

LINEAR TECHNOLOGY LT1101CN8#PBF Instrument Amplifier, 2 Amplifier, 220 $\mu$ V, 0.1V/ $\mu$ s, 37kHz,  $\pm$  1.1V to  $\pm$  18V, DIP

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	DIP-8
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LT1101CN8#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LT1101 establishes the following milestones: (1) It is the first micropower instrumentation amplifier, (2) It is the first single supply instrumentation amplifier, (3) It is the first instrumentation amplifier to feature fixed gains of 10 and/or 100 in low cost, space-saving 8-lead packages.

The LT1101 is completely self-contained: no external gain setting resistor is required. The LT1101 combines its micropower operation (75 $\mu$ A supply current) with again error of 0.008%, gain linearity of 3ppm, gain drift of 1ppm/ $^{\circ}$ C. The output is guaranteed to drive a 2k load to  $\pm$ 10V with excellent gain accuracy.

Other precision specifications are also outstanding: 50 $\mu$ V input offset voltage, 130pA input offset current, and low drift (0.4 $\mu$ V/ $^{\circ}$ C and 0.7pA/ $^{\circ}$ C). In addition, unlike other instrumentation amplifiers, there is no output offset voltage contribution to total error.

A full set of specifications are provided with  $\pm$ 15V dual supplies and for single 5V supply operation. The LT1101 can be operated from a single lithium cell or two Ni-Cad batteries. Battery voltage can drop as low as 1.8V, yet the LT1101 still maintains its gain accuracy. In single supply applications, both input and output voltages swing to within a few millivolts of ground. The output sinks current while swinging to ground—no external, power consuming pull down resistors are needed.

## Features

Gain Error: 0.04% Max

Gain Non-Linearity: 0.0008% (8ppm) Max

Gain Drift: 4ppm/°C Max

Supply Current: 105µA Max

Offset Voltage: 160µV Max

Offset Voltage Drift: 0.4µV/°C Typ

Offset Current: 600pA Max

CMRR,>

0.1Hz to 10Hz Noise:

0.9µVP-P: Typ

2.3pAP-P Typ

Gain Bandwidth Product: 250kHz Min

Single or Dual Supply Operation

Surface Mount Package Available

## Application

Differential Signal Amplification in Presence of Common Mode Voltage

Micropower Bridge Transducer Amplifier

Thermocouples

Strain Gauges

Thermistors

Differential Voltage-to-Current Converter

Transformer Coupled Amplifier

4mA to 20mA Bridge Transmitter





## 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



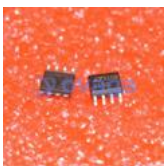
### [LT1491ACS](#)

Analog Devices, Inc  
SOP14



### [LT6105IMS8](#)

Analog Devices, Inc  
MSOP-8



### [LTC1150CS8](#)

Analog Devices, Inc  
SOP8



### [LT1013CN8](#)

Analog Devices, Inc  
DIP-8