VT931

4U Rugged MTCA.1 Chassis Platform with 12 AMC Slots

VT931

Key Features

- Rugged MTCA.1 sub-rack 19” x 4U x 8.35” deep with embedded upper cooling unit
- Up to 12 AMCs: 6 full-size and 6 mid-size
- Designed for air cooling bottom to top
- Full redundancy with dual MTCA Carrier Hub (MCH) and Power Modules
- Provision for local airflow management
- ESD jack at the top front

Benefits

- Rugged design for Mil/Aero, Industrial, and Transportation applications with 40GbE and PCIe Gen3 capable
- Ideal for rack environment with compact integration requirements
- Embedded removable fan tray
- Scorpionware™ Shelf Management Software included at no additional cost
- AS9100 and ISO9001 certified company

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The VT931 is a MTCA chassis with 12 AMC slots and can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4. The chassis has perforated bottom and top covers for airflow from the upper fan tray. The VT931 is a 4U version of the VadaTech VT930 with an additional integrated removable upper cooling unit.

The chassis is designed to MicroTCA.1 specification for rugged applications. It has a Dual Star backplane configuration with 40GbE or PCIe Gen3 capability.

Figure 1: VT931

FRU Information and Carrier Locator

The VT931 has dual redundant FRU information and Carrier Locators. The Carrier Locator is assigned by easily accessible mechanical dip switches. As the switches are removable, the backplane can remain passive. The MCH reads the Locator via its private I2C bus.

40GbE/PCIe Gen3 Backplane

The VT931 is a 40GbE or PCIe Gen3 capable backplane based on VadaTech design optimized for a better signal integrity.

Cooling and Temperature Sensors

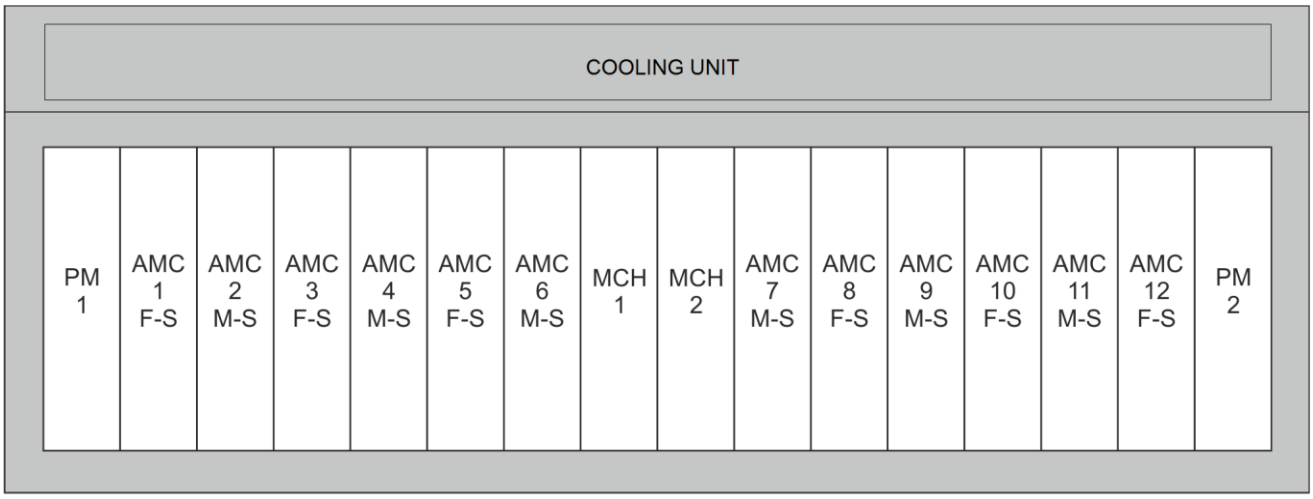
The VT931 provides compact cooling configuration with a single intelligent Cooling Unit for a maximum density. The cooling airflow is from bottom to top. There are multiple Temperature sensors in the chassis that monitor the intake and the outtake air temperature throughout the chassis. The sensors are monitored by the Management Controller over redundant IPMI bus. The Cooling Unit is located at the top of the AMC slots in a pull configuration. The fan tray is removable, allowing easy maintenance of the system over time.

Scorpionware™ 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.

