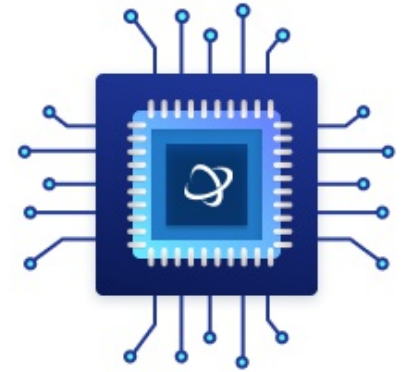


Instrument Amplifier, 1 Amplifier, 70  $\mu$ V, 35 V/ $\mu$ s, 10 MHz,  $\pm 2.5$ V to  $\pm 18$ V, 5V to 36V, MSOP



Images are for reference only

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

Please submit RFQ for AD8421TRMZ-EP or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD8421 is a low cost, low power, extremely low noise, ultra-low bias current, high speed instrumentation amplifier which is ideally suited for a broad spectrum of signal conditioning and data acquisition applications. This breakthrough product features the highest CMRR available, allowing it to extract low-level signals in the presence of high-frequency common mode noise over a wide temperature range.

The 10 MHz bandwidth, 35 V/ $\mu$ s slew rate, and 0.7  $\mu$ s settling time to 0.01% = 100, the bandwidth is 2 MHz and the settling time is 0.6  $\mu$ s. The AD8421 has excellent distortion performance, allowing use in demanding applications such as vibration analysis.

The AD8421 delivers industry-leading 3 nV/ $\sqrt$ Hz input voltage noise and 200 fA/ $\sqrt$ Hz current noise with only 2 mA quiescent current, making it an ideal choice for measuring low-level signals. For applications with significant source impedance, the AD8421 employs novel process technology and innovative design techniques to provide groundbreaking noise performance limited only by the sensor.

The AD8421 uses a unique input protection method to give it robust inputs while still maintaining very low noise. This input protection allows voltages 40 V from the opposite supply rail without damage.

A single resistor sets gains between 1 and 10,000. The reference pin can be used to apply a precise offset to the output voltage.

The AD8421 performance is specified from  $-40^{\circ}$ C to  $+85^{\circ}$ C and has typical performance curves to  $125^{\circ}$ C. It is available in MSOP and SOIC packages.

## Features

Low power

2.3 mA maximum supply current

Low noise

3.2 nV/ $\sqrt{\text{Hz}}$  maximum input voltage noise at 1 kHz

200 fA/ $\sqrt{\text{Hz}}$  current noise at 1 kHz

Excellent ac specifications

10 MHz bandwidth>

2 MHz bandwidth>

0.6  $\mu\text{s}$  settling time to 0.001%>

80 dB CMRR to 20 kHz>

35 V/ $\mu\text{s}$  slew rate

See data sheet for additional features

Download

Available As Known Good Die and fully guaranteed to data sheet specifications

AD8421-EP supports defense and aerospace applications (AQEC standard)

Download(pdf)

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

Controlled manufacturing baseline

One assembly/test site

One fabrication site

Enhanced product change notification

Qualification data available on request

V62/13625 DSCC Drawing Number

## Application

Medical instrumentation

Precision data acquisition

Microphone preamplification

Vibration analysis

Multiplexed input applications

ADC driver

## Related Products



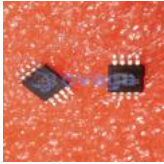
[AD8418BRMZ-RL](#)

Analog Devices, Inc  
MSOP-8



[ADA4528-2ARMZ-R7](#)

Analog Devices, Inc  
MSOP-8



[ADA4084-2ARMZ](#)

Analog Devices, Inc  
MSOP-8



[AD8567ARUZ](#)

Analog Devices, Inc  
TSSOP-14



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MSOP-8



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MSOP8



[AD8628AUJZ](#)

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SOP23



[AD8041AR](#)

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SOP-8