Intelligent Synchronous WAN Communications Module

FEATURES

Multipurpose Intelligent WAN Communications Module for AdvancedTCA® and MicroTCA® Systems

Mid-Size, Single AMC Module

Full Compliance with AMC Specifications

Four High-Speed Channels Capable of Sustaining 2 Mbps per Port

Freescale™ MPC8270 PowerQUICC II® Processor

128 MB Dedicated Processor SDRAM Memory
- Handles Extensive Onboard Traffic and Protocol Requirements

32 MB Application Flash

NexusWare® WAN Protocol Software:
- Radar Receiver
- TADIL-B
- HDLC
- X.25
- Frame Relay
- ASYNC

NexusWare CGL OS and Development Environment

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

The use of AdvancedTCA and MicroTCA systems for the aerospace and defense markets, as well as for telecom OEMs, will require high-density, highly advanced I/O solutions for use in these new environments. As a long-time contributor to industry standards and emerging technologies, PT provides a combination of powerful hardware and advanced software that enables its customers to fully leverage AdvancedTCA and MicroTCA capabilities for the creation of high-density, high-performance solutions.

The AMC335 Intelligent Synchronous WAN Communications module provides four high-performance synchronous/serial channels for WAN connectivity. This module is ideally suited for use in creating flexible and efficient radar gateways, radar recorders, protocol convertors, serial gateways, and front-end I/O elements as well as many other high speed communications devices that require RS232, RS422 (RS449/EIA530), and V.35 connectivity. The AMC335 is part of PT's industry-leading family of AMC solutions that include compute, storage, and video supported by powerful enabling software for embedded applications.

Hardware Features

The AMC335 is designed as a fully programmable communications subsystem that is capable of sustaining high data rates for a variety of protocols that are used in synchronous data communications. The architecture of the AMC335 capitalizes on the intelligence of the Freescale MPC8270 Quad Integrated Communications Controller (PowerQUICC II), which enable it to act as a specialized communications controller.

The AMC335 enhances overall system performance by using its onboard intelligence and 128 MB SDRAM array. The AMC335 is capable of handling much of the low-level communications that typically burden the host processor, and relegates most of the serial I/O communication-related processing to the AMC335. In addition, the SDRAM eliminates the start-up delays associated with application download wait times by enabling the code to be executed directly onboard. The AMC335 allows the use of PCI Express® or Ethernet for interconnecting to other subsystems that will be used in the AdvancedTCA or MicroTCA-based solution.

Three models of the AMC335 are available to support RS232, RS422, and V.35 standards. All four ports of connectivity are accessible through the high-density, dual-stacked VHDCI connector on the front panel of the AMC335. Optional hydra cables allow the choice of RS232, RS449, EIA530, or V.35 connections depending on the model of AMC335.

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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 AMC335 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.
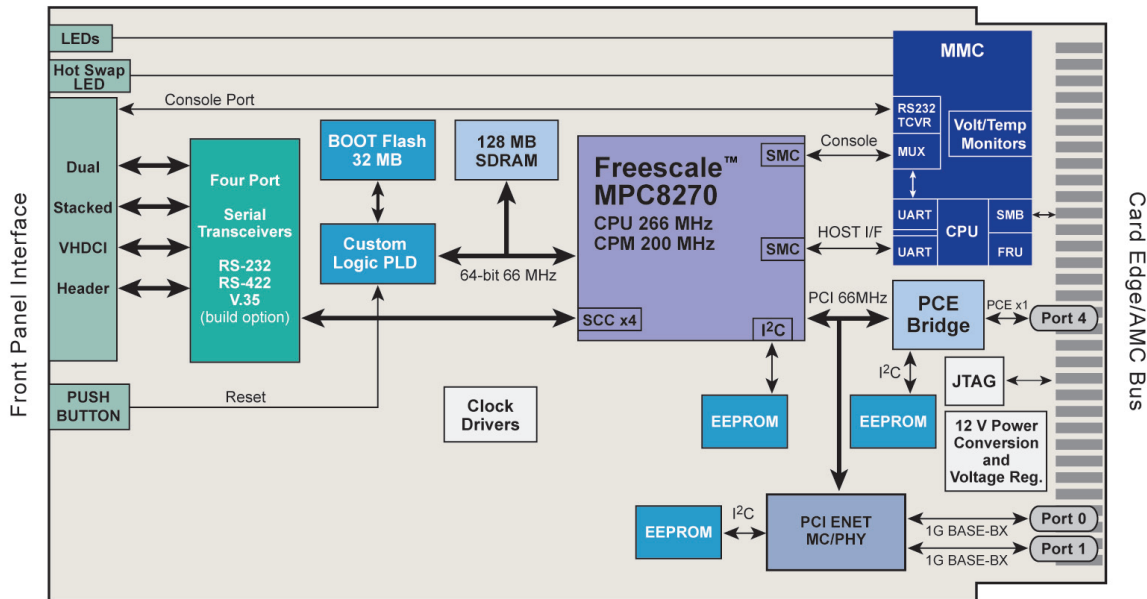
NexusWare SIP: NexusWare SIP is a Session Initiation Protocol (SIP) stack and API software package included with NexusWare Core that provides a powerful foundation for application developers for building SIP proxy servers, SIP location servers, SIP registrar servers, and SIP media gateways for wireless 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 turnkey 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.

