

AD5142BCPZ10-RL7

Data Sheet

Non Volatile Digital Potentiometer, 10 kohm, Dual, SPI, Logarithmic, ± 8%, 2.3 V

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

Package/Case TSSOP-16

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

RoHS Rohs

Lifecycle

Please submit RFQ for AD5142BCPZ10-RL7 or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFO

Images are for reference only

General Description

The AD5122/AD5142 potentiometers provide a nonvolatile solution for 128-/256-position adjustment applications, offeringguaranteed low resistor tolerance errors of $\pm 8\%$ and up to ± 6 mA current density in the Ax, Bx, and Wx pins.

The low resistor tolerance and low nominal temperature coefficient simplify open-loop applications as well as applications requiring tolerance matching.

The linear gain setting mode allows independent programming of the resistance between the digital potentiometer terminalsthrough the RAW and RWB string resistors, allowing accurate resistor matching.

The high bandwidth and low total harmonic distortion (THD) ensure optimal performance for ac signals, making these devices suitable for filter design.

The low wiper resistance of only 40Ω at the ends of the resistor array allows for pin to pin connection.

The wiper values can be set through an SPI-compatible digital interface that also reads back the wiper register and EEPROMcontents.

The AD5122/AD5142 is available in a compact, 16-lead, 3 mm \times 3 mm LFCSP and a 16-lead TSSOP. The parts are guaranteed tooperate over the extended industrial temperature range of -40° C to $+125^{\circ}$ C.

Features

 $10 \text{ k}\Omega$ and $100 \text{ k}\Omega$ resistance options

Resistor tolerance: ±8% maximum

Wiper current: ±6 mA

Low temperature coefficient: 35 ppm/°C

Wide bandwidth: 3 MHz

Fast start-up time <75 μ s

Linear gain setting mode

Single- and dual-supply operation

Independent logic supply: $1.8~\mathrm{V}$ to $5.5~\mathrm{V}$

Wide operating temperature: -40°C to +125°C

3 mm × 3 mm package option

Qualified for automotive applications

Application

Portable electronics level adjustment

LCD panel brightness and contrast controls

Programmable filters, delays, and time constants

Programmable power supplies

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