



Highlights

- >> Freescale™ Dual-Core 1 GHz MPC8641D PowerPC® Processor
- >> Mid-Size, Single Compute Module
- >> High-Performance Computing Solution for AdvancedTCA® and MicroTCA™ Systems
- >> MiniSD™ Site for Onboard Program and OS Storage
- >> 1 MB L2 On-Chip Cache
- >> 32-Bit Memory Addressability, Dual Channel, 2 GB PC2-3200 DDR2 SDRAM with ECC
- >> Four 1 Gb Ethernet Interfaces
- >> Full Compliance with AMC.0 R2.0, AMC.1 R1.0, AMC.2 R1.0 Specifications
- >> Supports Both 32- and 64-Bit Operating Systems:
 - NexusWare® CGL OS and Development Environment
 - Linux®

The AMC131 is a 32-bit AdvancedMC™ (AMC) compute module that features the Freescale™ MPC8641D dual-core 1 GHz PowerPC® processor and is designed for high-performance embedded applications. The AMC131 provides equipment manufacturers with the ability to extend and tailor the performance of their AdvancedTCA® and MicroTCA™ systems to meet the increasing need for cost-effective and modular processing capabilities.

The Freescale MPC8641D processor provides a highly scalable PowerPC architecture that delivers next-generation performance. Its multi-core architecture offers advanced processing speed while addressing the power and heat constraints of the AMC form factor. Designed to run Linux®-based applications, the AMC131 is the ideal processor for the high-end packet processing or multi-threaded software applications found in IMS, wireless, softswitch, defense, or other compute-intensive applications.

Hardware Features

The AMC131 is built around a dual-core 1 GHz MPC8641D PowerPC processor. This device offers a highly cost-effective, network-optimized approach to performing packet processing and general computing tasks. The AMC interfaces include eight lanes of PCI-Express® and dual 1 Gb Ethernet ports.

The AMC131 can be configured with up to 2 GB of DRAM and 128 MB of boot Flash so it can operate as an independent processing element, and it features a miniSD™ card for global storage. It features a real-time clock (RTC) with battery back-up, an optional USB interface, and mid-size face plate.

Flexible I/O and Super Computer Performance

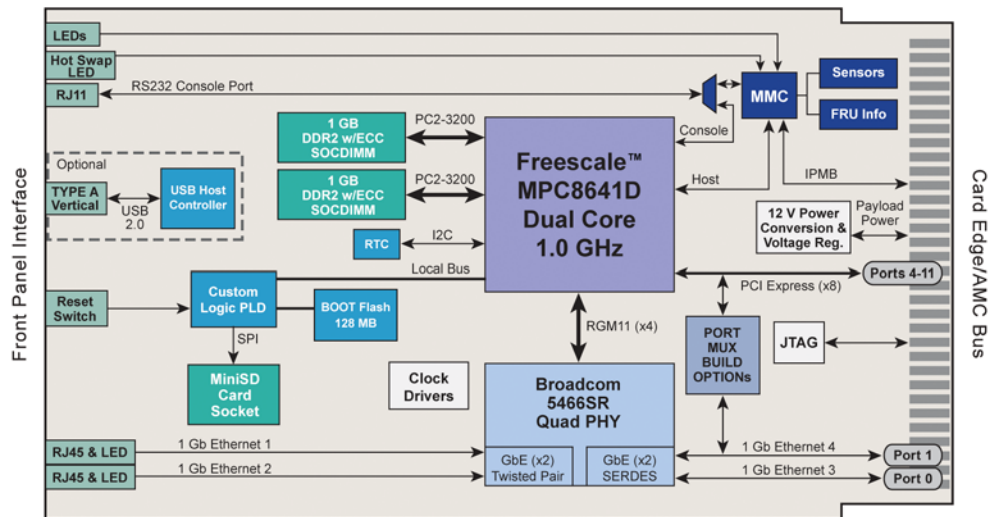
The AMC131 is designed for use in AdvancedTCA carriers or in a MicroTCA chassis, and allows system designers to build NEBS-compliant, highly reliable solutions that combine state-of-the-art management with the highest performance power and cooling.

NexusWare® Software Support

The AMC131 supports Linux operating systems. In addition, it is supported by Performance Technologies' NexusWare® software development environment. NexusWare is an integrated, CGL Registered, and POSIX-compliant Linux operating system and development environment that features a graphically integrated toolset.

Ordering Information

- >> **PT-AMC131-12115**
Dual-Core, PPC, 32-bit,
1.0 GHz, 2 GB DDR



AMC131 – Mid-Size Single Compute Module

Processor

- Freescale Dual-core 1.0 GHz MPC8641D PowerPC processor
- 32 KB L1 instruction and data caches
- 1 MB L2 on-chip cache

Memory

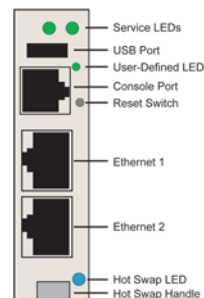
- 2 GB ECC DDR2 SDRAM w/ECC
 - Dual PC2-3200 Interfaces

Storage

- Onboard MiniSD card site with program and operating system storage space enables the module to boot without an external connection
- Shared 128 MB Boot Flash

Front Panel Interfaces

- 2 x 10/100/1000 Base-T Ethernet
- RJ11 RS232 console port
- Optional USB
- LEDs
 - In-Service
 - Out-of-Service
 - Hot-Swap
 - User Defined LED
- Reset Switch



AdvancedMC Connector Ports

- Port 0: 1 Gb Ethernet (AMC.2)
- Port 1: 1 Gb Ethernet (AMC.2)
- Ports 4-11: x8 PCI Express Lanes (AMC.1)
 - x1, x2, x4, or x8
- Port 8: Optional 1 Gb Ethernet

Power Consumption

- Payload Power: +12 V
- Management Power: +3.3 V
- Typical: 35 W
- Maximum: 40 W

Mechanical

- Mid-size, single AMC.0 form factor
- Dimensions: 73.5 mm (W) x 180.6 mm (D) x 18.96 mm (H) (2.9 in. x 7.1 in. x 0.75 in.)
- Weight: 0.298 kg (0.66 lb)

Environmental

- Operating: 0 to 55°C (32 to 131°F)
- Non-operating: -20 to 80°C (-4 to 176°F)
- Humidity: 5 to 90% RH non-condensing

Agency Certifications (Pending)

- FCC Class A
- CE
- UL 60950
- EN 60950
- EN 300 386
- Designed to meet NEBS Level 3 and ETSI installations

MTBF

- 263,505 hours per Bellcore SR-332 Issue 1



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