

Product Overview

ADT7481: Dual Channel Temperature Sensor and Over Temperature Alarm

For complete documentation, see the data sheet.

The ADT7481 is a 3-channel digital thermometer and under/over temperature alarm, intended for use in PCs and thermal management systems. It can measure its own ambient temperature or the temperature of two remote thermal diodes. These thermal diodes can be located in a CPU or GPU, or they can be discrete diode connected transistors. The ambient temperature, or the temperature of the remote thermal diode, can be accurately measured to $\pm 1^\circ\text{C}$. The temperature measurement range defaults to 0°C to $+127^\circ\text{C}$, compatible with ADM1032, but can be switched to a wider measurement range from -64°C to $+191^\circ\text{C}$.

Features

- 1 Local and 2 Remote Temperature Sensors
- 0.25°C Resolution/ 1°C Accuracy on Remote Channels
- 1°C Resolution/ 1°C Accuracy on Local Channel
- Extended, Switchable Temperature Measurement Range 0°C to $+127^\circ\text{C}$ (default) or 64°C to $+191^\circ\text{C}$
- 2-wire SMBus Serial Interface with SMBus Alert Support
- Programmable Over/Under Temperature Limits
- Offset Registers for System Calibration
- Up to 2 over Temperature Fail-safe THERM Outputs
- $240\ \mu\text{A}$ Operating Current, $5\ \mu\text{A}$ Standby Current

Applications

- Industrial controllers
- Smart batteries
- Embedded systems
- Burn-in applications

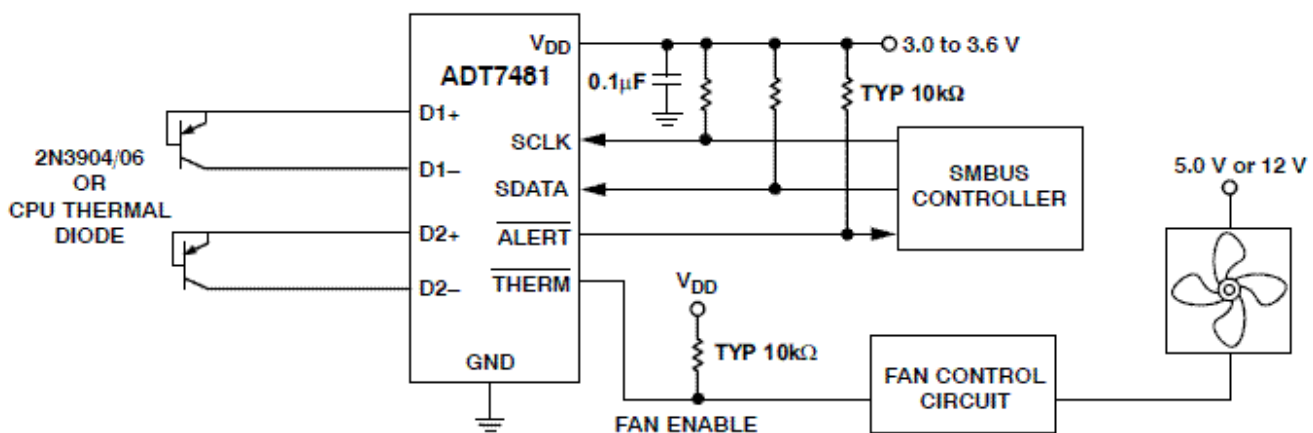
End Products

- Desktop and notebook computers
- Automotive
- Instrumentation

Part Electrical Specifications

Product	Compliance	Status	Sensor Type	Data Transmission Standard	$I_{\text{CC Max}}$ (mA)	$V_{\text{CC Min}}$ (V)	$V_{\text{CC Max}}$ (V)	T Min ($^\circ\text{C}$)	T Max ($^\circ\text{C}$)	Temperature Error ($^\circ\text{C}$)	Package Type
ADT7481ARMZ-REEL	Pb-free Halide free	Active	Local & Remote	SMBus	0.35	3	3.6	-40	125	± 1	Micro10

Application Diagram



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

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