

**2.7W Stereo Audio Power Amplifier with 4 Selectable Gain Setups and Input Mux****AA4006****Description**

The AA4006 is a Class AB stereo audio power amplifier with headphone driver, which can deliver 2.7W into 3Ω speakers with 5.0V power supply and THD+N less than 10%. It is designed specially for Notebook PC and portable media player applications.

The AA4006 features stereo full differential input or 2 sets of stereo Single-Ended audio input. There are 4 different gain settings at BTL Mode -6dB, 10dB, 15.6dB and 21.6dB, changed by setting GAIN0, GAIN1 pins. At SE Mode, the gain is fixed 4.1dB.

The AA4006 can amplify square waveform beep input signal from BEEP_IN pin and its output can always reach BTL terminal, masking all other audio inputs regardless of whether the chip is in shutdown, SE or BTL mode.

Parametric Table

Channels	2	
Supply Voltage (V)	3.0 to 5.5	
Output Power at THD+N=1% (W)	SE (32Ω)	0.09
	BTL (4Ω)	1.8
THD+N (BTL, P _O =1W, R _L =4Ω)	0.08%	
S/N (dB)	100	
Channel Separation (dB)	-100	
Mute	No	
Shutdown	Yes	
Volume Control	No	
Package	TSSOP-20 (EDP)	

Features

- Output Power, THD+N=10%:
110mW at SE Mode for 32Ω Headphone
220mW at SE Mode for 16Ω Headphone
1.5W at BTL Mode for 8Ω Speaker
2.3W at BTL Mode for 4Ω Speaker
2.7W at BTL Mode for 3Ω Speaker
- Supply Voltage Range: 3.0V to 5.5V
- 4 Selectable Internal Fixed Gain Setups
- Stereo 2:1 Input Multiplexer
- Stereo Full Differential Input
- PC Beep Input
- Low Power Consumption at Shutdown Mode 100μA Typical
- Excellent Click/POP Noise Suppression
- Thermal Shutdown Protection

Applications

- Notebook PC
- Portable Media Player

Benefits

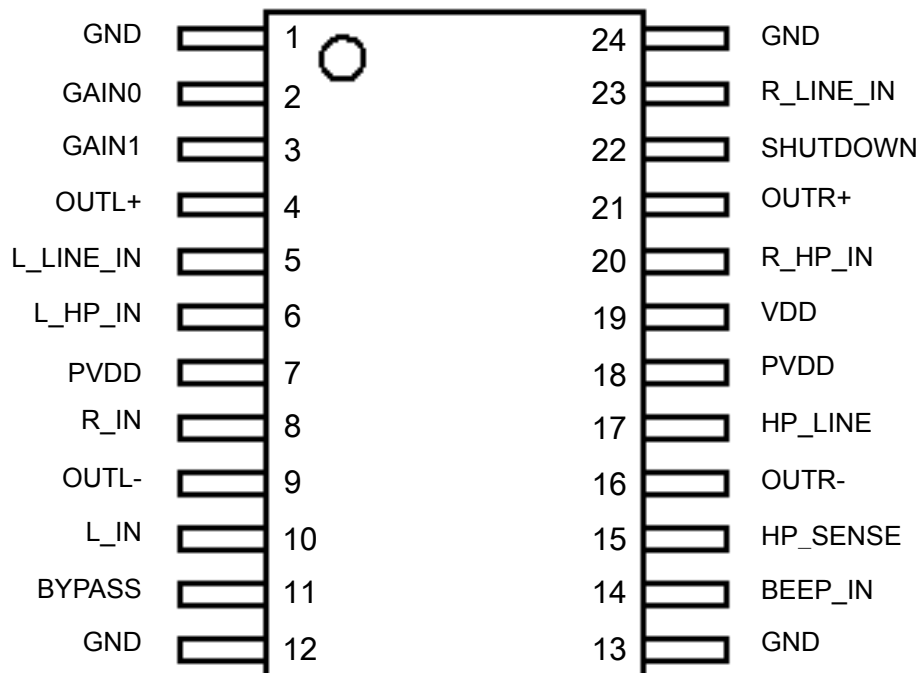
- Continue 2.7W RMS Output Power at 5.0V 3Ω Speaker Load
- Ultra Low Pop Noise at 32Ω Headphone Load
- Wide Operation Voltage Range: 3.0V to 5.5V

Additional Available Materials

- Samples
- Preliminary Datasheet
- Demo Board and Demo Board Manual
- ESD Report

Pin Configuration

G Package
(TSSOP-24 (EDP))



Ordering Information Example

Package	Temperature Range	Part Number	Marking ID	Packing Type
TSSOP-20 (EDP)	-40 to 85°C	AA4006GTR-E1	AA4006G	Tape & Reel

Detailed information please refer to the relevant datasheet.

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