

# **AD5175BCPZ-10-RL7**

Data Sheet

Digital Potentiometer 10kOhm 1024POS Non-Volatile 10-Pin LFCSP EP T/R

Manufacturers <u>Analog Devices, Inc</u>

Package/Case LFCSP-10

Product Type D/A Converters (DAC); Digital Potentiometers (DigiPOT)

RoHS Rohs

Images are for reference only

Please submit RFQ for AD5175BCPZ-10-RL7 or <a href="mailto:sales@ovaga.com"><u>Email to us: sales@ovaga.com</u></a> We will contact you in 12 hours.

**RFO** 

### **General Description**

Lifecycle

The AD5175 is a single-channel, 1024-position digital rheostatthat combines industry leading variable resistor performancewith nonvolatile memory (NVM) in a compact package.

This device supports both dual-supply operation at  $\pm 2.5$  V to  $\pm 2.75$  V and single-supply operation at 2.7 V to 5.5 V, and offers 50-times programmable (50-TP) memory.

The AD5175 device wiper settings are controllable through the I<sup>2</sup>C—compatible digital interface. Unlimited adjustments are allowed before programming the resistance value into the 50-TP memory. The AD5175 does not require any external voltage supply to facilitate fuse blow and there are 50 opportunities for permanent programming. During 50-TP activation, a permanent blow fuse command freezes the resistance position (analogous to placing epoxy on a mechanical trimmer).

The AD5175 is available in a 3 mm  $\times$  3 mm 10-lead LFCSPpackage and in a 10-lead MSOP package. The part is guaranteed to operate over the extended industrial temperature range of  $-40^{\circ}$ C to  $+125^{\circ}$ C.

**Features** 

Single-channel, 1024-position resolution

 $10 \text{ k}\Omega$  nominal resistance

50-times programmable (50-TP) wiper memory

Rheostat mode temperature coefficient: 35 ppm/°C

2.7 V to 5.5 V single-supply operation

I<sup>2</sup>C-compatible interface

Wiper setting and memory readback

Power on refreshed from memory

Resistor Tolerance Stored in Memory

Thin LFCSP, 10-lead, 3 mm x 3 mm x 0.8 mm package

Compact MSOP, 10-lead 3 mm × 4.9 mm × 1.1 mm package

## **Application**

Mechanical rheostat replacements

Op-amp: variable gain control

Instrumentation: gain, offset adjustment

Programmable voltage to current conversions

Programmable filters, delays, time constants

Programmable power supply

Sensor calibration

#### **Related Products**



**AD5292BRUZ-20** 

Analog Devices, Inc 14TSSOP



AD5242BRZ10

Analog Devices, Inc

SOIC-16



AD5142ABCPZ10-RL7

Analog Devices, Inc

LFCSP-16



**AD8400ARZ10** 

Analog Devices, Inc

SOIC-8



AD5293BRUZ-20

Analog Devices, Inc TSSOP-14



### **AD8403ARZ10**

Analog Devices, Inc SOIC-24



#### **AD5254BRUZ10**

Analog Devices, Inc TSSOP20



**AD5270BRMZ-20** 

Analog Devices, Inc MSOP-10