

DESCRIPTION

The PT2335 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, adaptive loudness, treble and bass control. It also provides line output for versatile application. The whole chip functions are controlled via I²C bus.

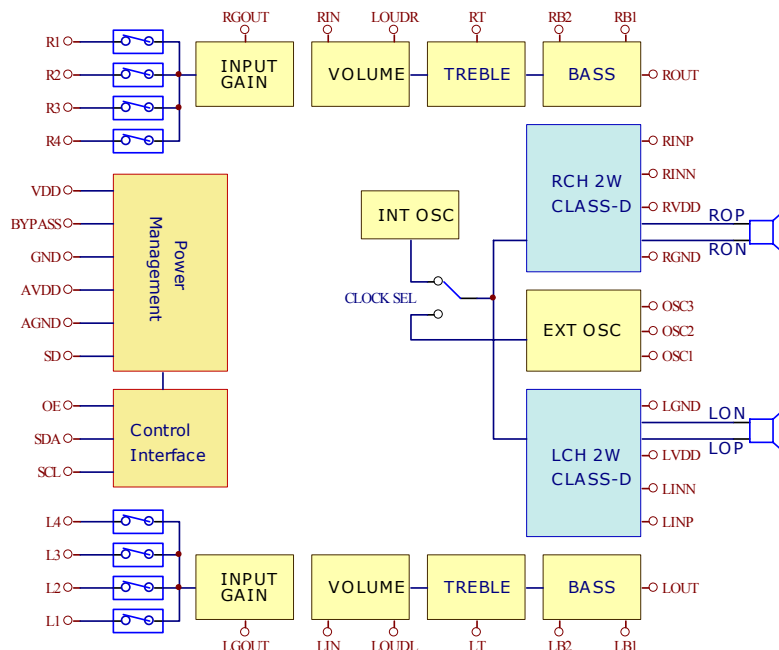
APPLICATIONS

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

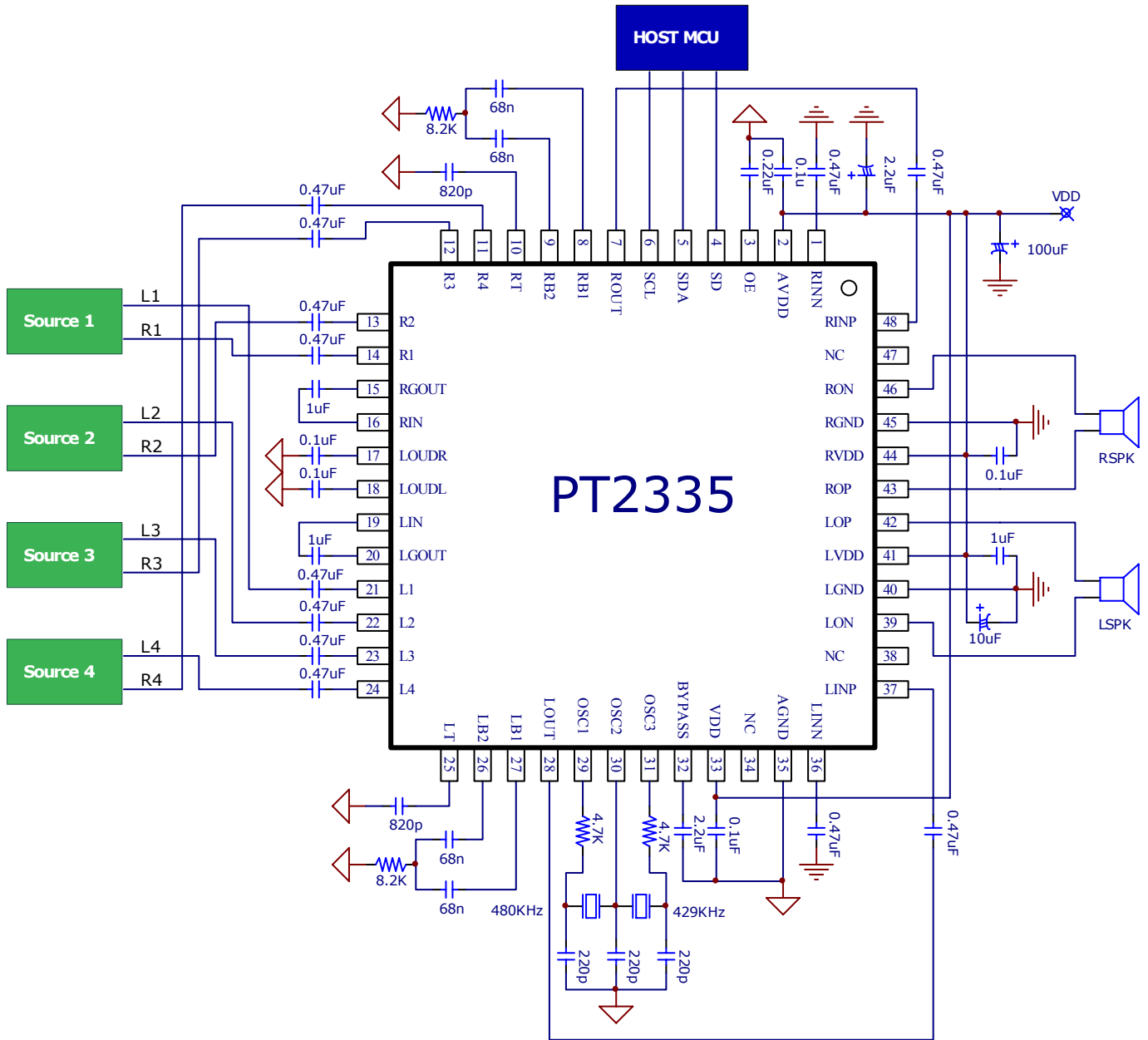
FEATURES

- Supply voltage: 3 ~ 6V
- 4 Stereo inputs
- Input gain selectable (0dB, 3.75dB, 7.5dB, 11.25dB)
- Independent channel volume controller
- Loudness function
- Bass and treble control.
- 2W X 2 Class-D power amplifier (VDD=5V, RL=4Ω)
- 2 voltage gain setting for power amp (20dB, 26dB)
- Internal and external oscillator selectable
- Dual switching frequency for avoid AM radio interference
- Pop-Free circuitry eliminates unpleasant noises during power ON/OFF.
- Low power shutdown
