



Quad Audio Line Driver with 3V_{RMS} Output

MAX9727

General Description

The MAX9727 quad audio line driver with 3V_{RMS} output is ideal for portable audio devices where board space and cost is at a premium. The device uses Maxim's DirectDrive™ architecture that produces a ground-referenced output from a single supply, eliminating the need for large DC-blocking capacitors, saving cost, board space, and component height. A high 100dB PSRR and low 0.0005% THD+N ensures clean, low-distortion amplification of the audio signal. Each MAX9727 amplifier can provide 3V_{RMS} to a 1kΩ load with less than 0.003% THD+N while operating from a single +5V supply. Each MAX9727 amplifier can provide 2V_{RMS} to a 1kΩ load with less than 0.003% THD+N while operating from a single +3.3V supply.

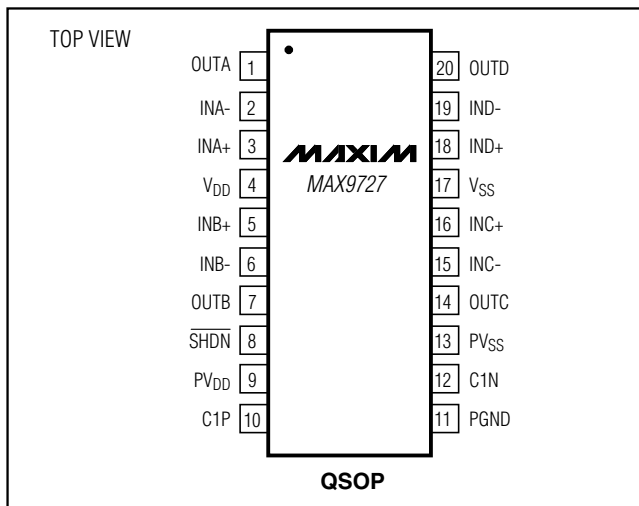
A shutdown input disables the amplifiers and reduces quiescent current consumption to less than 100nA. The MAX9727 features Maxim's comprehensive click-and-pop suppression circuitry that reduces audible clicks and pops during startup and shutdown.

The MAX9727 operates from a single 2.7V to 5.5V supply, consumes only 3mA of supply current per channel and is specified over the -40°C to +85°C extended temperature range.

Applications

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|---|------------------------|
| Set-Top Boxes | CD and DVD Players |
| Consumer and Professional Audio Equipment | Soundcards |
| A/V Receivers | Portable Audio Devices |

Pin Configuration



Features

- ◆ 2.7V to 5.5V Single-Supply Operation
- ◆ High 100dB PSRR
- ◆ 109dB Signal-to-Noise Ratio (SNR)
- ◆ Ground-Referenced Outputs
- ◆ No Audible Clicks or Pops at Power-Up/Down
- ◆ Differential Inputs
- ◆ 3V_{RMS} into 1kΩ Load at 5V
- ◆ 2V_{RMS} into 1kΩ Load at 3.3V
- ◆ 3mA Supply Current Per Channel
- ◆ Unity-Gain Stable
- ◆ 100nA Low-Power Shutdown Mode
- ◆ C_{LOAD} Drive > 220pF
- ◆ ±8kV HBM ESD-Protected Outputs

Ordering Information

PART	TEMP RANGE	PIN-PACKAGE	GAIN
MAX9727EEP+	-40°C to +85°C	20 QSOP	Adjustable

+Denotes lead-free package.

Simplified Block Diagram

