AMC Packet Processor for Dual 10GbE and/or TOE

AMC220

vadatech
THE POWER OF VISION

KEY FEATURES

- AMC.1 and AMC.2
- Single-width, mid-height (full-height option available)
- Cavium OCTEON CN56xx/CN57xx Multi-Core MIPS64 Processor
- Options for 8 to 12 processor cores
- Options for 600Mhz to 1Ghz speed grade
- DDR2 with ECC memory
- Two SFP+ socket supporting 10GbE
- PCIe x4
- IPMI 2.0 compliant
- RoHS compliant
- OS support for:
  - — Linux
  - — Windows
  - — Solaris
  - — VxWorks

The AMC220 is a two port 10-Gigabit Ethernet (10GbE) AdvancedMC™ (AMC) module which includes an on-board line rate multi-core packet processor. VadaTech offers this product in a mid-height form factor based on the AMC.1 specification (option full-height design, see ordering options).

The AMC220 is based around the Cavium OCTEON CN56xx/CN57xx processor which has been specifically designed to intelligently process Ethernet packets at line rate. The processor can be loaded via the PCIe interface or via an optional flash memory. The number of processor cores, speed grade, and amount of DDR2 memory is customizable based on customer needs.

The SDK for the processor as well as additional software stacks are available from Cavium or third party. VadaTech also provides the AMC220 pre-configured as a TCP Offload Engine (TOE) to provide socket layer services to a host processor via PCIe. This can dramatically reduce the CPU overhead for TCP packet processing on embedded CPUs. Various flavors of embedded Linux as well as VxWorks are supported.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).

AdvancedMC™

VadaTech Incorporated • 11540 South Eastern Avenue, Henderson, NV 89052 • Tel: (702) 896-3337 • Fax (702) 896-0332
Email: info@vadatech.com • www.vadatech.com

SPECIFICATIONS

Architecture		
Physical	**Dimensions**	Mid-Height (Full-Height option)
		Width: 2.89 in. (73.5 mm)
		Depth: 7.11 in. (180.6 mm)
Type	**AMC 10 GbE**	Dual port 10GbE
Standards		
AMC	**Type**	AMC.1 and AMC.2
Module Management	**IPMI**	IPMI Version 2.0
PCIe	**Lanes**	x4
Configuration		
Power	**AMC220**	~25W (CPU Dependent)
Environmental	**Temperature**	Operating Temperature: 0° to 60° C
		Storage Temperature: -40° to +90° C
	Vibration	1G, 5-500Hz each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95 percent, non-condensing
Front Panel	**Interface Connectors**	Dual SFP+, RJ-45. dual micro USB connectors for USB and RS-232
	LEDs	IPMI Management Control
		Activity/Link and two user defined
	Mechanical	Hot Swap Ejector Handle
Software Support	**Operating Systems**	Linux, Windows, Solaris and VxWorks
Other		
MTBF	MIL Spec 217-F >TBD	
Certifications	Designed to meet FCC, CE and UL certifications where applicable	
Standards	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards	
Compliance	RoHS and NEBS	
Warranty	Two (2) years	
Trademarks and Logos	The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedMC™ and the AdvancedTCA™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.	

