

AMC645

NVMe HBA with RAID (0, 1, 5, 6, 10, 50 and 60)



AMC645

Key Features

- AMC NVMe Host Bus Adapter (HBA) with Full support for RAID
- Dual Core ARM A15 RAID On Chip (ROC)
- On board 8 GB of DDR4 Memory with ECC
- Hardware Engine for RAID 5 and RAID 6 acceleration
- AMC.1 PCIe Gen3 x8
- Single module, mid-size per AMC.0
- IPMI 2.0 compliant

Benefits

- Multi-Terabit storage capacity in a single module AMC form factor carrier
- NVMe performance with RAID support
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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AMC645

The AMC645 is full ROC HBA which supports RAID level 0, 1, 5, 6, 10, 50 and 60. The module supports End-to-End CRC (ECRC) and advanced Error Reporting (AER). The NVMe storage provides high speed and low latency read/write to the SSD devices.

The module has up to 16 NVMe storage devices and an additional 8 GB of DDR4 with ECC.

The AMC645 has PCIe Gen3 x8 or single x4 routed to the fabric ports 4-11.

The AMC645 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).



Figure 1: AMC645

Block Diagram

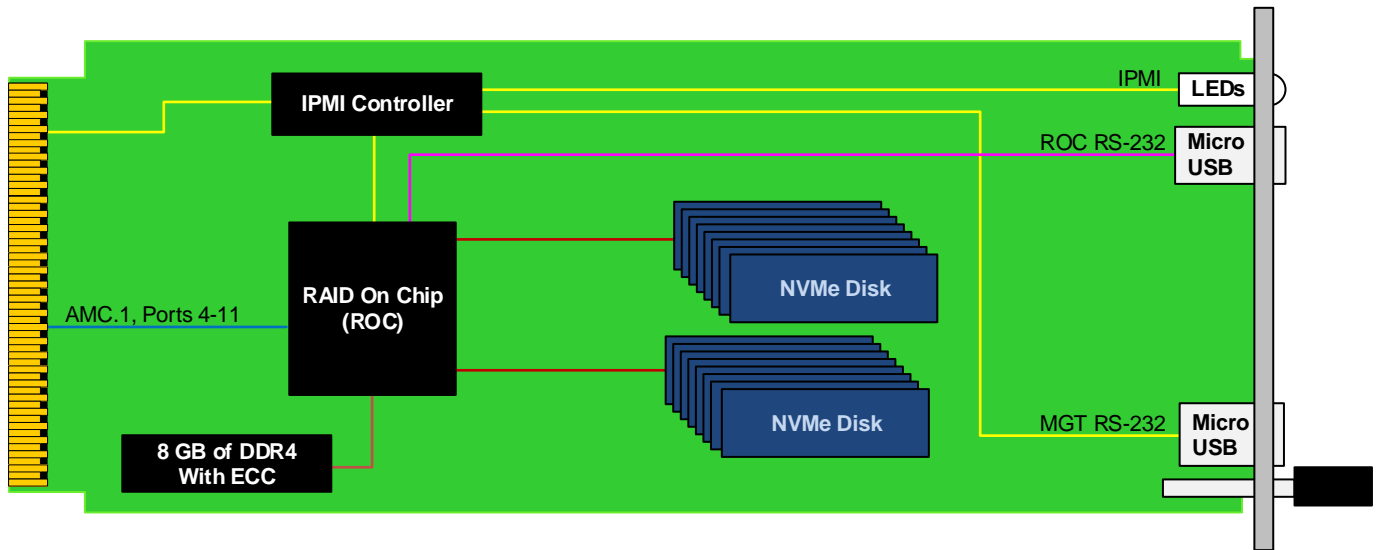


Figure 2: AMC645 Functional Block Diagram

Front Panel

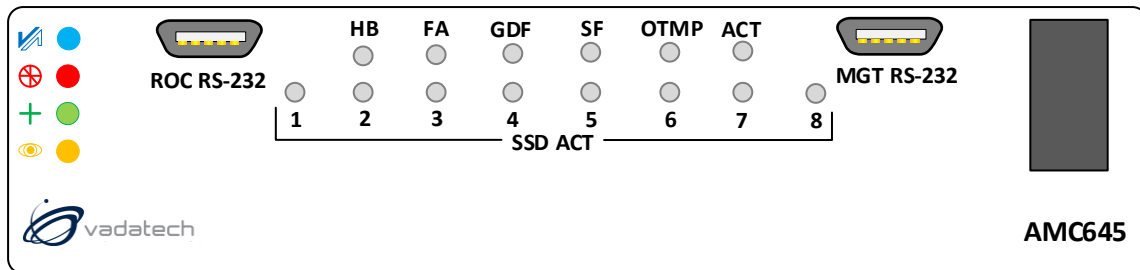


Figure 3: AMC645 Front Panel

Specifications

Architecture		
Physical	Dimensions	Single module, mid-size (full-size optional) Width: 2.89" (73.5 mm) Depth 7.11" (180.6 mm)
Type	AMC Storage	NVMe SSD
Standards		
AMC	Type	AMC.1
Module Management	IPMI	IPMI v2.0
PCIe	Lanes	Single x8 or single x4
Storage	SSD	Up to 16 NVMe SSD
Configuration		
Power	AMC645	40 W with 8 TB of Storage
Environmental	Temperature	See ordering options and environmental spec sheet Storage Temperature: -40° to +85°C
	Vibration	Operating 9.8 m/s ² (1 G), 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 Micro USB connector for CPU/ROC RS-232
	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 ISO9001:2000 and AS9100B:2004 standards
Warranty		Two (2) years

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

AMC645 – ABC-000-00J

A = NVMe Storage capacity 0 = 4TB 1 = 8TB (Full-size panel only) 2 = 16TB (Full-size panel only) 3 = Reserved 4 = Reserved		
B = PCIe Interface 0 = x4 to ports 4-7 1 = x8 to ports 4-11		
C = Front Panel 1 = Reserved 2 = Mid-size 3 = Full-size 4 = Reserved 5 = Mid-size, MTCA.1 (captive screw) 6 = Full-size, MTCA.1 (captive screw)		J = Temperature Range and Coating 0 = Commercial (–5° to +45° C), No coating 1 = Commercial (–5° to +45° C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +45° C), Humiseal 1B31 Acrylic 3 = Reserved 4 = Industrial (–20° to +70° C), Humiseal 1A33 Polyurethane 5 = Industrial (–20° to +70° C), Humiseal 1B31 Acrylic

Related Products



VT950

- MicroTCA rugged 1U 19" rackmount chassis platform
- Meets MIL-STD-810F, MIL-STD-901D for shock/vibration
- 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

Contact

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