smart fibres™

Processing Module

Key Features

- PC104 Single Board Computer
- Aids OEM Integration of the SmartScan Single Board FBG Interrogator
- Compatible with SmartScan SBI Software Development Kit
- Low Cost

About Processing Module

The SmartScan SBI processing module (SBI PM) provides PC 104 connection to the SmartScan Single Board Interrogator so as to run software routines for setting-up the SBI, reading the high-speed FBG wavelength data across the PC 104 bus, and packaging the received data for processing or onward communication.

The SBI PM is typically supplied together with a SmartScan SBI and a software development kit (SDK) for OEM customers to develop their own software. The SDK comprises of a Linux kernel, driver and root file-system (compatible with the SBI PM), and a documented library of C functions for interacting with the kernel driver.

The connection between the SBI PM and an HMI or other system would typically be developed by the OEM customer. On request, Smart Fibres can provide software support services to assist programmers utilising the Processing Module.

Specifications

Operating System	Linux
Core	200 MHz ARM Cirrus EP9302 32 MB Min RAM Memory 64 MB Max RAM Memory 8 MB Min Soldered-on Flash Storage
Mechanical	3.80" Length 4.50" Width 92 g Mass
Capabilities	1 x Watchdog Timer
External Storage	1 x Compact Flash Socket
Signal	20 x Digital Input/Output 2 x Analog-to-Digital Inputs
Interfaces	1 x PC/104 Bus 1 x 10/100 Ethernet 2 x 12 Mbit/s USB Host 2 x RS-232/TTL COM Port 1 x SPI Bus

HMI	1 x Matrix Keypad Header 1 x Text LCD Header
Temperature Range	-40 ˚C Min Operation Temperature +85 ˚C Max Operation Temperature
Power Supply	5 VDC Nominal Min Power Supply
Power Consumption	2 W Typical Power Consumption
Optional Features	Additional 8MB flash storage Additional 8 Analog-to-digital inputs On Board Temperature Sensor RS-485 Port Battery-Backed Real Time Clock

Specifications may change without notice