Key Features

- Managed Layer two 10GbE Switch
- Compliant to PICMG 3.0 fabric/base specifications
- Dual GbE, 10/100 out-of-band, and RS-232 de-bug ports via RJ-45
- Quad GbE and quad 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 VT050 in a system

Benefits

- Combines functionality of switches and shelf managers in one unit, significantly boosting performance density
- Layer 2 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
VT050

The VT050 AdvancedTCA Switching Shelf Manager is designed for use with VadaTech VT831 or VT832 ATCA Chassis. By combining VadaTech’s 3rd Generation Shelf Manager with an integrated Layer two 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 VT050’s in the system. The Compact design allows two switches to be mounted outside of the card cage area, saving space.

The VT050 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 VT050 through the Ethernet port.

The VT050 is fully hot-swappable to minimize service downtime.

Figure 1: VT050

Figure 2: VT050 Front View
Block Diagram

Figure 3: VT050 Functional Block Diagram
GbE Layer 2 Managed Switch

The Layer 2 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

VT050 can be used as an IPMI protocol analyzer, Figure 4.

Figure 4: IPMI Protocol Analyzer Trace Viewer Output
### Specifications

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**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

VT050 – A00-000-0HJ

A = SFP0+ Transceivers*

0 = No TXCVRs
1 = 10GBASE-SR
2 = 10GBASE-LR (1KM)
3 = 10BBASE-LR (10KM)
4 = Reserved

H = Temperature Range

0 = Commercial (Operating Temperature -5° to 65°C)
1 = Industrial

J = Conformal Coating

0 = No coating
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

*Note: All four transceivers are loaded with the same type, contact VadaTech Sales for other options

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