VT840

1U MTCA Chassis with 6 AMC Slots, Full Redundancy and Quad SFP+

VT840

Key Features

- 1U MTCA Chassis Platform 19” x 1U x 18.5” deep
- Six single module, mid-size AMC slots per 1U carrier or two double module and two single module, mid-size AMC slots
- Fully redundant power with failover (non-redundant is optional)
- Management can run as Shelf Manager or MicroTCA Management Controller (MCMC)
- Quad SFP+ for 10GbE via PCIe to 10GbE network interface
- Quad SAS via PCIe to SAS HBA
- x8 PCIe Gen 3 on Ports 4 to 11
- GbE Managed Layer 2 (Ports 0 and 1)
- Digital input/output per system

Benefits

- Option for full redundancy with two sets of three slots each with own MCH, fabric/base, power, and clocking
- Integrated fans/power modules in rear of chassis to save space
- High performance combination of Quad SAS, Quad SPF+ for 10GbE, and Layer 2GbE
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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The VT840 is a 1U MTCA chassis that provides six mid-size AMC slots with swappable redundant power in the rear of the chassis. The six slots are divided among two sets of three slots, each set with their own dedicated PCIe Fabric, GbE, Power Module, clock structure, and management. The unit has integrated dual 10GbE network interfaces for each set of three slots, which connect to the PCIe fabric via x8 PCIe Gen3.

The fabric on Ports 4-11 is PCIe (AMC.1) and Ports 2-3 are routed to adjacent slots (AMC.3). Other features include FCLK to each AMC, a single digital input/output pin per unit (two in total on the front panel), and front to rear cooling. The 300W AC power/fan trays and air filters are removable for ease of serviceability.

The VT840 runs management software based on VadaTech's proven VT002 second generation mezzanine. The shelf manager implements IPMI management, FRU management, and shelf environment management for power, thermal, E-keying, etc.

Figure 1: VT840 Front View

Figure 2: VT840 Rear View

Power Supply

The VT840 has dual input power 100-240V AC with a frequency from 47-63 Hz. The redundant swappable power/fan trays are located in the rear of the chassis to save space. The chassis can be configured so that each PSU can power a 3-slot segment If the failover option is not required.

Scorpion™ Software

VadaTech's Scorpionware software can be used to access information about the current state of the Shelf or the Carrier, obtain information such as the FRU population, or monitor alarms, power management, current sensor values, and the overall health of the Shelf. The software GUI is very powerful, providing a Virtual Carrier and FRU construct for a simple, effective interface.

