

# SST Compliant Hardware Monitor with Three Temperature Channels

## PRODUCT FEATURES

Data Brief

### General Description

The EMC1103 is a one-wire sensor that is capable of monitoring up to three temperature zones for an Intel PC platform containing an SST host. The three temperature zones consist of an internal temperature diode and two externally connected temperature diodes. In cooperation with a host device, thermal management and fan control can be performed. Communication takes place over a one-wire SST based interface. The internal 11-bit delta-sigma ADC architecture provides superb linearity, high accuracy, and excellent noise immunity.

### Applications

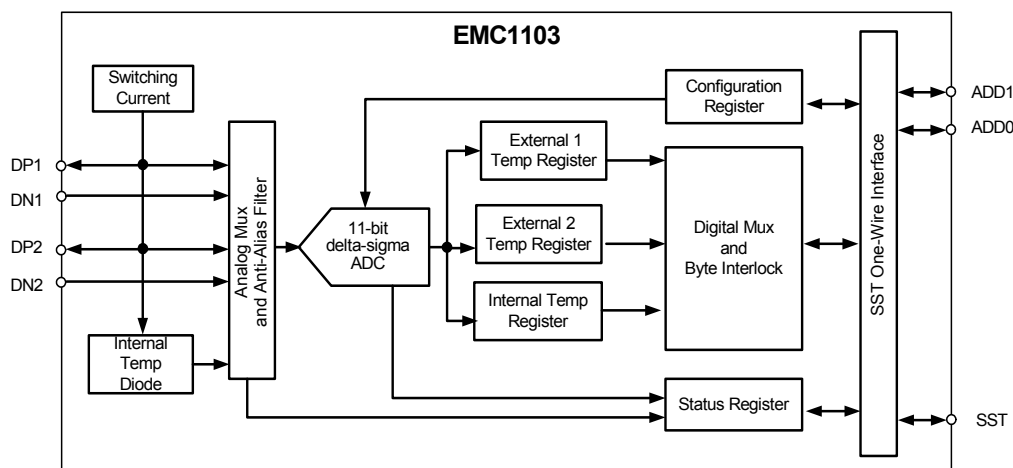
- Desktop PCs, Servers and Workstations

### Features

- Single Wire Interface (SST based)
  - SST 1.0 compliant
  - Fixed Address, Discoverable Device
  - Nine programmable addresses
  - Supports FCS Abort functionality not available in SST 0.9 compliant devices

- Resistance Error Correction
- Ideality Configuration
- Beta Compensation
- Two External Temperature Monitors
  - 0.125°C resolution
  - ±1°C Accuracy (50°C to 70°C)
  - Diode Fault Reporting
  - Second External Diode configured to read a discrete diode.
- Internal Temperature Monitor
  - Range -40°C to +125°C
  - 0.125°C resolution
  - ±2°C Accuracy (40°C to 70°C)
- Supply
  - 3.0V to 3.6V

### Simplified Block Diagram



**ORDER NUMBER(S):**

| <b>PART NUMBER</b> | <b>FEATURES</b>                                                                                  | <b>PACKAGE</b>                       |
|--------------------|--------------------------------------------------------------------------------------------------|--------------------------------------|
| EMC1103-AIZL-TR    | External Diode 1 configured to monitor 65nm CPU<br>External Diode 2 configured to monitor 2N3904 | 10 pin MSOP Lead-Free ROHS Compliant |
| EMC1103-1-AIZL-TR  | External Diode 1 configured to monitor 2N3904<br>External Diode 2 configured to monitor 2N3904   | 10 pin MSOP Lead-Free ROHS Compliant |



