

## Product Overview

### ADT7461A: Temperature Sensor with Series Resistance Cancellation

For complete documentation, see the data sheet.

The ADT7461A is a dual-channel digital thermometer and undertemperature/overtemperature alarm, intended for use in PCs and thermal management systems. It is pin- and register-compatible with the ADM1032 and the ADT7461. A feature of the ADT7461A is series resistance cancellation, where up to 1.5 k $\Omega$  (typical) of resistance in series with the temperature monitoring diode can be automatically cancelled from the temperature result, allowing noise filtering.

### Features

- On-chip and remote temperature sensor
- 0.25°C resolution/1°C accuracy on remote channel
- 1°C resolution/1°C accuracy on local channel
- Automatically cancels up to 1.5 k $\Omega$  (typical) of resistance in series with remote diode to allow noise filtering
- Extended, switchable temperature measurement range 0°C to +127°C (default) or 64°C to +191°C
- Pin- and register-compatible with ADM1032 and ADT7461
- 2-wire SMBus serial interface with SMBus alert support
- Programmable over/undertemperature limits
- Offset registers for system calibration
- Up to two overtemperature fail-safe THERM outputs

For more features, see the data sheet

### Applications

- Thermal Management

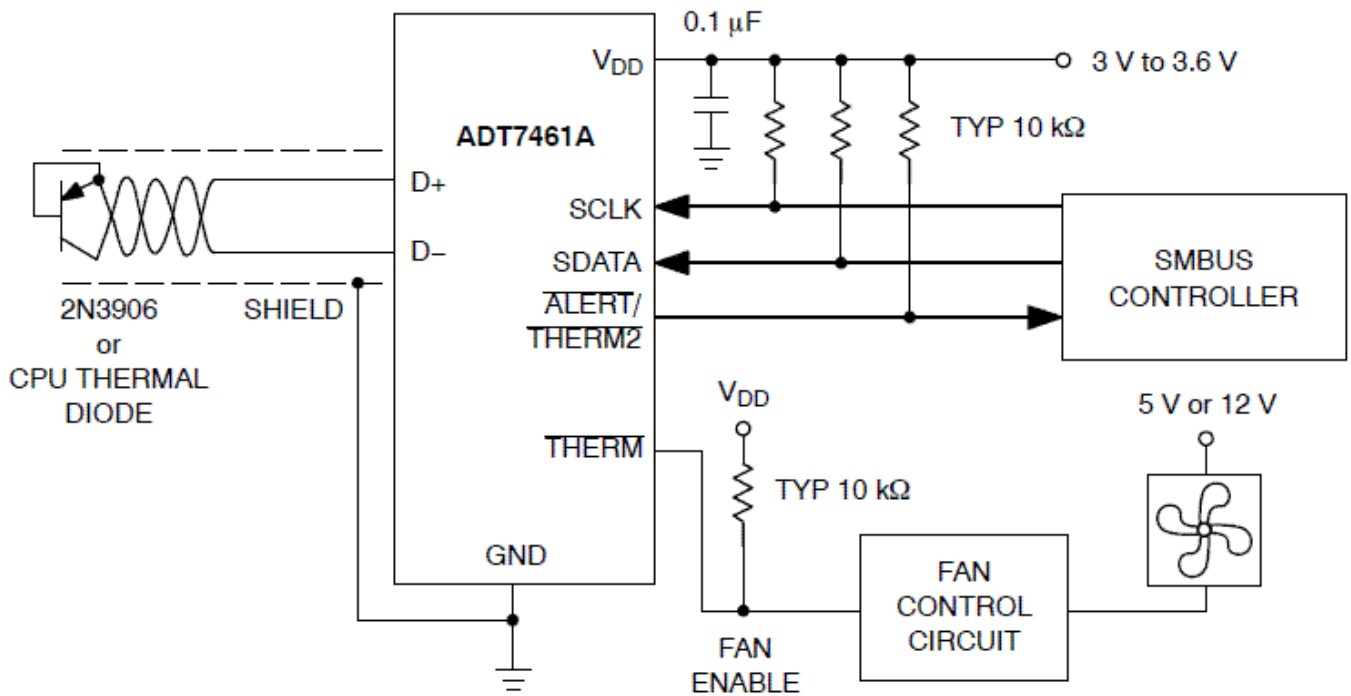
### End Products

- Notebook and Desktop Computers
- Game Consoles
- RFID Readers
- Graphics Cards
- LCD TVs

### Part Electrical Specifications

| Product        | Pricing (\$/Unit) | Compliance                                      | Status | Sensor Type    | Data Transmission Standard | I <sub>CC</sub> Max (mA) | V <sub>CC</sub> Min (V) | V <sub>CC</sub> Max (V) | T Min (°C) | T Max (°C) | Temperature Error (°C) | Package Type |
|----------------|-------------------|---|--------|----------------|----------------------------|--------------------------|-------------------------|-------------------------|------------|------------|------------------------|--------------|
| ADT7461AARMZ-R | 2.6533            | Pb-free<br>Halide free<br>non AEC-Q<br>and PPAP | Active | Local & Remote | SMBus                      | 0.35                     | 3                       | 3.6                     | -40        | 125        | ±1                     | Micro8™      |

## Application Diagram



For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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