7U μTCA Chassis with 12 AMC Full Size Slots – VT891

KEY FEATURES

- μTCA 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 I²C bus to each AMC
- High-speed routing on 26 layers
- High-speed μTCA 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

The VT891 is a 7U μTCA 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 μTCA 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.

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
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 I²C bus.

NO ACTIVE COMPONENTS
Unlike other μTCA 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 μTCA 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.
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.
# SPECIFICATIONS

## Architecture

<table>
<thead>
<tr>
<th>Physical</th>
<th>Dimensions</th>
<th>Height: 7U</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Width: 19”</td>
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<tr>
<td></td>
<td></td>
<td>Depth: 10.25” without handles and 12” with the handles</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>µTCA Chassis</th>
<th>12 Full-size AMC slots</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Telco Alarm, JSM, Dual MCH, Dual Power Module and Dual Intelligent Cooling Units</td>
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</table>

## Standards

<table>
<thead>
<tr>
<th>AMC Type</th>
<th>AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4</th>
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<tbody>
<tr>
<td>µTCA Type</td>
<td>PICMG 3.0 Rev 3.0</td>
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## Configuration

<table>
<thead>
<tr>
<th>Power</th>
<th>VT891 1000 W supply</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>110-240 VAC with frequency from 47-63 Hz</td>
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<table>
<thead>
<tr>
<th>Environmental Temperature</th>
<th>Operating Temperature: 0° to 55° C</th>
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<tbody>
<tr>
<td></td>
<td>Storage Temperature: −40° to +70° C</td>
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<table>
<thead>
<tr>
<th>Altitude</th>
<th>10,000 ft operating</th>
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<tbody>
<tr>
<td>Relative Humidity</td>
<td>40,000 ft non-operating</td>
</tr>
<tr>
<td>5 to 95 percent, non-condensing</td>
<td></td>
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</tbody>
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## Conformal Coating

- Humiseal 1A33 Polyurethane (Optional)
- Humiseal 1B31 Acrylic (Optional)

## Other

<table>
<thead>
<tr>
<th>MTBF</th>
<th>MIL Hand book 217-F @ TBD Hrs</th>
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<tbody>
<tr>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
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<tr>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
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<tr>
<td>Compliance</td>
<td>RoHS and NEBS</td>
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<tr>
<td>Warranty</td>
<td>Two (2) years</td>
</tr>
<tr>
<td>Trademarks and Disclaimer</td>
<td>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</td>
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</tbody>
</table>

## CHASSIS CONFIGURATION

![Chassis Configuration Diagram]
7U μTCA Chassis with 12 AMC Slots – VT891

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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