DESCRIPTION

The PT2811 is an integrated 3W stereo Class-D amplifier with audio processor. The input selector supports 3 Single-Ended and 1 Fully-Differential input can be chose. The highly integration of the audio processor and class-D amplifier can further reduce external components BOM and provides better audio experience. All of functions are controlled via I2C bus.

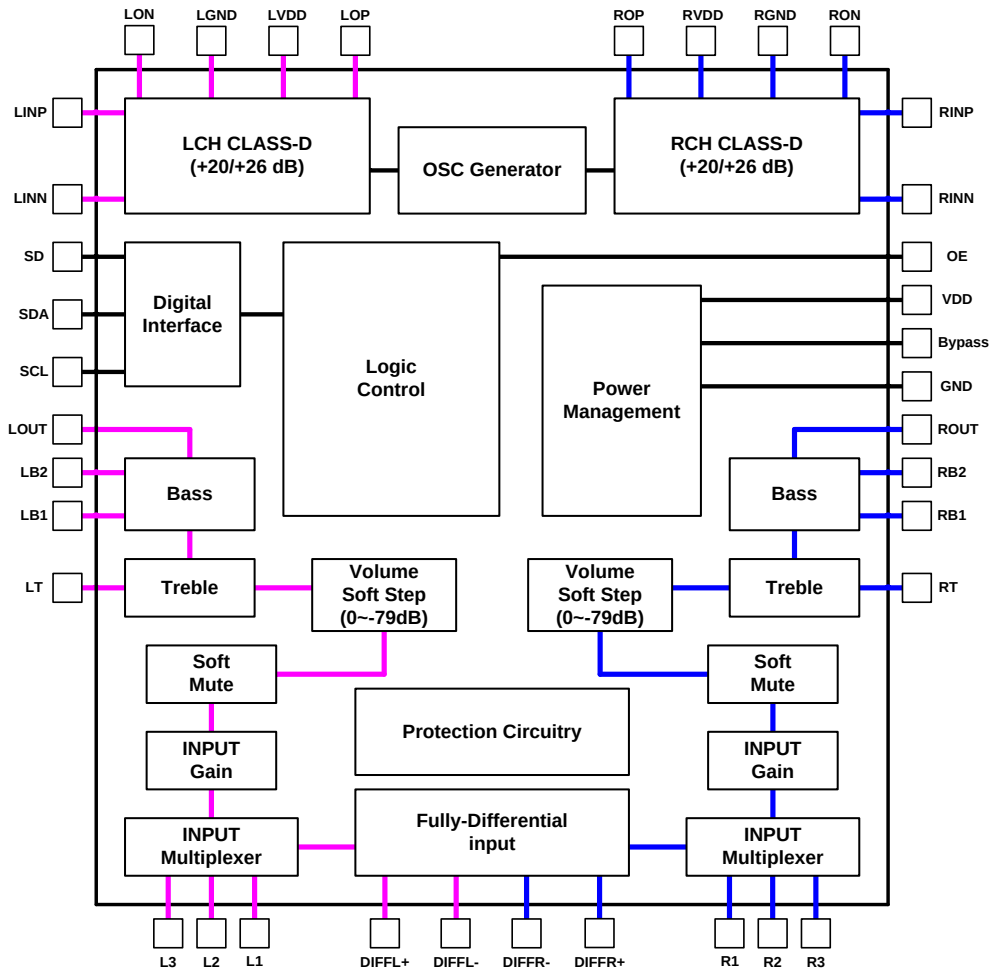
APPLICATIONS

- PC/Video Projector
- Portable media player
- Audio duck system
- Flat panel display with audio inputs

