

Product Overview

CAT5132: Digital Potentiometer (POT), 128-Tap, with I2C Interface

For complete documentation, see the data sheet.

The CAT5132 is a high voltage digital POT with non-volatile wiper setting memory, operating like a mechanical potentiometer. The tap points between the 127 equal resistive elements are connected to the wiper output via CMOS switches. The switches are controlled by a 7-bit Wiper Control Register (WCR). The wiper setting can be stored in a 7-bit non-volatile Data Register (DR). The WCR is accessed via the I²C serial bus. Upon power-up, the WCR is set to mid-scale (1000000). After the power supply is stable, the contents of the DR are transferred to the WCR and the wiper is returned to the memorized setting. The CAT5132 has two voltage supplies: VCC, the digital supply and V+, the analog supply. V+ can be much higher than VCC, allowing for 16V analog operations. The CAT5132 can be used as a potentiometer or as a two-terminal variable resistor.

Features

- Single linear digital POT with 128 taps
- End-to-end resistance of 10 kΩ, 50 kΩ & 100 kΩ
- I²C interface
- Fast Up/Down wiper control mode
- Automatic wiper setting recall at power up
- Non-volatile wiper setting storage
- Digital Supply range (VCC): 2.7 V to 5.5 V
- Analog Supply range (V+): +8.0 V to +16 V
- Low Standby Current: 15 μA
- 100 Year wiper setting memory

For more features, see the data sheet

Applications

- LCD screen adjustment
- Volume control
- Mechanical potentiometer replacement
- Gain adjustment
- Line impedance matching

End Products

- Industrial Equipment

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	# of Pots	# of Taps	Type	Control Interface	Resistance Typ (kΩ)	V _H Max (V)	Wiper Position Memory	V _{DD} Max (V)	Package Type
CAT5132ZI-00-GT3	1.5498	Pb-free Halide free non AEC-Q and PPAP	Active	1	128	Potentiometer	I2C	100	16	Yes	5.5	Micro10 / MSOP10 (150 mil)
CAT5132ZI-10-GT3	1.5498	Pb-free Halide free non AEC-Q and PPAP	Active	1	128	Potentiometer	I2C	10	16	Yes	5.5	Micro10 / MSOP10 (150 mil)
CAT5132ZI-50-GT3	1.5498	Pb-free Halide free non AEC-Q and PPAP	Active	1	128	Potentiometer	I2C	50	16	Yes	5.5	Micro10 / MSOP10 (150 mil)

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

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