

## 2.4W Stereo Audio Amplifier with DC Volume Control

### Features

- 32 Steps DC Volume Control from +20dB ~-80dB
- Depop Circuitry Integrated
- Output Power at 1% THD+N, VDD=5V  
--1.9W/CH (typical) into a 4Ω Load  
--1.25W/CH (typical) into a 8Ω Load
- Output Power at 10% THD+N, VDD=5V  
--2.4W/CH (typical) into a 4Ω Load  
--1.55W/CH (typical) into a 8Ω Load
- Bridge-Tied Load (BTL) and Single-Ended (SE) Modes Supported
- Maximum Output Power Clamping Circuitry Integrated
- Ultra Low Shutdown Current
- Thermal Shutdown Protection
- SOP-16 Package Available

### Applications

- Notebooks
- LCD Monitor or TV

### General Description

The G1450 is a stereo audio power amplifier with dc volume control in 16-pin SOP thermal pad package. It can deliver 1.9W continuous RMS power into 4Ω load per channel in Bridge-Tied Load (BTL) mode at 5V supply voltage. Its THD is smaller than 1% under the above operation condition. To simplify the audio system design in the notebook application, the G1450 supports the Bridge-Tied Load (BTL) mode for driving the speakers, Single-End (SE) mode for driving the headphone. For the low current consumption applications, the shutdown mode is supported to disable the G1450 when it is idle. The current consumption can be reduced below 1μA.

The internal DC volume gain setting is ranged from +20dB to -80dB with 32 steps. It is easily to get the expected DC volume gain by applying the volume pin with a suitable dc voltage.

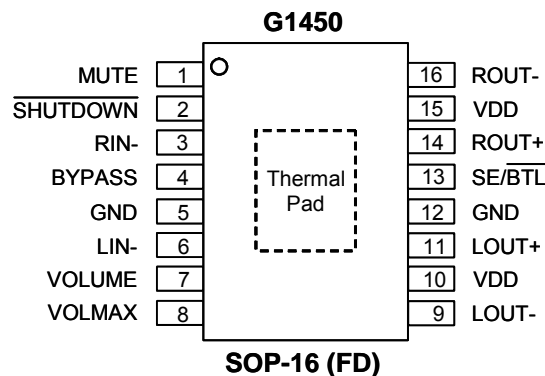
The G1450 has embedded depop circuitry to suppress the power-on or power-off transition noises. It also supports the maximum output power clamping function to protect the speakers from burned-out. Thermal protection circuitry is implemented to avoid unintentionally damaging.

### Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Pb free)
G1450F81U	G1450	-40°C to +85°C	SOP-16 (FD)

Note: F8: SOP-16 (FD)  
1: Bonding Code  
U: Tape & Reel

### Pin Configuration



Note : Recommend connecting the Thermal Pad to the GND for excellent power dissipation.