DESCRIPTION

The PT8915 is a cost-efficient single chip for USB speaker application. It integrated USB controller, 16 bit audio DAC, line input and high power, high efficient Class-D audio amplifier in one chip. Only few external components needed in application circuits makes it suite for the USB powered speaker system.

The I/O interface is totally follow the USB audio class specification. No special driver software needs to install on user's computer and support most popular Operating System in the recent market. The PT8915 is a truly plug and play USB audio device. The embedded GPIO pins provide the mute and volume adjustment functions whatever the USB port is connected or not, Via the I²C pins. Vendor can store vendor specified VID, PID, language ID and product string information in external EEPROM.

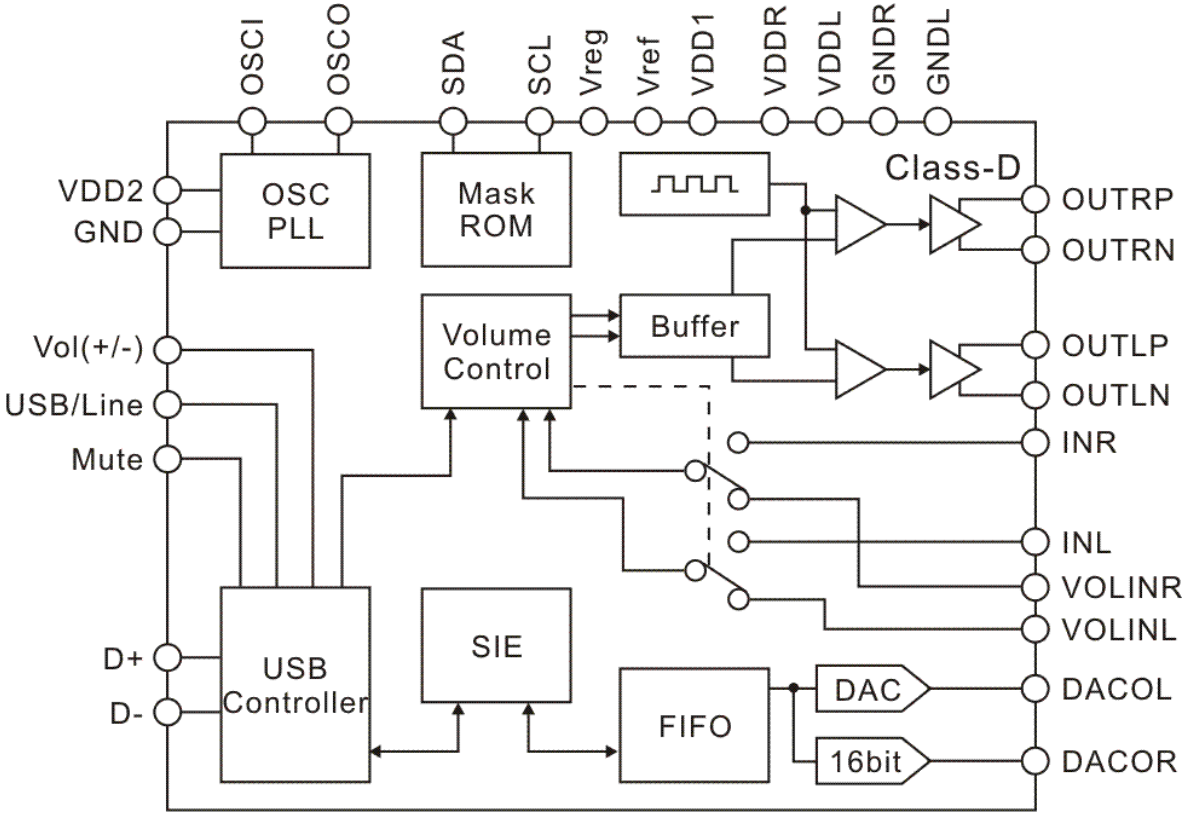
FEATURES

- Compliant with USB2.0 full speed specification.
- Compliant with USB Audio class specification.
- Compliant with USB HID class specification for volume and mute remote control.
- Supply voltage: 4.5~5.5V
- Build-in class-D audio amplifier with 2Watt output power for each channel.
- Built-in PLL(48MHz for USB)
- Built-in USB/LINE IN function for selecting PC or external signal.
- Key pad control in USB and Line IN function for mute, volume up and volume down.
- I^2C interface for optional external EEPROM to store vendor specified VID, PID, language ID and product string information.
- Packages: 28 pins SOP

