NOVA INTEGRATION SOLUTIONS

MIL/RCOTS Computers, ATR chassis and Printers

Embedded Environmental Monitor

SEM

NOVA's new System Environmental Monitor (SEM) redefines intelligent monitoring and control. The new SEM, initially introduced in an embedded board form factor, enables Eurocard, PC and embedded board-based chassis to report and control on a real-time basis internal temperatures, input and output voltages, fan speed and customer-defined I/O.

The SEM continuously monitors the total scope of the chassis operating environment. If a factory pre-programmed or user-defined operating parameter is exceeded, the SEM can take several actions: the system can be RESET or powered down; an audio alarm can sound; fan speed can be increased, decreased or turned off; or other user-definable actions can be taken.

As a web-enabled product, the SEM supports both HTTP and SNMP protocols, and is compatible with popular web browsers (IE, Firefox 2.0, etc.). To prevent unauthorized access to the SEM, the user must logon with unique credentials. With "administrator rights" the logon information can be changed locally or remotely.

Communication with the SEM is accomplished via its onboard Fast Ethernet port (100 Base-T). Changing its IP is done simply and quickly via the setup utility, as are the operating parameters the user wishes to monitor and/or control. Already the SEM is an installed option in chassis supporting our armed forces. Below are two programs employing the SEM's advanced capabilities.

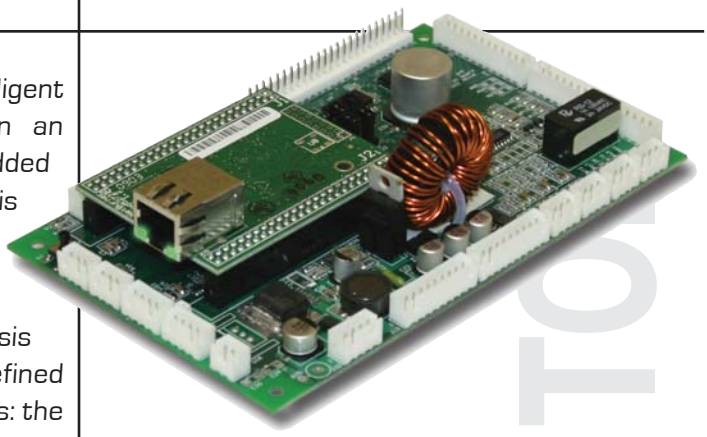
NOVA's SEM is currently deployed in U.S. Navy and Air Force programs

P3 Orion - OASIS Littoral Radar

C-130 Refueling System

For more information on our wide range of capabilities, products, and services, please visit our web site at:

www.novaintegration.com



- **HTTP and SNMP protocols built-in**
- **Monitor/control system voltages, temperature, fan speed, and customer-defined bus signals; system shutdown in fault condition**
- ***New!* "Battlefield Short" feature is standard!**
- **Onboard Ethernet port; user-definable IP address**
- **Monitor four voltages simultaneously (user-configurable range); programmable for action on fault condition**
- ***New!* Optional current monitoring**
- **Monitor four analog "OR" digital temp sensors with configurable range; monitor and control three, 3-wire 12V fans (up to 3.5A, not PWM)**
- **Three digital inputs; seven LED outputs**
- **Dual power supply control through relay and/or opto-isolator with programmable functionality; can be used for other control functions**
- **Aux +5VDC power supply for +5VSB and soft Pwr-On power supply control for motherboards and PC type SBCs**
- **Customizable splash screen**
- **Custom features can be programmed into the SEM; contact NOVA with your requirements**

SYSTEM MONITOR

Specifications

Monitored Inputs

System Voltages . . . . . ± 12 VDC
± 5 VDC
+ 3.3 VDC
- 48 VDC

Eight (8) AC to DC positions available for other voltages, programmable by the user

System Temperature. . . . . 4 digital sensors with accuracy <1°C

System Fan Speed . . . . . Speed control for three DC fans with to 3.5A

System Fan Power . . . . . Separate channel to monitor fan power supply

Additional Inputs . . . . . ≤ 20 additional open collector inputs

Monitored Outputs

Power Supply Inhibit . . . . . Remote start and restart via opto-isolated outputs

Power Isolation . . . . . Double pole change over relay

Alarm Output . . . . . Audio alarm and up to seven LEDs

Functions Controlled

- Fan speed
- Chassis power supply operation
- Alarms and alarm outputs
- Security Functions including passwords
- Analog relay output

Functions Monitored

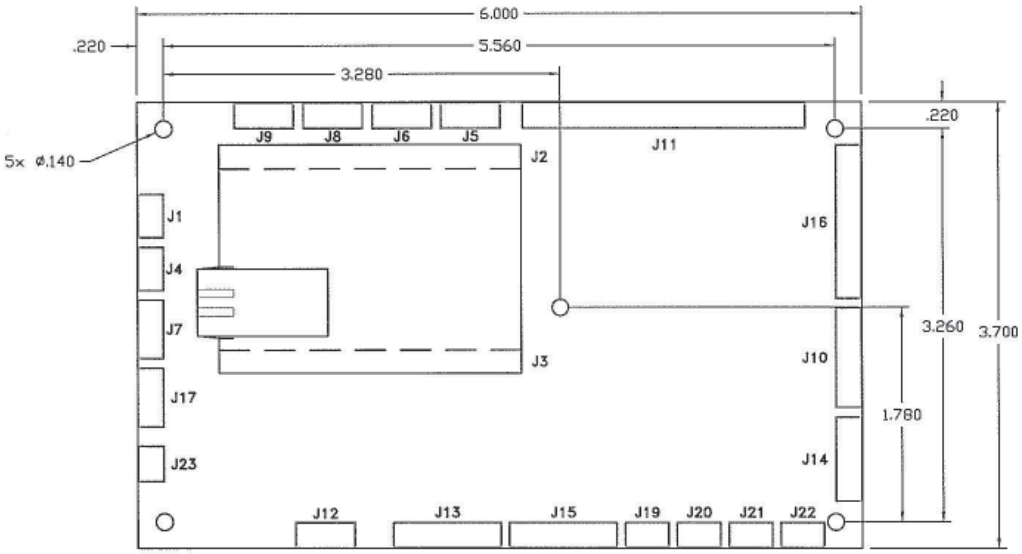
- System Voltages: 3 Positive ; 1 Negative
- Fan Speed
- 4 Temperature Sensors
- Minimum and Maximum Temperature

Ordering Information

51-100001-100	Standard SEM; all current features included

The SEM is a highly customizable product. Features that are not currently offered may be available, as is private labeling with your company's name appearing in the splash screen. Optionally, your company's name may appear on the printed circuit board.

Contact NIS for more information.



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