

DESCRIPTION

The PT3323 is a 2-VRMS pop-free audio line driver with single power supply, which is designed to remove the output dc-blocking capacitors and reduce component numbers and cost. With 3.3V supply voltage, it is capable of driving 2 VRMS into a 10kΩ load. Meanwhile, the device has differential inputs and uses external gain setting resistors that supports a gain range of ±1V/V to ±10V/V.

Compared the traditional methods, the PT3323 doesn't require either a power supply more than 3.3V, or a split rail power supply to generate a 5.6Vpp output. The PT3323 contains a charge pump that generates a negative supply rail, so it supports a clean ground-biased 2-VRMS output. Furthermore, the PT3323 offers a built-in under voltage detector and mute control circuitry for optimal pop-free performance.

The PT3323 is available in 14-pin TSSOP package.

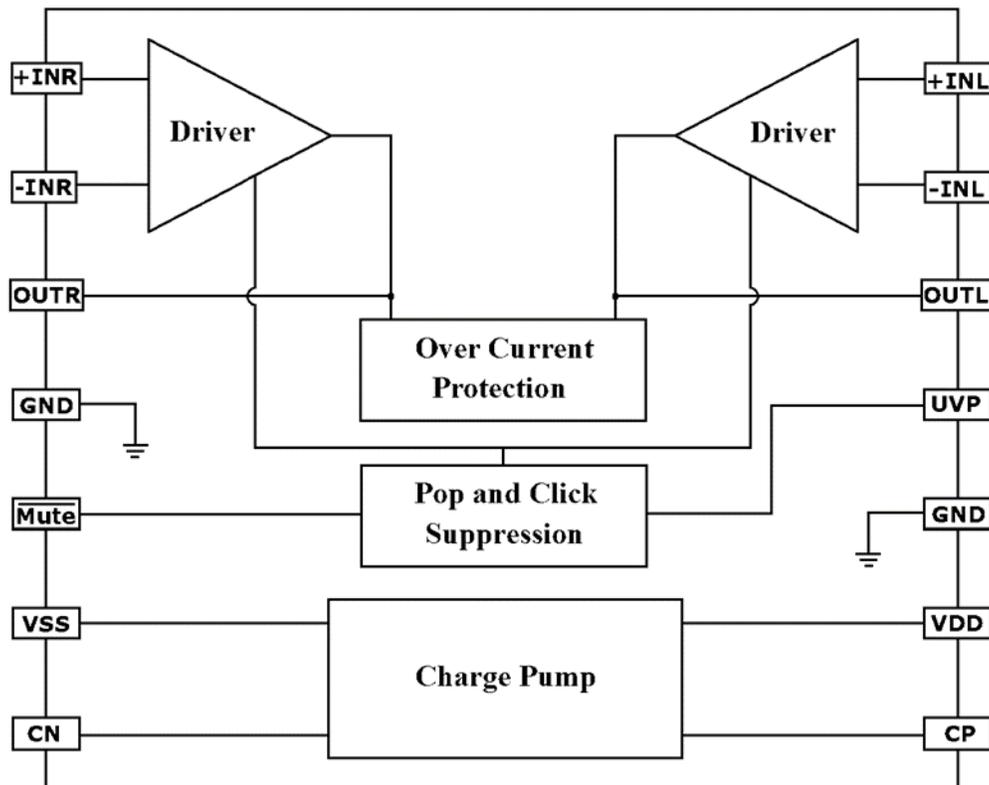
FEATURES

- Differential Input and Single-Ended Output
- Output 2-VRMS pop-free audio line driver at 10 KΩ load with 3.3V power supply
- Low Distortion
 - Low THD+N, < 0.01% (at 2 VRMS Into 10 KΩ)
 - High SNR, > 90 dB
 - Low Vn, < 11μVrms
- Low DC Offset, < 1.5mV
- No output DC-Blocking capacitors
- Adjustable Gain can be achieved by adjusting the external gain resistance
- Built-in pop and click suppression
- Over current protection
- Available in TSSOP-14 package

