



ARTM-200FG

Fibre Channel/Gigabit Ethernet Intelligent AdvancedTCA Rear Transition Module

Features

Interface Support

- Dual 4 Gb/s Fibre Channel interfaces with fiber SFP transceivers
 - Support via x4 PCI Express (PCI-E) lanes
 - Emulex Zephyr controller
 - Auto negotiate down to 2 Gb/s and 1 Gb/s
- Seven Gigabit Ethernet interfaces
 - Four 10/100/1000BaseT ports via two x4 PCI-E lanes; RJ45 connectors
 - Two ports via 2 SERDES; ports may be 10/100/1000BaseT, 1000BaseLX or 1000Base SX; SFP transceivers
 - One 10/100/1000BaseT management link; RJ45 connector
- One x4 PCI-E cable port
- JTAG support and EJTAG interface support for software debug tools

Compliance/Form Factor

- PICMG 3.0 form factor
- IEEE 802.3ab
- HPM.1 compliant
- PICMG AMC.0
- Designed ARTM Zone 3 pinout specification (also used by Sun Netra blades)
- Designed for NEBS compliance
- RoHS 6/6

Software Support

- Boot over LAN (PXE)
- Boot over LAN (netboot for SPARC)
- Support for Solaris and Wind River Linux
- Software drivers for Emulex Fibre Channel controller

Product Reliability

- High Mean Time Between Failure (MTBF)

The ARTM-200FG intelligent AdvancedTCA Rear Transition Module (ARTM) expands the I/O capabilities of AdvancedTCA (ATCA) processor blades adhering to the Sun Zone 3 signaling specification. This intelligent ARTM does much more than simply extend a port; it expands the processor blade by adding Fibre Channel Host Bus Adapter and Gigabit Ethernet (GbE) Network Interface Card functionality.

Real estate for mezzanine card sites is very limited on next generation ATCA processor blades; consequently, simply adding I/O functionality via AdvancedMCs may not be an option. Intelligent ARTMs offer a powerful, flexible solution. Using the Zone 3 connector to provide expanded I/O capacity through the rear of the ATCA blade, system designers can tailor the I/O capabilities of their processor blades to more specifically match the application to be supported. They can configure I/O cabling once, and swap processor blades in and out independently.

ARTM-200FG provides multiple GbE links, two 4 Gb/s Fibre Channel fiber ports with Small Form Factor Pluggables (SFPs), a GbE management port, a x4 PCI-E cable port, and an onboard management subsystem.

Intelligent Platform Management Interface (IPMI) & Hot Swap Compliance

An ARTM Module Management Controller (MMC) subsystem that is IPMI v2.0 compliant initializes board level parameters, monitors board voltage and temperature conditions, maintains system status, and manages hot swap operation. A microcontroller is used as the IPMI intelligence and connects to the AMC management bus. The ARTM-200FG is hot swap capable and field replaceable in accordance with the PICMG AMC.0 specification. The firmware supports the HPM.1 IPMI controller firmware upgrade specification.

Why choose a GE AdvancedTCA RTM?

GE Intelligent Platforms offers the widest portfolio of AdvancedMCs in the industry. These AdvancedMC designs can be leveraged to create AdvancedTCA RTMs that meet your exact application requirements.

GE has been working with the ATCA community and PICMG to standardize the Zone 3 connector pinout and enable other innovative I/O solutions for the ATCA market.

ARTM-200FG is designed to the ARTM specification Zone 3 pinout that is also used in Sun Netra blades. Customization is available to support other Zone 3 pinouts.

Call GE Intelligent Platforms' knowledgeable sales team for information about customizing an ARTM to meet your application requirements.



ARTM-200FG

Specifications

Bus Interconnect

- x4 lanes of PCI-E to each Intel 82571 GbE controller (2)
- x4 lanes of PCI-E to Emulex Zephyr Fibre Channel controller
- x4 lanes of PCI-E to CX4 connector

Front Panel

- Seven GbE links
 - Four 10/100/1000BaseT accessible via x4 lanes PCI-E; RJ45 connectors
 - Two 10/100/1000BaseT, 1000BaseLX or 1000BaseSX accessible via two SERDES; SFP connectors
- One 10/100/1000BaseT management link with RJ45 connector
- Two 4 Gb/s Fibre Channel ports via x4 lanes PCI-E
- One x4 PCI-E cable port
- Link and activity status LEDs

