Motor / Motion Controllers & Drivers Closed Loop RPM RPM Fan Ctrl 3Remote

Manufacturers	Microchip Technology, Inc
Package/Case	QFN-16
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	
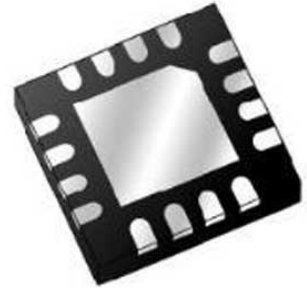
Images are for reference only

Please submit RFQ for EMC2103-2-AP-TR or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The EMC2103 is an SMBus compliant fan controller with up to up to 3 external and 1 internal temperature channels. The fan driver can be operated using two methods each with two modes. The methods include an RPM based Fan Speed Control Algorithm and a direct PWM drive setting. The modes include manually programming the desired settings or using the internal programmable temperature look-up table to select the desired setting based on measured temperature.

The temperature monitors offer 1°C accuracy (for external diodes) with sophisticated features to reduce errors introduced by series resistance and beta variation of substrate thermal diode transistors commonly found in processors.

The EMC2103 also includes a hardware programmable temperature limit and dedicated system shutdown output for thermal protection of critical circuitry.

For product comparison, please consider:EMC2113

Features

Features

Programmable Fan Control circuit

4-wire fan compatible

High and low frequency PWM

RPM based fan control algorithm

2.5% accuracy from 500RPM to 16k RPM

Detects fan aging and variation

Application

Notebook Computers

Projectors

Graphics Cards

Industrial and Networking Equipment

Temperature Look-Up Table

Allows programmed fan response to temperature

Controls fan speed or PWM drive setting

Allows externally set temperature data to drive fan

Supports DTS data from CPU

Up to Three External Temperature Channels (EMC2103-2 only)

Supports 45nm, 60nm, and 90nm CPU diodes

Automatically detects and supports CPUs requiring BJT or Transistor models

Resistance error correction

Supports discrete transistors (i.e. 2N3904)

1°C accurate (60°C to 125°C)

0.125°C resolution

Hardware Programmable Thermal Shutdown Temperature

Cannot be altered by software

65°C to 127°C Range

Programmable High and Low Limits for all channels

Internal Temperature Monitor

2°C accuracy

0.125°C resolution
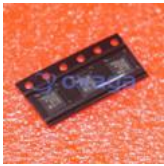
3.3V Supply Voltage

SMBus 2.0 Compliant

SMBus Alert compatible

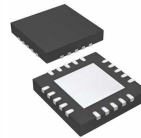Two dedicated GPIOs (EMC2103-2 and EMC2103-4 only)

Available in 12-pin, QFN RoHS Compliant Package (EMC2103-1) or 16-pin, QFN RoHS Compliant Package
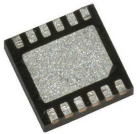(EMC2103-2 and EMC2103-4)

Related Products

EMC2305-1-AP-TR

Microchip Technology, Inc

QFN-16

EMC2112-BP-TR

Microchip Technology, Inc

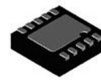QFN-20

EMC2303-1-KP-TR

Microchip Technology, Inc

QFN-12
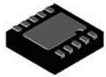
EMC2302-1-AIZL-TR

Microchip Technology, Inc

MSOP-10

TC1313-ZD0EMFTR

Microchip Technology, Inc

DFN-10

TC1313-VD0EMFTR

Microchip Technology, Inc

DFN-10

TC1313-1H0EMFTR

Microchip Technology, Inc

DFN-10

TC1313-1P0EMFTR

Microchip Technology, Inc

DFN-10