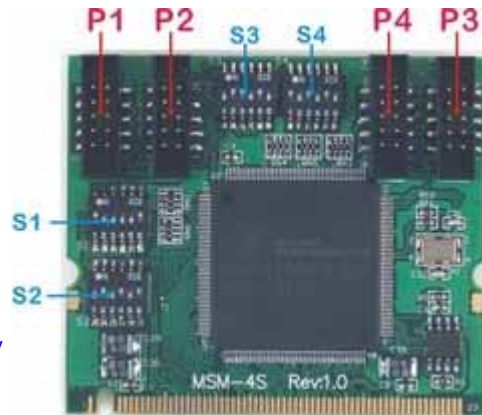


MSM-4S

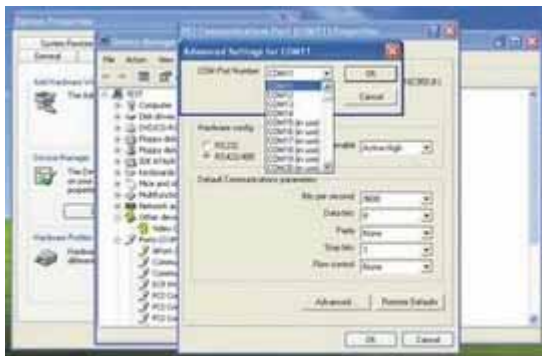
Mini-PCI 4-port RS-232/422/485 Module

- ✓ Mini-PCI interface, 50 mm height only
- ✓ 2x RS-232/422/485 ports, select by DIP switch
- ✓ 2x dedicated RS-232 ports
- ✓ Baud rate from 50bps to 921.6Kbps
- ✓ 16C950 compatible UART with 128-byte FIFO
- ✓ Over 700Kbps data throughput for each port running concurrently
- ✓ Hardware auto-direction control for RS-485
- ✓ Software drivers included for Windows 2003/XP/2000/NT/98/95/ME and Linux



Introduction

The MSM-4S is a high performance 4-port industrial serial communication Mini-PCI module. Port P1 and P2 can be independently configured as RS-232, RS-422 or RS-485 serial Interface by adjusting the on-board DIP switch. Port P3 and P4 are dedicated RS-232 serial interface. A highperformance 16C950 compatible UART chip with 128-byte FIFO is used for the MSM-4S to improve the transmission throughput and reduce the host computer's CPU loading.



Easy-to-uses Port Mapping Utility

Ordering Information

MSM-4S

Mini-PCI 4-port Industrial Serial Communication Module, includes four CBL-F10M9-20 connection cables

CBL-F10M9-20

Connection cable, 10-pin header to DB9 male, 20cm

Specifications

Hardware

- ▷ Bus: Mini-PCI
- ▷ IRQ : one IRQ for all serial ports
- ▷ No. of Boards: 4 max. (share the same IRQ)
- ▷ UART: Oxford 16mPCI954 or compatible
- ▷ Connector: 10-pin header for each serial port
- ▷ Protection: 15KV ESD for all signals

Serial Port Pin Assignment

- ▷ P1: RS-232/422/485, select by DIP SW S1,S2
- ▷ P2: RS-232/422/485, select by DIP SW S3,S4
- ▷ P3,P4: RS-232 only



| Pin | RS-232 | RS-422 | RS-485 | DIP SW S1/S3 | | | | | | |
|-----|--------|--------|--------|--------------|-----|-----|-----|-----|-----|-----|
| | | | | Type | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | DCD | Tx- | - | RS-232 | ON | OFF | OFF | ON | OFF | ON |
| 2 | DSR | - | - | RS-422 | OFF | ON | OFF | OFF | ON | OFF |
| 3 | Rx | Tx+ | - | RS-485 | OFF | ON | ON | OFF | ON | OFF |
| 4 | RTS | - | - | | | | | | | |
| 5 | Tx | Rx+ | Data+ | | | | | | | |
| 6 | CTS | - | - | | | | | | | |
| 7 | DTR | Rx- | Data- | | | | | | | |
| 8 | RI | - | - | | | | | | | |
| 9 | GND | GND | GND | RS-232 | OFF | ON | OFF | ON | OFF | ON |
| | | | | RS-422 | ON | OFF | ON | OFF | ON | OFF |
| | | | | RS-485 | ON | OFF | ON | OFF | ON | OFF |
| 10 | - | - | - | | | | | | | |

Serial Port Parameters

- ▷ Baud Rate: 50bps to 921.6 Kbps
- ▷ Parity: None, Even, Odd, Mark, Space
- ▷ Data Bits: 5,6,7,8 bits
- ▷ Stop Bit: 1, 1.5, 2 bits
- ▷ Flow Control: RTS/CTS, XON/XOFF, None
- ▷ Hardware auto-direction control for RS-485

Drivers

- ▷ Windows 2003/XP/2000/NT/98/95/ME
- ▷ Linux 2.4.12 and above

General

- ▷ Power consumption: 200mA@3.3VDC
- ▷ Dimension: 59 x 50 mm
- ▷ Operation Temperature/Humidity
- ▷ 0 to 55oC(32 to 131oF),5 to 95% RH
- ▷ CE Class A, FCC Class A