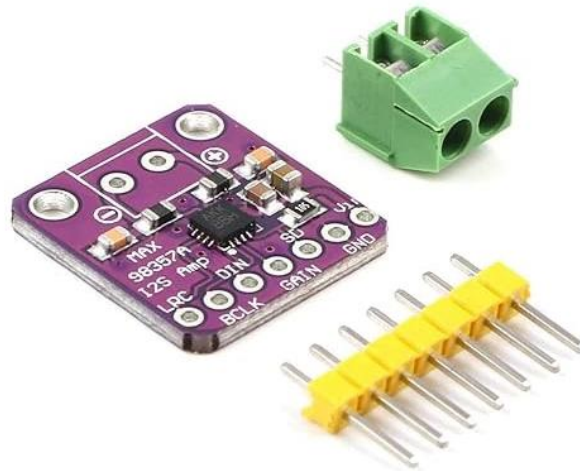




MAX98357A I2S 3W Class D Mini Mono Amplifier Module

Description:

The I2S digital audio amplifier board is suitable for Raspberry Pi. Accepts digital audio through the I2S interface, converts it to an analog output signal and amplifies it to allow direct speaker connection. It combines an I2S D / A converter with an audio amplifier on one board.

The small Mono amplifier module is surprisingly powerful and delivers up to 3.2W on 4Ω impedance speakers. The class D amplifier can be operated with a voltage of 2.7 V - 5.5 V. Due to the high efficiency of the amplifier, the module is particularly suitable for mobile and battery-powered projects.

The I2S audio input supports 3.3V and 5V levels. The gain can be set to the following values using the gain input: 3dB, 6dB, 9dB, 12dB and 15dB. By default, the stereo signals (L + R) are mixed to form an output signal. The behaviour can be changed using a resistor so that only L or R is output.

Features:

1. Operation with a Single Supply (2.5V to 5.5V)
2. Power Output into 4 Ω at 5V of 3.2W
3. Quiescent Current of 2.4 mA
4. Efficiency of 92% ($R_L = 8\ \Omega$, $P_{OUT} = 1\ W$)
5. Output noise of 25 VRMS ($A_V = 15\ dB$)
6. Low THD+N at 1 kHz of 0.015%
7. not MCLK Supports Left, Right, or (Left/2 + Right/2) with required sample rates of 8 kHz to 96 kHz. Output
8. Filter less Class D Outputs Are Made Possible by Sophisticated Edge Rate Control
9. 1kHz at 77dB PSRR
10. RF Susceptibility is Low Rejects GSM Radios Are Making TDMA Noise
11. Circuitry for reducing clicks and pops in great detail
12. Strong Thermal and Short-Circuit Protection

Applications:

- IoT projects
- Smart home devices
- Bluetooth audio player