



1W Audio Power Integration Amplifier

PT2307

DESCRIPTION

The PT2307 is an integration audio power amplifier IC utilizing advanced CMOS technology. Supports 2 mono MIC input and 2 stereo line input, input gain of each amp can be set individually to meet customers' needs. Built-in digital controlled volume has 32 steps from 0dB ~ -90dB, the headphone volume control has 8 steps ranging from 0dB ~ -10.5dB which can be further attenuate from the main volume. All functions can be controlled via I²C bus. In the output section, the PT2307 is equipped with both stereo headphone driver and mono speaker amp maximum output up to 1 watt.

The PT2307 also equipped "Energy Save" power management systems; user can turn off the unused portion to minimize total power consumption for extended battery endurance. For different applications, the headphone section of the PT2307 has two mode types for different purposes, A-type (Output Capacitor-less) or B-type (Output with Capacitor).

FEATURES

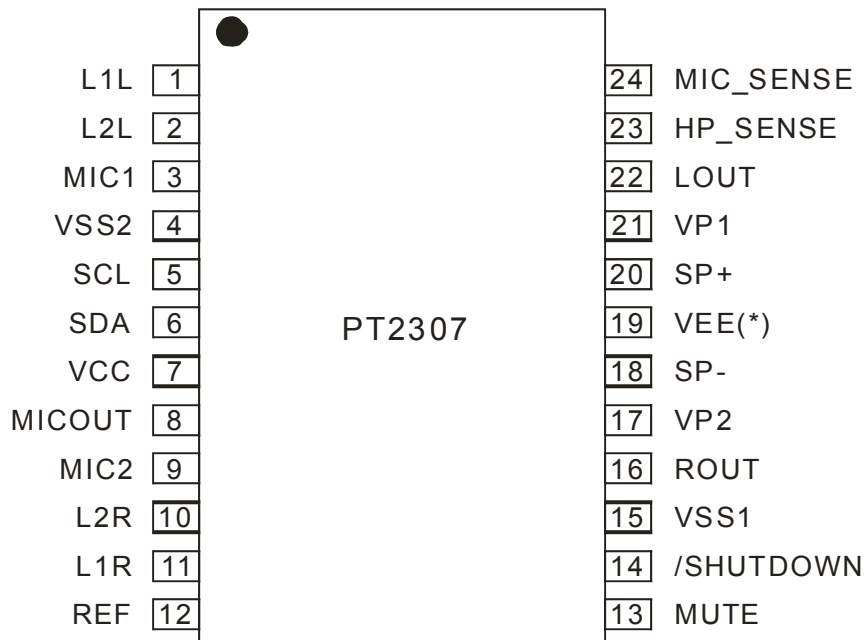
- 1W (8Ω) mono channel speaker output + stereo headphone driver
- Digital controlled volume
- Main volume: 32 steps/0dB ~ -90dB
- Headphone volume: 8 steps/0dB ~ -10.5dB
- 2 microphone inputs, 1 microphone output
- 2 stereo audio inputs, selected via I²C bus
- Dual headphone output mode Integrated. (PT2307-A or PT2307-B)
- Mute function
- Shutdown (power save) mode
- I²C register keeps the last status when the shutdown active
- Each section can be turn off individually for most power saving
- Over Temperature protection
- Very low pop noise when mode changed
- Wide operating voltage: 2V ~ 6V
- Available in 24 Pins TSSOP

APPLICATIONS

- PDA
- Portable mini audio system
- Multimedia audio household appliances system
- Electronic Dictionary
- Translator
- GPS



