## 2.7-W/CH Stereo Filter-less Class-D Audio Power Amplifier

## DESCRIPTION

The EUA2012 is a high efficiency, $2.7 \mathrm{~W} /$ channel stereo class-D audio power amplifier. A low noise, filterless PWM architecture eliminates the output filter, requiring only two external components for operation.

Operating from a single 5V supply, EUA2012 is capable of delivering $2.7 \mathrm{~W} /$ channel of continuous output power to a $4 \Omega$ load with $10 \% \mathrm{THD}+\mathrm{N}$.

The EUA2012 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 EUA2012 is available in space-saving WCSP, TQFN and TSSOP packages, is an idea choice for mobile phones and other portable communication devices.

## Typical Application Circuit

## FEATURES

- Unique Modulation Scheme Reduces EMI Emission
- Output Power By TQFN Package
- $3.2 \mathrm{~W} / \mathrm{Ch}$ Into $3 \Omega$ at 5 V
- $2.7 \mathrm{~W} / \mathrm{Ch}$ Into $4 \Omega$ at 5 V
- $1.6 \mathrm{~W} / \mathrm{Ch}$ Into $8 \Omega$ at 5 V
- $800 \mathrm{~mW} / \mathrm{Ch}$ Into $8 \Omega$ at 3.6 V
- Only Two External components Required
- Wide Supply Voltage: 2.5 V to 5.5 V
- Independent Shutdown Control for Each Channel
- Selectable Gain of $6,12,18$ and 24 dB
- Internal Pulldown Resistor On Shutdown Pins
- High PSRR : 74 dB at 217 Hz
- Fast 10 ms Startup Time
- Low 5 mA Quiescent Current at 3.6V Supply and $1.5 \mu \mathrm{~A}$ Shutdown Current
- Thermal Protection
- Space Saving Packages
- $4 \mathrm{~mm} \times 4 \mathrm{~mm}$ TQFN-20 package
- $2 \mathrm{~mm} \times 2 \mathrm{~mm}$ WCSP-16 package
- TSSOP-20 package
- RoHS Compliant and $100 \% \operatorname{Lead}(\mathrm{~Pb})$-Free


## APPLICATIONS

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


Figure1.