Chassis Layout

Figure 2: VT931 Front View



Note: F-S = Full size, M-S = Mid-size

Figure 3: VT931 Chassis Slots

Backplane Connections

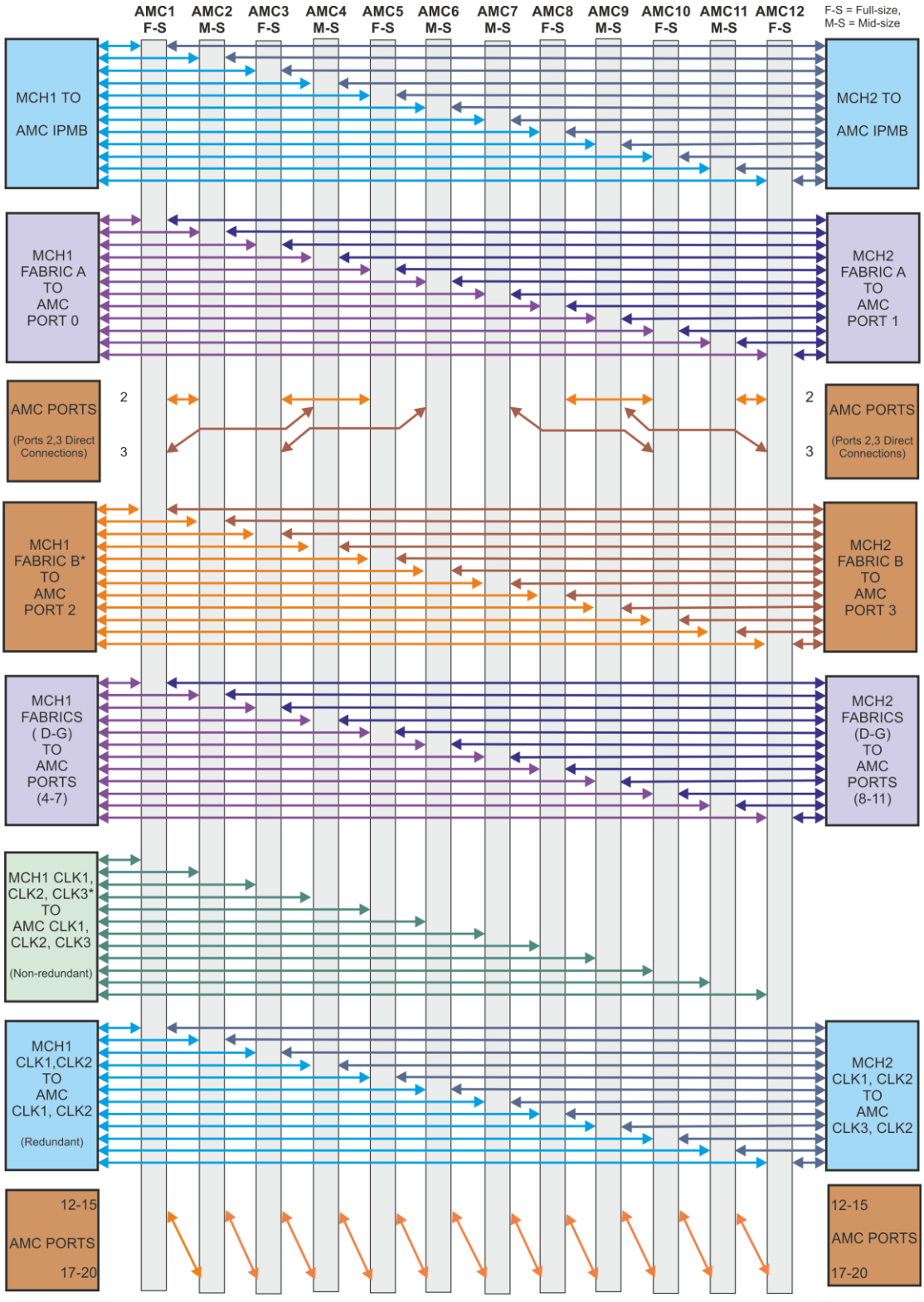


Figure 4: VT931 Backplane Connections

Specifications

Architecture		
Physical	**Dimensions**	Width: 19”
		Depth: 8.35”
		Height: 4U
Type	**MTCA Chassis**	12 AMC.0 single module, (6 mid-size and 6 full size)
Standards		
AMC	**Type**	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
MTCA	**Type**	MicroTCA.1
Module Management	**IPMI**	v2.0
Configuration		
Power	**VT931**	Dependant on Power Module used
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 ISO9001:2000 and AS9100B:2004 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

VT931 – 0BC-000-0HJ

B = Ports 2 and 3		**H = Temperature Range**
1 = Direct connections 2 = To MCH		0 = Commercial (Operating Temperature -20° to 70°C)
C = MCH CLK3 Channels		**J = Conformal Coating**
1 = Non-redundant (Telco) 2 = Non-redundant (FCLKA) 3 = Redundant		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
- Xilinx Virtex-7 XC7V2000T in 1925 package
- AMC Ports 4-11 are routed to FPGA (protocols such as PCIe, SRIO, XAUI, etc. are FPGA programmable)

AMC720

- Intel® Xeon™ E3 processor AMC
- Conduction cooled version available
- PCIe Gen2 (Gen3 on v2 option)

UTC020

- Single module, full-size per AMC.0
- Dual -36V DC to -75V DC input, 936W (available in 468W)
- Hot swappable with support for power module redundancy

Contact

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