SNMP-1000

Intelligent SNMP/HTTP System Manager

Features
- Monitors system fans, temperature, voltage, power supply, CPU fan, CPU temperature, Vcore, watchdog timer etc.
- Stand alone system monitoring, no driver needed, OS independent
- Remote alarm notification through SNMP/HTTP, e-mail or pager
- Easy status monitoring thru Ethernet by using a browser
- Optional LCD message display
- Highly reliable, functioning even system fail or power down
- Modular design eases system integration and customization

Introduction

The SNMP-1000 is a platform independent server and PC-system management controller that can detect the system operating conditions and notify the user to take necessary action to avert system failure. The SNMP-1000 is web-enabled and supports multiple communication protocols. It provides a simple way to manage a number of remote servers, and also adds a dimension of reliability to critical applications such as computer telephony.

Powerful yet Easy to Use

The SNMP-1000 can detect a wide variety of internal system conditions, including temperature, voltage, fan rotation, power supply or CPU operations such as watchdog timer output. Through its I^2C interface it can monitor CPU temperature and voltages of Advantech's full-sized CPU cards. Depending on the alarm severity or user setup, it can generate several different alarm outputs, including SNMP trap, e-mail, pager message, acoustic signal, system reset, or digital signal output. Through the easy to use web-based user interface users can set the alarm criteria and select alarm outputs of each sense input independently to meet user requirements. The board's battery backup enables the SNMP-1000 to perform its alarm function even during total system power failure.

Web-enabled, No Driver Needed

The on-board 10/100 Mbps fast Ethernet adapter enables the SNMP-1000 to be connected to your existing network. It supports multiple network protocols such as TCP/IP, SNMP, HTTP and Telnet, allowing you to manage your systems simply using a web browser. Since it works standalone, no software driver is needed thus eliminating the compatibility issues with different operating systems.

On-line Upgrade and Batch Setup

You can upgrade the firmware on-line by using the setup utility. There is no need to go to a remote site and disassemble the chassis to collect each SNMP-1000 module for firmware upgrade. The setup utility also supports "batch setup" function, which allows you to save a configuration and duplicate it to other modules. This function saves your time when you setup a number of SNMP-1000 modules.

Flexible Modular Hardware Design

The modular design of the SNMP-1000 allows it to be easily customized to fit into any application. The ultra compact kernel module is only 41 mm wide and 94 mm long. It can be mounted on standard or customized carrier boards to meet different needs of I/O extension. It can also be easily integrated into the customer's system due to its compact size.

Hardware Specification

- CPU: 80188 compatible
- Embedded Flash ROM and SRAM
- Embedded 10/100 Mbps Ethernet adapter
- 1 RS-232 serial port up to 9600 baud rate
- 1 SM bus interface for system healthy status monitoring
- 1 SM bus interface for up to 8 external temperature sensors
- 9 fan tachometer inputs
- 1 on-board temperature sensor
- 1 LCD message display interface
- Detect time-out signal of system watchdog timer
- 4 power good signals
- 8 digital inputs
- 4 digital outputs
- Buzzer support

Dimension

- Kernel module: 40.5 x 93 mm
- PCI/ISA I/O extension module: 175 x 107 mm

Sensor Input Specification

Voltage Inputs:

+5VDC, -5VDC, 5VSB, +3.3VDC, +12VDC, -12VDC

Temperature Sensors:

LM75 digital temperature sensor, I^{2}C interface, -30 ~ +125 °C (-22 ~ +257 °F)

Fan Speed Monitor:

Up to 9 fans, 700 ~ 10000 RPM

Power Good Input: .

High: > 2.4VDC

Low: < 0.8VDC

CPU Card Healthy:

CPU Vcore, CPU fan, CPU temperature (up to 2 CPUs), +5VDC, -5VDC, VI/O, , +12VDC, -12VDC

Supported CPU Cards: PCA-6002, 6003, 6004, 6005, 6181, 6183, 6184, 6185, 6186, 6277 rev. B

Firmware Specification

System Status Monitoring and Management

■ Real-time healthy status monitoring: Provides real-time status display in HTTP/Java graphical format

■ History log up to 600 records.   Data can be down loaded through network or sent by e-mail

■ Alarm event record display

Alarm Notification

■ E-mail: Can set up to 4 addresses to receive e-mails

■ SNMP trap: Notify up to 8 SNMP administrators

■ Pager notification: Dial out through external modem to send messages to up to 8 pagers

■ LCD alarm message display

■ Audible alarm sound

Supported Protocols

TCP, UDP, IP, ICMP, DHCP, BOOTP, ARP, SNMP, HTTP, Telnet

Management Function

- Web-based remote configure, control and monitor
- Remote reset, power down and power up.
- Remote digital output signal control
- Remote message display control
- Firmware upgrade from serial port and Ethernet port
- Modem dial in (console mode only)

LCD Message Display Module with Keys

- LCD module: 2 rows, 16 digits, with backlight
- Dimensions: 148 x 42 x 158 mm (W x H x D), fits into a standard 5.25" device bay
- 5 Keys: Up, down, enter, escape, alarm sound off
- Space reserved to carry a 3.5" hard disk drive

Backup battery:

- Charge time: 24 hr
- Battery type: Ni-MH
- Battery capacity: 1500 mA-H (full charged, for 15~20 minutes operation, depends on the system configuration)
- Battery life: 80% capacity @20°C after 1000 cycles of charge and discharge
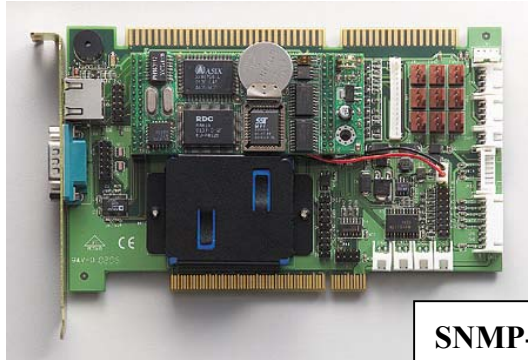
Power Consumption

- 5V @ 550 mA

Environmental Specifications

Storage temperature: -20 ~ 70 °C (4 ~ 158 °F)

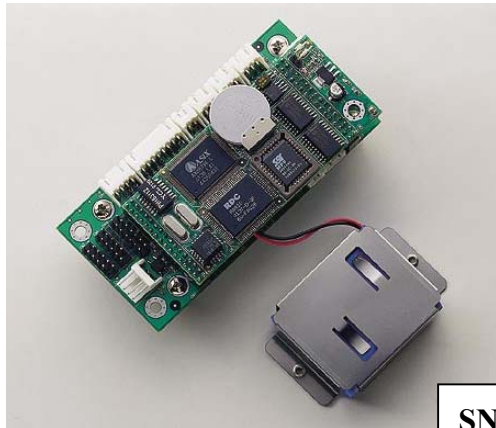**Operating temperature:** 0 ~ 60 °C (32 ~ 140 °F)

Relative humidity: 5 ~ 95% RH non-condensing

SNMP-1000-E1A1

SNMP-1000-LCD

SNMP-1000-E2A1

Ordering Information

Model Name	Descriptions
SNMP-1000-00A1	SNMP/HTTP system manager kernel board only
SNMP-1000-E1A1	SNMP/HTTP system manager development kit, incl. kernel board on PCI/ISA carrier, 3 sets temperature sensors and cables.
SNMP-1000-E2A1	SNMP/HTTP system manager for ACP series chassis, incl. kernel board on a carrier board for chassis
SNMP-1000-LCD	LCD message display module