



AT-AMC2 Carrier Blade

AdvancedTCA™ AdvancedMC™ Carrier Blade with 2 or 4 Bays – AMC.2 Compliant

Features

- 2 or 4 bay ATCA carrier blade
- Supports extended full-height AdvancedMCs
- x2 Gigabit Ethernet (GbE) interface to all AMC bays (Common Options Region)
- x2 GbE interface to AMC bays 1 and 3 (Fat Pipes Region)
- x4 GbE interface to AMC bays 2 and 4 (Fat Pipes Region)
- x2 GbE ports for base fabric interface to ATCA backplane
- x10 GbE ports for fabric interface to ATCA backplane
- PICMG 3.0 update channel
- Supports carrier and AMC hot swap
- Supports telecom master clock generation, distribution and control
- AMC.3 (SAS/SATA) compliant
- Rear transition module (RTM) support

Architecture

- AMC.2 compliant module interconnects GbE to Common Options Region and Fat Pipes Region
- Dual star and 5-slot mesh topologies
- Supports Automatic Protection Switching (APS)
- Comprehensive Baseboard Management Controller supporting an IPMI v1.5 subsystem

Product Reliability

- High MTBF
- Technical support for OEM customers and resellers

The AT-AMC2 is an AMC.2 compliant AdvancedTCA (ATCA) carrier blade that is available with two or four bays. The AT-AMC2 supports up to four extended full-height, single-width AdvancedMCs (AMCs) or up to two extended full-height, double-wide AMCs.

The serial fabric interface to each of the AT-AMC2's AMC slots complies with the AMC.2 Specification for the Common Options and Fat Pipes regions. The carrier supports two lanes of Gigabit Ethernet (GbE) to each AMC bay for AMC ports 0 and 1 (AMC.2 option E2); two lanes of GbE to AMC bays 1 and 3 for AMC ports 4 and 5 (AMC.2 Type 2) are also supported. Four lanes of GbE are provided to AMC bays 2 and 4 for AMC ports 4 – 7 (AMC.2 Type 4). Each GbE lane terminates into a high-performance non-blocking switch. The AT-AMC2 is also AMC.3 compliant via AMC ports 2 and 3 enabling support for applications requiring storage I/O (SAS/SATA) AdvancedMCs.

AT-AMC2 is designed to deliver carrier services for any AMC.2-compliant AMC including processor, WAN I/O, LAN I/O or storage AMCs. This allows the carrier blade to be optimized for high-performance architectures that support next-generation IP-centric applications such as IP Multimedia Subsystem (IMS) and Fixed Mobile Convergence (FMC).

Two GbE channels to the base interface and 10 GbE channels to the fabric interface of the ATCA backplane allow the carrier blade to be configured for dual star (PICMG 3.1 Option 2) or full mesh (PICMG 3.1 Option 1 for 5 slots) topologies.

Intelligent Platform Management Interface & Hot Swap Compliance

The Baseboard Management Controller supports an Intelligent Platform Management Interface (IPMI) subsystem that performs E-keying, module power distribution, system clock distribution, and module hot swap sequencing. E-keying allows the system to identify which slots have installed AMCs and to manage the serial fabric lane configurations. The power distribution subsystem recognizes and performs power management for each AMC slot. The carrier blade leverages a PICMG 3.0 compliant update channel for high availability functions. ATx-AMC2 is hot swappable and field-replaceable in accordance with PICMG 3.0. The carrier blade's IPMI firmware is upgradeable providing investment protection.

AT-AMC2 Carrier Blade AdvancedTCA AdvancedMC Carrier Blade with 2 or 4 Bays

Specifications

PICMG/AMC Compliance

- PICMG 3.0/3.1 Specification
- AMC.2 Type E2
- AMC.2 Type 2/4
- AMC.3
- IPMI v1.5 firmware; upgradeable

Form Factor

- PICMG 3.0 compliant

Power Requirements

- 40 watts/bay

Weight

- 1.6 kg (3.5 lbs)

