AMC Advance RAID (0, 1, 5, 6, 10, 50 and 60)

AMC628

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KEY FEATURES

- AMC.1 with:
    - RAID levels 0, 1, 5 and 6
    - RAID spans 10, 50 and 60
- Dual Core ROC (RAID On Chip) at 800MHz per Core
- PCIe Gen3 x4 or x8 lanes
- Single-width, mid-height (full- height option available)
- Two mini-SAS-SFF-8644 x4 connectors (SAS HD Interconnect System))
- 6Gb/s throughput per port
- 1GB DDRIII cache (1333MHz)
- Battery backed cache protection (option)
- Connect up to 240 SATA and/or SAS devices
- Up to 64 logical drive support
- Online:
    - Capacity Expansion
    - RAID level migration
- IPMI 2.0 compliant
- RoHS compliant

The AMC628 is a very high end single-width, mid-height AdvancedMC^{TM} (AMC) form factor based on the AMC.1 and AMC.3 specification. With the capability to do RAID levels 0, 1, 5 and 6 it is the most advance RAID controller in the market. In addition it has capability to do RAID spans 10, 50 and 60.

The Module has two mini-SAS- SFF-8644 x4 to connect to an external JBOD or other μTCA Chassis Storage solution.

The RAID has capabilities for online capacity expansion and level migration. Further, auto resume after loss of system power during arrays array rebuild or reconstruction, load balancing, check consistency for background data integrity.

The RAID is managed via a sophisticate GUI.

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

AdvancedMC™

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SPECIFICATIONS

| Architecture		
Physical	**Dimensions**	Single-Width, Mid-Height (with Full-Height option)
		Width: 2.89 in. (73.5 mm)
		Depth: 7.11 in. (180.6 mm)
Product Type	**AMC Storage**	Advanced RAID Controller
		PCIe Gen3 x4 or x8
		SATA/SAS at 6Gb/s per lane
		RAID level 0, 1, 5, and 6
		RAID spans 50, 60 and 10
Standards		
AMC	**Type**	AMC.1 PCIe Gen3
Module Management	**IPMI**	IPMI Version 2.0
Configuration		
Power	**AMC628**	14W
Environmental	**Temperature**	Operating Temperature: 5° to 60° C (Air flow requirement is to be greater than 200 LFM)
		Storage Temperature: -40° to +70° C with the Disk
	Vibration	1G, 5-500Hz each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95 percent, non-condensing
Front Panel	**Interface**	Dual mini-SAS SFF-8088 x4
	LEDs	IPMI Management Control
		Activity
	Mechanical	Hot Swap Ejector Handle
Software Support	**Operating Systems**	Linux, Windows
Other		
MTBF	MIL Handbook 217-F > TBD Hrs.	
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.	
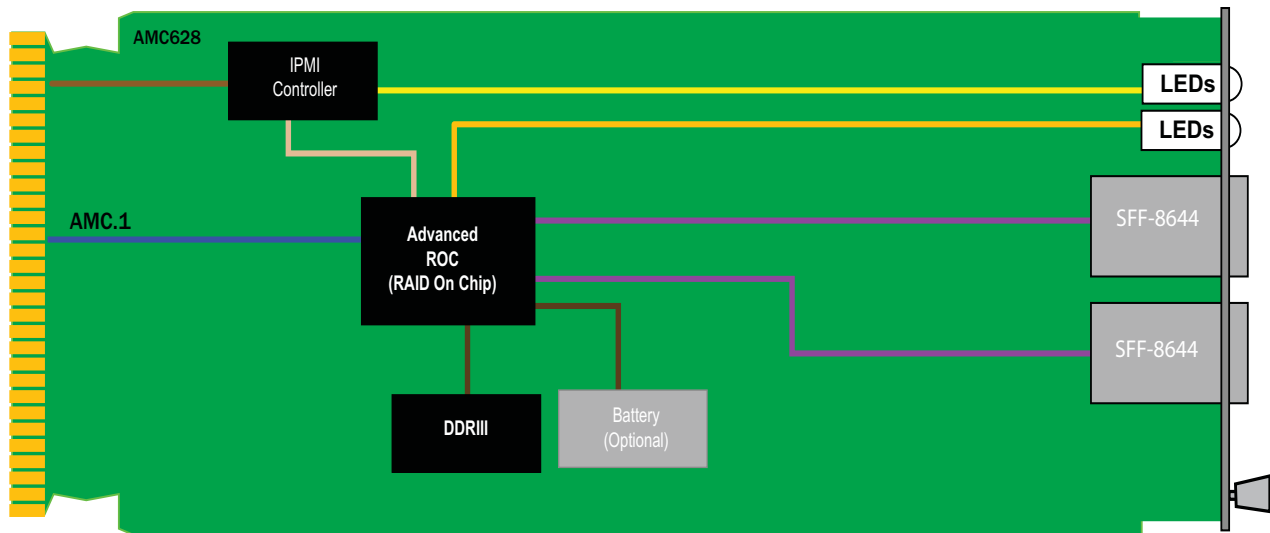
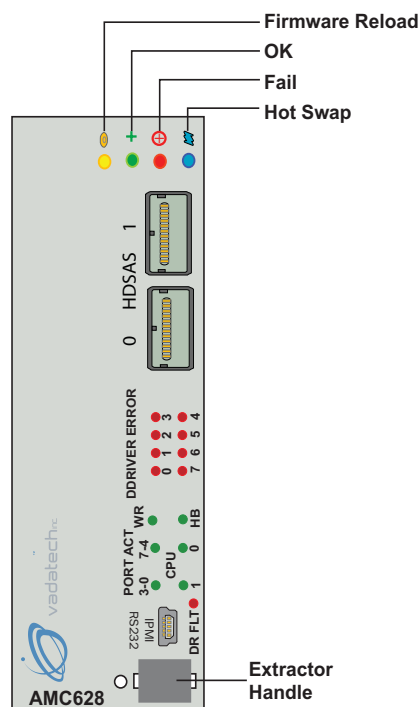FIGURE 1. AMC628 Functional Block Diagram

FIGURE 2. AMC628 Front Panel

ORDERING OPTIONS

AMC628 - A0C - D00 - 0HJ

A = PCIe

  1 = x4
  2 = x8

D = Battery*

  0 = None
  1 = Included

H = Operating Temp

  0 = Commercial (0° to +65°)
  1 = Industrial (-20° to +70°)
  2 = Military (–40° to +80°)

C = Front Panel Height

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

J = Conformal Coating

  0 = None
  1 = Humiseal 1A33 Polyurethane
  2 = Humiseal 1B31 Acrylic

*With Battery option the panel must be Full-Height