AMC613

Network Attached Storage (NAS)
AMC with Quad M.2 NVMe Storage

Key Features

- Network Attached Storage (NAS) AMC Module
- Quad Core ARM at 1.8GHz per core with 8GB of DDR-4 Memory
- Quad NVMe M.2 Storage devices
  - Configurable as RAID 0 or RAID 1
- Dual 10GbE (ports 4 and 8 or 4-7 or 8-11 as XAUI)
- Dual GbE (ports 0 and 1)
- GbE to the front
- AMC.2 specification
- Single module mid-size or full-size per AMC.0
- IPMI 2.0 compliant

Benefits

- Multi-Terabit storage capacity in a single module AMC form factor carrier
- NVMe performance
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company
The AMC613 is fully compliant as a NAS (Network Attached Storage) device with M.2 NVMe storage which provides high speed and low latency read/write to the SSD devices.

The module has on board quad core ARM processor running at 1.8GHz per core with 8GB of DDR-4. The module boots from on board memory and allows the entire Storage Device to be utilized for NAS. The AMC613 routes 10GbE to ports 4 and 8 or 10GbE as XAUI to ports 4-7 and 8-11.

The module support RAID 0 or RAID 1 configuration for the Quad M2. Storage.

The AMC613 is available in both air-cooled (MTCA.0 and MTCA.1) and rugged conduction-cooled versions (MTCA.2 or MTCA.3, contact sales for details).
Block Diagram

Figure 3: AMC613 Functional Block Diagram

Front Panel

Figure 4: AMC613 Front Panel
## Specifications

| Architecture | Physical Dimensions | Single module, mid-size or full-size optional  
|              | Width: 2.89" (73.5 mm)  
|              | Depth 7.11" (180.6 mm)  
| Type | AMC Storage | Quad M.2 NVMe  
| Standards | AMC Type | AMC.2  
| Module Management | IPMI | IPMI v2.0  
| 10GbE | Lanes | 2X 10GbE  
| Storage | SSD | Over 8TB of Storage  

### Configuration

| Power | 13W with no Storage  
| Environmental Temperature | See [Ordering Options](#) and [Environmental Spec Sheet](#)  
| Storage Temperature: –40°C to +85°C  
| Vibration | Operating 9.8 m/s² (1G), 5 to 500 Hz on each axis  
| Shock | Operating 325 G/2 ms, 160 G/1 ms  
| Relative Humidity | 5 to 95% non-condensing  
| Front Panel | Interface Connectors | Micro USB connector for MGT RS-232  
| | | Quad M.2 (Internal)  
| | LEDs | IPMI Management Control  
| | Activity |  
| Mechanical | Hot-swap ejector handle  
| Software Support | Operating System | Linux, Windows, Solaris and VxWorks  

### Other

| MTBF | MIL Hand book 217-F@ TBD hrs  
| Certifications | Designed to meet FCC, CE and UL certifications, where applicable  
| Standards | VadaTech is certified to both the ISO9001:2015 and AS9100D standards  
| Warranty | Two (2) years, see [VadaTech Terms and Conditions](#)  

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### INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.
Ordering Options

AMC613 – ABC-D00-00J

<table>
<thead>
<tr>
<th>A = Total M.2 Storage</th>
<th>D = M.2 Encryption</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = None</td>
<td>0 = None</td>
</tr>
<tr>
<td>1 = 4 TB (Quad 1TB modules)</td>
<td>1 = Encryption capable</td>
</tr>
<tr>
<td>2 = 8 TB (Quad 2TB modules)</td>
<td></td>
</tr>
<tr>
<td>3 = 4 TB (Dual 2TB modules)</td>
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</tr>
<tr>
<td>4 = 2 TB (Dual 1TB modules)</td>
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<tr>
<td>5 = Reserved</td>
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</tbody>
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<table>
<thead>
<tr>
<th>B = Ports 4-7/8-11</th>
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<tbody>
<tr>
<td>0 = No connection on ports</td>
</tr>
<tr>
<td>1 = XAUI (ports 4-7 and 8-11)</td>
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<tr>
<td>2 = 10GbE on ports 4 and 8</td>
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</tbody>
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<table>
<thead>
<tr>
<th>C = Front Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Reserved</td>
</tr>
<tr>
<td>2 = Mid-size</td>
</tr>
<tr>
<td>3 = Full-size</td>
</tr>
<tr>
<td>4 = Reserved</td>
</tr>
<tr>
<td>5 = Mid-size, MTCA.1 (captive screw)</td>
</tr>
<tr>
<td>6 = Full-size, MTCA.1 (captive screw)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>J = Temperature Range and Coating</th>
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</thead>
<tbody>
<tr>
<td>0 = Commercial (−5° to +45°C), No coating</td>
</tr>
<tr>
<td>1 = Commercial (−5° to +45°C), Humiseal 1A33 Polyurethane</td>
</tr>
<tr>
<td>2 = Commercial (−5° to +45°C), Humiseal 1B31 Acrylic</td>
</tr>
<tr>
<td>3 = Reserved</td>
</tr>
<tr>
<td>4 = Industrial (−20° to +70°C), Humiseal 1A33 Polyurethane</td>
</tr>
<tr>
<td>5 = Industrial (−20° to +70°C), Humiseal 1B31 Acrylic</td>
</tr>
</tbody>
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Related Products

VT950
- MicroTCA rugged 1U 19” rackmount chassis platform
- Meets MIL-STD-461E for EMI

AMC626
- HBA for external SATA 3 (6.0 Gbps) or SAS-3 (12 Gbps) drives
- AMC.1 compliant, PCIe Gen3 x8 or x4
- Support for 8 SAS/SATA Ports

AMC629
- HBA for external SATA 3 (6.0 Gbps) or SAS-3 (12 Gbps) drives
- Conduction cooled version available
- Integrated RAID 0, 1, 1E, and 10