

Datasheet

DS-MPE-SER4OPT

Diamond Systems

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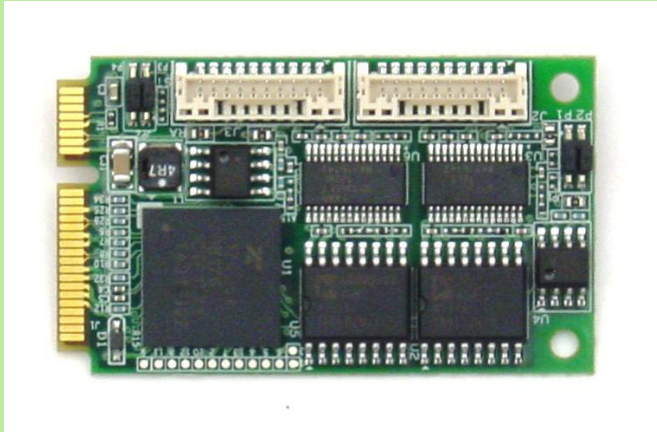
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DS-MPE-SER4OPT



PCIe MiniCard I/O Expansion Module with 4 Opto-Isolated Serial Ports



Description

The DS-MPE-SER4OPT is a rugged, low cost 4-port opto-isolated PCIe MiniCard serial module that is ideal for serial I/O expansion in embedded and OEM applications.

It offers four RS-232/485 serial ports in the PCIe MiniCard full size form factor with an extended operating temperature of -40°C to +85°C. Data rates on every port are up to 1Mbps in RS-232 mode, and 10Mbps in RS-485 mode. Models can be ordered with 4 RS-232 ports, 4 RS-485 ports, or 2 RS-232 and 2 RS-485 ports.

The DS-MPE-SER4OPT product comes with the 4-port PCIe MiniCard opto-isolated serial module, the CK-SER4M cable kit, and a hardware kit with jumpers and screws.

Rugged Design

Extended temperature capability (-40°C to +85°C) enables the board to operate in environments with extreme temperature swings, such as vehicles or outdoor installations.

In addition, the board may be custom-configured with 0-ohm resistors in place of jumpers for increased ruggedness in high-vibration environments.

- ◆ 4 opto-isolated RS-232/485 serial ports
- ◆ Available with 4 RS-232 ports, 2 RS-232 & 2 RS-485 ports, or 4 RS-485 ports
- ◆ Maximum baud rate: 1Mbps RS-232 mode
10Mbps RS-485 mode
- ◆ 256-byte TX/RX FIFO
- ◆ SP336 multi-mode transceivers support all modes
- ◆ +/-500V input/output isolation
- ◆ +3.3VDC input power
- ◆ Latching connectors for increased ruggedness
- ◆ Support for Windows 7, XP, Vista, 2000 and Linux 2.6.xx
- ◆ PCIe MiniCard full size form factor (50.95 x 30mm)
- ◆ Operating temperature of -40°C to +85°C

Specifications

| | |
|-------------------------------|--------------------------------------------------------------------|
| Number of serial ports | 4 |
| Protocols | RS-232/485 configured in pairs |
| Maximum baud rate | RS-232: 1Mbps RS-485: 10Mbps |
| Termination | RS-485 jumper selectable |
| UARTs | Quad XR17V354 with PCIe interface |
| FIFO | 256-byte TX/RX |
| Transceiver | SP336 multi-mode |
| ESD protection | +/-500V input/output isolation |
| Power input | +3.3VDC ±5% |
| Power consumption | 0.462W @ 3.3V |
| Software drivers | Windows 7, XP, Vista, 2000 Linux 2.6.12, 2.6.27, 2.6.31, 2.6.32 |
| Operating temperature | -40°C to +85°C |
| Operating humidity | 5% to 95% non-condensing |
| Form Factor | PCIe MiniCard full size |
| Dimensions | 50.95mm x 30mm (2" x 1.18") |
| Weight | 8.5g (0.3oz) |
| RoHS | Compliant |

Ordering Information

| | |
|-----------------------|------------------------------------------------------------------------|
| DS-MPE-OPT4232 | 4-port RS-232 PCIe MiniCard Opto-Isolated Serial Module |
| DS-MPE-OPT4485 | 4-port RS-485 PCIe MiniCard Opto-Isolated Serial Module |
| DS-MPE-OPT4M22 | 2-port RS-232, 2-port RS-485 PCIe MiniCard Opto-Isolated Serial Module |
| CK-SER4M | Cable Kit with two dual port serial cables |

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