

# VT032

## ATCA Shelf Manager, Managed Layer 3 Base Interface



VT032

### Key Features

- Managed Layer 3GbE Switch
- Compliant to PICMG 3.0 base specifications
- Dual GbE, 10/100 out-of-band, and RS-232 de-bug ports via RJ-45
- Quad GbE and Dual 10GbE on the front panel
- Software for Sensor Data Record, event logs, FRU inventory monitoring temp and power, e-keying, alarms and more
- Telco alarm with Micro DB15 connector front panel interface
- Active/standby redundancy when utilizing two VT032 in a system

### Benefits

- Combines functionality of switches and shelf managers in one unit, significantly boosting performance density
- Layer 3 managed switch performance
- Incorporates VadaTech's 3rd generation shelf manager with HTTP, SNMP, HPI, RMCP, CLI and other software features

**Advanced TCA®**



**vadatech**  
THE POWER OF VISION



# VT032

The VT032 AdvancedTCA Shelf Manager combines VadaTech's 3rd Generation Shelf Manager with integrated Layer 3 Managed Switch on the same module. This allows two slots in the system to be used as Nodes versus having the slots otherwise be allocated as dedicated switching hubs in the system.

With two VT032's in the system, there is full redundancy and failover both on the Hub side as well as on the Shelf Manager side. The shelf managers are compact, where two switches can be mounted outside of the card cage area, saving space.

The VT032 can run as a protocol analyzer to monitor, inject, capture and validate I2C traffic on the Intelligent Platform Management Bus (IPMB). A Graphical User Interface (GUI) validates and displays the IPMB messages for injection into the shelf. The GUI application communicates with the VT032 through the Ethernet port. The VT032 is fully hot-swappable to minimize service downtime.



