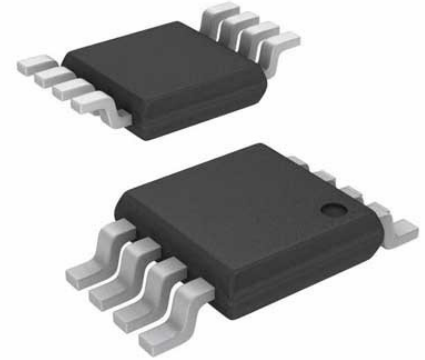


LINEAR TECHNOLOGY LT1994IMS8#PBF Differential Amplifier, Low Distortion, 1 Amplifiers, 3mV, 1dB, 70MHz, -40°C, 85°C

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	MSOP8
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LT1994IMS8#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LT1994 is a high precision, very low noise, low distortion, fully differential input/output amplifier optimized for 3V, single supply operation. The LT1994's output common mode voltage is independent of the input common mode voltage, and is adjustable by applying a voltage on the VO<sub>CM</sub> pin. A separate internal common mode feedback path provides accurate output phase balancing and reduced even-order harmonics. This makes the LT1994 ideal for level shifting ground referenced signals for driving differential input, single supply ADCs.

The LT1994 output can swing rail-to-rail and is capable of sourcing and sinking up to 85mA. In addition to the low distortion characteristics, the LT1994 has a low input referred voltage noise of 3nV/ $\sqrt{\text{Hz}}$ . This part maintains its performance for supply voltages as low as 2.375V. It draws only 13.3mA of supply current and has a hardware shutdown feature that reduces current consumption to 225 $\mu\text{A}$ .

The LT1994 is available in an 8-pin MSOP or 8-pin DFN package.

## Features

Fully Differential Input and Output

Wide Supply Range: 2.375V to 12.6V

Rail-to-Rail Output Swing

Low Noise:  $3nV/\sqrt{Hz}$

Low Distortion, 2VP-P, 1MHz:  $-94dBc$

Adjustable Output Common Mode Voltage

Unity Gain Stable

Gain-Bandwidth: 70MHz

Slew Rate:  $65V/\mu s$

Large Output Current: 85mA

DC Voltage Offset  $<2mV$  MAX

Open-Loop Gain: 100V/mV

Low Power Shutdown

8-Pin MSOP or  $3mm \times 3mm$  DFN Package

## Application

Differential Input A/D Converter Driver

Single-Ended to Differential Conversion

Differential Amplifier cation with Common Mode Translation

Rail-to-Rail Differential Line Driver/Receiver

Low Voltage, Low Noise, Differential Signal Processing

## Related Products



[LTC1151CSW#PBF](#)

Analog Devices, Inc  
SOIC-16



[LT1498CS8](#)

Analog Devices, Inc  
SOP-8



[LTC2053CMS8](#)

Analog Devices, Inc  
MSOP8



[LTC1150CN8](#)

Analog Devices, Inc  
DIP8



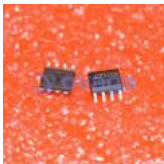
[LT1491ACS](#)

Analog Devices, Inc  
SOP14



[LT6105IMS8](#)

Analog Devices, Inc  
MSOP-8



[LTC1150CS8](#)

Analog Devices, Inc  
SOP8



[LT1013CN8](#)

Analog Devices, Inc  
DIP-8