5U µTCA Chassis, 12 Full Size AMCs – VT861

KEY FEATURES

- µTCA System Platform 19” x 5U x 10.5” deep (with handles 12” deep)
- Single MicroTCA Carrier Hub (MCH), dual Cooling Units and single Power Module
- Twelve full-size AMC slots
- Radial I2C bus to each AMC
- High-speed routing on 22 layers
- High-speed µTCA connectors (12.5 GHz)
- 1000W AC power supply option
- CLK1, CLK2 and CLK3
- No active components on the backplane
- ESD-Jack at the top front of chassis
- RoHS compliant

Benefits of Choosing VadaTech

- 40GbE capable backplane
- Elegant design, smooth extraction of FRUs
- 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 VT861 is a 5U µTCA chassis that provides 12 AMC full-size 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 VT861 has full redundancy on its Cooling Units. The CLK3 option can be configured for the Fabric clock, Telecom clock or Fabric B.

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).
POWER SUPPLIES
The VT861 offers an optional single 1000W AC power supply. The AC input voltage is from 110 to 240V AC (frequency from 47 Hz to 63 Hz). The VT861 provides –48V connectors to the front of the chassis to power the 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 VT861 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 VT861 provides Telco alarm functionality to alert about any anomaly within the chassis. The Telco Alarm is provide via a Micro DB-9 as well as LEDs in the front to show any anomaly. The Telco alarm module is built into the chassis, located above the fan tray.

FRU INFORMATION AND CARRIER LOCATOR
The VT861 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.

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.

CHASSIS CONFIGURATION

![Chassis Configuration Diagram]

Figure 1: Front View
MCH IPMB to AMC IPMB

MCH Fabric A 
To 
AMC Port 0

AMC Ports 
2,3
(Direct Connections)

MCH Fabric B* 
To 
AMC Port 2

MCH Fabrics 
D-G 
To 
AMC Ports 4-7

MCH Clocks 
1,2 and 3 
To 
AMC Clocks 
1,2 and 3
(Non-redundant)

MCH Clocks* 
1 and 2 
To 
AMC Clocks 
1 and 2
(Non-redundant)

*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

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Physical Dimensions</th>
<th>Height 5U</th>
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<tbody>
<tr>
<td></td>
<td>Width 19&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth 10.25&quot; without the handles and 12&quot; with the handles</td>
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<tr>
<td>Type</td>
<td>μTCA Chassis</td>
<td>12 AMC.0 full size slots</td>
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<tr>
<td></td>
<td>Single MCH, Single Power Module and Dual Intelligent Cooling units</td>
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<tr>
<td>Standards</td>
<td>AMC Type</td>
<td>AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4</td>
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<tr>
<td></td>
<td>μTCA Type</td>
<td>PICMG 3.0 Rev 3.0</td>
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<tr>
<td>Configuration</td>
<td>Power</td>
<td>VT861 1000 W, 110V to 240V AC with frequency from 47 to 63 Hz</td>
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<tr>
<td></td>
<td>Environmental</td>
<td>Operating Temperature: 0° to 55° C</td>
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<tr>
<td></td>
<td></td>
<td>Storage Temperature: −40° to +70° C</td>
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<tr>
<td></td>
<td>Altitude</td>
<td>10,000 ft operating</td>
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<tr>
<td></td>
<td></td>
<td>40,000 ft non-operating</td>
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<tr>
<td></td>
<td>Relative Humidity</td>
<td>5 to 95 percent, non-condensing</td>
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<tr>
<td>Conformal Coating</td>
<td>Humiseal 1A33 Polyurethane (Optional)</td>
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<tr>
<td>Other</td>
<td>MTBF</td>
<td>MIL Hand book 217-F @ TBD Hrs</td>
</tr>
<tr>
<td></td>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications where applicable</td>
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<tr>
<td></td>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
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<td>Compliance</td>
<td>RoHS and NEBS</td>
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<td>Warranty</td>
<td>Two (2) years</td>
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<td>Trademarks and Disclaimer</td>
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ORDERING OPTIONS

VT861 – ABC – 000 – 00J

A = Power Supply
0 = None
1 = 1000 W AC

B = Ports 2 and 3
1 = Direct connections
2 = To MCH

C = CLK3 Type
1 = Telco clock
2 = FCLKA
3 = Fabric B

J = Conformal Coating
0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

RELATED PRODUCTS

UTC002 MCH
AMC534 100G FPGA
AMC720 Processor AMC

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