Figure 1: VT032

# Block Diagram

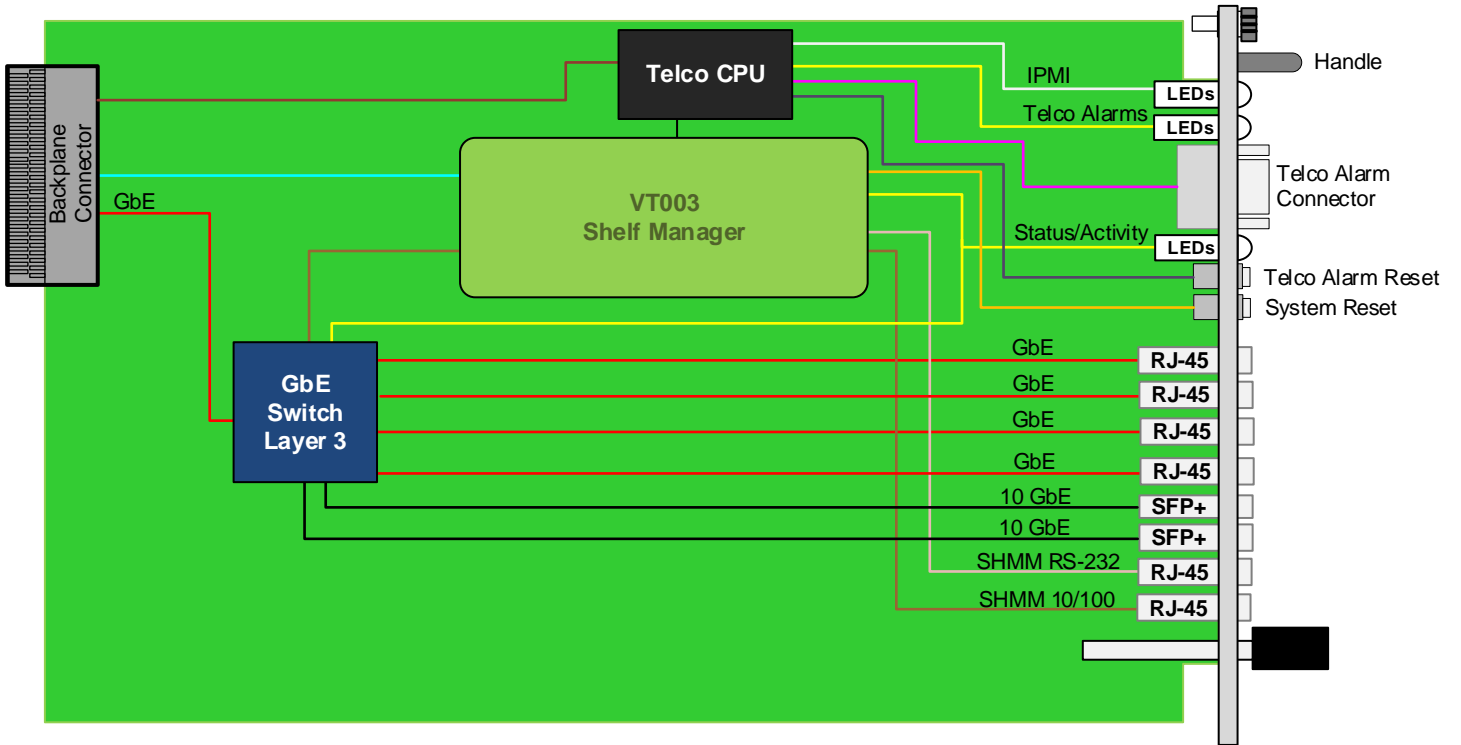


Figure 2: VT032 Functional Block Diagram

## GbE Layer 3 Managed Switch

The Layer 3 managed GbE switch routes dual GbE ports to the backplane base channels. The features include Switching, Multi-cast, Source Port Filtering, Storm Control Per-Port, Spanning Tree, Double Tagging, and Mirroring.

## 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.

## IPMI Protocol Analyzer

VT032 can be used as an IPMI protocol analyzer. **Error! Reference source not found.** shows the trace viewer output from VT032.

