Sensing Processor Module | sp125

Applications

- Run custom data processing software in either Linux or Windows XP environment.
- Run ENLIGHT[Pro] Sensing Analysis Software.
- Manage power to sm125 field modules.
- Store and transmit sensor data.
- Trigger alarms or other external process.

Features

- Supports custom graphical user interfaces for virtually any application.
- Allows display, analysis, and storage of measurement data in appropriate engineering units.
- Supports ACPI power management.
- Supports USB, Ethernet, Serial and other communications interfaces and protocols.
- Has user configurable general purpose I/O capability (GPIO).
- Custom packaging mechanically interfaces with the sm125 Optical Sensing Interrogator.
- Supports Linux and Windows XP operating systems.
- Customizable processor and memory options allow for optimal price and performance for each application.

Description

The sp125 is an industrial grade, high performance sensing processor module for use with Micron Optics sm125 Optical Sensing Interrogators. The sp125 is built on a fanless industrial PC, and it facilitates communication and power control to the sm125 module. Custom software development and application management is easily made on the sp125 module, available with both Linux and Windows XP Professional operating systems. A host of ports and available peripherals ensure maximum flexibility for any application.

The data processing environment enabled by the sp125 helps engineers to bridge the gap between making measurements in the optical domain and reporting those results in the appropriate engineering units of strain, temperature, pressure, acceleration, etc.

sp125 Sensing Processor Module

Data can be saved locally to an on-board compact flash card or hard drive. Raw or processed data can also be exported to other processors via Ethernet, Serial, USB, etc. All of the features of a Linux or Windows environment can be focused on any particular application. For some remote applications, power management is critical. The sp125 provides power management through wake-on-LAN and wake-on-clock functions. Furthermore, the sp125 can support remote data transmission through most PC compatible protocols like TCP/IP, RS-232/422/485, Modbus, wireless LAN, etc.

Micron Optics ENLIGHT Sensing Analysis Software is compatible with "sp - Sensing Processors" running Windows XP. ENLIGHT provides a single suite of tools for data acquisition from Micron Optics interrogators. ENLIGHT combines the useful features of traditional sensor software with the specific tools needed to optimize optical properties during the design, implementation, and operations phases of an optical sensor system. Tables, graphs and additional data visualization features make ENLIGHT easy to use. Learn more about ENLIGHT at http://www.micronoptics.com/sensing_software.php.

TUNED Products displaying the "Micron Optics Tuned" logo include Micron Optics tunable technologies insuring high quality and performance.

1

Specifications β[1]	sp125-200	sp125-500
Standard Configuration		
Operating System	Linux	Windows XP Professional
Processor Type	Low Voltage Celeron (fanless)	Low Voltage Pentium (fanless)
Processor Speed	800 MHz	1.4 GHz
Memory	256 MB DDR	512 MB DDR
Storage Media	1 GB Compact Flash	100 GB 2.5" HDD
Standard Included Features		
Dual USB 2.0 Ports		
Dual RS232 Serial Ports		
Dual Ethernet Ports (1-100 Mbs, 1-1000 Mbs)		
Intel Extreme Graphics 2 Video Interface (with flat panel monitor support)		
User Configurable General Purpose I/O (GPIO), 3 Input, 3 Output		
PS/2 Keyboard/Mouse Port		
ACPI Power Management Support (Requires ACPI enabled OS)		
Remote Micron Optics Sensing Module (sm125) Power Control		
Micron Optics sm125 Hardware Mounting Kit and Instructions		
Mechanical, Environmental[2], Electrical Properties		
Dimensions; Weight	132 mm x 230 mm x 45.7 mm; 0.9 kg (2 lbs)	
Operating Temperature; Humidity	0° to 50° C; 0 to 80%, non-condensing	
Storage Temperature; Humidity	-20° to 70° C; 0 to 95%, non-condensing	
Input Voltage	7-36 VDC (100~240 VAC, 47~63 Hz), AC/DC converter included	
Power Consumption at 12V	20 W typ, 25 max	
Options		
Compact Flash	2 GB, 4 GB	1 GB, 2 GB, 4 GB
Processor	Up to 1 GHz Celeron (fanless) or 1.8 GHz Pentium (fan cooled)	
Memory	512 MB, 1 GB DDR	1 GB DDR
RS (232/422/485) Serial Port	Upgrade one of the dual RS-232 serial ports	

Notes:
1. Beta product. For details see www.micronoptics.com/product_designation.php.
2. Environmental conditions may be limited by HDD operating and storage limits.