VT032

ATCA Switching 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
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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VT032

The VT032 AdvancedTCA Switching Shelf Manager is designed for use with VT830. By combining VadaTech's 3rd Generation Shelf Manager with an integrated Layer 3 Managed Switch, the unit allows two slots in the system to be used as Nodes that would otherwise be allocated as dedicated switching hubs in the system.

Full redundancy and failover on both the Hub side and the Shelf Manager side can be achieved by using two VT032s in the system. The compact design allows two switches to 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.
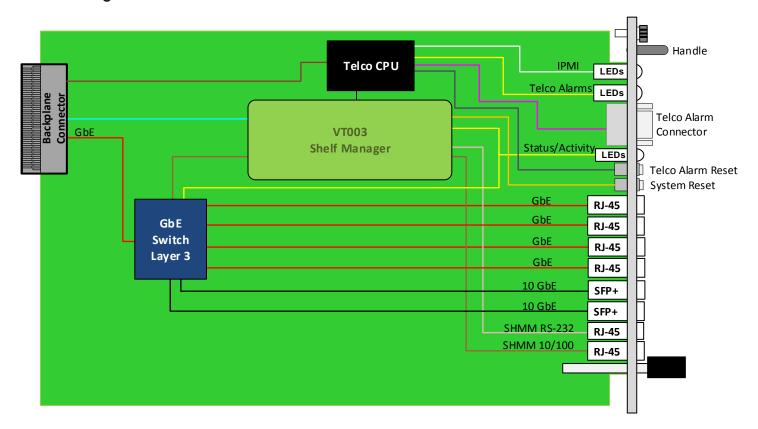

Figure 1: VT032

Block Diagram

Figure 2: VT032 Functional Block Diagram

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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. Figure 3 shows the trace viewer output.
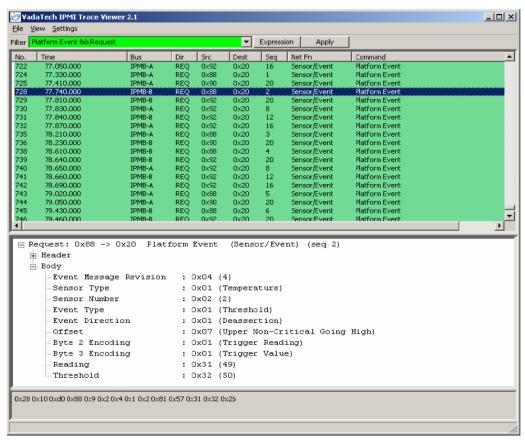

Figure 3: IPMI Protocol Analyzer Trace Viewer Output

Specifications

Architecture		
Physical	**Dimensions**	Width: 5.685" (144 mm)
		Depth 11.096" (281 mm)
Type	**Shelf Manager**	VadaTech ATCA Shelf Manager
Standards		
Module Management	**IPMI**	IPMI v2.0 and PICMG 3.0
Configuration		
Power	**VT032**	TBD W
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +90°C
	Vibration	Operating 9.8 m/s² (1G), 5 to 500 Hz on each axis
	Shock	Operating 30G each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	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+
	LEDs	IPMI management control
		Activity/Link user LEDs
	Mechanical	Hot-swap ejector handle
		Cap-screw
	Push Button	Alarm reset and system reset
Software Support	**Operating System**	Linux (consult factory for VxWorks, Windows, or other options)
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 ISO9001:2015 and AS9100D standards	
Warranty	Two (2) years, 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

VT032 – AB0-000-0HJ

A = GbE Switch		H = Temperature Range
0 = No GBE Layer 3 1 = GbE Layer 3 Managed		
B = SFP0+ Transceivers		**H = Temperature Range**
0 = No TXCVRs 1 = 10GBASE-SR 2 = 10GBASE-LR		0 = Commercial (Operating Temperature -5° to 65°C) 1 = Industrial
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Related Products

VT011

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

VT030

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

VT031

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

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