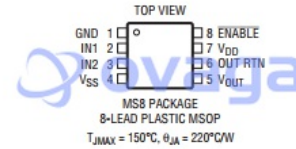


RMS to DC Converter 1.05V 170uA 800kHz 8Pin MSOP

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



Images are for reference only

Please submit RFQ for LTC1966MPMS8#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LTC1966 is a true RMS-to-DC converter that utilizes an innovative patented  $\Delta\Sigma$  computational technique. The internal delta sigma circuitry of the LTC1966 makes it simpler to use, more accurate, lower power and dramatically more flexible than conventional log antilog RMS-to-DC converters.

The LTC1966 accepts single-ended or differential input signals (for EMI/RFI rejection) and supports crest factors up to 4. Common mode input range is rail-to-rail. Differential input range is 1VPEAK, and offers unprecedented linearity. Unlike previously available RMS-to-DC converters, the superior linearity of the LTC1966 allows hassle free system calibration at any input voltage.

The LTC1966 also has a rail-to-rail output with a separate output reference pin providing flexible level shifting. The LTC1966 operates on a single power supply from 2.7V to 5.5V or dual supplies up to  $\pm 5.5V$ . A low power shutdown mode reduces supply current to 0.5 $\mu A$ .

The LTC1966 is insensitive to PC board soldering and stresses, as well as operating temperature. The LTC1966 is packaged in the space saving MSOP package which is ideal for portable applications.

## Features

- Simple to Use, Requires One Capacitor
- True RMS DC Conversion Using  $\Delta\Sigma$  Technology
- High Accuracy:
  - 0.1% Gain Accuracy from 50Hz to 1kHz
  - 0.25% Total Error from 50Hz to 1kHz
- High Linearity:
  - 0.02% Linearity Allows Simple System Calibration

## Application

- True RMS Digital Multimeters and Panel Meters
- True RMS AC + DC Measurements

Low Supply Current:

155 $\mu$ A Typ, 170 $\mu$ A Max

Ultralow Shutdown Current:

0.1 $\mu$ A

Constant Bandwidth:

Independent of Input Voltage

800kHz-3dB, 6kHz $\pm$ 1%

Flexible Supplies:

2.7V to 5.5V Single Supply

Up to  $\pm$ 5.5V Dual Supply

Flexible Inputs:

Differential or Single-Ended

Rail-to-Rail Common Mode Voltage Range

Up to 1VPEAK Differential Voltage

Flexible Output:

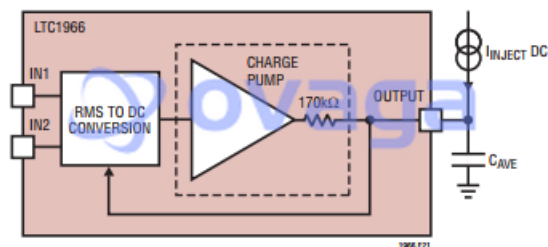
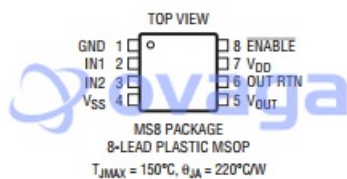
Rail-to-Rail Output

Separate Output Reference Pin Allows Level Shifting

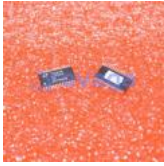
Wide Temperature Range:

Small Size:

Space Saving 8-Pin MSOP Package

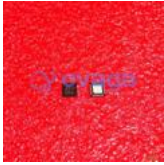


## Related Products



### [LT3763EFE](#)

Analog Devices, Inc  
TSSOP28



### [LTC4417IUF](#)

Analog Devices, Inc  
QFN-24



### [LTC1966CMS8#PBF](#)

Analog Devices, Inc  
MSOP-8P



### [LTM8045EX#PBF](#)

Analog Devices, Inc  
BGA40



### [LT1038CK](#)

Analog Devices, Inc  
TO-3



### [LTC3440EMS](#)

Analog Devices, Inc  
MSOP10



### [LTC2990IMS#PBF](#)

Analog Devices, Inc  
10MSOP



### [LT4295IUFD#PBF](#)

Analog Devices, Inc  
28-WFQFN