



## Product Overview

### CAT5271: Digital Potentiometer (POT), Dual 256-Tap, with I2C Compatible Interface

For complete documentation, see the data sheet

#### Product Description

The CAT5271 is a dual 256-position linear taper digital POT ideally suited for replacing mechanical potentiometers and variable resistors.

The wiper settings are controlled through an I<sup>2</sup>C-compatible digital interface. Upon power-up, the wiper assumes a midscale position and may be repositioned anytime after the power is stable. The device can be programmed to go to a shutdown state during operation.

The CAT5271 operates from 2.7 V to 5.5 V, while consuming less than 2  $\mu$ A. This low operating current, combined with a small package footprint, makes the CAT5273 ideal for battery-powered portable applications.

The CAT5271, designed as a pin for pin replacement for the AD5248, operates over the -40°C to +85°C industrial temperature range.

#### Features

- Dual 256-position
- End-to-End Resistance: 50 k, 100 k
- I<sup>2</sup>C Compatible Interface
- Power-on Preset to Midscale
- Single Supply 2.7 V to 5.5 V
- Low Temperature Coefficient 100 ppm/°C
- Low Power, I<sub>DD</sub> 2  $\mu$ A max
- Wide Operating Temperature -40°C to +85°C

#### Benefits

- Offers high-resolution adjustment

#### Applications

- Potentiometer Replacement
- Transducer Adjustment of Pressure, Temperature, Position, Chemical, and Optical Sensors
- RF Amplifier Biasing
- Gain Control and Offset Adjustment

#### End Products

- Industrial Equipment

#### Part Electrical Specifications

Product	Compliance	Status	# of Pots	# of Taps	Type	Control Interface	Resistance Typ (k)	V <sub>H</sub> Max (V)	Wiper Position Memory	V <sub>DD</sub> Max (V)	Package Type
CAT5271ZI-00-GT3	Pb-free Halide free	Active	2	256	Potentiometer	I2C	100	VCC	No	6.5	MSOP-10
CAT5271ZI-50-GT3	Pb-free Halide free	Active	2	256	Potentiometer	I2C	50	VCC	No	6.5	MSOP-10

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