compare prices from different suppliers to find the best deal.

This article will provide detailed information about PAM8403 Stereo Audio Amplifier Module GF1002, including specifications, circuit diagram with working explanation, connection diagram, applications, and more. Let's get started!

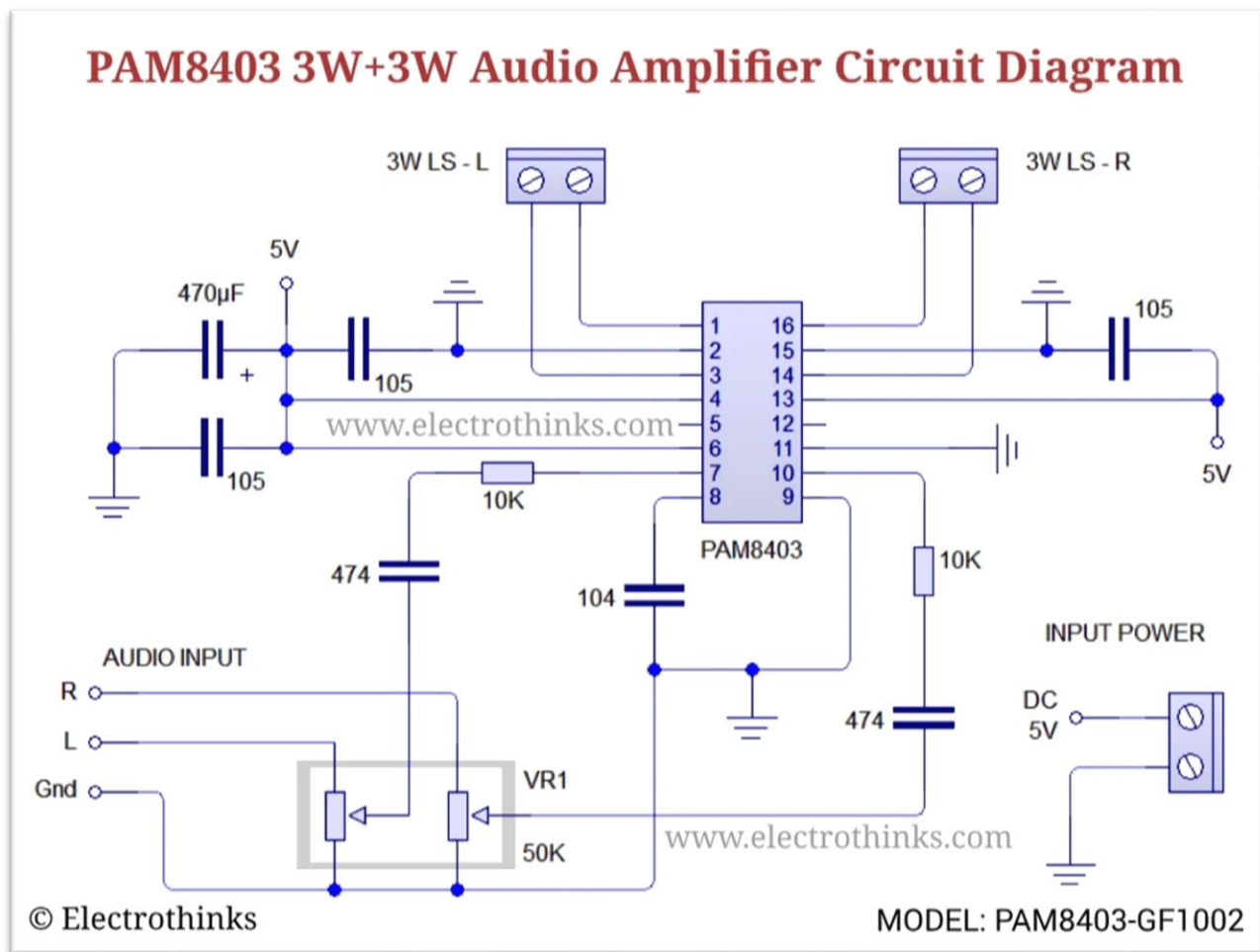
Specifications:

The quick specification of GF1002 stereo audio amplifier module is given below:

- Type: **Class-D**
- Model: **GF1002**
- Operating Voltage: **2.5V to 5.5V**
- Output Channel: **2X**
- High Amplification Efficiency: **85%**
- Output Power: **3W + 3W** (at 4 Ohm)
- Dimensions: 29.5mm x 20.2mm x 15mm
- Weight: 8.8g

Circuit Diagram:

Schematic of the *GF1002-PAM8403 stereo audio amplifier module circuit* is shown below.



Working Principles:

GF1002 module is a 3W Class-D 2-channel audio amplifier with a Manual volume control switch. Inside the module IC PAM8402 Amplifier is installed, offers low THD+N, allowing it to achieve high quality sound reproduction. The filterless architecture of this IC allows the device to drive the speaker directly from IC Pins no. (1, 3) (14, 16). So no low-pass output filter is required for the module GF1002.

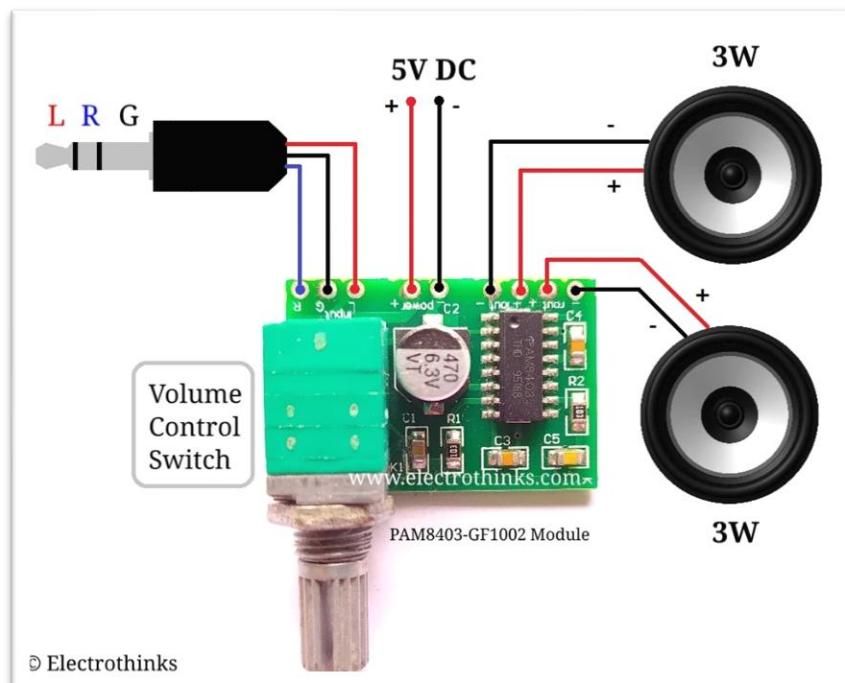
With the same numbers of external components, the efficiency of the PAM8403 IC is much better than that of Class-AB cousins. IC XH-M228 is the alternatives for PAM8403.

As shown in the circuit diagram Pin-7 and Pin-10 are used for the left and right channels of audio input. These pins are connected through a separate 0.47 μ f (474) ceramic capacitor to reduce noise caused by the power supply coupling into the output drive signal.

A 50K Ω Manual volume control switch controls the GF1002 module's output audio signal.

The recommended operating DC voltage for the GF1002-PAM8403 audio amplifier module circuit is a minimum of 2.5V and a maximum of 5.5V.

Connection Diagram:



Applications of 8403 Module

- LCD Monitors / TV Projectors
- Notebook Computers
- Portable Speakers
- Portable DVD Players, Game Machines
- Cellular Phones/Speaker Phones