



## Dual RPM-Based PWM Fan Controller

### PRODUCT FEATURES

Data Brief

#### General Description

The EMC2302 is an SMBus compliant fan controller with up to two independently controlled PWM fan drivers. Each fan driver is controlled by a programmable frequency PWM driver and Fan Speed Control algorithm that operates in either a closed loop fashion or as a directly PWM-controlled device.

The closed loop Fan Speed Control algorithm (FSC) has the capability to detect aging fans and alert the system. It will likewise detect stalled or locked fans and trigger an interrupt.

Additionally, the EMC2302 offers a clock output so that multiple devices may be chained and slaved to the same clock source for optimal performance in large distributed systems.

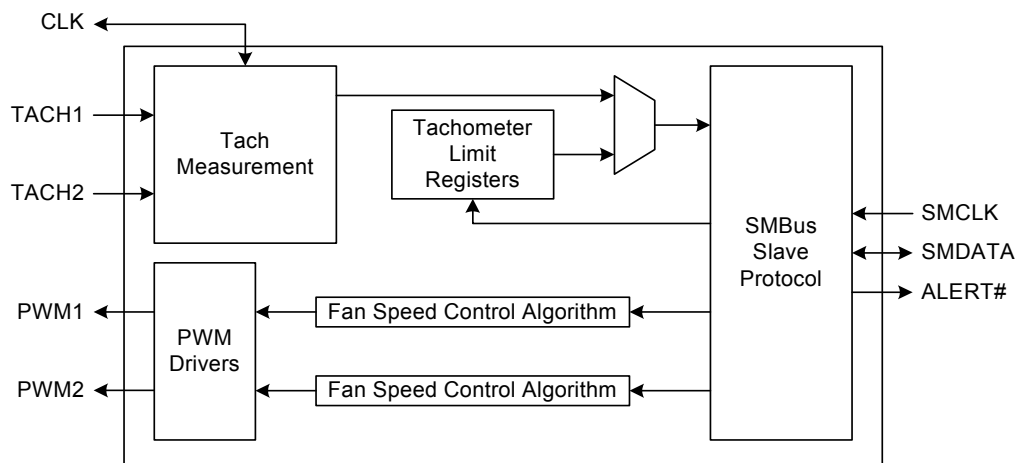
#### Applications

- Servers
- Projectors
- Industrial and Networking Equipment
- Notebook Computers

#### Features

- Two Programmable Fan Control circuits (EMC2302)
  - 4-wire fan compatible
  - High speed PWM (26 kHz)
  - Low speed PWM (9.5Hz - 2240 Hz)
  - Optional detection of aging fans
  - Fan Spin Up Control and Ramp Rate Control
  - Alert on Fan Stall
- Watchdog Timer
- RPM-based fan control algorithm
  - 0.5% accuracy from 500 RPM to 16k RPM (external crystal oscillator)
  - 1% accuracy from 500 RPM to 16k RPM (internal clock)
- SMBus 2.0 Compliant
  - SMBus Alert compatible
- CLK Pin can provide a clock source output
- Available in a 10-pin MSOP Lead-free RoHS Compliant package

#### Block Diagram



**Order Number(s):**

ORDERING NUMBER	PACKAGE	FEATURES
EMC2302-1-AIZL-TR	10-pin MSOP (Lead-free RoHS compliant)	Two RPM-based fan speed control algorithms. SMBus address 0101_110(r/w)
EMC2302-2-AIZL-TR	10-pin MSOP (Lead-free RoHS compliant)	Two RPM-based fan speed control algorithms. SMBus address 0101_111(r/w)

**This product meets the halogen maximum concentration values per IEC61249-2-21**  
**For RoHS compliance and environmental information, please visit [www.smSC.com/rohs](http://www.smSC.com/rohs)**



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# Package Outline

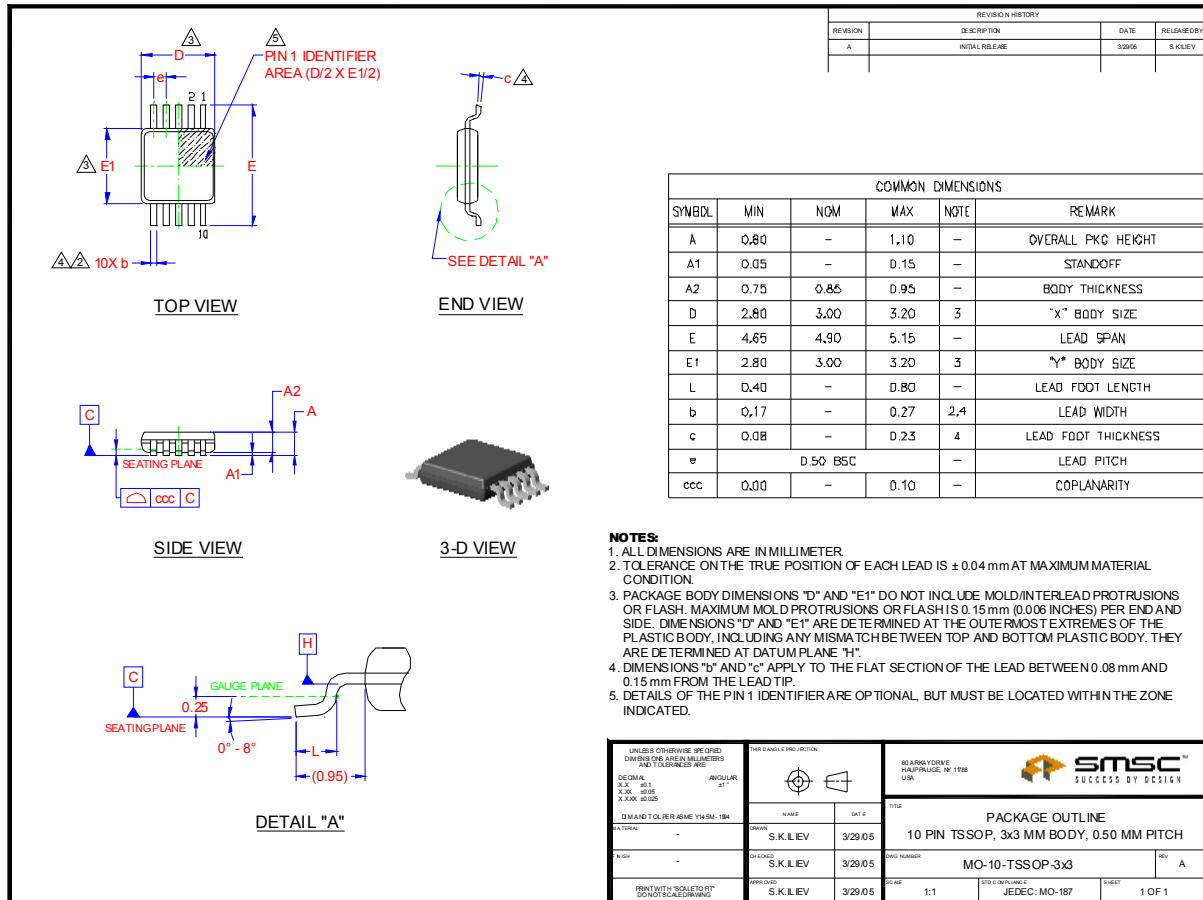


Figure 1 EMC2302 Package Drawing - 10-Pin MSOP