AMC335 — Mid-Size, Single WAN Communications Module

Performance
- Four ports at 2 Mbps bi-directional
- Simultaneously sustained 8 Mbps maximum line speed

Processor
- 266 MHz Freescale™ MPC8270 Freescale PowerQUICC II

Memory
- 128 MB SDRAM
- 32 MB Application Flash

Protocol Support
- Radar Receiver/SBSI, HDLC, Frame Relay, LAPD, X.25, ASYNC

Agency Certifications
- FCC Class A
- CE (EN55022 and EN55024)
- ETSI EN 300 386 immunity
- UL60950
- EN 60950-1

Physical Interface
- RS449
- EIA530
- RS23
- V.35

AdvancedMC Connector Ports
- AMC.0 Compliant
- Port 0: 1 Gb Ethernet Channel 1 (AMC.2)
- Port 1: 1 Gb Ethernet Channel 2 (AMC.2)
- Port 4: x1 PCI Express (AMC.1)

MTBF
- 383,371 hours per Bellcore SR-332 Issue 2

Power (Estimated)
- Payload Power: 12 V
- Management Power: 3.3 V
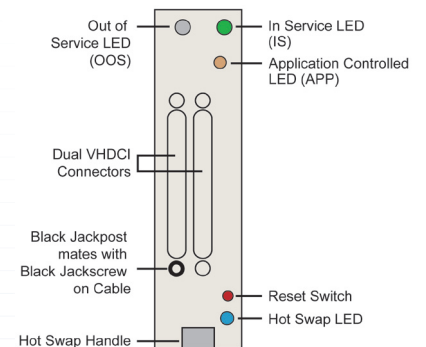- Typical: 10.2 W
- Maximum: 12.6 W

Mechanical
- Mid-size, single AMC.0 form factor
- Dimensions: 180.6 mm x 73.5 mm (7.1 in. x 2.9 in.)
- Weight: 0.11 kg (0.25 lb)

Environmental
- Operating: 0 to 60°C (32 to 140°F)
- Non-operating: -20 to 80°C (-4 to 176°F)
- Humidity: 5 to 90% RH non-condensing

Front Panel Interfaces
- Dual VHDCI connector carrying four independent Serial I/O ports
- LEDs
  - In Service (IS)
  - Out of Service (OOS)
  - Application (APP)
  - Hot Swap
- Reset Switch
- Insert/Extraction Handle

ORDERING INFORMATION

Cable Options

PT-AMC335-12258
Four-Port RS422 AMC Module

PT-AMC335-12287
Four-Port V.35 AMC Module

PT-AMC335-12289
Four-Port RS232 AMC Module

PT-ACC335-12205
Four-position, 6 ft Hydra Cable without Console, RS449

PT-ACC335-12203
Four-position, 6 ft Hydra Cable with Console, RS449

PT-ACC335-12233
Four-position, 6 ft Hydra Cable without Console, RS232

PT-ACC335-12234
Four-position, 6 ft Hydra Cable with Console, RS232

PT-ACC335-12256
Four-position, 6 ft Hydra Cable without Console, EIA530

PT-ACC335-12257
Four-position, 6 ft Hydra Cable with Console, EIA530

PT-ACC335-12290
Four-position, 6 ft Hydra Cable without Console, V.35

PT-ACC335-12291
Four-position, 6 ft Hydra Cable with Console, V.35

CONTACT US

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