Shelf Manager – VT011

The VT011 is a VadaTech Shelf Manager for AdvancedTCA systems. The VT011 provides Telco Alarm via Micro DB-15 on its front panel as well as indication for Minor/Major/Cortical alarm indication. The board can also run as a protocol analyzer to monitor, inject, capture and validate I2C traffic on the Intelligent Platform Management Bus (IPMB) on all of the I2C busses.

A Graphical User Interface (GUI) validates and displays the IPMI packets or schedules IPMI messages for injection into the shelf. The GUI application communicates with the VT011 through the Ethernet port. Each IPMI bus has a 64-byte FIFO to allow for a full IPMI packet on each I2C bus so there is no packet loss during operation. When two VT011s are in the system, they operate in redundant active/standby mode. During operation, one VT011 is active while the second one is synchronized in hot standby mode. The module is fully hot-swappable to minimize service down time.

Benefits of Choosing VadaTech

- Shelf managers in various sizes and formats
- Mezzanine approach of VT003 ShMM allows re-use in multiple designs and applications
- Proven design used on other VadaTech ATCA products
- 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

Key Features

- Shelf manager for AdvancedTCA systems
- Utilizing VadaTech Third Generation Shelf Manager VT003
- Option to plug into ATC139 AdvancedTCA Carrier
- Quad Core ARM Freescale processor @ 1 GHz per core
- One GB DDR3 memory
- FRAM for log messages
- 32GB of Flash
- 8GB of NAND Flash
- Quad 10/100 Ethernet ports
- I2C Real Time Clock with battery backup
- IPMI 2.0 compliant
KEY SOFTWARE FEATURES

IPMI VERSION 2.0

- FRU inventory access and update
- Device SDR repository access and update
- Initialization agent
- Temperature sensors
- Settable / readable sensor thresholds and hysteresis
- Sensor event generation
- Basic mode serial messaging (Payload interface)
- Warm reset
- Cold reset
- Get self-test results

PICMG ATCA VERSION 3.X

- IPMB-0
- IPMB sensors
- IPMB sensor event generation
- ATCA electronic keying
- Hot swap sensor
- Hot swap event generation
- FRU control
- LED controls

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.

BLOCK DIAGRAM
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Architecture</th>
<th>Dimensions</th>
<th>Physical</th>
<th>Width: 5.85 in. (148.5 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Shelf Manager</td>
<td>AdvancedTCA systems Shelf Manager</td>
<td></td>
</tr>
<tr>
<td>Standards</td>
<td>Module Management</td>
<td>IPMI</td>
<td>IPMI v2.0</td>
</tr>
<tr>
<td></td>
<td>PICMG</td>
<td>3.x</td>
<td></td>
</tr>
<tr>
<td>Configuration</td>
<td>VT011</td>
<td>~5 W</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental</td>
<td>Operating Temperature: 0° to 85° C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage Temperature: −40° to +125° C</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Vibration</td>
<td>1G, 5 to 500 Hz on each axis</td>
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<tr>
<td></td>
<td>Shock</td>
<td>30Gs on each axis</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>Front Panel</td>
<td>Interface Connectors</td>
<td>RS-232 via RJ-45</td>
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<tr>
<td></td>
<td></td>
<td>10/100 Ethernet RJ-45</td>
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<tr>
<td></td>
<td>LEDs</td>
<td>IPMI management control</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Activity/Link LEDs, User defined LEDs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Push Button</td>
<td>Reset Switch</td>
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<tr>
<td></td>
<td></td>
<td>Mechanical Hot-swap ejector handle</td>
<td></td>
</tr>
<tr>
<td>Software Support</td>
<td>Operating Systems</td>
<td>Linux</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>MTFB</td>
<td>MIL Hand book 217-F @ 242,000 Hrs</td>
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<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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<tr>
<td></td>
<td>Compliance</td>
<td>RoHS and NEBS</td>
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<tr>
<td></td>
<td>Warranty</td>
<td>Two (2) years</td>
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<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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</table>
ORDERRING OPTIONS

VT011 – 000 – 000 – 0HJ

H = Temperature Range
1 = Commercial (–5° to +55° C)
2 = Industrial (–20° to +70° C)

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

RELATED PRODUCTS

ATC139 ATCA Carrier for VT011
EXP200 Express Chassis Platform
ATC114 ATCA Carrier for AMCs

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