

DESCRIPTION

The PT2337 is an integrated audio amplifier design for the low voltage (5V) application purpose, built-in stereo 2W Class-D power amplifier with audio processor, it provides 4 stereo sources selector, and all signal process is based on pure analog processing to maintain high performances and low power consumption. The audio processor includes all the advanced control functions such like digital controlled volume, treble and bass control. The whole chip functions are controlled via I²C bus.

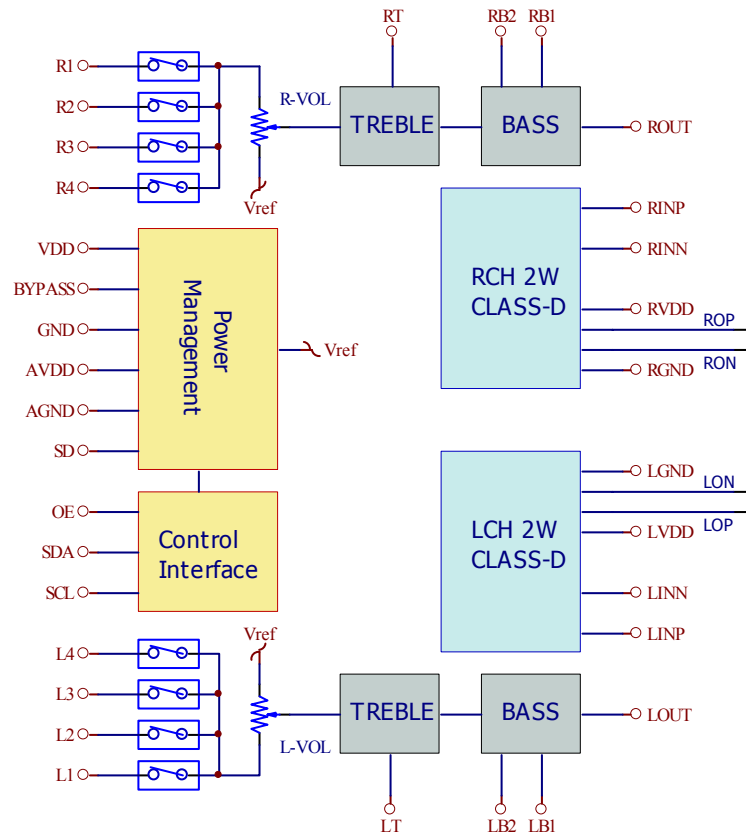
APPLICATIONS

- Portable player duck speaker system
- Portable media player
- Digital photo frame
- Flat panel display and TV
- Other audio applications

