

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.

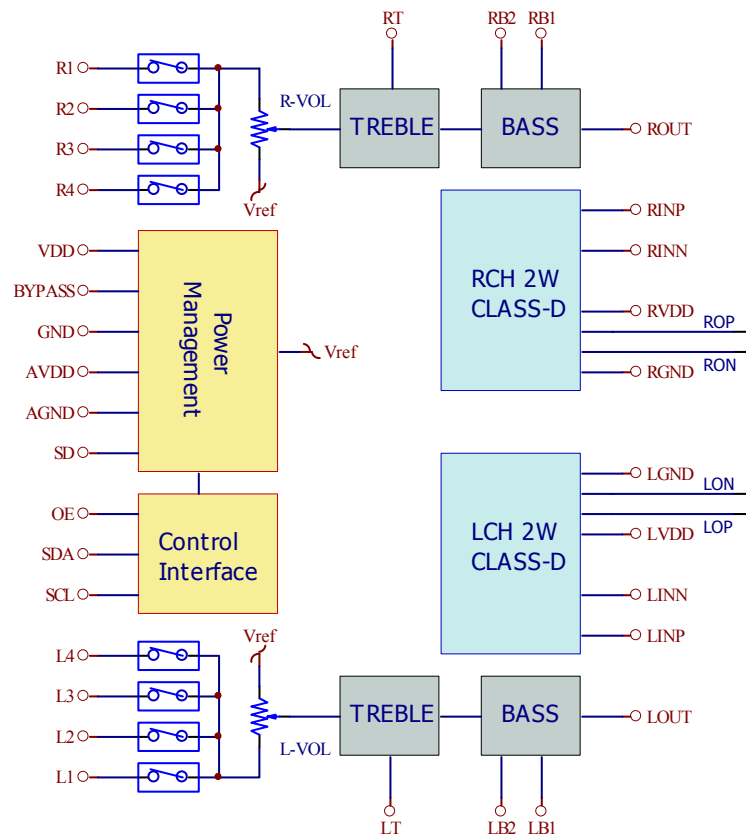
APPLICATIONS

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

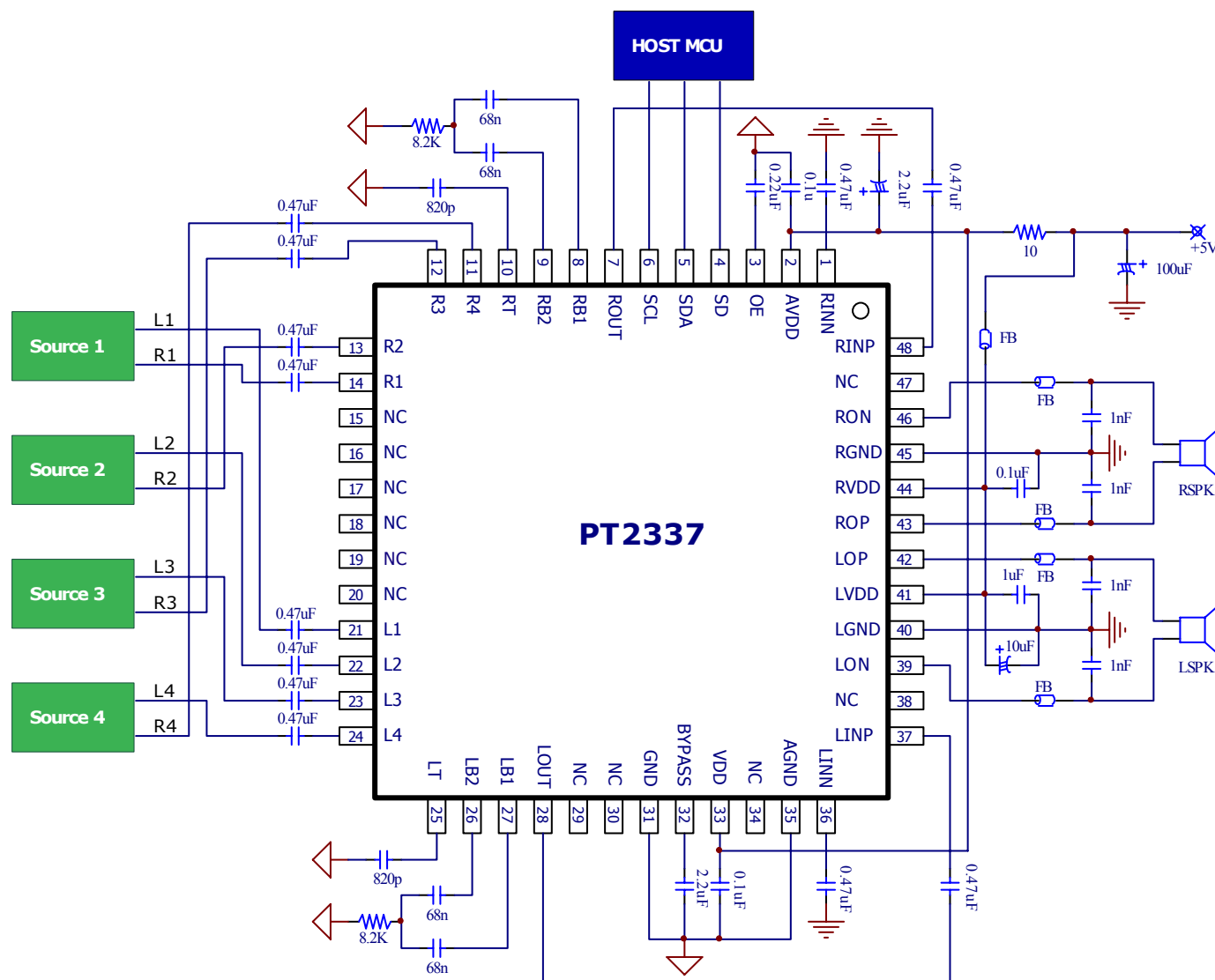
FEATURES

- 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



