VT893

7U MTCA Chassis with 11 AMC Full Size Slots

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
VT893

The VT893 is a 7U MTCA chassis with 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.

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

Power Supplies

The VT893 has an option for a 1000W power supply. The input voltage is from 110-240V AC (frequency from 47-63 Hz). The unit provides -48V 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 airflow from front to back with Dual intelligent Cooling Units. This redundancy ensures fail-safe operation should one of the cooling units become non-operational. A sensor detects the presence of the replaceable Air Filter, allowing it to be monitored for when it is due to be cleaned/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 Locator. The Carrier Locator is assigned by easily accessible mechanical dip switches. 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 Shelf. The software GUI is very powerful, providing a Virtual Carrier and FRU construct for a simple, effective interface.
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

<table>
<thead>
<tr>
<th>Architecture</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Dimensions</td>
</tr>
<tr>
<td>Width: 19&quot;</td>
<td></td>
</tr>
<tr>
<td>Depth: 10.25&quot;</td>
<td>without handles and 12&quot; with the handles</td>
</tr>
<tr>
<td>Height: 7U</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>MTCA Chassis</td>
</tr>
<tr>
<td>11 Full-size AMC slots</td>
<td></td>
</tr>
<tr>
<td>Telco Alarm, JSM, Dual MCH, Dual Power Module and Dual Intelligent Cooling Units</td>
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| Standards         |  |
| AMC Type          | AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4 |
| MTCA Type         | PICMG 3.0 Rev 3.0 |

| Configuration     |  |
| Power             | VT893 1000W supply |
| VT893             | 110-240V AC with frequency from 47-63 Hz |
| Environmental Temperature | Operating temperature: -5° to 55°C |
| Storage Temperature | -40° to +70°C |
| Altitude          | 10,000 ft operating |
| 40,000 ft non-operating |  |
| Relative Humidity | 5 to 95% non-condensing |

Cooling Front to back

| 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

**VT893 – ABC-000-0HJ**

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

### 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 100/1000/10G uplink

- ** 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
Choose VadaTech

We are technology leaders
• First-to-market silicon
• Constant innovation
• Open systems expertise

We commit to our customers
• Partnerships power innovation
• Collaborative approach
• Mutual success

We deliver complexity
• Complete signal chain
• System management
• Configurable solutions

We manufacture in-house
• Agile production
• Accelerated deployment
• AS9100 accredited

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