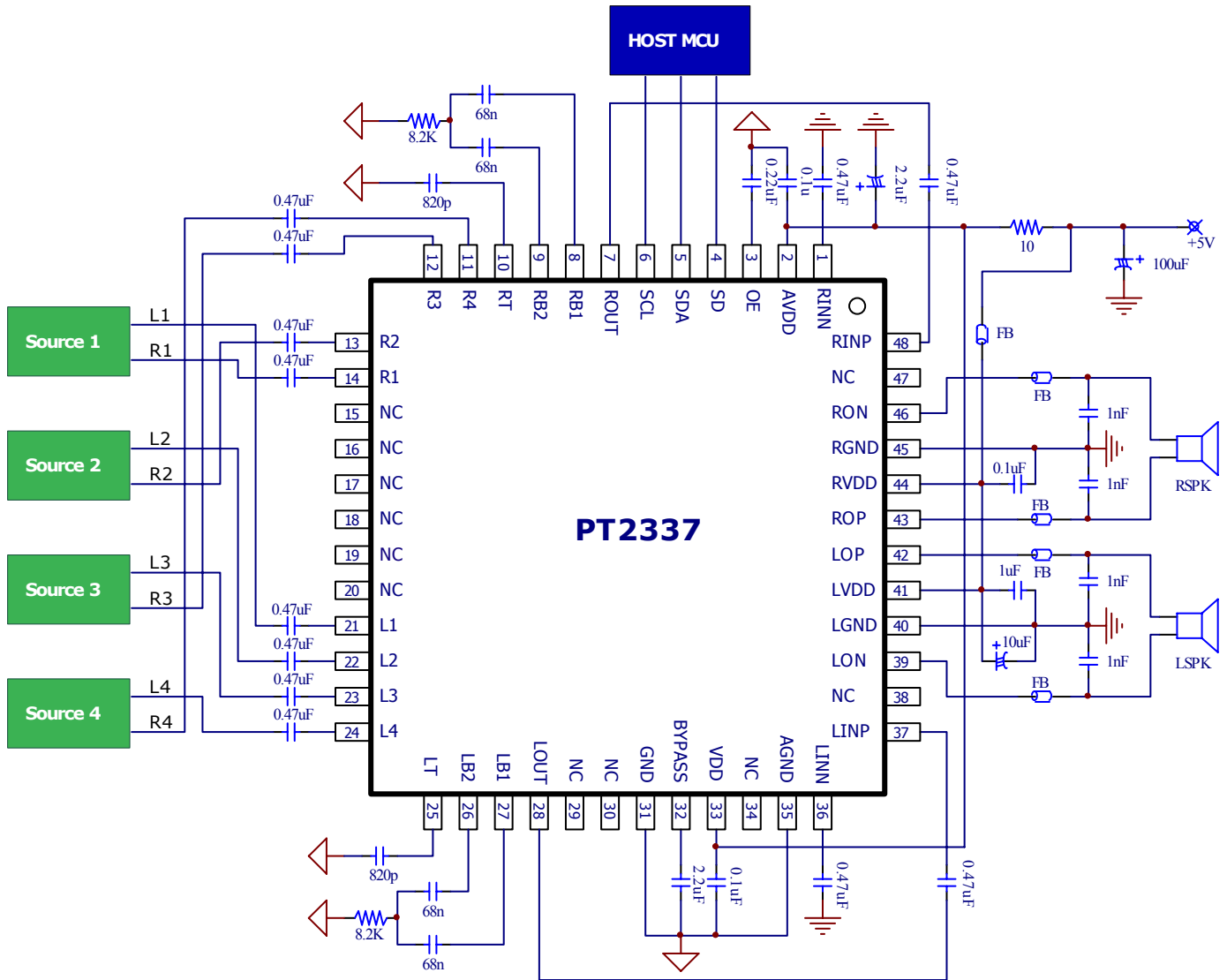
FEATURES

- Supply voltage: 3 ~ 6V
- 2W X 2 Class-D power amplifier (VDD=5V, RL=4Ω)
- 4 Stereo inputs
- 32 steps, independent channel volume controller
- Bass and treble control.
- 2 voltage gain setting for power amp, (20dB, 26dB)
- Pop-Free circuitry eliminates unpleasant noises during power ON/OFF.
- Low power shutdown
- High PSRR
- High RF radiation immunity.
- Over heat/over current protection
- Controlled by I²C interface
- Pin-compatible with PT2334 (Partly functions compatible)
- LQFP 48 pins package

