

# AMC628



## 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™ (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 sophisticated GUI and runs LSI MegaRAID Software.

**AdvancedMC™**

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

## 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                                                                                                                                                                                                                                                                                                         |                                                                                         |
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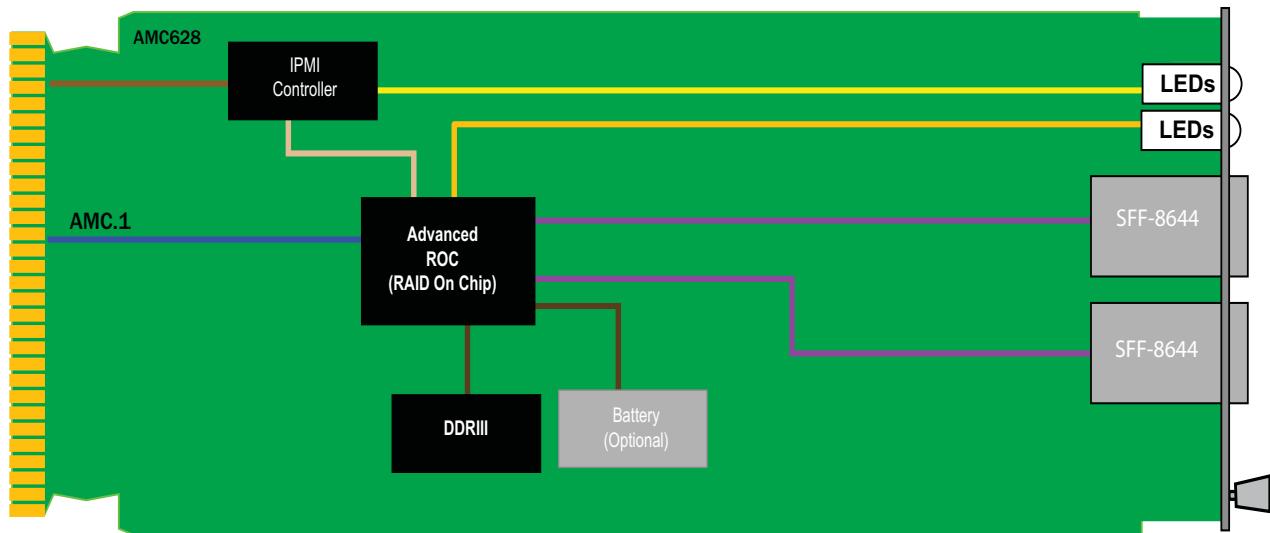


FIGURE 1. AMC628 Functional Block Diagram

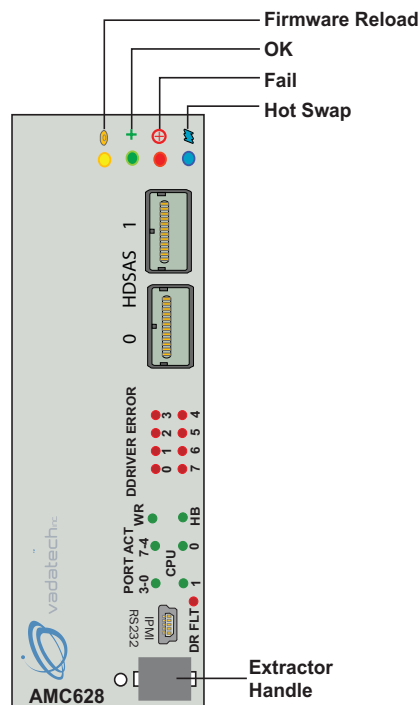


FIGURE 2. AMC628 Front Panel

## ORDERING OPTIONS

### AMC628 - A0C - D00 - 0HJ

#### A = PCIe

- 1 = x4
- 2 = x8

#### D = Battery\*

- 0 = None
- 1 = Included

#### C = Front Panel Height

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

#### H = Operating Temp

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

#### J = Conformal Coating

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

\*With Battery option the panel must be Full-Height



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