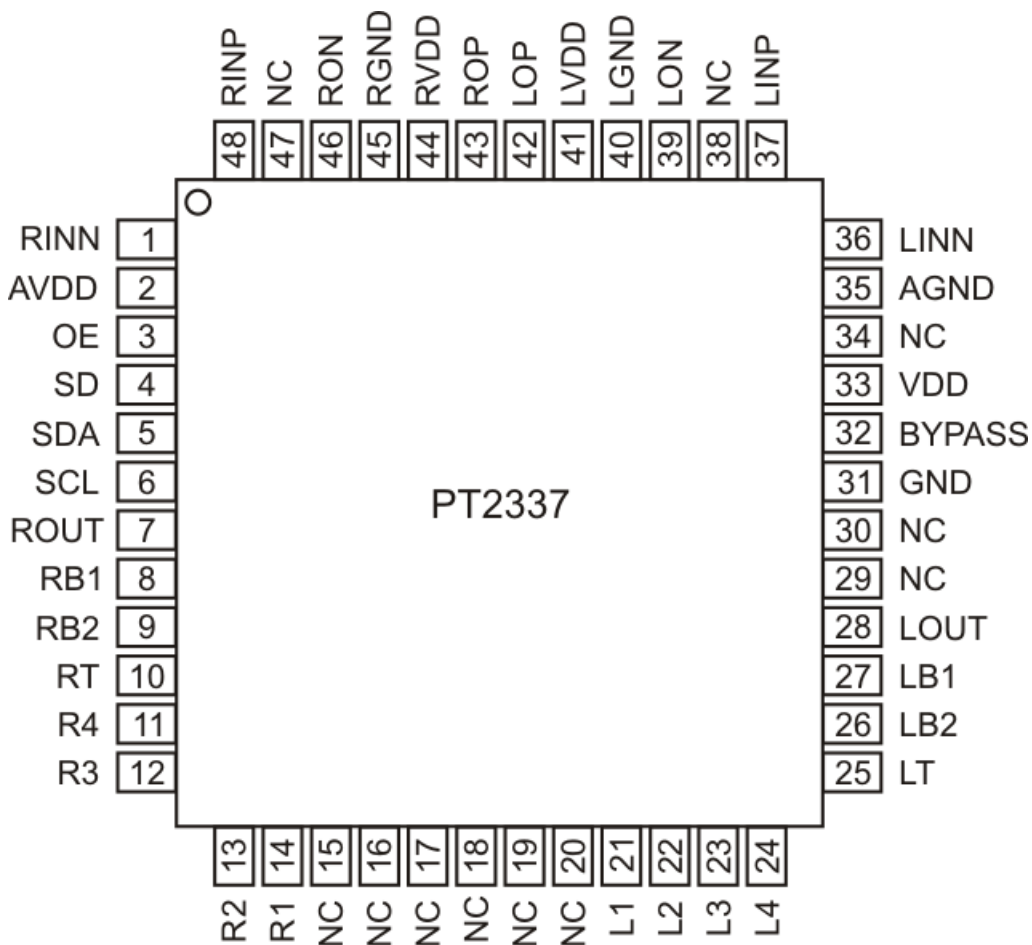
APPLICATION CIRCUIT



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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PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

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