- High PSRR
- Over heat/over current protection circuitry
- Controlled by I²C interface
- High power CMOS processing
- LQFP 48 pins package

BLOCK DIAGRAM



APPLICATION CIRCUIT

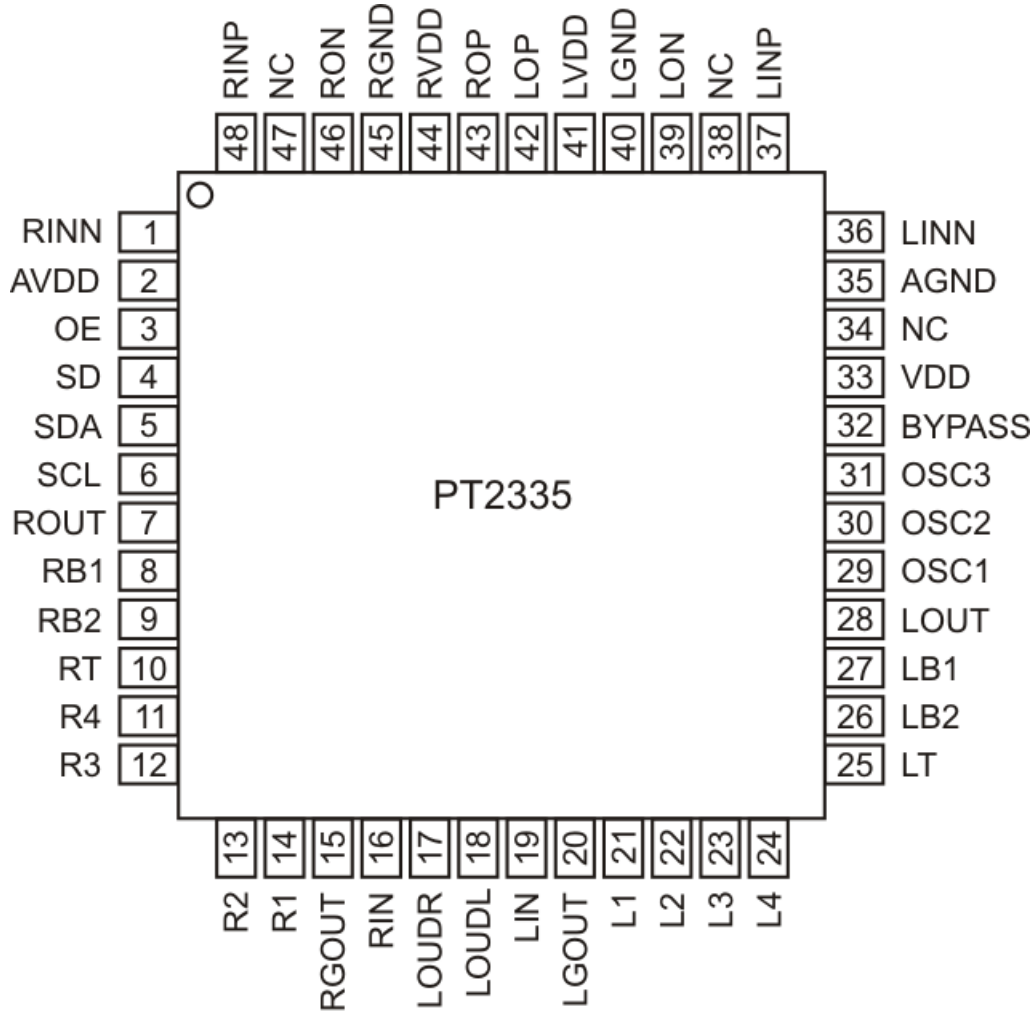




ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2335-LQ (L)	48 Pins, LQFP	PT2335-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
RGOUT	O	Right channel selector out	15
RIN	I	Right volume controller input	16
LOUDR	O	Right channel loudness capacitor	17
LOUDL	O	Left channel loudness capacitor	18
LIN	I	Left volume controller input	19
LGOUT	O	Left channel selector out	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
OSC1	O	480KHz ceramic resonator output	29
OSC2	I	Ceramic resonator summing input	30
OSC3	O	429KHz ceramic resonator output	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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