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EMC1412-2-ACZL-TR

Data Sheet

Board Mount Temperature Sensors Temp Sensor Beta Comp Select Address

Manufacturers	Microchip Technology, Inc
Package/Case	MSOP-8
Product Type	Temperature Sensors
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for EMC1412-2-ACZL-TR or Email to us: sales@ovaga.com We will contact you in 12 hours.

<u>RFQ</u>

General Description

The EMC1412 is a high accuracy, low cost, System Management Bus (SMBus) temperature sensor. Advanced features such as Resistance Error Correction (REC), Beta Compensation (to support CPU diodes requiring the BJT/transistor model including 45nm, 65nm and 90nm processors) and automatic diode type detection combine to provide a robust solution for complex environmental monitoring applications.

The EMC1412 monitors two temperature channels (one external and one internal). It provides $\pm 1^{\circ}$ C accuracy for both external and internal diode temperatures.

Resistance Error Correction automatically eliminates the temperature error caused by series resistance allowing greater flexibility in routing thermal diodes. Beta Compensation eliminates temperature errors caused by low, variable beta transistors common in today's fine geometry processors. The automatic beta detection feature monitors the external diode/transistor and determines the optimum sensor settings for accurate temperature measurements regardless of processor technology. This frees the user from providing unique sensor configurations for each temperature monitoring application. These advanced features plus $\pm 1^{\circ}$ measurement accuracy provide a low-cost, highly flexible and accurate solution for critical temperature monitoring applications.

Features

Features Programmable SMBus Address Support for diodes requiring the BJT/transistor model supports 45nm, 65nm, and 90nm CPU thermal diodes Pin compatible with ADM1032, MAX6649, and LM99 Automatically determines external diode type and optimal settings Resistance Error Correction External Temperature Monitors 0.125°C resolution Supports up to 2.2nF diode filter capacitor Internal Temperature Monitor 0.125°C resolution 3.3V Supply Voltage Programmable temperature limits for ALERT# and THERM# Available in small 8-pin 2mm x 3mm TDFN RoHS compliant package Available in small 8-pin MSOP RoHS compliant package

Application

Notebook Computers

Desktop Computers

Industrial

Embedded applications



Related Products



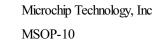
EMC1047-2-AIZL-TR

Microchip Technology, Inc MSOP-10

EMC1423-1-AIZL-TR

Microchip Technology, Inc MSOP-10





EMC1422-1-ACZL-TR

EMC1424-1-AIZL-TR

Microchip Technology, Inc MSOP-8

EMC1413-A-AIA-TR



Microchip Technology, Inc VDFN-10



EMC1413-A-AIZL-TR

Microchip Technology, Inc MSOP-10

EMC1412-1-ACZL-TR

Microchip Technology, Inc MSOP-8



EMC1412-A-ACZL-TR

Microchip Technology, Inc MSOP-8