Rear Panel

- One CX4 connector providing x4 lanes of PCI-E

MMC

- Processor with 8051 core

Dimensions

- Form factor: PICMG 3.0
- Dimensions: 8U x 70 mm x 6 HP
- Weight: 1.65 lbs. (0.75kg)

Power Requirements

- +3.3 V management power; 12 V payload power
- 25 watts mean power (payload)
- 26 watts peak power (payload)

Environmental

- Temperature
 - Operating: 0° to +55 °C
 - Storage: -40° to +85 °C
- Relative Humidity
 - Operating & Storage: 5% to 95%, noncondensing
- Shock: PICMG 3.0
- Vibration: PICMG 3.0

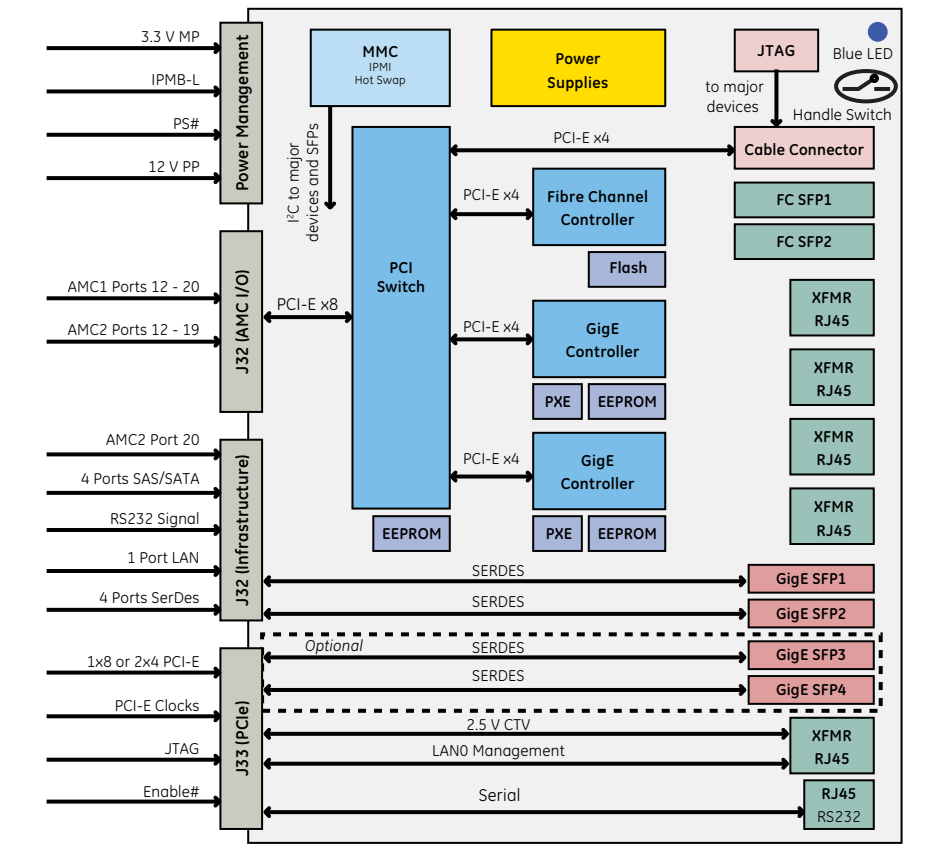
MTBF:

- 300,000 hours via Telecordia SR332 Issue 1

Regulatory Compliance:

- CE Mark
- Emissions
 - FCC 47CFR Part 15 Class A (USA)
 - EN55022: 1998/A1:2000/A2:2003 Class A ITE (EU)
 - VCCI Class A ITE (Canada)
 - AS/NZ 3548 C-Tick
 - ICES-003 Issue 3 Class A (Canada)
 - VCCI Class A ITE
- Immunity
 - EN55024:1998/A1:2001/A2:2003 (EU)
- Safety
 - UL60950-1 (USA)
 - CSA 22.1 No. 60950-1-03 (Canada)
 - EN 60950-1:2001 (EU)
 - IEC 60950-1 with all national differences
- RoHS 2002/95/EC compliant

Block Diagram



Ordering Information

- ARTM-200FG** ARTM-200FG with two 10/100/1000BaseT GbE ports; RJ45 connectors
- ARTM-200FG-100** ARTM-200FG with two 1000BaseLX GbE SFPs
- ARTM-200FG-200** ARTM-200FG with two 1000BaseSX GbE SFPs

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit www.ge-ip.com.

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