

IPnexus® CPC308A PRODUCT SHEET

Eight Port T1/E1/J1 TDM/IP Edge Processor

FEATURES

PICMG® 2.16 or Standard PCI™
Bus Operation

Eight Fully-Channelized T1/E1/J1
Spans (256 Software
Programmable Channels)

Stratum 3 Clocking

Onboard Nine-Port Gigabit
Switch

1 GHz PowerQUICC® III
Processor

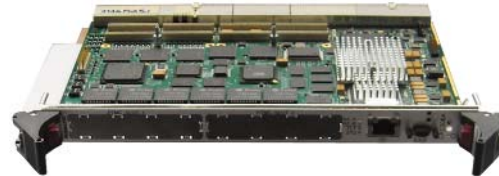
NexusWare® Core CGL
Distribution and Development
Tools

NexusWare WAN Protocol
Software:
• HDLC
• X.25
• Frame Relay

NexusWare SIP
Session Initiation Protocol
(SIP) Stack and API

NexusWare C7 SS7 MTP-2

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



Part of our IPnexus® portfolio of products, the CPC308A is a powerful and flexible access controller that is designed to meet the multifaceted demands of today's market, while also providing backwards compatibility for exiting systems wishing to increase performance and extend product life. Scalable DSP/CPU processing via the PCI Telecom Mezzanine Card (PTMC) sites combined with onboard TDM/IP switches and Stratum 3 clocking capability makes the CPC308A an ideal platform for developers of telephony systems.

Featuring eight fully-programmable T1/E1/J1 interfaces, the CPC308A offers a comprehensive design that supports voice, data, signaling, and monitoring applications all via a single architecture.

The CPC308A is optimized to handle voice circuits for protocol processing or for transfer between the H.110 bus, PCI bus, Ethernet, or onboard PTMC sites. The two PTMC sites provide the ability to connect two single or one dual PTMC module. The PTMC interfaces support 32-bit PCI, H.110

style TDM, and 10/100/1000 Mb Ethernet. Application examples include wireless infrastructure equipment, media and signaling gateways, IP media equipment, telecom switching and routing equipment, and SS7 network elements. The CPC308A offers true TDM/IP bridging capability in addition to supporting full H.110 and PICMG 2.16 backplanes, framers for external connections, and full gigabit IP interconnect between major components.

Hardware Features

The CPC308A uses a 1 GHz PowerQUICC® III processor with L1/L2 cache. Support for up to 256 HDLC channels is also provided by the CPC308A

The CPC308A fully complies with the latest PICMG hot-swap specifications, and its fully passive RTMs also improve reliability. By incorporating the H.110 interface device, the CPC308A can send/receive any of its possible time slots to the J4 connector.

Additional features include Stratum 3 clocking ability, support for 256 CAS connections, 512 MB of DRAM, and 128 MB application flash, which allows the CPC308A to execute protocols and WAN applications directly onboard.



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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, radar servers, signaling gateways, and base station controllers.

The NexusWare family of products supported on the AMC328 include:

