

Product Overview

NCT375: Digital Temperature Sensor with 2-wire Interface and SMBus Time-Out

For complete documentation, see the data sheet.

The NCT375 is a two-wire serially programmable temperature sensor with an over-temperature/interrupt output pin to signal out of limit conditions. This is an open-drain pin and can operate in either comparator or interrupt mode. Temperature measurements are converted into digital form using a high resolution (12 bit), sigma-delta, analog-to-digital converter (ADC). The device operates over the -55°C to $+125^{\circ}\text{C}$ temperature range.

Features

- 12-bit Temperature-to-Digital Converter
- Input Voltage Range from 3.0 V to 5.5 V
- Temperature Range from -55°C to $+125^{\circ}\text{C}$
- SMBus/I2C Interface
- SMBUS time-out of 75ms to 325ms
- Overtemperature Indicator
- Support for SMBus/ALERT
- Shutdown Mode for Low Power Consumption
- One-shot Mode
- Available in 8-pin Micro8, SOIC8 and DFN8 Packages

For more features, see the data sheet

Applications

- Computer Thermal Monitoring
- Thermal Protection
- Isolated Sensors
- Battery Management
- Office Electronics

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Sensor Type	Data Transmission Standard	I_{CC} Max (mA)	V_{CC} Min (V)	V_{CC} Max (V)	T Min ($^{\circ}\text{C}$)	T Max ($^{\circ}\text{C}$)	Temperature Error ($^{\circ}\text{C}$)	Package Type
NCT375DMR2G	0.4133	Pb-free Halide free non AEC-Q and PPAP	Active	Local	SMBus	0.575	3	5.5	-55	125	± 1	Micro8
NCT375DR2G	0.3933	Pb-free Halide free non AEC-Q and PPAP	Active	Local	SMBus	0.575	3	5.5	-55	125	± 1	SOIC-8
NCT375MNR2G	0.4133	Pb-free Halide free non AEC-Q and PPAP	Active	Local	SMBus	0.575	3	5.5	-55	125	± 1	DFN-8

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

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