PrAMC-7210/7211

Advanced Mezzanine Cards

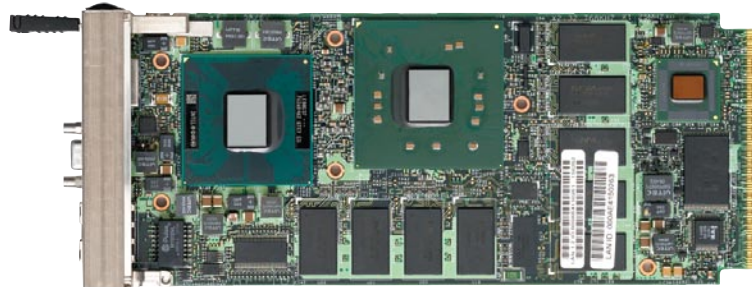■ **Embedded Computing for Business-Critical Continuity™**

The AdvancedMC™ solution for applications requiring high availability, scalability, manageability, and low cost

- Intel® Core™ 2 Duo processor core with 4MB L2 cache, running at 1.5 GHz

- 667 MHz frontside bus, connecting processor and Intel® 3100 chipset

- 2GB (possible up to 4GB) DDR-400 memory with ECC support

- MontaVista CGE or Wind River PNE Linux operating environment combined with Basic Blade Services compliant to the Service Availability Forum™ (SA Forum) hardware platform interface (HPI) layer

- AMC front panel support for USB 2.0, Intel® 82551 based 10/100 Fast Ethernet, and serial console port

- 2MB of BIOS flash with boot failover support

- Offered in both Mid-size (7211) and Full-size (7210) AMC variants

- AMC.1 PCI Express: One x8 PCI Express link routed to AMC fabric ports 4-11 supporting auto-negotiation to lower lane-widths, and port bifurcation

- AMC.2 Gigabit Ethernet: Two SerDes links on AMC fabric port 0 & 1 respectively

- AMC.3 SATA: Two SATA links on AMC fabric port 2 & 3 respectively

- JTAG support for debugging

The Emerson Network Power PrAMC-7210 is designed to the AdvancedMC™ (AMC) specifications, making it usable in both AdvancedTCA® carriers as well as MicroTCA™ based applications. The PrAMC-7210 is a perfect fit for applications looking for control plane processing, and other processor intensive applications that needs not only faster data transfers based on Gigabit Ethernet or PCI Express interfaces, but also multi-core processing performance.

The PrAMC-7210 can scale up to 1.5 GHz CPU speeds with memory sizes from 2GB to 4GB (2GB standard), allowing the software reuse for application developers. The Intel 3100 chipset supports integrated north and south bridges, 4-channel DMA engine, DDR2-400 memory, USB, UART, SATA and PCI Express controllers. This reduces both the on-board real estate as well as power consumption. This leaves room for additional features like USB, additional memory, etc. PrAMC-7210 can augment already deployed systems with more processing power required to support new feature development, and easy migration path based on standard interfaces like PCI Express and Gigabit Ethernet.
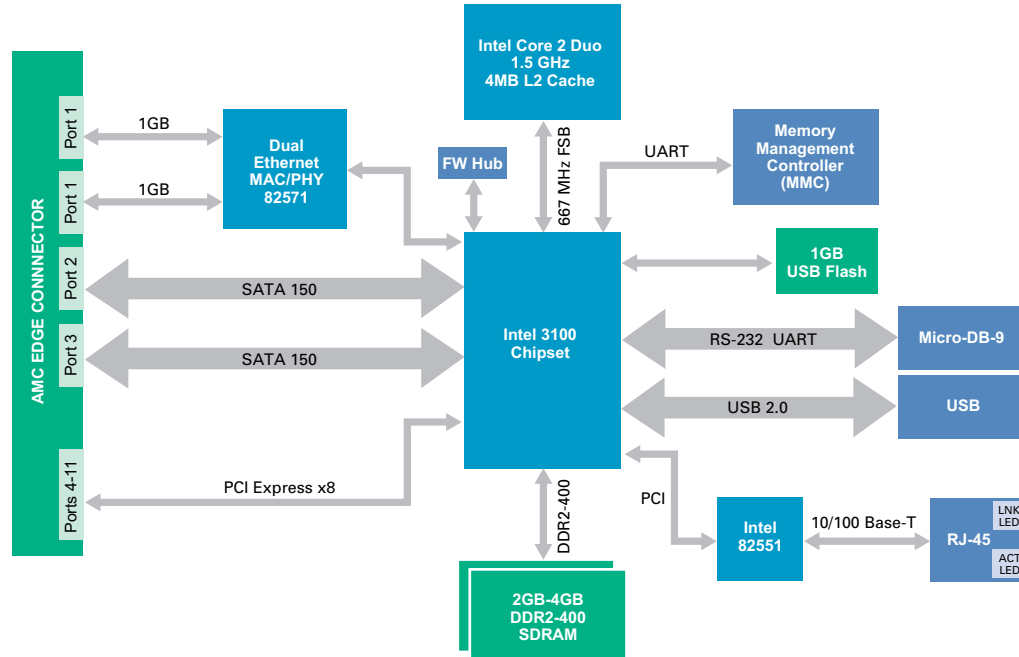
The module management controller (MMC) implementing IPMIv1.5 based management and hot-swap feature allows for module replacement or field upgrades, reducing the system down time to almost zero. Carrier Grade Linux brings forth the high availability features required for telecom applications.

EMERSON™
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PrAMC-7210 Block Diagram

Intel Core 2 Duo
1.5 GHz
4MB L2 Cache

AMC EDGE CONNNECTOR

Port 1 — 1GB — Dual Ethernet MAC/PHY 82571
Port 1 — 1GB

FW Hub

667 MHz FSB

UART — Memory Management Controller (MMC)

Port 2 — SATA 150
Port 3 — SATA 150

Intel 3100 Chipset

1GB USB Flash

RS-232 UART — Micro-DB-9

USB 2.0 — USB

Ports 4-11 — PCI Express x8

DDR2-400

PCI — Intel 82551 — 10/100 Base-T — RJ-45 (LNK LED, ACT LED)

2GB-4GB DDR2-400 SDRAM

Specifications

BOARD SPECIFICATIONS

- Available as both Full-size (PrAMC-7210) and Mid-size (PrAMC-7211) AMC
- Compliant to AMC.0 specification

SOFTWARE

- Linux:
  - ▲ MontaVista CGE 4.0
  - ▲ Wind River GPP/LE, PNE/LE
- Basic Blade Services

SOLUTION SERVICES

Emerson Network Power provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh. Plus solution extras include enhanced warranty and repairs.

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