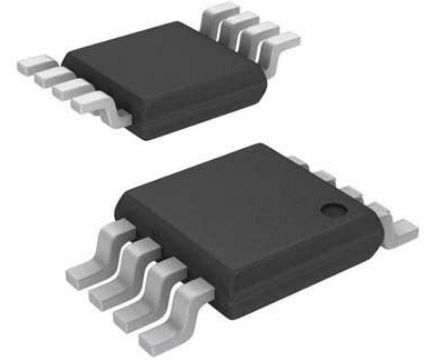


LTC2053 - Precision, Rail-to-Rail, Zero-Drift, Resistor-Programmable Instrumentation Amplifier; Package: MSOP; Pins: 8; Temperature Range: -40°C to 125°C

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



Images are for reference only

Please submit RFQ for LTC2053HMS8 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LTC2053 is a high precision instrumentation amplifier. The CMRR is typically 116dB with a single or dual 5V supply and is independent of gain. The input offset voltage is guaranteed below 10 $\mu$ V with a temperature drift of less than 50nV/°C. The LTC2053 is easy to use; the gain is adjustable with two external resistors, like a traditional op amp.

The LTC2053 uses charge balanced sampled data techniques to convert a differential input voltage into a single ended signal that is in turn amplified by a zero-drift operational amplifier.

The differential inputs operate from rail-to-rail and the single-ended output swings from rail-to-rail. The LTC2053 can be used in single-supply applications, as low as 2.7V. It can also be used with dual  $\pm$ 5.5V supplies. The LTC2053 requires no external clock, while the LTC2053-SYNC has a CLK pin to synchronize to an external clock.

The LTC2053 is available in an MS8 surface mount package. For space limited applications, the LTC2053 is available in a 3mm  $\times$  3mm  $\times$  0.8mm dual fine pitch leadless package (DFN).

## Features

116dB CMRR Independent of Gain

Maximum Offset Voltage: 10 $\mu$ V

Maximum Offset Voltage Drift: 50nV/ $^{\circ}$ C

Rail-to-Rail Input

Rail-to-Rail Output

2-Resistor Programmable Gain

Supply Operation: 2.7V to  $\pm$ 5.5V

Typical Noise: 2.5 $\mu$ VP-P (0.01Hz to 10Hz)

Typical Supply Current: 750 $\mu$ A

LTC2053-SYNC Allows Synchronization to External Clock

Available in MS8 and 3mm  $\times$  3mm  $\times$  0.8mm DFN Packages

## Application

Thermocouple Amplifiers

Electronic Scales

Medical Instrumentation

Strain Gauge Amplifiers

High Resolution Data Acquisition

## 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



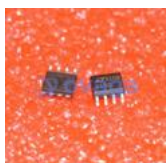
### [LT1491ACS](#)

Analog Devices, Inc  
SOP14



### [LT6105IMS8](#)

Analog Devices, Inc  
MSOP-8



### [LTC1150CS8](#)

Analog Devices, Inc  
SOP8



### [LT1013CN8](#)

Analog Devices, Inc  
DIP-8