Block Diagram

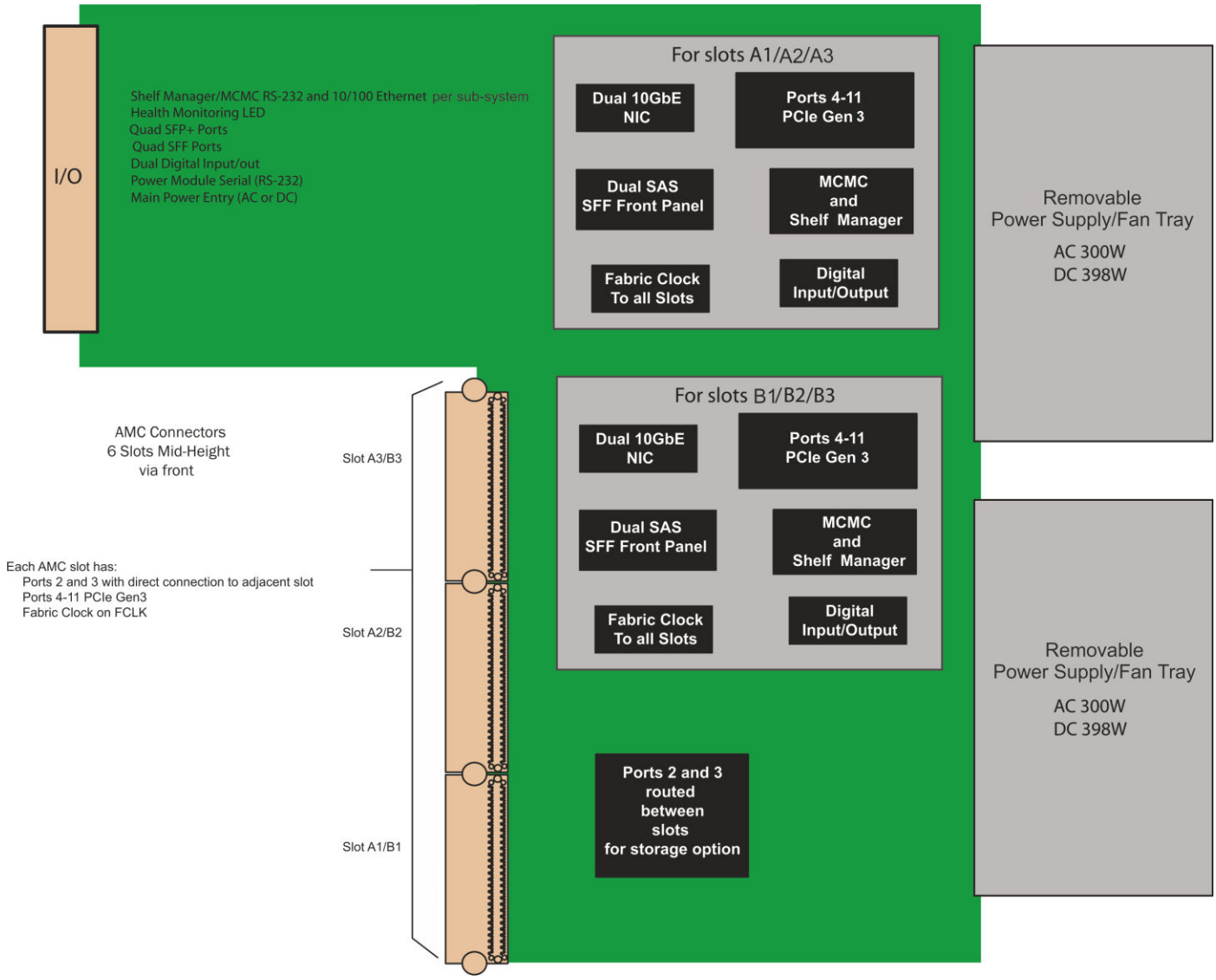

Figure 3: VT840 Functional Block Diagram

Front Panel

Figure 4:VT840 Front Panel

Backplane Connection

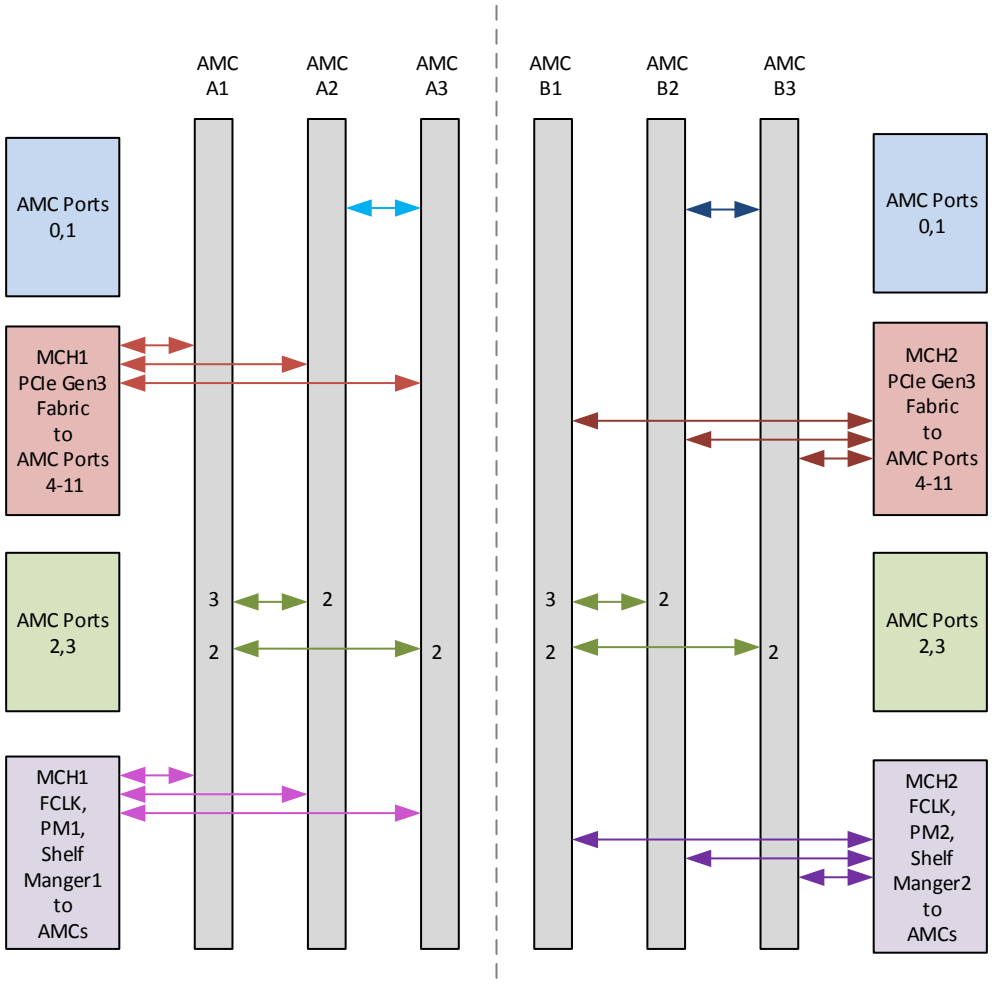

Figure 5: VT840 Backplane Connection

Chassis Layout

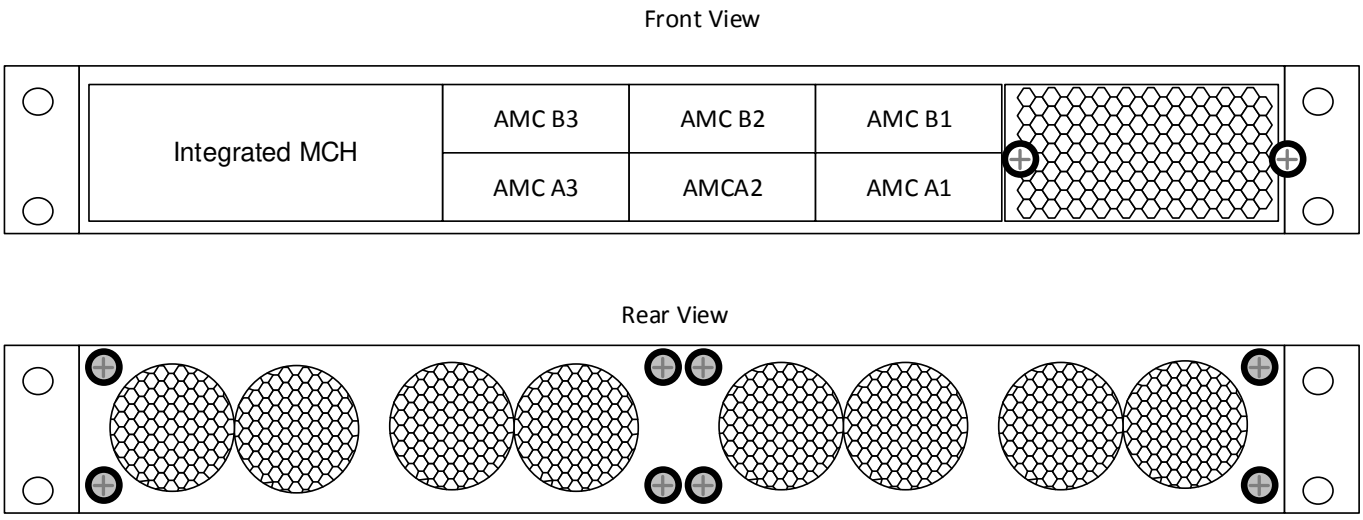

Figure 6: VT840 Chassis Layout

Specifications

Architecture		
Physical	**Dimensions**	Height: 1U
		Width: 19”
		Depth: 18.5”
Type	**MTCA Chassis**	6 AMC slots
Standards		
AMC	**Type**	AMC.1, AMC.2 and AMC.3
MTCA	**Type**	MicroTCA.0
Configuration		
Power	**VT840**	300W Universal AC or 398W DC (–36V to –75V) @ 400 Hz
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +70°C
	Altitude	10,000 ft operating
		40,000 ft non-operating
	Relative Humidity	5 to 95% non-condensing
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	One (1) year, 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

VT840 – AB0-000-0HJ

A = Power Supplies		
0 = 300W AC 1 = 398W DC		
B = Power Failover		**H = Operating Temperature**
0 = Redundant PSUs with failover 1 = Independent power to each 3-slot segment (no failover)		1 = Commercial 2 = Industrial
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Related Products

AMC515

- AMC FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 57
- AMC Ports 4-11 are routed to FPGA (protocols such as PCIe, SRIO, XAUI, etc. are FPGA programmable)
- Xilinx Virtex-7 XC7V2000T in 1925 package

AMC620

- .5” SATA 6.0 Gbps drive Host Bus Adapter (HBA)
- AMC.1 x2 PCIe Gen 2
- Supports SATA Ports at 6.0 Gbps

AMC720

- Intel® Xeon™ E3 processor
- Single module, mid-size per AMC.0
- PCIe Gen2 (Gen3 on v2 option) x4 on Ports 4-7 and 8-11 or single PCIe x8 on Ports 4-11 (AMC.1)

Contact

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