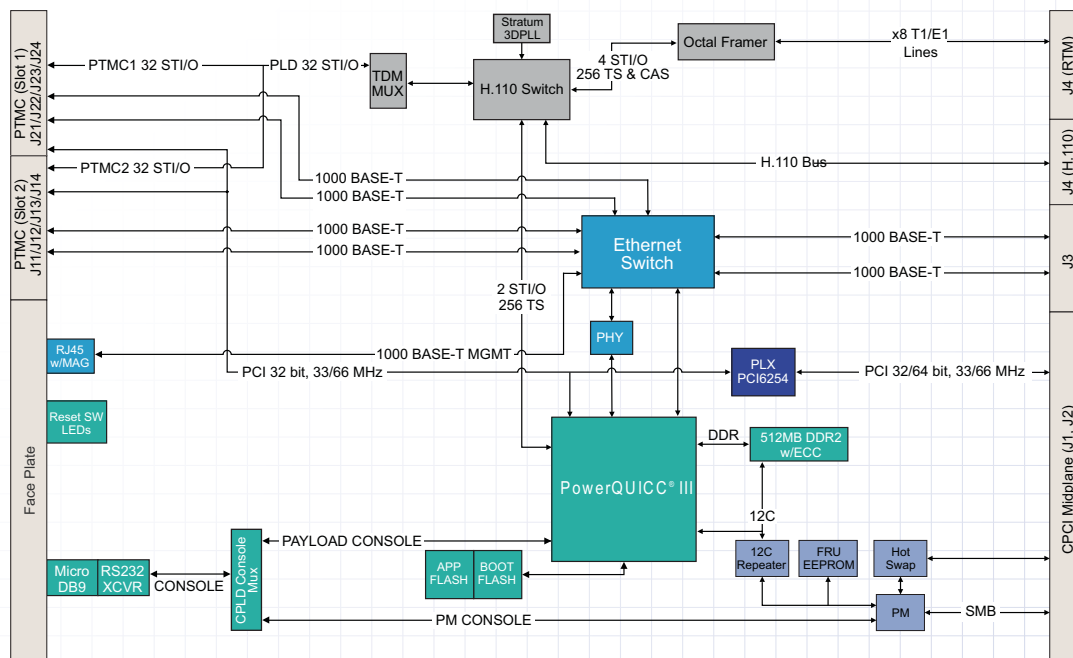
NexusWare Core: At the very center of the NexusWare Software Suite is NexusWare Core. NexusWare Core is a complete Carrier Grade Linux (CGL) distribution. In addition to being a Linux distribution, NexusWare Core also provides a complete set of development tools.

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.



CPC308A – Block Diagram

Eight Port T1/E1/J1 TDM/IP Edge Processor

Technical Specifications

Interface

- 8 T1 Ports @ 1.544 Mbps
- 8 E1 Ports @ 2.048 Mbps
- 8 J1 Ports @ 1.544 Mbps
- Three 10/100/1000 Mb Ethernet ports

Framing Standards

- AMI/B8ZS
- D-4, ESF
- DS-1, PRI

Processor/Memory

- 1 GHz PowerQUICC® III
- 512 MB dedicated DDR SDRAM
- 32 KB/32 KB instruction/data L1 cache
- 512 KB L2 cache and/or high speed packet/code store
- 128 MB Boot Flash
- 128 MB Application Flash

Specification Compliance

- PCI Local Bus specification revision 2.2
- PICMG® 2.0 R 3.0 CompactPCI® core specification
- PICMG 2.1 R2.0 hot-swap specification
- PICMG 2.5 R1.0 CompactPCI computer telephony specification
- PICMG 2.9 R1.0 CompactPCI system management specification
- PICMG 2.15 R1.0: ECN 2.15 PCI telecom mezzanine/carrier card specification
- PICMG 2.16 R1.0 CompactPCI packet-switched backplane
- VITA 32-199x processor PMC standard draft 0.41-compatible

Physical Interface

- T1/E1/J1: Eight T1/E1/J1 port connections via eight RJ48C connections on RTM
- Ethernet: Two RJ-45 connectors on RTM, one RJ-45 on front panel
- Console: One nine-pin subminiature on front panel

Protocol Support

- MTP2 Link Layer
- Transparent (Voice Stream)
- HDLC
 - LAPD (Q.921), LAPB, LAPF
- X.25
- Frame Relay
- ATM (AAL0, AAL1, AAL2, AAL5)

Power

- Typical 26W
- Maximum 34W

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)

Agency Certifications (Pending)

- FCC Part 15, Subpart B for Class A
- CE
- UL 60950 / EN 60950
- ETSI EN 300 386
- Designed to meet the requirements of NEBS Level 3

IPnexus[®] CPC308A PRODUCT SHEET

Eight Port T1/E1/J1 TDM/IP Edge Processor

ORDERING INFORMATION

PT-CPC308A-12428

8-port T1/E1/J1 Advanced Subsystem

PT-RTM308A-12396

8-port RTM

Cable Options

PT-ACC324-11977

Console Cable

Software Options

PT's NexusWare[®] suite of software provides a comprehensive Carrier Grade Linux[®] (CGL) OS and development environment as well as middleware and protocol communications software.

For more information visit www.pt.com or call your local representative.

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