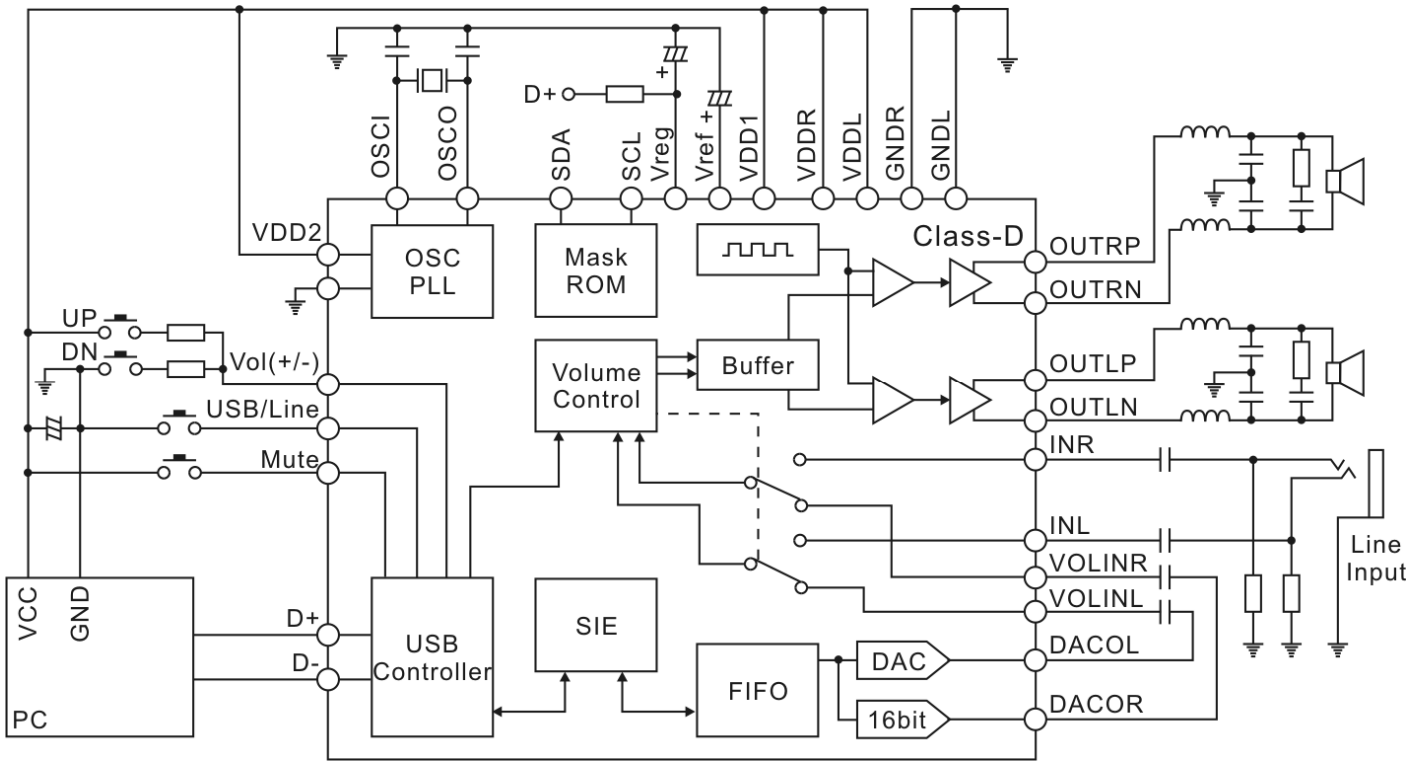
APPLICATION

- USB Speaker

BLOCK DIAGRAM



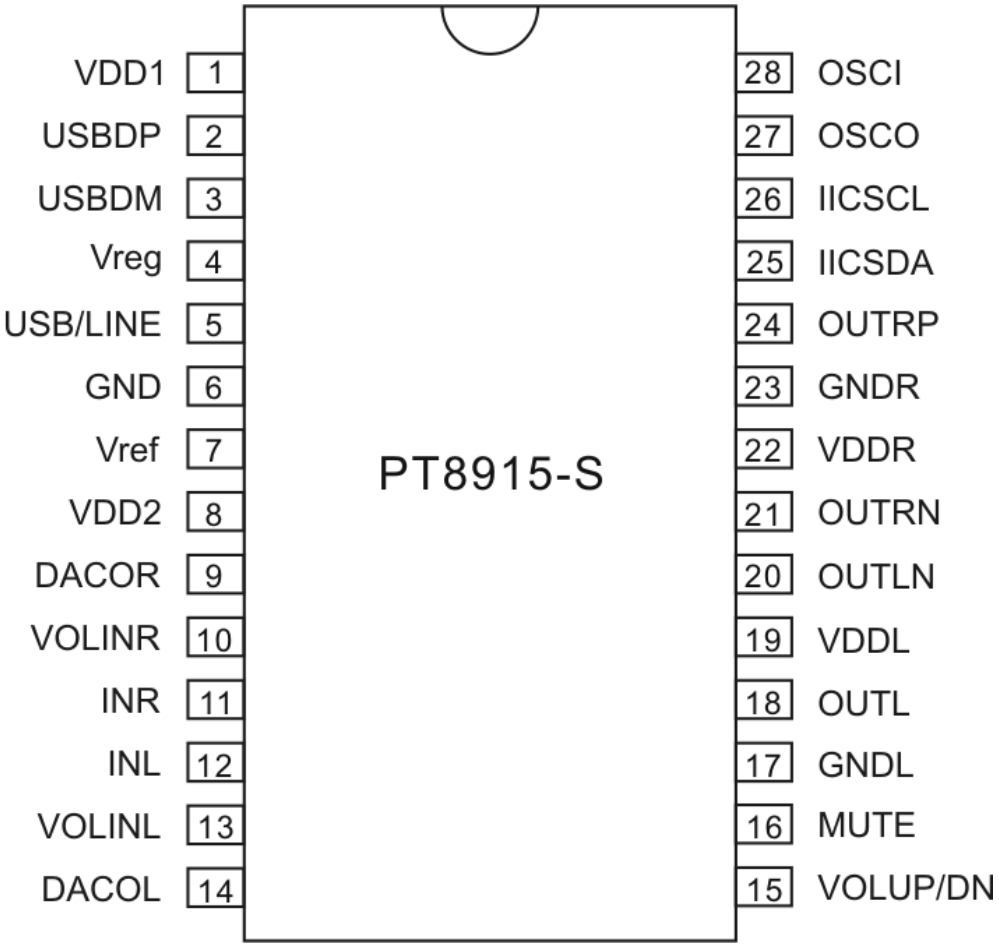
APPLICATION CIRCUITS



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT8915-S	28 Pins, SOP, 300mil	PT8915-S

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
VDD1	Power	USB 5V power	1
USBDP	I	USB data plus	2
USBDM	I	USB data minus	3
Vreg	Power	Regulator 3.3V power	4
USB/LINE	I	USB/Line-In mode selector, issue remote wake up signal for PC/Notebook system suspend.	5
GND2	power	DAC ground	6
Vref	Power	Reference voltage	7
VDD2	Power	DAC power	8
DACOR	O	DAC output right channel	9
VOLINR	I	Volume in right channel	10
INR	I	Line in right channel	11
INL	I	Line in left channel	12
VOLINL	I	Volume in left channel	13
DACOL	O	DAC output left channel	14
MUTE	I	GPIO, Mute	15
VOLUP/DN	I	GPIO, Volume up/down	16
OUTLP	O	Left channel positive output	17
GNDL	Power	Left channel ground	18
VDDL	Power	Left channel power	19
OUTLN	O	Left channel negative output	20
OUTRN	O	Right channel negative output	21
VDDR	Power	Right channel power	22
GNDR	Power	Right channel ground	23
OUTRP	O	Right channel positive output	24
IICSDA	O	IIC data	25
IICSCL	O	IIC clock	26
OSCO	O	Output for 12MHz oscillator	27
OSCI	I	Input for 12MHz oscillator	28

IMPORTANT NOTICE

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