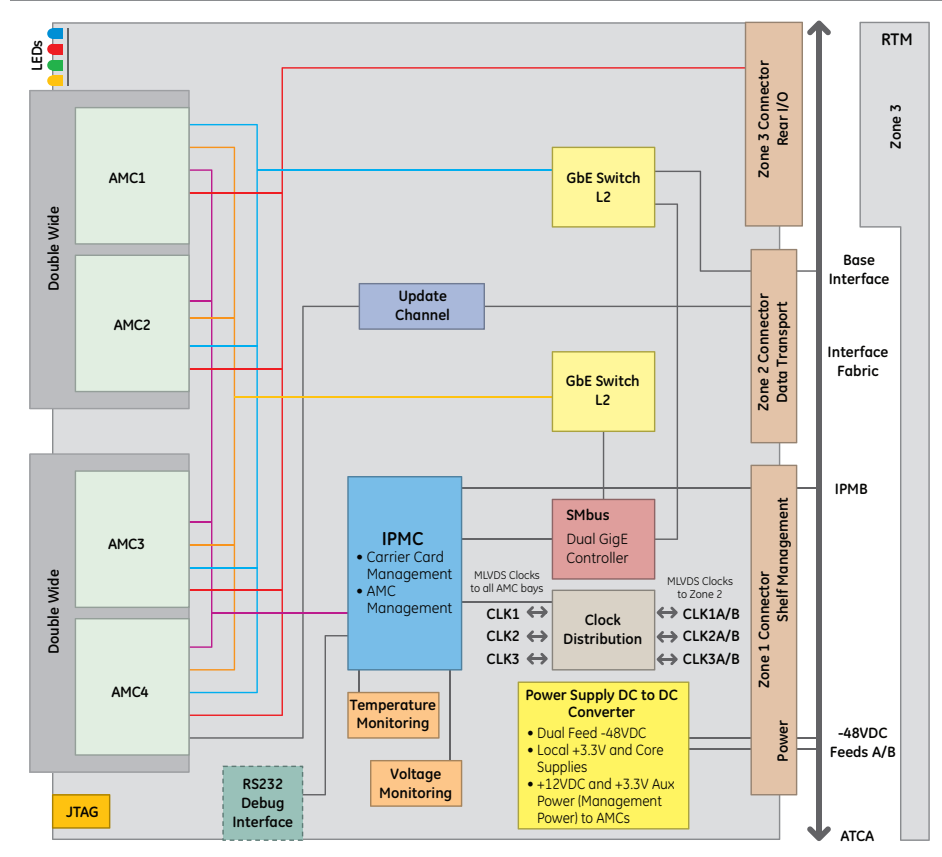
Environmental

- Operating temperature: -5°C to +55°C
- Storage temperature: -40°C to +85°C
- Storage relative humidity: 5 – 95% non-condensing

Regulatory Compliance

- Emissions
 - FCC 47 CFR Part 15 Class A (USA)
 - EN 55022:1998, A1:2000, A2:2003 Class A ITE(EU)
 - ICES -003 Issue 3 Class A (Canada)
 - AS/NZ CISPR 22:2002
 - VCCI Class A ITE
 - Class A (Aus., New Zealand)
 - VCCI Class A ITE
- Immunity
 - EN 55024:1998/A1:2001/A2:2003 (EU)
- Safety
 - UL60950-1 (USA)
 - CSA 22.1 No. 60950-1-03 (Canada)
 - EN 60950-1 (EU)
- CE Mark

Block Diagram



Ordering Information

- 15022-103** AT2-AMC2 ATCA carrier blade with 2 double-width bays, APS and Zone 3 RTM
- 15022-104** AT2-AMC2 ATCA carrier blade with 1 double-width bay, 2 single-width bays, APS and Zone 3 RTM
- 15022-105** AT4-AMC2 ATCA carrier blade with 4 single-width bays, APS and Zone 3 RTM
- 15022-106** AT2-AMC2 ATCA carrier blade with 2 double-width bays
- 15022-107** AT2-AMC2 ATCA carrier blade with 1 double-width bay and 2 single-width bays
- 15022-108** AT4-AMC2 ATCA carrier blade with 4 single-width bays

Refer to the Telum product family datasheets for additional information on processor, WAN I/O, LAN I/O and storage I/O AdvancedMCs

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Additional Resources

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