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 through Ethernet using a browser
- Optional LCD message display
- Highly reliable: functions even when system or power fails
- Modular design eases system integration and customization

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Introduction

The SNMP-1000 is a platform independent system management module that can detect system operating conditions and notify users to take necessary action to avert system failure through multiple communication protocols. With the SNMP-1000 installed, a system monitoring and management can be integrated into a user's existing SNMP-based network management environment. The SNMP-1000 also has a built-in Web-based administration interface which allows users to monitor the system operation from any place with Internet connectivity. The SNMP-1000 adds another dimension of reliability to your most critical applications.

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 I2C interface it can even 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, acoustic signal, system reset, digital output, or LCD message (requires the SNMP-1000-LCD module). Through the easy to use web-based user interface, users can set the alarm criteria and select alarm outputs for each sensor input independently to meet user requirements. The backup battery 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 interface enables the SNMP-1000 to be connected to your existing network, independent from the system's connection. It supports multiple network protocols such as TCP/IP, SNMP, HTTP and Telnet, allowing you to manage your systems simply by using a web browser. No special software driver is needed thus eliminating compatibility issues with different operating systems.

On-line Upgrade and Batch Setup

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

Flexible Modular Hardware Design

The modular design of the SNMP-1000 allows it to be easily customized to fit into any system. The ultra compact module is only 41 mm wide and 94 mm long. It can be mounted on standard or customized carrier boards to plug into any standard PCI/ISA slot. It also can be installed on the specially designed LCD Message Display module (SNMP-1000-LCD) to fit into any 5.25" drive bay.

Accessory Options
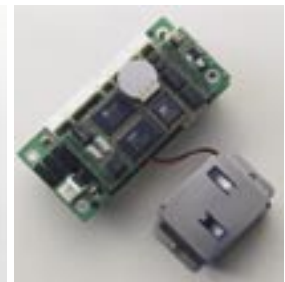
LCD Message Display Module with Keys

- LCD module: 2 rows, 16 digits, with backlight
- Dimensions (W x H x D): 148 x 42 x 158 mm, compliant with 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

SNMP-1000-LCD

SNMP-1000-E1A1

SNMP-1000-E2A1

Firmware Specifications

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 downloaded 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)

Sensor Specifications

Voltage	Input	+5 V_{DC}, -5 V_{DC}, +5 V_{SB}, +3.3 V_{DC}, +12 V_{DC}, -12V_{DC}
Temperature	Input	9 (one for on-board sensor, eight for external sensors)
	Sensor	LM75
	Interface	I²C
	Range	-30 ~ 125 °C (-22 ~ 257 °F)
Fan Speed	Input	9 (7 for SNMP-1000-E2A1)
	Range	700 ~ 10000 rpm
Power Good	Input	4 (1 for SNMP-1000-E2A1)
	Range	High > 2.4 V_{DC}, Low < 0.8 V_{DC}
CPU Card Healthy	Interface	I²C
	Input	CPU Vcore, CPU fan, CPU temperature (up to 2 CPUs), +5V_{DC}, -5V_{DC}, $V_{I/O}$, +12V_{DC}, -12V_{DC}
	Compatibility	PCA-6002-B, 6003, 6004, 6005-B, 6181, 6183, 6184, 6185, 6186, 6277-B, 6187, 6188; AIMB-740, 741, 742, 744
Digital Input/ Output	Input	8 (SNMP-1000-E1A1 only)
	Output	4 (3 for SNMP-1000-2A1)

System Specifications

Processor System	CPU	80188 compatible	
Environment	Firmware	512 KB Embedded Flash ROM	
	Memory	512 KB SRAM	
Ethernet	Interface	10/100 Base-T	
Serial Port	Interface	RS-232	
	Baud Rate	9600 bps	
Miscellaneous	Buzzer Support	Yes	
	Detect Time-out Signal of System	Yes	
	Watchdog Timer	Yes	
Battery	Charge Time	24 hr	
	Battery Type	Ni-MH	
	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 Requirement	Typical	5 V @ 550 mA	
		Operating	Non-Operating
	Temperature	0 ~ 60 °C (-32 ~ 140 °F)	-20 ~ 70 °C (4 ~ 158 °F)
	Humidity	--	5 ~ 95 % RH, non-condensing
Physical	Dimensions	Kernel module: 40.5 x 93 mm (1.59" x 3.66")	
		Carrier board: 55 x 115 mm (2.17" x 4.53")	
		PCI/ISA I/O extension module: 175 x 107 mm (6.89" x 4.21")	

Ordering Information

Part Number	Descriptions
SNMP-1000-E1A1	SNMP/HTTP system manager development kit, including the kernel module mounted on a PCI/ISA carrier board, 3 sets of temperature sensors, and cables
SNMP-1000-E2A1	SNMP/HTTP system manager card for ACP series chassis, including the kernel module
SNMP-1000-LCD	Message display module with keys