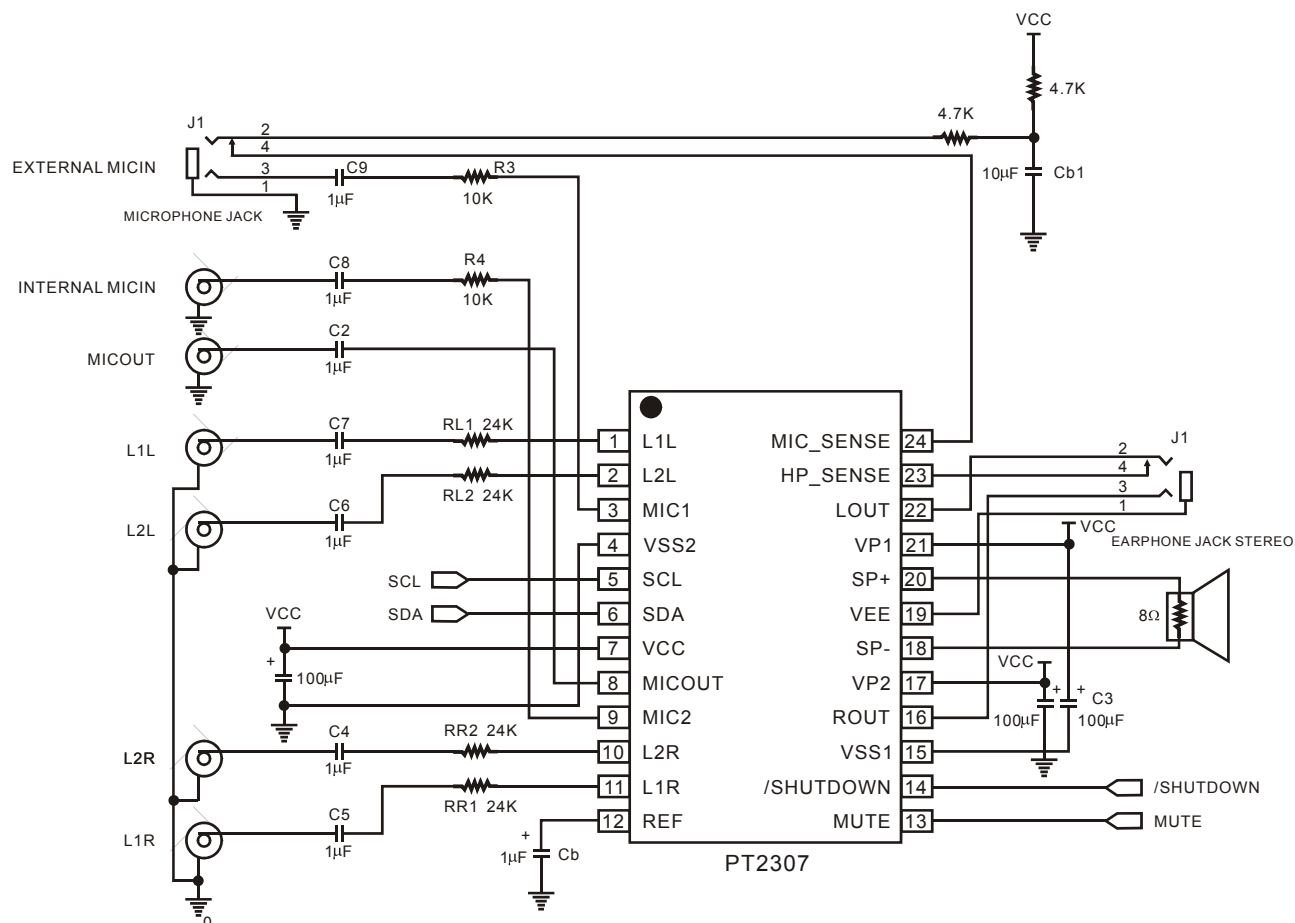
PIN CONFIGURATION



Note:

***=PIN 19 OF PT2307-A IS VEE, PIN 19 OF PT2307-B IS NC.**

APPLICATION CIRCUIT I (PT2307-A)



Notes:

1. The (+) polarity of DC block capacitor installed in the I/O pin of the PT2307 should face towards the higher potential.
2. HP_SENSE (Pin 23) must be connected to Pin22 LOUT.
3. The gain setting resistors (R3, R4, RL1, RL2, RR1, RR2) should keep as close as possible with the PT2307 chip to prevent pick-up noises.
4. **DO NOT CONNECT HEADPHONE COMMON (VEE) TO OTHER AUDIO EQUIPMENT! THIS MAY CAUSE IC DAMAGE.**



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2307	24 Pins, TSSOP, 173mil	PT2307