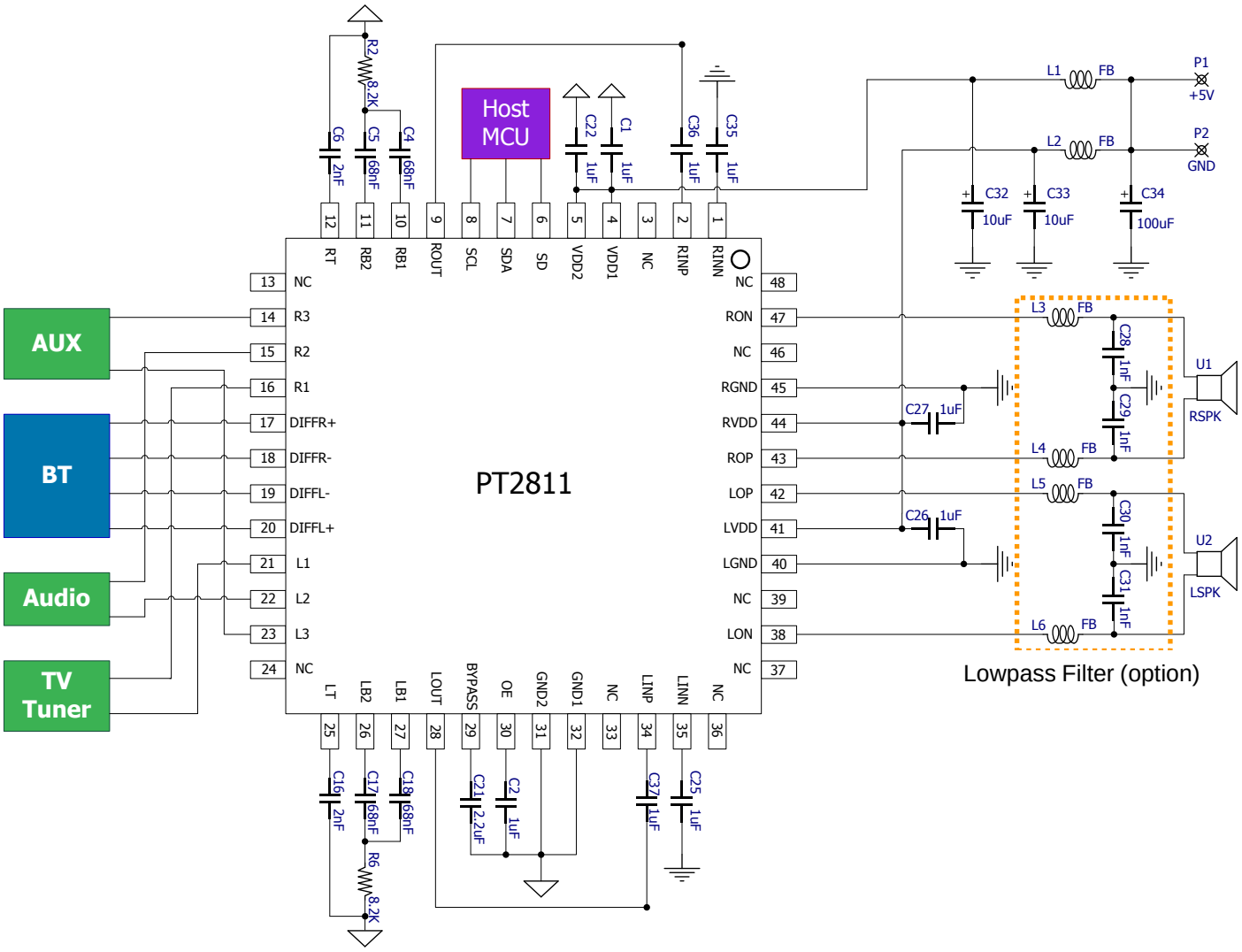
FEATURES

- Supply Voltage: 3~6V
- 3W X 2 Class-D power amplifier (VDD=5V, RL=4Ω)
- 1 Fully-Differential input
- 3 Single-Ended audio inputs
- Programmable input gain from 0 to +15dB
- Bass and Treble control
- Master volume in 1dB/step from 0 to -79dB
- Advanced soft-mute and multiple soft-step volume technology eliminate audible click during volume and input sources changing.
- Built-in RF noise filter
- Shutdown function for power saving
- Over temperature and over current protection
- Controlled by I^2C interface
- Available in 48 Pins, LQFP package