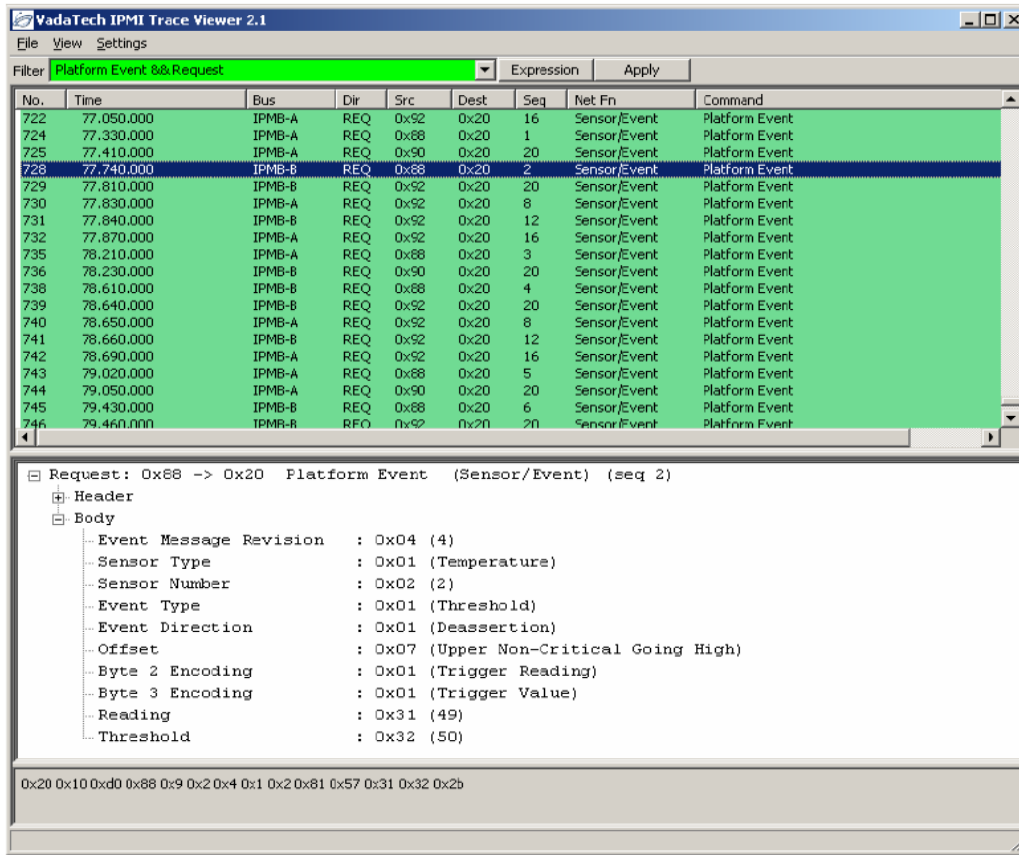


Figure 3: IPMI Protocol Analyzer Trace Viewer Output

# Specifications

Architecture		
<b>Physical</b>	<b>Dimensions</b>	Width: 5.685" (144 mm)
		Depth 11.096" (281 mm)
<b>Type</b>	<b>Shelf Manager</b>	VadaTech ATCA Shelf Manager
Standards		
<b>Module Management</b>	<b>IPMI</b>	IPMI v2.0 and PICMG 3.0
Configuration		
<b>Power</b>	<b>VT032</b>	TBD W
<b>Environmental</b>	<b>Temperature</b>	See ordering options and <a href="#">environmental spec sheet</a>
		Storage Temperature: -40° to +90°C
	<b>Vibration</b>	Operating 9.8 m/s <sup>2</sup> (1 G), 5 to 500 Hz on each axis
	<b>Shock</b>	Operating 30 G each axis
	<b>Relative Humidity</b>	5 to 95% non-condensing
<b>Front Panel</b>	<b>Interface Connectors</b>	Micro DB15 connector for Telco Alarm
		RJ-45 for RS-232 port
		Single 10/100 out of band port support to the shelf manager
		Quad GbE ports (10/100/1000) and dual SFP+
	<b>LEDs</b>	IPMI management control
		Activity/Link user LEDs
	<b>Mechanical</b>	Hot swap ejector handle
		Cap-screw
	<b>Push Button</b>	Alarm reset and system reset
<b>Software Support</b>	<b>Operating System</b>	Linux (consult factory for VxWorks, Windows, or other options)
Other		
<b>MTBF</b>		MIL Hand book 217-F@ TBD hrs
<b>Certifications</b>		Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>		VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
<b>Warranty</b>		Two (2) years

## 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

## VT032- AB0-000-0HJ

<b>A = GbE Switch</b>		
0 = None 1 = GbE Layer 3 Managed		
<b>B = SFP0+ Transceivers</b>		<b>H = Temperature Range</b>
0 = None 1 = 10GBASE-SR 2 = 10GBASE-LR		0 = Commercial (Operating Temperature -5° to 65° C) 1 = Industrial
		<b>J = Conformal Coating</b>
		0 = None 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

## Related Products



- Shelf manager for AdvancedTCA systems
- Utilizing Gen 3 Shelf Manager VT003
- Option to plug into ATC139 ATCA Carrier



- 10GbE Switching Shelf Manager, eliminates need for separate switch slots
- Compliant to PICMG 3.0 base specs
- Compliant to PICMG 3.1 fabric specs



- Switching Shelf Manager (SSM) – 40 G
- Compliant to PICMG 3.0 base specs
- Compliant to PICMG 3.1 fabric specs

# Contact

## VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

## Asia Pacific Sales Office

7 Floor, No. 2, Wenhua Street, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

## VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

[info@vadatech.com](mailto:info@vadatech.com) | [www.vadatech.com](http://www.vadatech.com)

# 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



**vadatech**  
THE POWER OF VISION

## Trademarks and Disclaimer

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.

© 2018 VadaTech Incorporated. All rights reserved.  
DOC NO. 4FM737-12 REV 01 | VERSION 1.1- AUG/18