

## 7U $\mu$ TCA Chassis with 12 AMC Full Size Slots – VT891

7U  $\mu$ TCA Chassis, 12 AMCs



**$\mu$ TCA™**

### KEY FEATURES

- $\mu$ TCA 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 twelve AMCs: 12 full-size, double modules
- Front-to-back cooling
- Dual Star topology
- Radial I<sup>2</sup>C bus to each AMC
- High-speed routing on 26 layers
- High-speed  $\mu$ TCA connectors (12.5 GHz)
- Redundant FRU information devices
- Redundant Carrier Locator
- 1000W AC Power supply option
- Telco Alarm
- CLK1, CLK2 and CLK3
- No active components on the backplane
- JTAG Switch Module (JSM) Slot
- ESD-Jack at the top front
- RoHS compliant

### Benefits of Choosing VadaTech

- Front-to-back cooling configuration
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full ecosystem of front and rear boards, enclosures, specialty modules, and test/dev products from one source
- AS9100 and ISO9001 certified company

The VT891 is a 7U  $\mu$ TCA chassis that provides 12 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 VT891 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  $\mu$ TCA 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 VT891 has a Telco Alarm as well as Redundant FRU information devices and carrier locators.

The VT891 has a JSM slot which routes to each JTAG port of the AMC.

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## POWER SUPPLY

The VT891 has an option for a 1000W power supply. The input voltage is from 110-240 VAC (frequency from 47-63 Hz). The VT891 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 VT891 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.

There are a total of 12 Temperature sensors in the chassis that monitor the intake and the outtake air temperature throughout the chassis.

## TELCO ALARM

The VT891 provides Telco Alarm functionality to alert about any anomaly within the chassis. The Telco Alarm is provided through a Micro DB-9 connector with LEDs in the front to show any anomaly. The Telco Alarm has its own dedicated slot.

## FRU INFORMATION AND CARRIER LOCATOR

The VT891 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 Carrier locator information through a private I<sup>2</sup>C bus.

## NO ACTIVE COMPONENTS

Unlike other  $\mu$ TCA chassis in the market, the VT891 has no active components on its backplane. This allows easy serviceability.

