

MPS1000 PRODUCT SHEET

Multi-Protocol Communications Server – Overview



FEATURES

Up to 16 High-Speed WAN Ports

Two 10/100 Base-T Ethernet Ports

Based on Dual Freescale MPC8255 PowerQUICC® II Processors

128 MB of Shared DRAM Memory

Multicast Support

SNMP Support

The MPS1000 is a family of WAN/LAN data communications servers that are attached to a local area network to provide wide-area connectivity. A single MPS1000 communications server can support a number of WAN protocols, each of which can be accessed simultaneously by multiple clients. The MPS1000 provides two 10/100 Ethernet ports and has options for 4, 8, or 16 high-speed WAN serial ports. This makes the MPS1000 an ideal and intelligent WAN/LAN bridge, a WAN/LAN gateway device, or a remote WAN connectivity server. By using the MPS1000 as an SNMP management device, any computer and/or workstation equipped with TCP/IP on the LAN can access information from the communications server.

The MPS1000 is designed to preserve the user's software investment by enabling applications to be moved to any of PT's WAN products. Its modular design supports virtually any serial communications protocol.

NexusWare® Software Support

With a well-defined application programming interface (API), PT's integrated protocol suite reduces time-to-market by eliminating unnecessary development time at the hardware/protocol level. The protocols for the standard WAN hardware products enable development engineers to proceed directly to integration and application development efforts.

PT's comprehensive suite of NexusWare® WAN communications protocols provides complete WAN connectivity solutions for Radar Receiver/SBSI, Frame Relay, HDLC, LAPD, and X.25 protocols. Operating system support includes Solaris™, Windows®, and Linux®.

Hardware Features

The MPS1000 is designed as a fully programmable communications system capable of sustaining high data rates for the variety of protocols used in synchronous communications.

The MPS1000 utilizes dual Freescale MPC8255 PowerQUICC® II communications micro-processors. One of the processors is configured as the master, while the other is configured as the slave. The default mode of operation uses the slave processor with its CPU core disabled, leaving the CPM active for serial communication.

Two external Ethernet PHYs are offered to provide Ethernet redundancy. The MPS1000 will automatically switch over to the secondary Ethernet PHY if a link is lost on the primary PHY.

The 16 port model of the MPS1000 supports up to 16 identical, individually program-mable, synchronous serial I/O ports while the 8 port model supports 8 ports. The ports are capable of electrically interfacing to V.35, RS-530, RS-449, and RS-232 equipment. Each port on the 8 and 16 port models is brought out in groups of four to an 80-pin connector that supports PT's quad-connection Hydra line of serial I/O cables.

The 4 port model of the MPS1000 supports four identical, individually programmable, synchronous serial I/O ports. The ports are capable of interfacing to EIA-530 (RS-422) and RS-232 equipment. Each port is brought out via a DB 25 pin connector.



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ORDERING INFORMATION

PT-MPS1000-12035

MPS1000 16-Channel Multi-Protocol WAN/LAN Communications Server

PT-MPS1000-12159

MPS1000 Eight-Channel Multi-Protocol WAN/LAN Communications Server; 8 port

PT-MPS1000-12386

MPS1000 Multi-Protocol WAN/LAN Communications Server; 4 port

Cable Options

(Hydra Cables Required for Eight and 16-Channel Models Only)

PT-ACC334-11918

4 x V.35 Hydra Cable, DTE w/Thumbscrews

PT-ACC334-11919

4 x RS232 Hydra Cable, DTE w/Jackscrews

PT-ACC334-12274

4 x RS232 Hydra Cable, DTE w/Thumbscrews

PT-ACC334-11969

4 x EIA530 Hydra Cable, DTE w/Jackscrews

PT-ACC334-12273

4 x EIA530 Hydra Cable, DTE w/Thumbscrews

PT-ACC334-11920

4 x RS449 Hydra Cable (Socket) Sun™ Substitute, DTE w/Jackscrews

PT-ACC334-11921

4 x RS449 Hydra Cable (Pin), DTE w/Jackscrews

PT-ACC358-11971

4 x V.35 Hydra Cable, DCE w/Thumbscrews

PT-ACC358-12275

RS232 Debug Cable (console)

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With either rack-mountable or freestanding configurations, the MPS1000 provides the power to handle full-load network traffic and communicates via TCP/IP with clients on the LAN.

Multi-Protocol Networking Capabilities

With the multi-protocol architecture of the MPS, both standard and custom protocols supplied by PT can coexist on the same server with client-developed protocols. A single MPS server provides the unique combination of WAN and LAN protocols needed to provide an integrated networking solution.

Technical Specifications

Configuration

- Up to 16 WAN ports – up to 2 Mbps bi-directional, simultaneously
- Two LAN ports @ 10/100 Mbps

Processor

- **16-Channel:** Two 233 MHz Freescale MPC8255 PowerQUICC® II processors
- **Eight-Channel:** 233 MHz Freescale MPC8255 PowerQUICC II processors
- **Four-Channel:** 233 MHz Freescale MPC8255 PowerQUICC II processors

Memory

- **16-Channel:**
 - Two x 128 MB shared DRAM
 - Two x 32 MB application flash PROM
 - Two x 512 KB boot PROM
- **Eight and Four-Channel:**
 - 128 MB shared DRAM
 - 32 MB application flash PROM
 - 512 KB boot PROM

Physical Interface

- **16-Channel and Eight-Channel**
 - WAN ports
 - DB25: RS-232/EIA530
 - DB37: RS-449
 - M34: V.35
 - LAN port
 - RJ45
- **Four-Channel**
 - WAN ports
 - 4 x DB25
 - LAN port
 - RJ45

Electrical Interfaces

- WAN: V.35, RS-422, and RS-232 (via external adapter)
- LAN: 10/100 Base-T Ethernet

SNMP Support

- SNMP (Basic MIB II) support which allows MIB browser or SNMP management of the server

Certifications

- FCC Class A
- CE
- UL

MTBF

- **16-Channel:** 272,253 hours per Bellcore SR-332, Issue 2
- **Eight-Channel:** 272,453 hours per Bellcore SR-332, Issue 2
- **Four-Channel:** 217,784 hours per Bellcore SR-332, Issue 2

Power Requirements

- 2 A @ 115 V
- 0.9 A @ 230 V

Physical Dimensions

- 432 mm (W) x 280 mm (D) x 44.5 mm (H)
(17.0 in. x 11.02 in. x 1.75 in.)

Weight

- Packaged: 8.35 kg (18.4 lb)
- Unpackaged: 5.44 kg (12 lb)

Enclosure

- 19-in. rackmount or tabletop

Temperature

- Operating: 0 to 50°C (32 to 122°F)
- Storage: -40 to 70°C (-40 to 158°F)

*NOTE: V.35 only supported on Eight-Channel and 16-Channel models