

IPnexus® CPC358 PRODUCT SHEET

Eight-Port WAN Communications Adapter

FEATURES

Multi-purpose Intelligent Sub-System Communications for 6U CompactPCI® Systems

Eight Fully Programmable High Speed Channels

Supports Standard PCI Bus and PICMG® 2.16

128MB of Shared DRAM Memory

Motorola MPC8255 PowerQUICC II™ Processor

Fully Programmable to Support V.35, RS-530, RS-449, RS-422, and RS-232

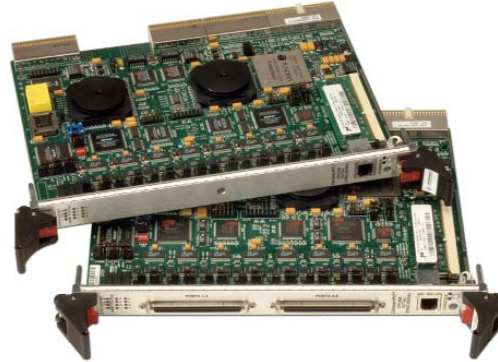
NexusWare WAN Protocol Software:

- Radar Receiver
- Tadi B
- HDLC
- X.25
- Frame Relay

Broad Operating System Support includes Solaris™, Windows®, and Linux®

Front and Rear Panel I/O Options

Hot-Swap Support



Part of our IPnexus® portfolio of products, the CPC358 is an eight-port serial communications processor designed to operate in either CompactPCI® systems as a peripheral or in a PICMG® 2.16 chassis as a stand-alone communications system. It provides OEMs, integrators, and end users with a high performance platform for use in server farms or datacom/telecom applications.

Featuring the Motorola MPC8255 PowerQUICC II™ processor running at 233MHz, the CPC358 can independently process protocols such as X.25, Frame Relay, LAPD, and Radar Receiver in an Internet/WAN environment.

The CPC358 supports either front or rear panel I/O and hot-swap (PICMG 2.1) and SMB/IPMI (PICMG 2.9) standards.

Hardware Features

The CPC358 is designed as a fully programmable and independent communications sub-system capable of sustaining high data rates for a variety of protocols used in synchronous communications.

The CPC358 uses the Motorola MPC8255 PowerQUICC II communications

microprocessor running at 233MHz. One of the processors is configured as the Master and 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.

Specifically designed for use in a PICMG 2.16 environment (or a PCI-based chassis), two independent MAC/PHYs are offered to provide Ethernet redundancy in a 2.16 node slot. The CPC358 will automatically switch over to the secondary Ethernet MAC/PHY if link is lost on the primary MAC/PHY or the primary fabric fails. The CPC358 supports mid-plane Ethernet wiring, allowing for the cable-free interconnect between the CPC358 and other CompactPCI-based Ethernet components such as our embedded Ethernet switches. Optionally, the two Ethernet ports can be brought out to the RTM when PICMG 2.16 is not used.

The CPC358 supports eight identical, individually programmable, synchronous/serial I/O ports. The ports are capable of electrically interfacing to V.35, RS-530, RS-449, RS-422, and RS-232 equipment. Each port 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.



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NexusWare[®] Software Support

NexusWare[®] is a family of Linux[®] software products that enable users of PT's broad range of COTS embedded hardware solutions to rapidly develop and deploy value-added capabilities with their solutions. This powerful combination of software and hardware enables system engineers, architects, and designers in telecommunications as well as aerospace and defense markets to create applications and bring to market solutions such as LTE, WiMAX, media gateways, managed WAN gateways, VoIP, lawful intercept, signaling gateways, and base station controllers.

The NexusWare family of products includes:

NexusWare Core: At the very center of the NexusWare Software Suite is NexusWare Core. NexusWare Core is a complete Carrier Grade Linux (CGL) distribution. In addition to being a Linux distribution, NexusWare Core also provides a complete set of development tools.

NexusWare SIP: NexusWare SIP is a Session Initiation Protocol (SIP) stack and API software package included with NexusWare Core that provides a powerful foundation for application developers for building SIP proxy servers, SIP location servers, SIP registrar servers, and SIP media gateways for wireless and IP telephony systems.

NexusWare WAN: NexusWare WAN protocols provides a wide range of WAN protocols which allows OEMs and System Integrators to create flexible and efficient radar gateways, converged serial gateways, and front-end I/O systems. NexusWare WAN software products are offered both as installable software packages for NexusWare Core and as turn-key packages for those developers interested in the protocol package by itself. Whether the installable or the turn-key solution is chosen, developers will be provided with a well-documented and powerful API to assist the development process.

NexusWare C7: NexusWare C7 is a comprehensive SS7 MTP-2 installable software package that provides a powerful foundation for building SS7 applications for wireless and IP telephony systems. NexusWare C7 provides extensive system scalability. The distributed processing architecture of NexusWare C7 allows the addition of SS7 links into existing equipment without compromising overall host system performance.

Eight-Port WAN Communications Adapter

Technical Specifications

Performance

- Eight Ports @ 2 Mbps bi-directional, simultaneously.

Processors

- 233 MHz Motorola MPC8255 PowerQUICC II™ processor

Memory

- 128MB shared DRAM
- 32MB Application Flash

Bus Structure

- CompactPCI® 2.0, revision 3.0-compliant, including all PCI required configuration registers and protocols

Physical Interface

- V.35
- RS-530
- RS-449
- RS-422
- RS-232

Modem Control

- CTS
- DSR
- DTR
- DCD
- RTS (also RI, LT for V.35)

Protocol Support

- HDLC
- Frame Relay
- LAPD
- X.25
- TADIL-B
- Radar Receiver

Compliance

- All currently applicable ANSI/ISO standards

Specification Compliance

- PCI local bus specification, revision 2.2, including all PCI required configuration registers and protocols
- PICMG® 2.1 hot-swap
- PICMG 2.16 CompactPCI packet switching backplane
- PICMG 2.9 system management bus (SMB/IPMI)

Agency Certifications

- FCC Class A
- CE
- UL 1950
- NEBS Level 3-friendly

MTBF

- > 116,788 Hrs per

Power

- 21.8W maximum (preliminary calculations):
 - 5.8 A @ +3.3 V
 - 0.5 A @ +5 V
 - < 10 mA @ +12 V
 - < 10 mA @ +-12 V

Dimensions

- 6U Eurocard form factor

Temperature

- Operating: 0° to 50°C (32° to 122°F)
- Non-operating: -20° to 80°C (-4° to 176°F)

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ORDERING INFORMATION

Software Options

PT-NXSWARE-11359

NexusWare[®] Linux[®] Software

PT-HDLCKIT-11490

HDLC Development Kit

PT-FRAMKIT-11661

Frame Relay Development Kit

PT-X25KIT-11612

X.25 Development Kit

PT-ASYNKIT-11702

Async Development Kit

PT-RADKIT-11705

Radar Receiver Development Kit

PT-TADKIT-11893

TADIL-B Development Kit

This product is available with a variety of software options. For more information visit www.pt.com or call your local representative.

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