
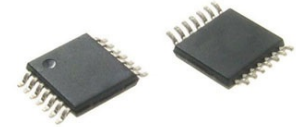


Digital Potentiometer 1kOhm 256POS Volatile Linear 14-Pin TSSOP Tube

Manufacturer:	Analog Devices, Inc
Package/Case:	TSSOP-14
Product Type:	Data Conversion ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The AD8400/AD8402/AD8403 provide a single, dual or quad channel, 256 position digitally controlled variable resistor (VR) device. These devices perform the same electronic adjustment function as a potentiometer or variable resistor. The AD8400 contains a single variable resistor in the compact SO-8 package. The AD8402 contains two independent variable resistors in saving SO-14 surface mount package. The AD8403 contains four independent variable resistors in 24-lead PDIP, SOIC and TSSOP packages. Each part contains a fixed resistor with a wiper contact that taps the fixed resistor value at a point determined by a digital code loaded into the controlling serial input register. The resistance between the wiper and either endpoint of the fixed resistor varies linearly with respect to the digital code transferred into the VR latch. Each variable resistor offers a completely programmable value of resistance, between the A terminal and the wiper or the B terminal and the wiper. The fixed A to B terminal resistance of 1 kOhm, 10 kOhm, 50 kOhm or 100 kOhm has a $\pm 1\%$ channel-to-channel matching tolerance with a nominal temperature coefficient of 500 ppm/ $^{\circ}\text{C}$. A unique switching circuit minimizes the high glitch inherent in traditional switched resistor designs avoiding any make-before-break or break-before-make operation.

Each VR has its own VR latch that holds its programmed resistance value. These VR latches are updated from an SPI compatible serial-to-parallel shift register that is loaded from a standard 3-wire serial-input digital interface. Ten data bits make up the data word clocked into the serial input register. The data word is decoded where the first two bits determine the address of the VR latch to be loaded, the last eight bits are data. A serial data output pin at the opposite end of the serial register allows simple daisy-chaining in multiple VR applications without additional external decoding logic.

Key Features

256-Position

Replaces 1,2 or 4 Potentiometers

1 k Ω , 10 k Ω , 50 k Ω , 100 k Ω

Power Shutdown - Less than 5 μA

3-Wire SPI-Compatible Serial

Data Input

10 MHz Update Data Loading Rate

2.7 V to 5.5 V Single-Supply Operation

Midscale Preset

Recommended For You

AD5262BRUZ200

Analog Devices, Inc
TSSOP16

AD8402ARUZ50

Analog Devices, Inc
TSSOP-14

AD5160BRJZ50-RL7

Analog Devices, Inc
SOT23-8

AD8400ARZ50

Analog Devices, Inc
SOP8

AD5280BRUZ20

Analog Devices, Inc
TSSOP14

AD5262BRUZ50

Analog Devices, Inc
TSSOP16

AD5204BRUZ10

Analog Devices, Inc
TSSOP24

AD5207BRUZ10

Analog Devices, Inc
TSSOP14

AD5160BRJZ10-R2

Analog Devices, Inc
SOT23-8

AD5200BRMZ10

Analog Devices, Inc
MSOP10

AD5220BNZ100

Analog Devices, Inc
8-PDIP

AD5259BRMZ100-R7

Analog Devices, Inc
MSOP10

AD5143BCPZ10-RL7

Analog Devices, Inc
16-LFCSP

AD5263BRUZ200

Analog Devices, Inc
TSSOP24

AD5260BRUZ20

Analog Devices, Inc
TSSOP14