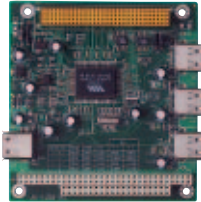


# TMM-USB4P / TMM-PCM2P / MERCATOR

## USB 2.0, PC CARD, DUAL ETHERNET PC/104-PLUS BOARDS



### TMM-USB4P

- 4 PCI-based USB 2.0 ports (480 Mbps)
- USB 1.1/USB 2.0 compatibility
- OHCI and EHCI host controller
- Plug-and-Play installation
- Windows XP, 2000, 98 support



### TMM-PCM2P

- 2 PCI-based Cardbus Slots
- Supports Type I, II, III PC Cards
- Meets PCMCIA v2.1 and JEIDA 4.2
- Supports 5V and 3.3V cards
- Supports 16-bit and 32-bit cards
- Supports hot swapping
- Uses TI 1420 controller



### Mercator

- 2 PCI-based 10/100Mbps Ethernet Ports
- NS DP83815 Mac+Phy chips
- Latching pin headers and RJ-45 jacks for flexibility
- 24 digital I/O using 82C55
- Operating temperature: -40 to +85°C

**TMM-USB4P** is a 4-port Universal Serial Bus (USB) 2.0 PC/104-Plus adapter for upgrading embedded computers to a higher performance USB interface. This card is intended for applications requiring high speed communications, such as video cameras or mass storage. It is 40 times faster than previous USB adapters and 20% faster than Firewire (IEEE-1394). The USB 2.0 ports can transfer data at 480Megabits per second each, making this board ideal for external storage, backup, networking and video applications.

The TMM-PCM2P provides two PC Card slots with a PCI bus interface. The PC Card slots work with Type I, Type II and Type III memory, I/O and ATA hard disk Cardbus compatible cards. The module fully complies with PCMCIA v. 2.1 and JEIDA 4.2, has 16-bit legacy mode support, and PCI way legacy mode support. Both 5v and 3.3V-only PC Cards are supported. 5V and 3.3V PC Cards may be combined in a system. 16-bit and 32-bit cards may be combined in a system. The TMM-PCM2P allows hot swapping of Cardbus modules. The PC/104 ISA bus connector is provided for pass-through to additional PC/104 boards mounted in the stack.

Mercator combines two PCI-based 10/100BaseT Ethernet ports with 24 user-configurable digital I/O lines on one board. This 2 in 1 combination of Ethernet and digital I/O can help lower the size and cost of your embedded system by eliminating one additional board from your PC/104 stack.

The Ethernet ports utilize the National Semiconductor DP83815 MAC + Phy PCI controller chip. Two I/O connectors are provided for each Ethernet port: A standard RJ-45 jack for convenience and a rugged friction-lock header for applications requiring vibration protection.

The 24 digital I/O lines are based on an 82C55 chip accessed via the ISA bus. They feature programmable direction in 4- and 8-bit groups. Jumper-configurable options include I/O address and 10K-Ohm pull-up resistors on the I/O lines.

### SPECIFICATIONS

Feature	TMM-USB4P	TMM-PCM2P	Mercator
# Ports / Slots	4 USB 2.0	2 PC Card Slots	2 10/100BaseT Ethernet
Configuration	Plug and Play	Plug and Play	Plug and Play
Bus Interface	PC/104-Plus (PCI with ISA pass through)		PC/104-Plus
Dimensions	3.55" x 3.775" (90mm x 96mm)		
Input Voltage	5VDC±10%	5VDC±10%	5VDC±10%
Operating Temp	0°C to +70°C	0°C to +70°C	-40°C to +85°C
Weight	2.5oz / 71g	2.1oz / 71g	3.0oz / 85g

### ORDERING INFORMATION

Part No.	Description
TMM-USB4P	PC/104+ USB 2.0 4 Port Module
TMM-PCM2P	PC/104+ PCMCIA 2 Card Module
MRC-224-XT	PC/104+ Dual 10/100Mbps Ethernet