

# VT893

## 7U MTCA Chassis with 11 AMC Full Size Slots



VT893

## Key Features

- MTCA System Platform 19" x 7U x 10.5" deep (with handles 12" deep)
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and dual Power Modules
- Up to eleven AMCs: 11 full-size, double-modules
- Radial I2C bus to each AMC
- Dual Star topology
- No active components on the backplane
- High-speed routing on 26 layers
- Front-to-back cooling

## Benefits

- High-speed MTCA connectors (12.5 GHz)
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- AS9100 and ISO9001 certified company
- Full system supply from industry leader

**$\mu$ TCA<sup>®</sup>**



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# VT893

The VT893 is a 7U MTCA chassis that provides 11 AMC full-size double-module slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4. It provides CLK1, CLK2, and CLK3 to each slot.

The VT893 has full redundancy. It's capable of having redundant MCH, Power Modules, as well as redundant Cooling Units (CU) for high availability.

There is an option for redundant/non-redundant clock per MTCA specification. The CLK3 option can be configured for the Fabric clock as well as Telecom clock.

There is an option for Port 2 and 3 to be directly connected among the adjacent AMCs or to the Fabric B (AMC.3 SATA/SAS switch option on the MCH).

The VT893 has a Telco Alarm, Redundant FRU information devices, carrier locators and a JSM slot which routes to each JTAG port of the AMC.



Figure 1: VT893

## Power Supplies

The VT893 has an option for a 1000 W power supply. The input voltage is from 110-240 V AC (frequency from 47-63 Hz). The VT893 provides -48 V connectors to the front of the chassis to power the Dual Power Modules. The AC input is from the back of the chassis. The AC supply has an on/off switch on front top-center of the chassis.

## Cooling and Temperature Sensors

The VT893 has Dual intelligent Cooling Units. This redundancy allows fail-safe operation in case one of the cooling units becomes non-operational. The cooling airflow is from front to back. The removable Air Filter has a switch to detect its presence and can be monitored for when it needs to be replaced.

12 chassis mounted temperature sensors monitor the intake and the outtake air temperature throughout the unit.

## Telco Alarm

The VT893 is fitted with a Telco alarm that constantly monitors the chassis for any anomalies and alert the user by LED indication on the Front Panel. It can be directly accessed via a Micro DB-9 connector.

## FRU Information and Carrier Locator

The VT893 has dual redundant FRU information and Carrier Locators. The Carrier Locator is assigned by mechanical dip switches which are easily accessible. The MCH reads the Locator via its private I2C bus.

## No Active Components

Unlike other MTCA chassis on the market, the VT893 has no active components on its back plane, making maintenance and servicing tasks more straightforward.

