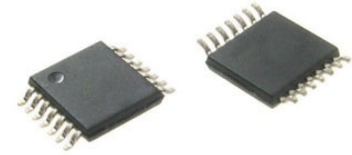


Non Volatile Digital Potentiometer, 100 kohm, Single, SPI, Linear,  $\pm 1\%$ , 9 V

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	14-TSSOP
Product Type	D/A Converters (DAC) ; Digital Potentiometers (DigiPOT)
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD5292BRUZ-100 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD5291 and AD5292 are single-channel, 256-/1024-position digital potentiometers that combine industry leading variable resistor performance with nonvolatile memory (NVM) in a compact package. These devices are capable of operating across a wide voltage range, supporting both dual supply operation at  $\pm 10.5$  V to  $\pm 16.5$  V and single supply operation at +21 V to +33 V, while ensuring less than 1% end-to-end resistor tolerance error and offering 20-time programmable (20-TP) memory.

The guaranteed industry leading low resistor tolerance error feature simplifies open-loop applications as well as precision calibration and tolerance matching applications.

The AD5291 and AD5292 device wiper settings are controllable through the SPI digital interface. Unlimited adjustments are allowed before programming the resistance value into the 20-TP memory. The AD5291 and AD5292 do not require any external voltage supply to facilitate fuse blow, and there are 20 opportunities for permanent programming. During 20-TP activation, a permanent blow fuse command freezes the wiper position (analogous to placing epoxy on a mechanical trimmer).

The AD5291 and AD5292 are available in a compact 14-lead TSSOP package. The part is guaranteed to operate over the extended industrial temperature range of  $-40^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$ .

## Features

Single-channel, 256-/1024-position resolution

20 k $\Omega$ , 50 k $\Omega$ , and 100 k $\Omega$  nominal resistance

Maximum  $\pm 1\%$  nominal resistor tolerance error (resistor performance mode)

20-times programmable wiper memory

Rheostat mode temperature coefficient: 35 ppm/ $^{\circ}\text{C}$

Voltage divider temperature coefficient: 5 ppm/ $^{\circ}\text{C}$

SPI-compatible serial interface

Wiper setting readback

Power-on refreshed from 20-TP memory

AD5292-EP: Supports defense and aerospace applications (AQEC)

Download(pdf)

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

V62/12616 DSCC Drawing Number

## Application

Mechanical potentiometer replacement

Instrumentation: gain and offset adjustment

Programmable voltage-to-current conversion

Programmable filters, delays, and time constants

Programmable power supply

Low resolution DAC replacement

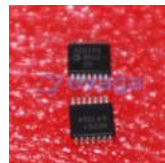
Sensor calibration

## Related Products



### [AD5292BRUZ-20](#)

Analog Devices, Inc  
14TSSOP



### [AD5293BRUZ-20](#)

Analog Devices, Inc  
TSSOP-14



### [AD5242BRZ10](#)

Analog Devices, Inc  
SOIC-16



### [AD8403ARZ10](#)

Analog Devices, Inc  
SOIC-24



[AD5142ABCPZ10-RL7](#)

Analog Devices, Inc  
LFCSP-16



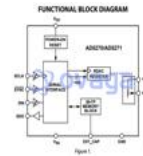
[AD5254BRUZ10](#)

Analog Devices, Inc  
TSSOP20



[AD8400ARZ10](#)

Analog Devices, Inc  
SOIC-8



[AD5270BRMZ-20](#)

Analog Devices, Inc  
MSOP-10