

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



Images are for reference only

[Inquiry](#)

Manufacturer: [Analog Devices, Inc](#)

Package/Case: SOP8

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free 

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 μ A, making these devices ideal for battery-powered instrumentation. Three electrical grades are available offering initial output accuracies of ± 2 mV, ± 3 mV, and ± 6 mV maximum for the ADR291, and ± 3 mV, ± 4 mV, and ± 6 mV maximum for the ADR292. Temperature coefficients for the three grades are 8 ppm/ $^{\circ}$ C, 15 ppm/ $^{\circ}$ C, and 25 ppm/ $^{\circ}$ 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° C to $+125^{\circ}$ C. Devices are available in the 8-lead SOIC, 8-lead TSSOP, and 3-lead TO-92 packages.

Key Features

Supply Range 2.8 V to 15 V, ADR291 4.4 V to 15 V, ADR292

Supply Current 12 μ A Max

Low-Noise 8 μ V and 12 μ V p-p (0.1 Hz to 10 Hz)

High Output Current 5 mA

Temperature Range -40° C to $+125^{\circ}$ C

Pin Compatible with/

Application

Portable instrumentation

Precision reference for 3 V and 5 V systems

Analog-to-digital and digital-to-analog converter reference

Solar-powered applications

Loop-current-powered instruments

Recommended For You

ADP196ACPZN-R7

Analog Devices, Inc
LFCSP-6

ADP191ACBZ-R7

Analog Devices, Inc
WLCSP4

AD581LH

Analog Devices, Inc
CAN3

AD1583BRTZ-REEL7

Analog Devices, Inc
SOT-23

ADL5315ACPZ-R7

Analog Devices, Inc
LFCSP8

ADP5023ACPZ-R7

Analog Devices, Inc
LFCSP-24

ADR01TUJZ-EP-R7

Analog Devices, Inc
5-LeadTSOT

AD581KH

Analog Devices, Inc
CAN3

AD780BRZ

Analog Devices, Inc
SOP8

AD580SH

Analog Devices, Inc
CAN3

ADM660ARZ

Analog Devices, Inc
SOP8

ADM660ARZ-REEL7

Analog Devices, Inc
SOP8

ADP1612ARMZ-R7

Analog Devices, Inc
MSOP8

ADR444BRZ

Analog Devices, Inc
SOP8

AD589JH

Analog Devices, Inc
CAN