

Product Overview

CAT5409: Digital Potentiometer (POT), Quad 64-Tap, with I2C Interface

For complete documentation, see the data sheet.

The CAT5409 is four digital POTs integrated with control logic and 16 bytes of NVRAM memory. A separate 6-bit control register (WCR) independently controls the wiper tap position for each digital POT. Associated with each wiper control register are four 6-bit non-volatile memory data registers (DR) used for storing up to four wiper settings. Writing to the wiper control register or any of the non-volatile data registers is via a 2-wire serial bus (I²C-like). On power-up, the contents of the first data register (DR0) for each of the four potentiometers is automatically loaded into its respective wiper control register (WCR). The Write Protection (WP) pin protects against inadvertent programming of the data register. The CAT5409 can be used as a potentiometer or as a two terminal, variable resistor. It is intended for circuit level or system level adjustments in a wide variety of applications.

Features

- Four linear-taper digital potentiometers
- 64 resistor taps per potentiometer
- End-to-end resistance 2.5 k Ω , 10 k Ω , 50 k Ω or 100 k Ω
- I2C Interface
- Low wiper resistance, typically 80 Ω
- Four non-volatile wiper settings for each potentiometer
- Recall of saved wiper settings at power-up
- 2.5 to 6.0 volt operation
- Standby current less than 1 μ A
- 1,000,000 nonvolatile WRITE cycles

For more features, see the data sheet

Applications

- Audio Equipment
- Industrial Controls

End Products

- Automobiles
- Industrial Equipment

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	# of Pots	# of Taps	Type	Control Interface	Resistance Typ (k Ω)	V _H Max (V)	Wiper Position Memory	V _{DD} Max (V)	Package Type
CAT5409YI-00-T2	4.4666	Pb-free	Active	4	64	Potentiometer	I2C	100	VCC	Yes	6	TSSOP-24
		Halide free										
CAT5409YI-10-T2	4.4666	Pb-free	Active	4	64	Potentiometer	I2C	10	VCC	Yes	6	TSSOP-24
		Halide free										
CAT5409YI-25-T2	4.4666	Pb-free	Active	4	64	Potentiometer	I2C	2.5	VCC	Yes	6	TSSOP-24
		Halide free										
CAT5409YI-50-T2	4.4666	Pb-free	Active	4	64	Potentiometer	I2C	50	VCC	Yes	6	TSSOP-24
		Halide free										

For more information please contact your local sales support at www.onsemi.com.

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