Device Overview

Summary

The SCH5147 is a 3.3V (Super I/O Block is 5V tolerant) PC99/PC2001 compliant Super I/O controller with an LPC interface, and includes Hardware Monitoring capabilities, enhanced Security features, Power Control logic and Motherboard Glue logic. Its hardware monitoring capability includes temperature, voltage, and fan speed monitoring, and can alert the system to out-of-limit conditions and automatically control the speeds of multiple fans. There are five analog inputs for monitoring external voltages, as well as internal monitoring of the SIO's VCC (emulated power well), VTR (signal power well), and VBAT power supplies. The SCH includes support for monitoring two external temperatures via thermal diode inputs and an internal sensor for measuring ambient temperature. The Motherboard Glue logic includes various power management and system logic including generation of nRSMRST, SMBus isolation buffers, and buffered PCI (Peripheral Component Interconnect) reset outputs. The SCH5147 incorporates complete legacy Super I/O functionality including a floppy disk controller with SMSC's true CMOS (Complimentary Metal-Oxide-Semiconductor) 765B core and enhanced digital data separator. The true CMOS 765B core provides %100 compatibility with IBM PC/XTTM and PC/ATTM architectures and is software and register compatible with SMSC's proprietary 82077AA core.

Additional Features

- 8042 Keyboard Controller
- 128 QFP Packaging
- Legacy I/O
- 29 GPIO Pins
- State Machine Fan Control Engine
- X1 CPU, x2 Domain, C3/C4 PECI Support
- AMD SB-TSI
- Glue logic
- IEEE 1284, EPP, and ECP Compatible Parallel Port
- One IrDA 1.0 Infrared Port
- One 16C550A UART-compatible serial port
- 3 PWM Outputs
- 3 fan tachometer inputs

Parametrics

Name	Value
Customer Programmable RAM	N
Intruder Detection	Y
Operating Temperature	°0 C to °70+ C
PCH Temp Monitoring	N
Tach	3
Deep Sleep S5	N
Glue Logic	Y
8024 Keyboard Controller	Y
PCI Resets	4
PECI Support	x1 CPU, x2 domain, C3/C4
RRCC Auto Fan	N
Legacy I/O	Y
GPIO	29
PWM	3
Package	128 QFP
SMBus Interface	N
Security Key Register	N
AMD SB-TSI	Y
Resume Reset	Y
System Controller	State Machine
Fan Control Engine	State Machine