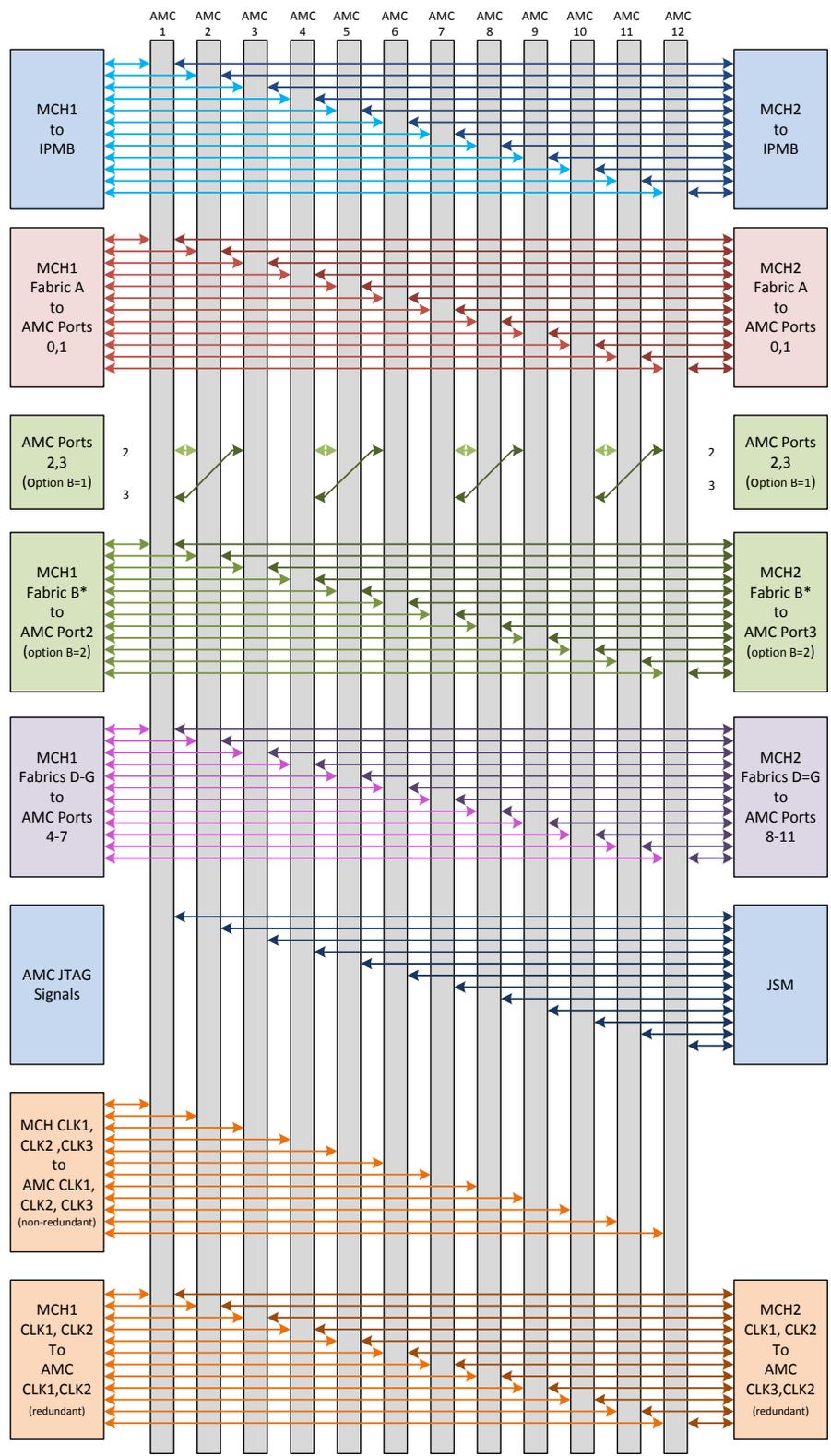
## SCORPIONWARE™ SOFTWARE

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.

## INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and  $\mu$ TCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), 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.

## BACKPLANE CONNECTIONS



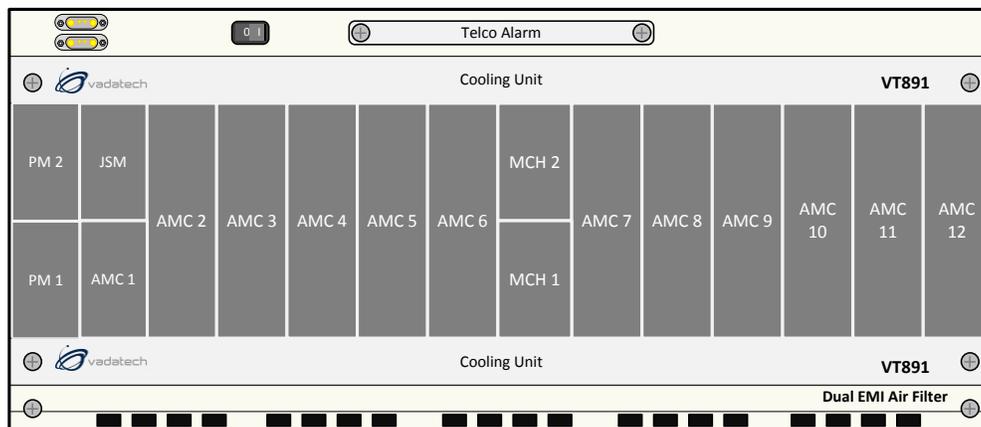
\*When CLK3 is non-redundant, Fabric B will be partially provided only on ports 1 to 6. CLK3 is routed on Fabric B on ports 7 to 12.

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## SPECIFICATIONS

Architecture		
Physical	Dimensions	Height: 7U
		Width: 19"
		Depth: 10.25" without handles and 12" with the handles
Type	$\mu$ TCA Chassis	12 Full-size AMC slots
		Telco Alarm, JSM, Dual MCH, Dual Power Module and Dual Intelligent Cooling Units
Standards		
AMC	Type	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
$\mu$ TCA	Type	PICMG 3.0 Rev 3.0
Configuration		
Power	VT891	1000 W supply
		110-240 VAC with frequency from 47-63 Hz
Environmental	Temperature	Operating Temperature: 0° to 55° C
		Storage Temperature: -40° to +70° C
	Altitude	10,000 ft operating
		40,000 ft non-operating
Relative Humidity	5 to 95 percent, non-condensing	
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
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
Compliance		RoHS and NEBS
Warranty		Two (2) years
Trademarks and Disclaimer		The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice

## CHASSIS CONFIGURATION



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## ORDERING OPTIONS

### VT891 – ABC – 000 – 00J

#### A = AC Power Supply

- 0 = None
- 1 = 1000 W

#### B = Ports 2 and 3

- 1 = Direct connections
- 2 = To MCH

#### C = CLK3

- 1 = Non-redundant (Telco clock)
- 2 = Non-redundant (Fabric clock)
- 3 = Redundant

#### J = Conformal Coating

- 0 = None
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

## RELATED PRODUCTS



**UTC004**  
MCH (3rd generation)



**UTC020**  
DC Power Module



**AMC720**  
Processor AMC, PCIe

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