

2.5W Stereo Class-D Audio Power Amplifier with 3D Enhancement

DESCRIPTION

The EUA2014 is a high efficiency, 2.5W/channel stereo class-D audio power amplifier. A low noise, filterless PWM architecture eliminates the output filter.

Operating from a single 5V supply, EUA2014 is capable of delivering 2.5W/ channel of continuous output power to a 4Ω load with 10% THD+N.

The EUA2014 features independent shutdown controls for each channel. The gain can be selected to 6, 12, 18, or 24 dB utilizing the G0 and G1 gain select pins. High PSRR and differential architecture provide increased immunity to noise and RF rectification.

The EUA2014 also includes 3D audio enhancement that improves stereo sound quality. In devices where the left and right speakers are in close proximity, 3D enhancement affects channel specialization, widening the perceived soundstage.

The EUA2014 is available in space-saving TQFN package, is an idea choice for mobile phones and other portable communication devices.

Typical Application Circuit

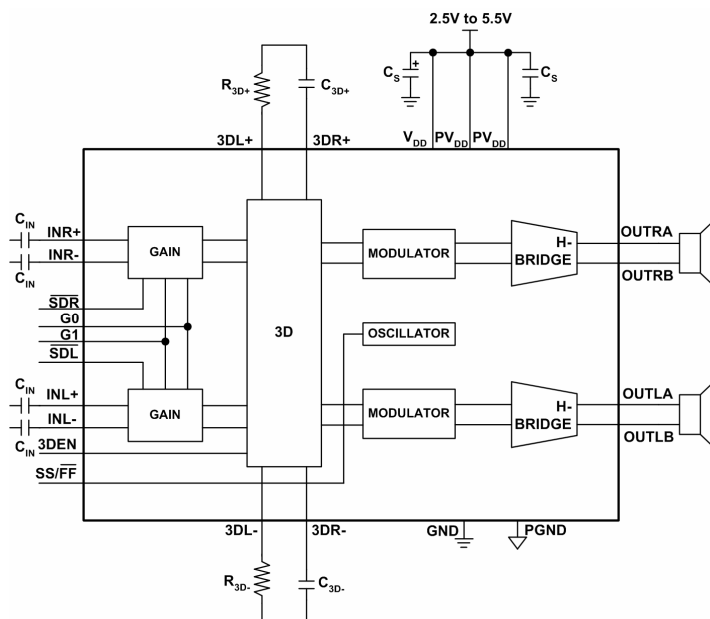


Figure1.

FEATURES

- Unique Modulation Scheme Reduces EMI Emission
- Output Power By TQFN Package
 - 2.5W/Ch Into 4Ω at 5V
 - 1.5W/Ch Into 8Ω at 5V
 - 750mW/Ch Into 8Ω at 3.6V
- Wide Supply Voltage: 2.5V to 5.5V
- Independent Shutdown Control for Each Channel
- Selectable Gain of 6,12,18 and 24 dB
- Internal Pulldown Resistor On Shutdown Pins
- High PSRR :70dB at 217Hz
- Fast 10ms Startup Time
- Low 4.7mA Quiescent Current at 3.6V Supply and 1.5μA Shutdown Current
- Short-Circuit and Thermal Protection
- 3D Enhancement
- Space Saving Packages
 - 4mm × 4mm TQFN-24 package
- RoHS Compliant and 100% Lead(Pb)-Free

APPLICATIONS

- Wireless or Cellular Handsets and PDAs
- Portable Audios
- Notebook PC