

LM95010

Digital Temperature Sensor with SensorPath™ Bus in MSOP8 Package

General Description

The LM95010 is part of a hardware monitor system, comprised of two parts the PC System Health Controller (Master) and one or more LM95010s (Slave). Using the SensorPath™ single-wire bus, the LM95010 will be controlled by the Master and report to the master temperature of its own die, most likely the printed circuit board temperature.

Features

- SensorPath Bus
 - 4 hardware programmable addresses
- Temperature Sensing
 - 0.25 °C resolution
 - 127.75 °C maximum temperature reading
- 8-lead MSOP package

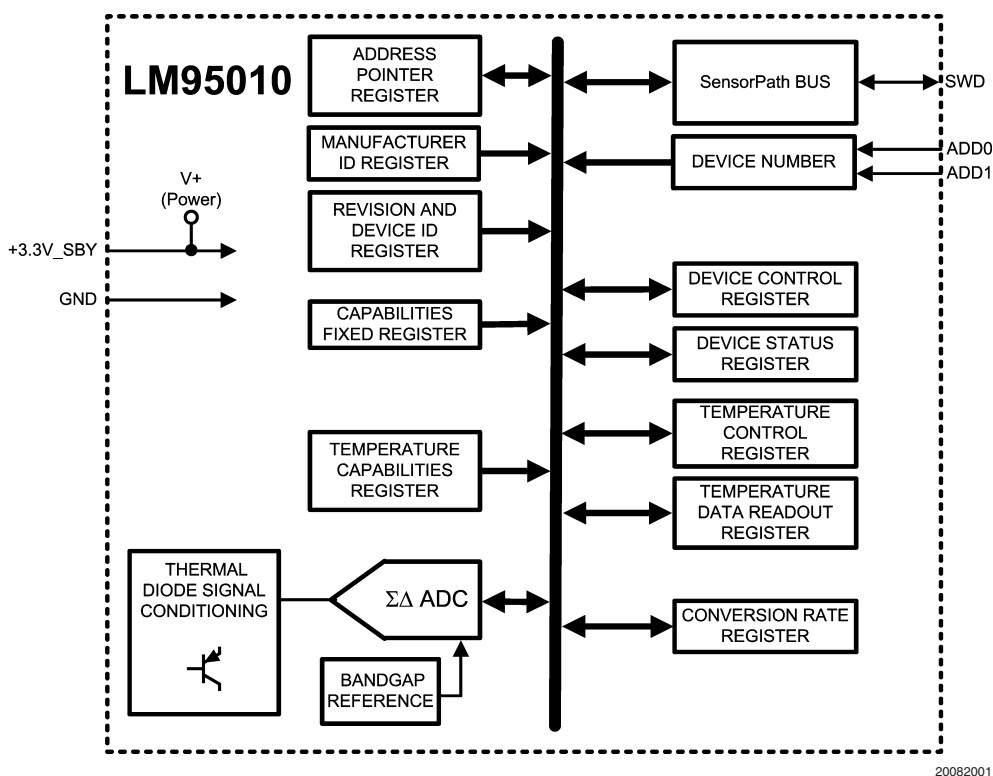
Key Specifications

- | | |
|-------------------------------|------------------|
| ■ Temperature Sensor Accuracy | ±3 °C (max) |
| ■ Temperature Range | 0 °C to +125 °C |
| ■ Power Supply Voltage | +3.0V to +3.6V |
| ■ Power Supply Current | 0.5 mA (typ) |
| ■ Conversion Time | 14 ms to 1456 ms |

Applications

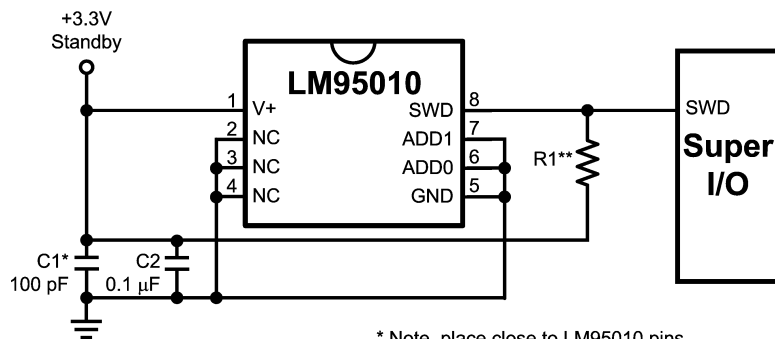
- Microprocessor based equipment
 - (Motherboards, Base-stations, Routers, ATMs, Point of Sale, ...)
- Power Supplies

Block Diagram



SensorPath™ is a trademark of National Semiconductor Corporation.

Typical Application



* Note, place close to LM95010 pins.
 **Note, R1 may be required to lower power dissipation and depends on bus capacitance.

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FIGURE 1.

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