BLOCK DIAGRAM



APPLICATION CIRCUIT

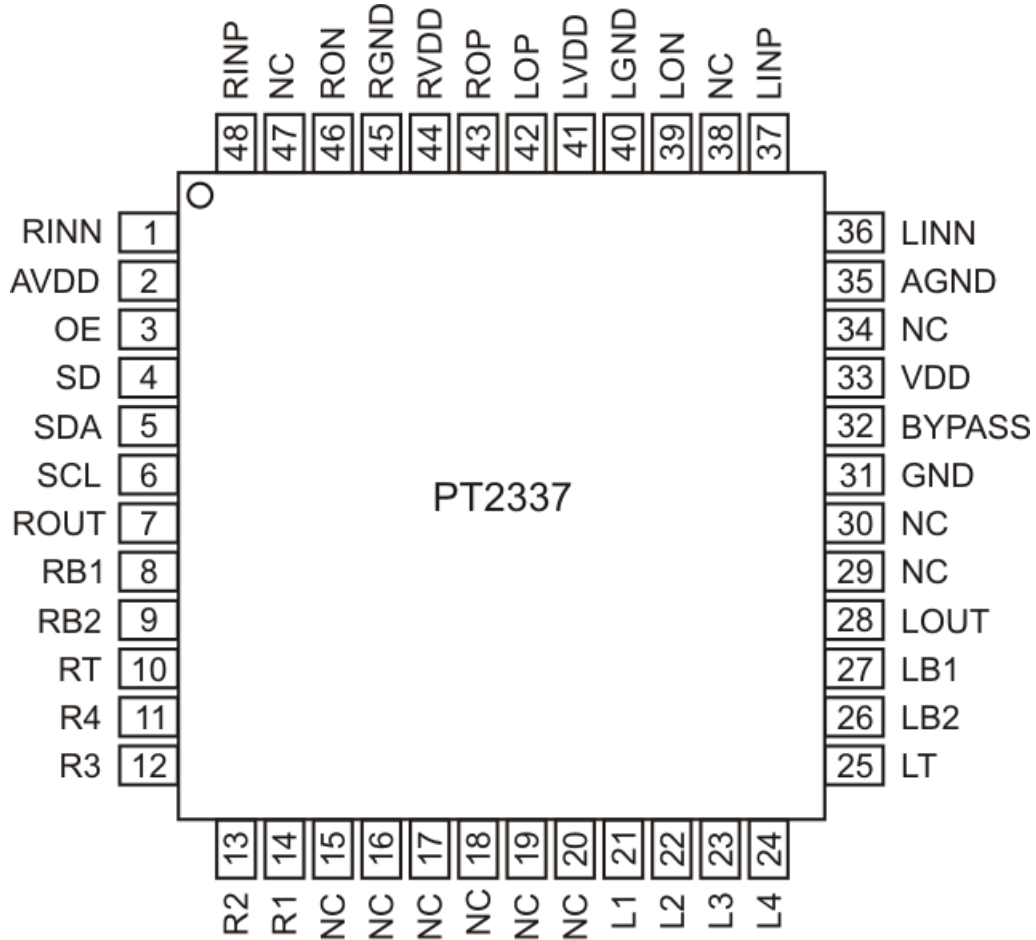




ORDER INFORMATION

| Valid Part Number | Package Type | Top Code |
|-------------------|---------------|-----------|
| PT2337-LQ (L) | 48 Pins, LQFP | PT2337-LQ |

PIN CONFIGURATION





PIN DESCRIPTION

| Pin Name | I/O | Description | Pin No. |
|----------|-----|---|---------|
| RINN | I | Negative input of right channel Class-D amp | 1 |
| AVDD | P | Power input for analog circuits | 2 |
| OE | I | Output enable setting, connect a 0.22 μ F cap to GND. | 3 |
| SD | I | Shutdown. Sets to low level will turn off whole chip and pull up to High level is back to normal operation. | 4 |
| SDA | I | I ² C bus data input | 5 |
| SCL | I | I ² C bus clock input | 6 |
| ROUT | O | Right channel line out | 7 |
| RB1 | I | Capacitor 1 for right channel Bass controller | 8 |
| RB2 | O | Capacitor 2 for right channel Bass controller | 9 |
| RT | I | Capacitor for right channel Treble controller | 10 |
| R4 | I | Input 4 of right channel | 11 |
| R3 | I | Input 3 of right channel | 12 |
| R2 | I | Input 2 of right channel | 13 |
| R1 | I | Input 1 of right channel | 14 |
| NC | - | No connect | 15 |
| NC | - | No connect | 16 |
| NC | - | No connect | 17 |
| NC | - | No connect | 18 |
| NC | - | No connect | 19 |
| NC | - | No connect | 20 |
| L1 | I | Input 1 of left channel | 21 |
| L2 | I | Input 2 of left channel | 22 |
| L3 | I | Input 3 of left channel | 23 |
| L4 | I | Input 4 of left channel | 24 |
| LT | I | Capacitor for left channel treble controller | 25 |
| LB2 | I | Capacitor 2 for left channel bass controller | 26 |
| LB1 | O | Capacitor 1 for left channel bass controller | 27 |
| LOUT | O | Left channel line out | 28 |
| NC | - | No connect | 29 |
| NC | - | No connect | 30 |
| GND | P | Ground | 31 |
| BYPASS | P | Bypass cap for internal voltage reference, a 2.2 μ F cap is recommended. | 32 |
| VDD | P | Power input | 33 |
| NC | - | No connect | 34 |
| AGND | P | Ground for analog circuits | 35 |
| LINN | I | Negative input of left channel Class-D amp | 36 |
| LINP | I | Positive input of left channel Class-D amp | 37 |
| NC | - | No connect | 38 |
| LON | O | Negative output of left channel Class-D amp | 39 |
| LGND | P | Power ground of left channel Class-D amp | 40 |
| LVDD | P | Power input of left channel Class-D amp | 41 |
| LOP | O | Positive output of left channel Class-D amp | 42 |
| ROP | O | Positive output of right channel Class-D amp | 43 |
| RVDD | P | Power input of right channel Class-D amp | 44 |
| RGND | P | Power ground of right channel Class-D amp | 45 |
| RON | O | Negative output of right channel Class-D amp | 46 |
| NC | - | No connect | 47 |
| RINP | I | Positive input of right channel Class-D amp | 48 |

IMPORTANT NOTICE

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