## 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

# Backplane Connections

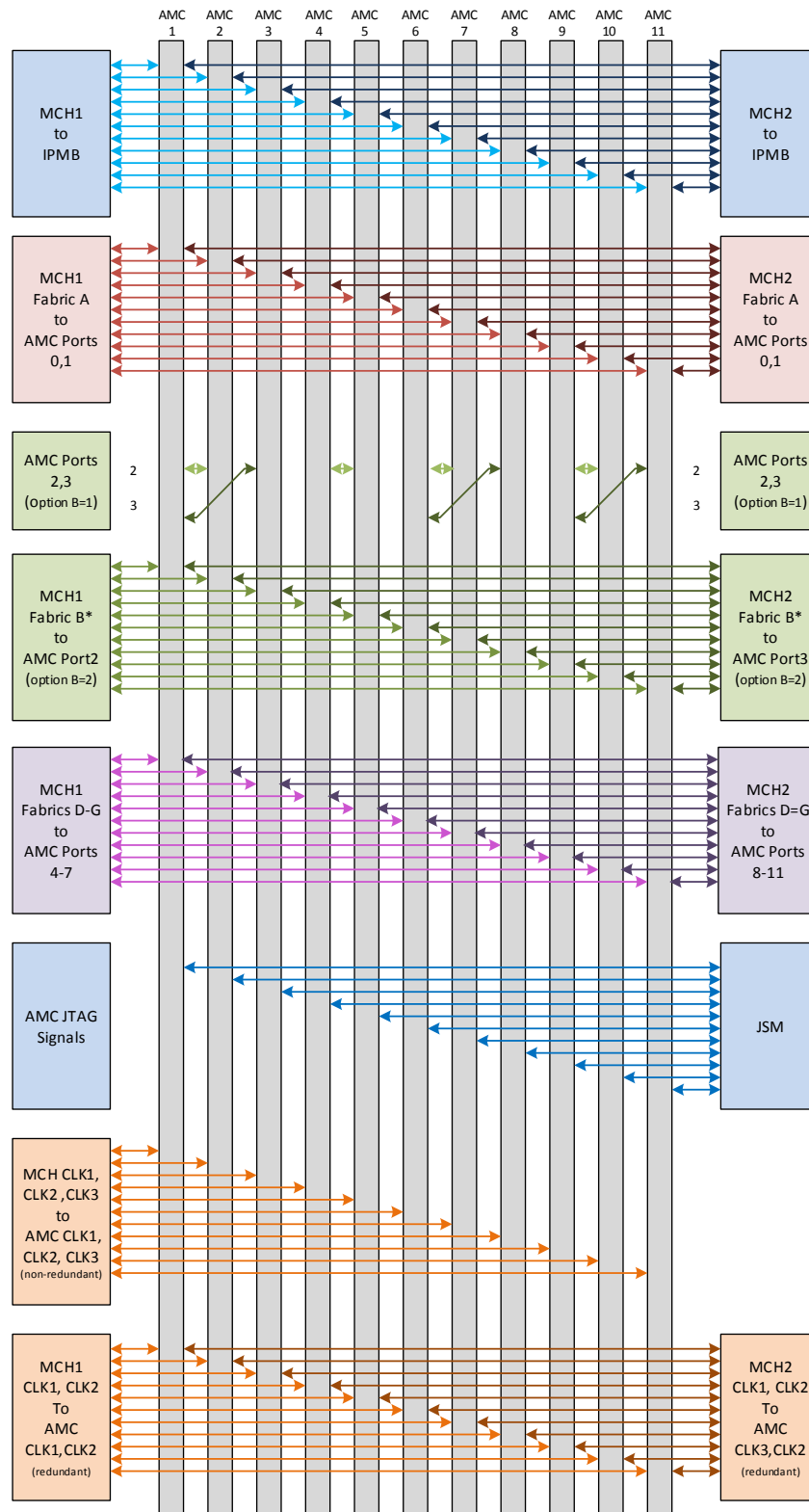


Figure 2: VT893 Backplane Connections

See Figure 2: \* When CLK3 is non-redundant, Fabric B will be partially provided only on ports 1 to 6. CLK3 is routed on Fabric B on ports 7 to 12.

# Chassis Layout

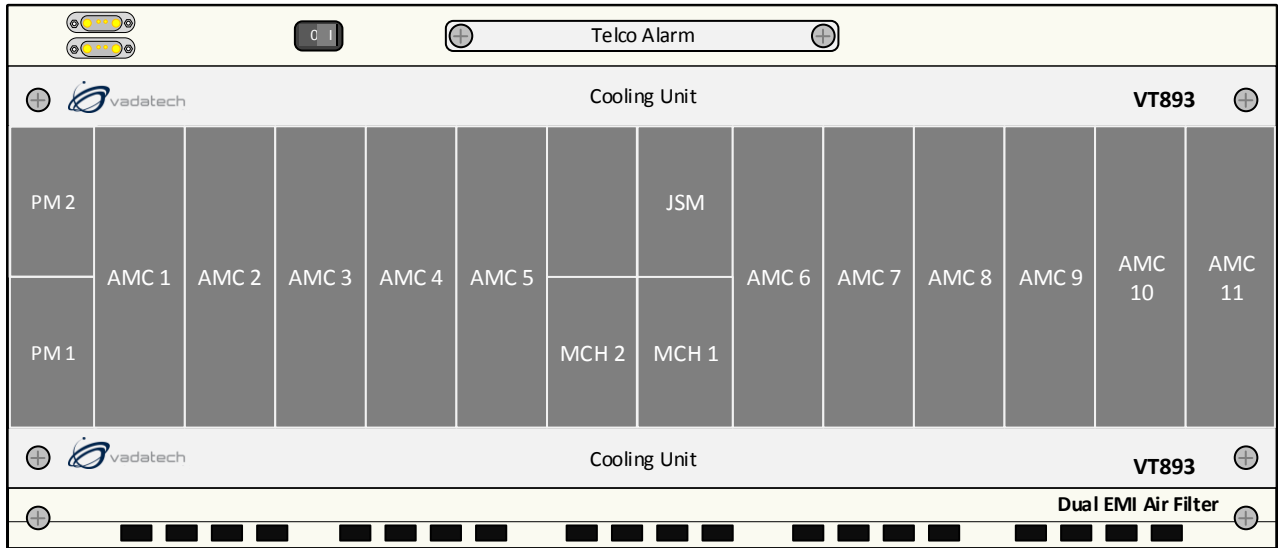


Figure 3: VT893 Chassis Layout

# Specifications

Architecture	
<b>Physical</b>	<b>Dimensions</b> Width: 19" Depth: 10.25" without handles and 12" with the handles Height: 7U
	<b>Type</b> <b>MTCA Chassis</b> 11 Full-size AMC slots Telco Alarm, JSM, Dual MCH, Dual Power Module and Dual Intelligent Cooling Units
	Standards
<b>AMC</b>	<b>Type</b> AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
<b>MTCA</b>	<b>Type</b> PICMG 3.0 Rev 3.0
Configuration	
<b>Power</b>	<b>VT893</b> 1000 W supply 110-240 V AC with frequency from 47-63 Hz
<b>Environmental</b>	<b>Temperature</b> Operating temperature: -5° to 55°C, See <a href="#">environmental spec sheet</a> Storage Temperature: -40° to +70°C
	<b>Altitude</b> 10, 000 ft operating 40, 000 ft non-operating
	<b>Relative Humidity</b> 5 to 95% non-condensing
<b>Cooling</b>	Right to Left
Other	
<b>MTBF</b>	MIL Hand book 217-F@ TBD hrs
<b>Certifications</b>	Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
<b>Warranty</b>	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

## VT893 – ABC-000-0HJ

<b>A = Power Supply</b> 0 = No Power Supply 1 = 1000 W		
<b>B = Ports 2 and 3</b> 1 = Direct connection 2 = To MCH		
<b>C = CLK3</b> 1 = Non-redundant (Telco clock) 2 = Non-redundant (Fabric clock) 3 = Redundant		<b>J = Conformal Coating</b> 0 = No coating 1 = Humiseal 1A33 polyurethane 2 = Humiseal 1B31 acrylic

## Related Products

AMC720



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

UTC004



- Unified 1 GHz quad-core CPU for MicroTCA Carrier Management Controller (MCMC), Shelf Manager, Clocking, and Fabric management
- Automatic fail-over with redundant UTC004s
- 1GbE base switch with dual 100/1000/10 G uplink

UTC020



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

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