block diagram



APPLICATION CIRCUIT

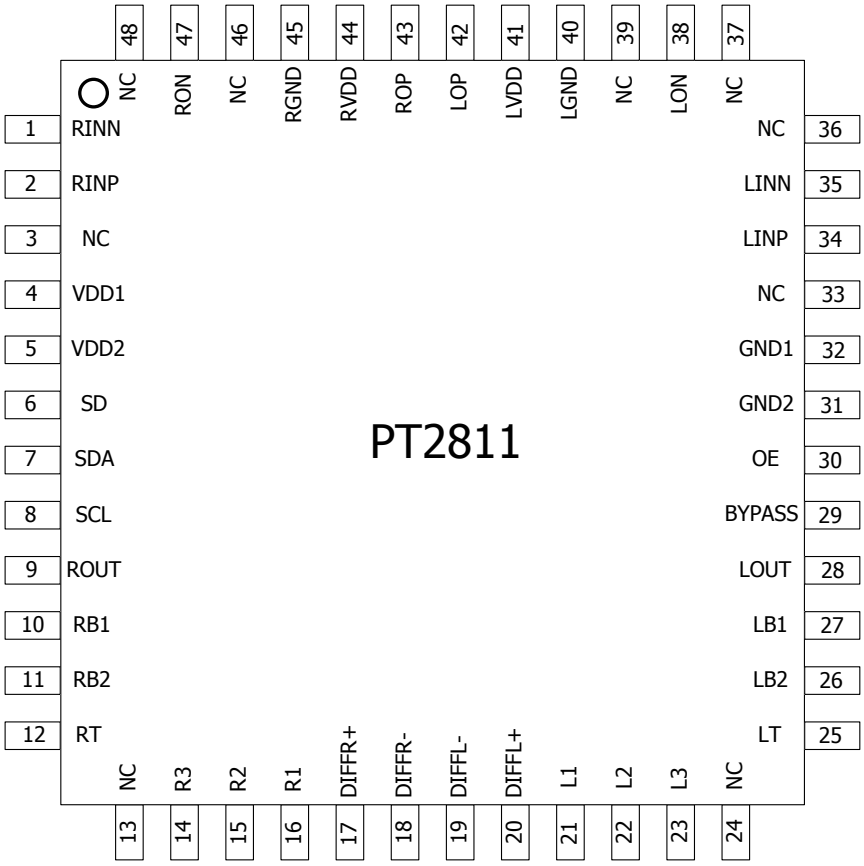


BT=Bluetooth module with fully differential output.
The ferrite bead lowpass filter is an optional item; it is useful to reduction the EMI emission.

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2811-LQ	48 Pins, LQFP, 7 X 7 mm	PT2811-LQ

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
RINN	I	Negative input of right channel Class-D amp	1
RINP	I	Positive input of right channel Class-D amp	2
NC	-	No connection	3
VDD1	P	Power input for internal circuits	4
VDD2	P	Power input for internal circuits	5
SD	I	Shutdown control pin. Sets to “logic-low” will turn off whole chip and pull up to “logic-high” to back to normal operation.	6
SDA	I	I^2C bus data input	7
SCL	I	I^2C bus clock input	8
ROUT	O	Right channel line out	9
RB1	I	Capacitor 1 for right channel Bass controller	10
RB2	O	Capacitor 2 for right channel Bass controller	11
RT	I	Capacitor for right channel Treble controller	12
NC	-	No connection	13
R3	I	Input 3 of right channel	14
R2	I	Input 2 of right channel	15
R1	I	Input 1 of right channel	16
DIFFR+	I	Differential right channel “+” input	17
DIFFR-	I	Differential right channel “-” input	18
DIFFL-	I	Differential left channel “-“ input	19
DIFFL+	I	Differential left channel “+” input	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
NC	-	No connection	24
LT	I	Capacitor for left channel Treble controller	25
LB2	O	Capacitor 2 for left channel Bass controller	26
LB1	I	Capacitor 1 for left channel Bass controller	27
LOUT	O	Left channel line out	28
BYPASS	P	Bypass cap for Internal Voltage Reference, a 2.2μF cap is recommended.	29
OE	I	Output Enable setting, connect a 0.22μF cap to GND.	30
GND2	P	Ground	31
GND1	P	Ground	32
NC	-	No connection	33
LINP	I	Positive input of left channel Class-D amp	34
LINN	I	Negative input of left channel Class-D amp	35
NC	-	No connection	36
NC	-	No connection	37
LON	O	Negative output of left channel Class-D amp	38
NC	-	No connection	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
NC	-	No connection	46
RON	O	Negative output of right channel Class-D amp	47
NC	-	No connection	48

IMPORTANT NOTICE

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