80 ARKAY DRIVE, HAUPPAUGE, NY 11788 (631) 435-6000, FAX (631) 273-3123

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# Package Outline

PRODUCT PREVIEW

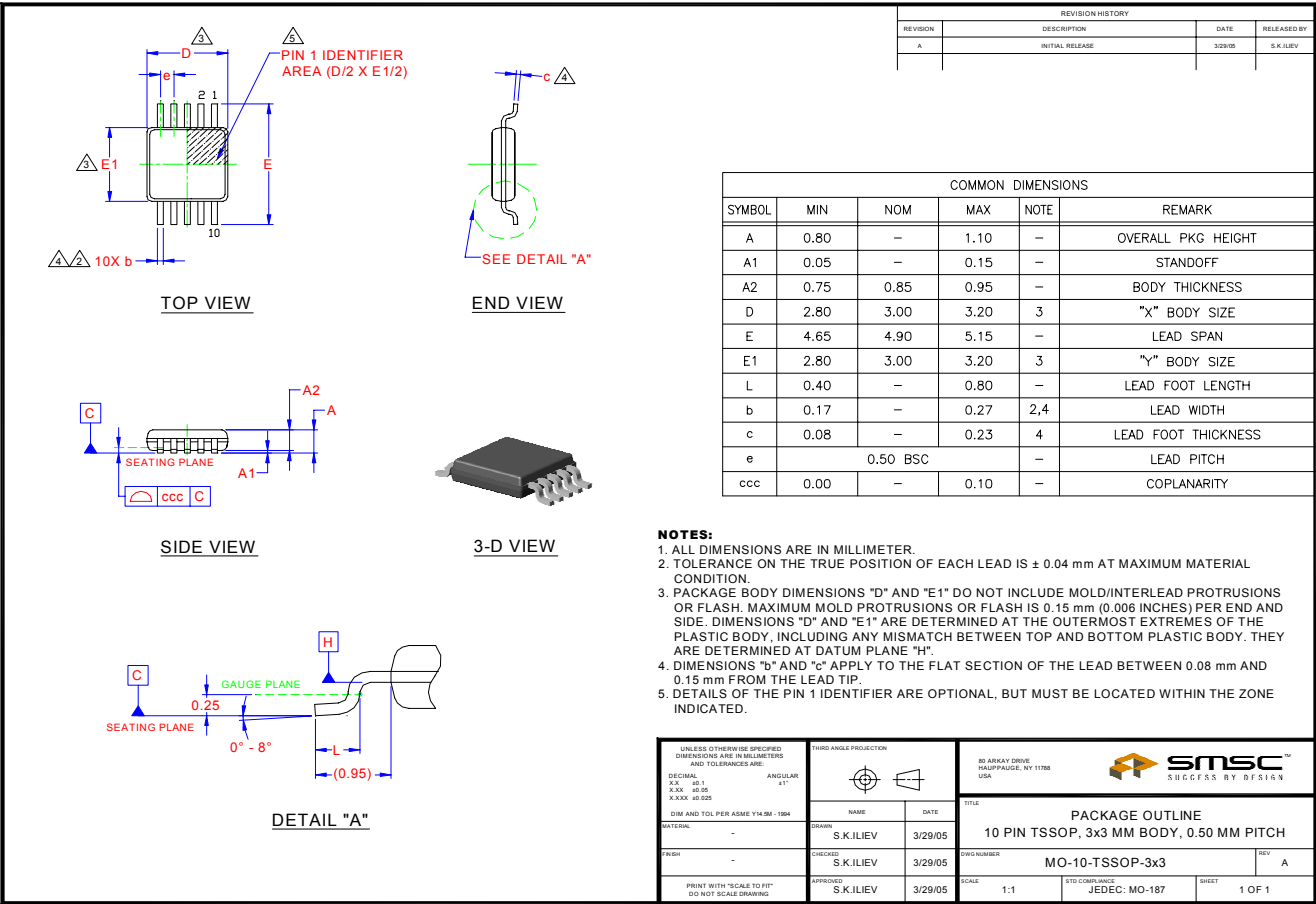


Figure 1 EMC1103 10-Pin MSOP Package Drawing