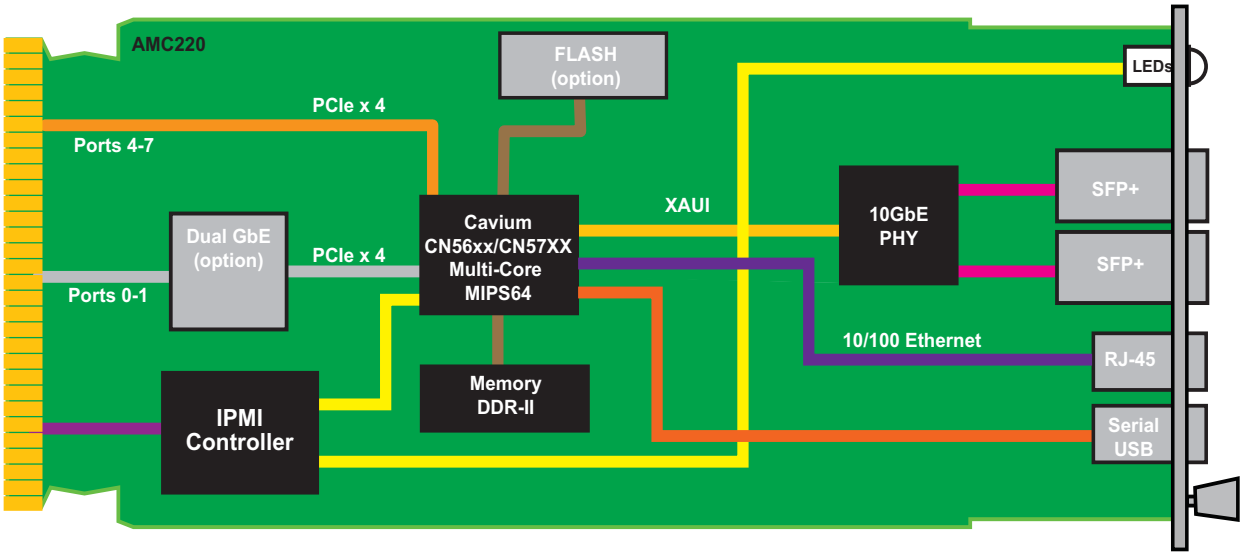

FIGURE 1. AMC220 Functional Block Diagram

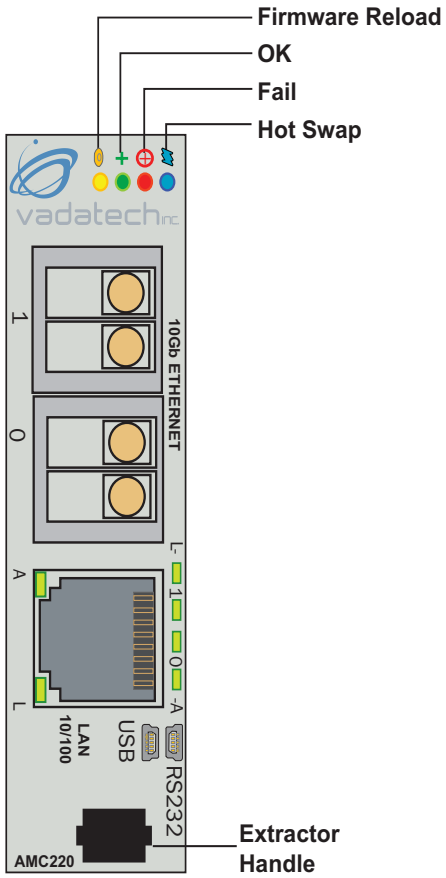

FIGURE 2. AMC220 Front Panel

ORDERING OPTIONS

AMC220 - ABC - DEF - GHJ*

A = CPU

1 = CN56xx (CP)
2 = CN57xx (CP)
3 = CN56xx (NSP)
4 = CN57xx (NSP)

B = Number of CPU Cores

1 = Reserved
2 = 8
3 = 10
4 = 12

C = CPU Speed

1 = 600MHz
2 = 800MHz
3 = 900MHz
4 = 1GHz

D = Memory W/ECC

1 = 1GB
2 = 2GB
3 = 4GB

E = Flash

0 = None
1 = Reserved
2 = Reserved
3 = 64MB
4 = 128MB

F = Dual GbE

0 = None
1 = Installed

G = SFP+ Transceivers

0 = None
1= 10GBASE-SR
2 = Reserved
3 = 10GBASE-LRM
4 = 10GBASE-LR

H = Pre-configured firmware

0 = None
1 = TOE
2 = Reserved
3 = Reserved
4 = Reserved

J = Front Panel Height

1 = Reserved
2 = Mid-Height
3 = Full-Height

*Contact VadaTech Sales for Conformal Coating

Document No_____ Date:. February 07 2008, Pass Two

vadatech inc
THE POWER OF VISION

VadaTech Incorporated • 11540 South Eastern Avenue, Henderson, NV 89052 • Tel: (702) 896-3337 • Fax (702) 896-0332
Email: info@vadatech.com • www.vadatech.com