VT876

MicroTCA Conduction Cooled Redundant Chassis with four AMC Slots

Key Features
- Four AMC slots with full redundancy across two slots
  - Each side is independent (two slots per side)
- Hardened ATR (Air Transport Rack) style MicroTCA (MTCA) Chassis
- Conduction cooling, fanless operation
- MicroTCA.3 style slots
- Dual MCH (MTCA Controller Hub)
- Dual DC power supply for redundancy

Benefits
- Conduction cooled four slots in an ATR style chassis for fan less operation
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company
VT876

The VT876 is an ATR Hardened MTCA chassis that provides four mid-size AMC slots that can accept any AMC modules per MTCA.3 specification. The VT876 provides conduction cooling for fanless operation in environments requiring very low acoustic and electrical emission. The module requires a cold wall to dissipate the power or airflow over the ATR.

The VT876 has dual MicroTCA Controller Hub (MCH) slot. VadaTech can modify the backplane to accommodate any customer routing requirements.

Power Supply

The VT876 takes Dual Standard MTCA Power Entry Module (PEM). The PEM utilized determines the input power (i.e. +28V, -48V, AC, etc.).

Cooling

The VT876 chassis is conduction cooled for fanless operation and is designed as an ATR Chassis.

Figure 1: VT876 Front View

Figure 2: VT876 Side View
Backplane Connections

Figure 3: VT876 Backplane Connections

Figure 3A: VT876 Backplane Connections
# Specifications

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Dimensions</th>
<th>Height: 9.7” (with cold plate 9.7”)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Width: 4.9” (with cold plate 5.1”)</td>
<td></td>
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<tr>
<td></td>
<td>Depth: 13” (with cold plate 15.3”)</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>MTCA Chassis</td>
<td>Four AMC conduction cool slots</td>
</tr>
<tr>
<td>Standards</td>
<td>AMC Type</td>
<td>AMC.0, AMC.1, AMC.2 and AMC.3</td>
</tr>
<tr>
<td></td>
<td>MTCA Type</td>
<td>MTCA.3</td>
</tr>
<tr>
<td>Configuration</td>
<td>Power</td>
<td>VT876 Dual Standard Power Entry (PEM) Modules per MTCA specification</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PEM determines the input Voltage</td>
</tr>
<tr>
<td></td>
<td>Ports</td>
<td>Backplane See Figure 3</td>
</tr>
<tr>
<td>Environmental</td>
<td>Temperature</td>
<td>Operating Temperature: Module dependent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Storage Temperature: −40° to +90°C</td>
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<tr>
<td></td>
<td>Vibration</td>
<td>0.5G RMS, 20-20,000 Hz random (Operating): 6G RMS (non-operating)</td>
</tr>
<tr>
<td></td>
<td>Shock</td>
<td>30G on each axis</td>
</tr>
<tr>
<td></td>
<td>Relative Humidity</td>
<td>5 to 95% non-condensing</td>
</tr>
<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>
</tr>
<tr>
<td></td>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
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<tr>
<td></td>
<td>Warranty</td>
<td>One (1) year, see VadaTech Terms and Conditions</td>
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</tbody>
</table>

**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

**VT876 – 0B0-000-00J**

<table>
<thead>
<tr>
<th>B = Backplane</th>
<th>J = Conformal Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Per figure 3A</td>
<td>0 = No coating</td>
</tr>
<tr>
<td>1 = Per figure 3</td>
<td>1 = Humiseal 1A33 Polyurethane</td>
</tr>
<tr>
<td></td>
<td>2 = Humiseal 1B31 Acrylic</td>
</tr>
</tbody>
</table>

## Related Products

- **VT878**
  - Two-module chassis
  - Compact and robust design
  - Designed for bulkhead mount in ground or air vehicle

- **AMC524C**
  - Quad ADC 16-bit @ 125 MSPS (AD9653)
  - Dual DAC 12-bit @ 2.5 GSPS (DDS AD9915)
  - Artix-7 FPGA with dual banks of DDR-3, 2 GB total

- **AMC710C**
  - Single module, mid-size per AMC.0
  - Conduction cooled version available
  - Freescale QorIQ P4040/P4080 processor
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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