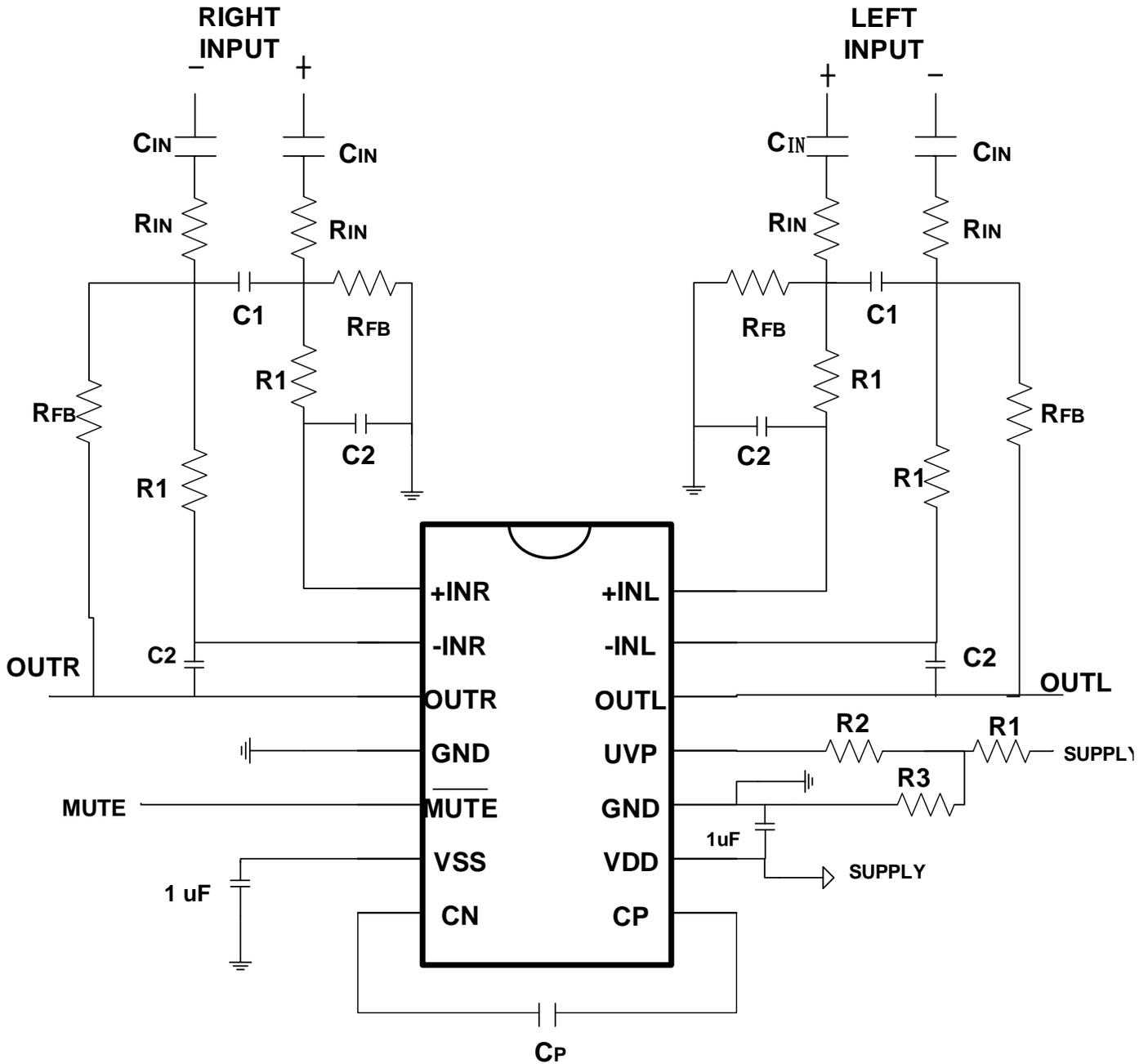
APPLICATIONS

- Set-Top Box
- LCD TV or Monitor
- Laptop or MID
- Portable DVD

BLOCK DIAGRAM



APPLICATION CIRCUIT

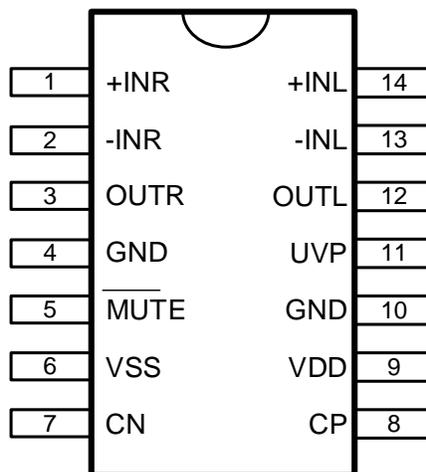


Differential-input, single-ended output, second-order filter
 $R_{IN}=15\text{ K}\Omega$, $R_{FB}=30\text{ K}\Omega$, $R_1=43\text{ K}\Omega$, $C_1=180\text{ pF}$, $C_2=47\text{ pF}$, $C_p=1\text{ uF}$

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT3323-TX	14-pin, TSSOP	PT3323-TX

PIN CONFIGURATION



PIN DESCRIPTION

Pin Number	I/O	Symbol	Description
1	I	+INR	Right-channel positive input
2	I	-INR	Right-channel negative input
3	O	OUTR	Right-channel output
4	P	GND	Power Ground
5	I	MUTE	Mute, L=muted, H=normal
6	P	VSS	Supply voltage
7	I/O	CN	Charge-pump flying capacitor negative connection
8	I/O	CP	Charge-pump flying capacitor positive connection
9	P	VDD	Positive supply
10	P	GND	Power Ground
11	I	UVP	Undervoltage protection; Connect to VDD with a 10KΩ resistor if function is unused.
12	O	OUTL	Left-channel output
13	I	+INL	Left channel positive input
14	I	-INL	Left channel negative input

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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