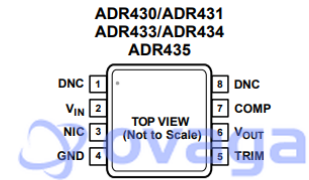


Ultralow Noise XFET® Voltage References with Current Sink and Source Capability

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	MSOP-8
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



NOTES  
 1. NIC = NOT INTERNALLY CONNECTED.  
 THIS PIN IS NOT CONNECTED INTERNALLY.  
 2. DNC = DO NOT CONNECT. DO NOT CONNECT TO THIS PIN.

Figure 3. 8-Lead MSOP Pin Configuration

Images are for reference only

Please submit RFQ for ADR435ARMZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ADR430/ADR431/ADR433/ADR434/ADR435 series is a family of XFET® voltage references featuring low noise, high accuracy, and low temperature drift performance. Using Analog Devices, Inc., temperature drift curvature correction and extra implanted junction FET (XFET) technology, voltage change vs. temperature nonlinearity in the ADR430/ADR431/ADR433/ADR434/ADR435 is minimized.

The XFET references operate at lower current (800  $\mu$ A) and lower supply voltage headroom (2 V) than buried Zener references. Buried Zener references require more than 5 V of headroom for operation. The ADR430/ADR431/ADR433/ADR434/ADR435 XFET references are low noise solutions for 5 V systems.

The ADR430/ADR431/ADR433/ADR434/ADR435 family has the capability to source up to 30 mA of output current and sink up to  $-20$  mA. It also comes with a trim terminal to adjust the output voltage over a  $\pm 0.5\%$  range without compromising performance.

The ADR430/ADR431/ADR433/ADR434/ADR435 are available in 8-lead MSOP and 8-lead narrow SOIC packages. All versions are specified over the extended industrial temperature range of  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .

## Features

Low noise (0.1 Hz to 10.0 Hz): 3.5  $\mu$ V p-p @ 2.500 V output

No external capacitor required

Low temperature coefficient

A Grade: 10 ppm/ $^{\circ}$ C maximum

B Grade: 3 ppm/ $^{\circ}$ C maximum

Load regulation: 15 ppm/mA

Line regulation: 20 ppm/V

Wide operating range

ADR435: 7.0 V to 18 V

High output source and sink current: 30 mA and  $-20$  mA

Wide temperature range:  $-40^{\circ}$ C to  $+125^{\circ}$ C

ADR435-EP supports defense and aerospace applications (AQEC standard)

[Download\(pdf\)](#)

Military temperature range ( $-55^{\circ}$ C to  $+125^{\circ}$ C)

Controlled manufacturing baseline

One assembly/test site

One fabrication site

Enhanced product change notification

Qualification data available on request

## Application

Precision data acquisition systems

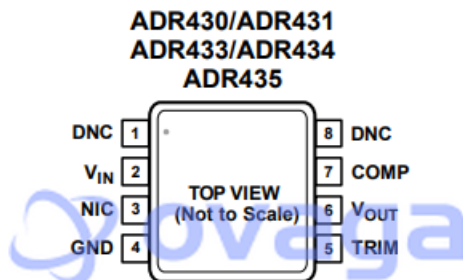
High resolution data converters

Medical instruments

Industrial process control systems

Optical control circuits

Precision instruments



### NOTES

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04-500-101

Figure 3. 8-Lead MSOP Pin Configuration

## Related Products



### [ADP3336ARMZ-REEL7](#)

Analog Devices, Inc  
MSOP-8



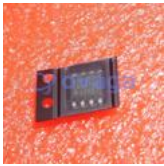
### [ADP3367ARZ](#)

Analog Devices, Inc  
SOIC-8



### [ADP3330ARTZ3.3-RL7](#)

Analog Devices, Inc  
SOT-23-6



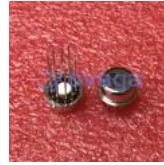
### [ADR421ARZ](#)

Analog Devices, Inc  
SOP-8



### [AD737JRZ](#)

Analog Devices, Inc  
SOP-8



### [AD636JH](#)

Analog Devices, Inc  
TO-100-10



### [ADR434BRZ](#)

Analog Devices, Inc  
SOIC-8



### [ADR3412ARJZ-R7](#)

Analog Devices, Inc  
SOT-23-6