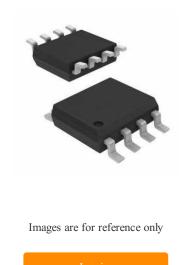


#### V-Ref Precision 2.5V 5mA 8-Pin SOIC N Tube

Manufacturer:	Analog Devices, Inc.
Package/Case:	SOP8
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free W
Lifecycle:	Active



## **General Description**

The ADR291 and ADR292 are low noise, micropower precision voltage references that use an XFET® reference circuit. The new XFET architecture offers significant performance improvements over traditional band gap and buried Zener-based references. Improvements include one quarter the voltage noise output of band gap references operating at the same current, very low and ultralinear temperature drift, low thermal hysteresis, and excellent long-term stability. The ADR291/ADR292 family is a series of voltage references providing stable and accurate output voltages from supplies as low as 2.8 V for the ADR291. Output voltage options are 2.5 V and 4.096 V for the ADR291 and ADR292, respectively.

Quiescent current is only 12  $\mu$ A, making these devices ideal for battery-powered instrumentation. Three electrical grades are available offering initial output accuracies of  $\pm 2 \text{ mV}$ ,  $\pm 3 \text{ mV}$ , and  $\pm 6 \text{ mV}$  maximum for the ADR291, and  $\pm 3 \text{ mV}$ ,  $\pm 4 \text{ mV}$ , and  $\pm 6 \text{ mV}$  maximum for the ADR292. Temperature coefficients for the three grades are 8 ppm/°C, 15 ppm/°C, and 25 ppm/°C maximum, respectively. Line regulation and load regulation are typically 30 ppm/V and 30 ppm/mA, maintaining the reference's overall high performance. For a device with 5.0 V output, refer to the ADR293 data sheet.

The ADR291 and ADR292 references are specified over the extended industrial temperature range of  $-40^{\circ}$ C to  $+125^{\circ}$ C. Devices are available in the 8-lead SOIC, 8-lead TSSOP, and 3-lead TO-92 packages.

Key Features	Application
Supply Range 2.8 V to 15 V, ADR2914.4 V to 15 V, ADR292	Portable instrumentation
Supply Current 12 µA Max	Precision reference for 3 V and 5 V systems
Low-Noise 8 $\mu V$ and 12 $\mu V$ p-p (0.1 Hz to 10 Hz)	Analog-to-digital and digital-to-analog converter reference
High Output Current 5 mA	
Temperature Range -40°C to +125°C	Solar-powered applications
Pin Compatible with/	Loop-current-powered instruments

## **Recommended For You**

#### ADP196ACPZN-R7

Analog Devices, Inc

# LFCSP-6

## AD1583BRTZ-REEL7

Analog Devices, Inc SOT-23

## ADR01TUJZ-EP-R7

Analog Devices, Inc

5-LeadTSOT

AD580SH Analog Devices, Inc CAN3

ADP1612ARMZ-R7

Analog Devices, Inc MSOP8

#### ADP191ACBZ-R7

Analog Devices, Inc WLCSP4

# ADL5315ACPZ-R7

Analog Devices, Inc LFCSP8

AD581KH Analog Devices, Inc CAN3

ADM660ARZ Analog Devices, Inc SOP8

ADR444BRZ Analog Devices, Inc SOP8

#### **AD581LH**

Analog Devices, Inc CAN3

ADP5023ACPZ-R7

Analog Devices, Inc LFCSP-24

# AD780BRZ

Analog Devices, Inc SOP8

ADM660ARZ-REEL7 Analog Devices, Inc

SOP8

AD589JH Analog Devices, Inc CAN