AMC640

NVMe HBA, with Quad M.2 NVMe Solid State Drives, AMC

AMC640

Key Features

- AMC M.2 NVMe Host Bus Adapter with quad M.2 NVMe type SSD
- Allows for M.2 Type 2280 and/or 22110
- AMC.1 PCIe Gen3 x8 or dual x4 to the backplane
- PCIe x4 Gen3 to each M.2 Socket
- Single module, mid-size per AMC.0
- IPMI 2.0 compliant

Benefits

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

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AMC640

The AMC640 is an M.2 Host Bus Adapter (HBA) which supports up to four M.2 type 2280 and/or 22110 style storage devices. The NVMe storage provides high speed and low latency read/write to the SSD devices.

The AMC640 has PCIe Gen3 x8 or dual x4 routed to the fabric Ports 4-11. Flexible user configuration allows each M.2 to be routed to Ports 4-7, 8-11 or 4-11. The user can route Ports 4-7 or 8-11 to any combination of the M.2 modules or to none (e.g. Ports 4-7 to one M.2 and 8-11 to three more M.2). When not used, Ports 4-7 or 8-11 can be disabled to avoid clashing with other fabrics in the system.

The AMC640 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: AMC640

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Block Diagram

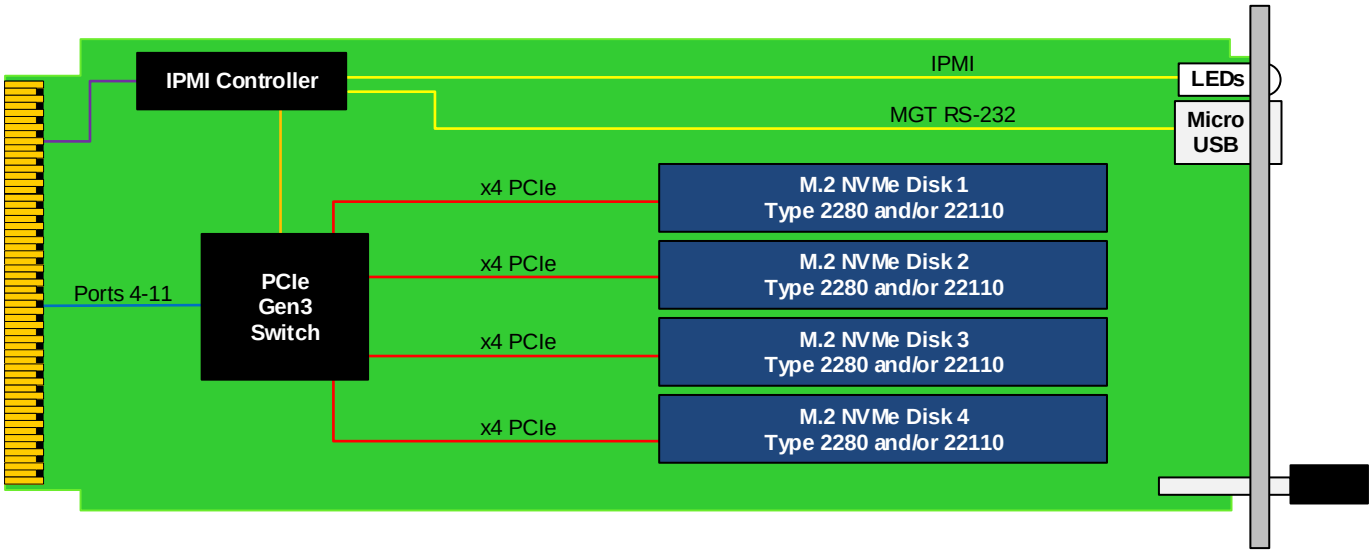

Figure 2: AMC640 Functional Block Diagram

Front Panel

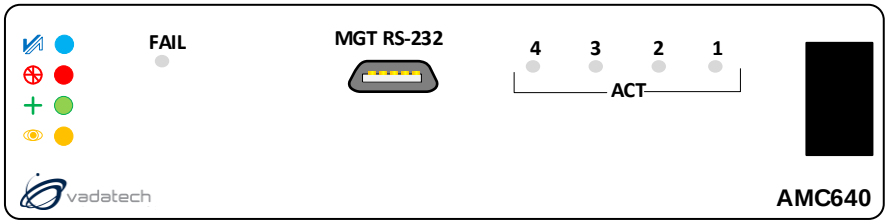

Figure 3: AMC640 Front Panel

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**	M.2 NVMe SSD
Standards		
AMC	**Type**	AMC.1
Module Management	**IPMI**	IPMI v2.0
PCIe	**Lanes**	Dual x4 or single x8 as PCIe
Storage	**SSD**	Up to four M.2 NVMe SSD
Configuration		
Power	**AMC640**	8W without SSD (with four 2 TB SSD: 32W)
Environmental	**Temperature**	See Ordering Options and Environmental Spec Sheet
		Storage Temperature: –40° to +85°C
	Vibration	Operating 9.8 m/s^2 (1G), 5 to 500 Hz on each axis
	Shock	Operating 325G/2 ms, 160G/1 ms
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	Micro USB connector for MGT 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 ISO9001:2015 and AS9100D standards	
Warranty	Two (2) years, see VadaTech Terms and Conditions	

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

AMC640 – ABC-DEF-00J

A = M.2 NVMe SSD 1	D = M.2 NVMe SSD 3	
0 = No SSD 1 1 = 512 GB 2 = 1 TB 3 = 2 TB	0 = No SSD 3 1 = 512 GB 2 = 1 TB 3 = 2 TB	
B = M.2 NVMe SSD 2	**E = M.2 NVMe SSD 4**	
0 = No SSD 2 1 = 512 GB 2 = 1 TB 3 = 2 TB	0 = No SSD 4 1 = 512 GB 2 = 1 TB 3 = 2 TB	
C = Front Panel	**F = PCIe Interface**	**J = Temperature Range and Coating**
1 = Reserved 2 = Mid-size 3 = Full-size 4 = Extended-size (8 HP) 5 = Mid-size, MTCA.1 (captive screw) 6 = Full-size, MTCA.1 (captive screw)	0 = x4 1 = Dual x4 2 = Single x8	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

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

AMC629

- Host Bus Adapter (HBA) for external SATA III (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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