

20-W Stereo Digital Audio Power Amplifier with EQ and DRC

DESCRIPTION

The EUA2307 is a 20-W, digital audio power amplifier with 4 half-bridged power drivers. The EUA2307 is a slave device that all clocks are provided by the external sources. One serial data input allows processing of up to two discrete audio channels and seamless integration to most digital audio processors. A bidirectional I²C interface allows reading or writing to change the internal register status.

The EUA2307 also features short-circuit and thermal protection preventing the device from being damaged during a fault condition. The EUA2307 is available in thermally efficient 48-pin TQFP package.

FEATURES

- **Audio Input/Output**
 - Wide Power Supply Voltage: 8 V to 26 V
 - Digital Supply: 3.3V
 - 20W/ch into an 8-Ω Load from an 18-V Supply
 - 40W into an 4-Ω Mono load from an 18-V supply
 - Supports 8 kHz - 48 kHz Sample Rates Serial Audio Input (LJ/RJ/I²S)
 - Bidirectional I²C interface
- **Audio Processing**
 - DC Blocking Filters
 - Channel Volume Control 24 dB to mute
 - 14 Biquads for Speaker EQ
 - Flexible Dynamic Range Control (DRC)
- **Benefits**
 - EQ: Speaker Equalization Improves Audio Performance
 - DRC: Enables Speaker Protection and Night-Mode Listening
 - Soft Mute
 - Auto detect: Automatically Detects Sample-rate Changes
 - Thermal and short circuit protection
- Available in TQFP-48 (EP) Package
- RoHS compliant and 100% lead(Pb)-free Halogen-Free

APPLICATIONS

- Television
- iPod™ Dock
- Sound Bar

Typical Application Circuit

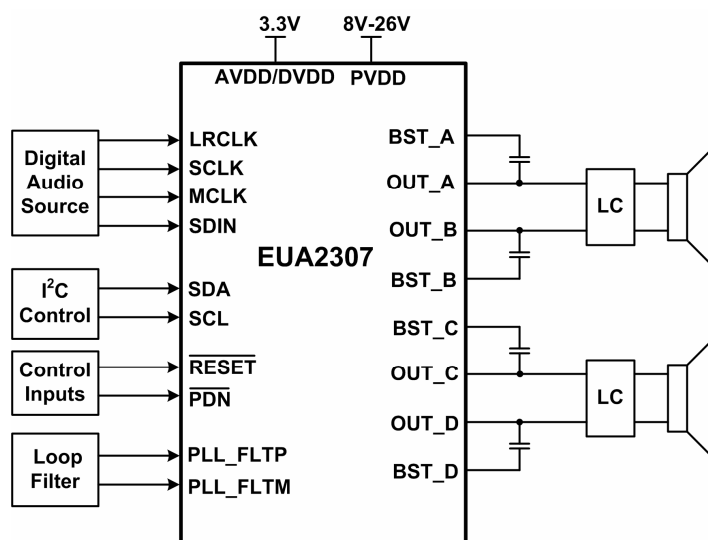


Figure1. Simplified Application Schematic