Global Mixed-mode Technology Inc.

G7811

±3°C Local Temperature Sensor with SMBus Serial Interface

Features

- **Measures Local Temperatures**
- **No Calibration Required**
- **SMBus 2-Wire Serial Interface**
- **Programmable Under/Overtemperature Alarms**
- **Supports SMBus Alert Response**
- **Accuracy:**
  ±3°C (+60°C to + 100°C, local)
- **320µA (typ) Average Supply Current During Conversion**
- **+3V to +5.5V Supply Range**
- **Small 8-Lead MSOP Package**

Applications

Desktop and Notebook Computers	Central Office Telecom Equipment
Smart Battery Packs	Test and Measurement
LAN Servers	Multi-Chip Modules
Industrial Controllers	

General Description

The G7811 is a precise digital thermometer that reports the temperature of both a remote sensor and its own package.

The 2-wire serial interface accepts standard System Management Bus (SMBus) Write Byte, Read Byte, Send Byte, and Receive Byte commands to program the alarm thresholds and to read temperature data. The data format is in two's-complement format. Measurements can be done automatically and autonomously, with the conversion rate programmed by the user or programmed to operate in a single-shot mode. The adjustable rate allows the user to control the supply current drain.
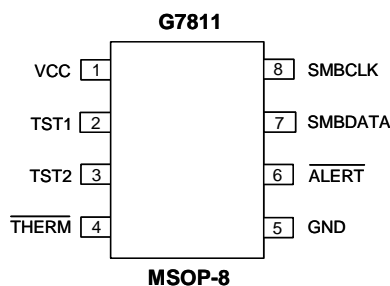
The G7811 is available in a small, 8-pin MSOP surface-mount package.

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G7811P81U	G7811	-55°C to +125°C	MSOP-8

Note: P8 : MSOP-8
    1: Bonding Code
    U: Tape & Reel

Pin Configuration

Typical Application Circuit