

VT007

ATCA and/or VPX Bench-Top Shelf Manager and/or Protocol Analyzer



VT007

Key Features

- Bench-top stand-alone Shelf Manager
- IPMI protocol analyzer that interfaces to any ATCA and/or VPX chassis via cable
- 3W max power, 12V input
- Quad Core ARM @ 1 GHz per core
- One GB of DDR3 Memory
- Dual 10/100 Ethernet Ports
- RS-232 Debug Port
- Field upgradable with dual boot flash
- Telco alarms

Benefits

- Rich set of management software (refer to the VT001 specification for all software components) such as HPI, RMCP, SNMP, CLI, HTTP, etc.
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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VT007

The VadaTech VT007 Shelf Manger is a bench-top, stand-alone shelf manager and can manage any number of ATCA and/or VPX modules during debugging and development. The unit can be interfaced to any ATCA and/or VPX chassis via cable to 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 IPMI packets or schedules IPMI messages for injection into the shelf. The GUI application communicates with the VT007 through the Ethernet Port.

A combination of the VT000 and the VT007 can manage any number of ATCA modules during development and debugging. The module can also be used in VadaTech VPX Chassis such as VTX980/981/982/990/991 etc.

The VT007 utilizes the common VadaTech VT003 module as its shelf manager or protocol analyzer.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).



Figure 1: VT007 Front View



Figure 2 VT007 Rear View

Block Diagram

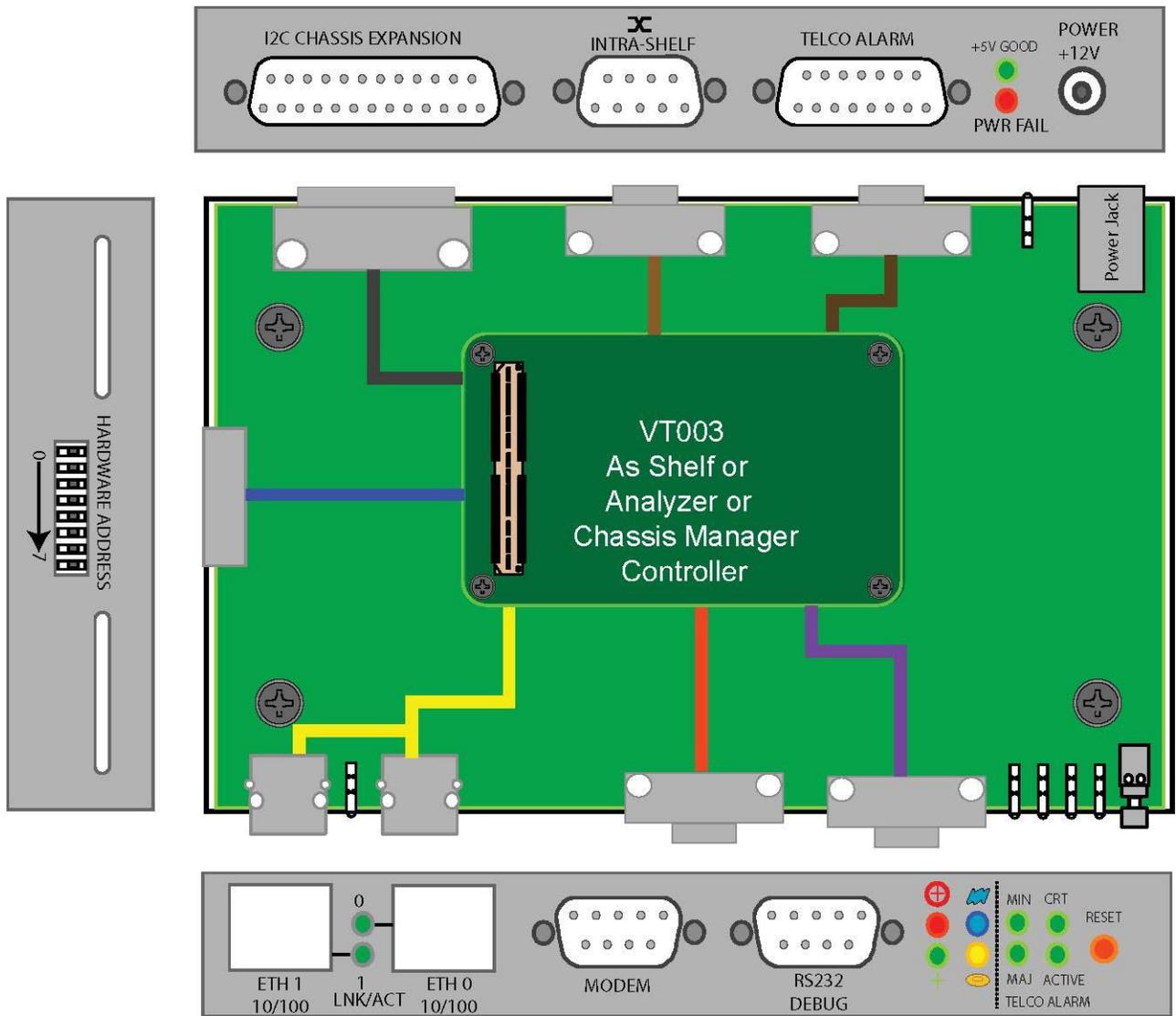


Figure 3: VT007 Functional Block Diagram

IPMI Protocol Analyzer

VT007 can be used as an IPMI protocol analyzer. Figure 4 shows the trace viewer output.

The screenshot displays the VadaTech IPMI Trace Viewer 2.1 interface. The main window shows a table of IPMI messages with columns for No., Time, Bus, Dir, Src, Dest, Seq, Net Fn, and Command. The filter is set to 'Platform Event &&Request'. The selected message (No. 728) is expanded to show its details:

```
Request: 0x88 -> 0x20 Platform Event (Sensor/Event) (seq 2)
  Header
  Body
    Event Message Revision : 0x04 (4)
    Sensor Type             : 0x01 (Temperature)
    Sensor Number           : 0x02 (2)
    Event Type              : 0x01 (Threshold)
    Event Direction         : 0x01 (Deassertion)
    Offset                  : 0x07 (Upper Non-Critical Going High)
    Byte 2 Encoding         : 0x01 (Trigger Reading)
    Byte 3 Encoding         : 0x01 (Trigger Value)
    Reading                 : 0x31 (49)
    Threshold               : 0x32 (50)
```

At the bottom of the window, the raw hex data for the selected message is displayed: 0x20 0x10 0xd0 0x88 0x9 0x2 0x4 0x1 0x2 0x81 0x57 0x31 0x32 0x2b

Figure 4: IPMI Protocol Analyzer Trace Viewer Output

Specifications

Architecture		
Physical	Dimensions	Width: 5.685" (144 mm)
		Depth 7.0" (177.8 mm)
Type	Shelf Manager	Stand-Alone (Bench-top)
Standards		
Module Management	IPMI	IPMI v2.0 and PICMG 3.0
Configuration		
Power	VT007	3W
Environmental	Temperature	See Ordering Options
		Storage Temperature: -40° to +90°C
	Vibration	Operating 9.8 m/s ² (1G), 5 to 500 Hz on each axis
	Shock	Operating 30G each axis
	Relative Humidity	5 to 95% non-condensing
Front	Interface Connectors	Debug Port, RS-232
		Dual 10/100 Ethernet RJ-45
		Modem Interface DB25
	Push Button	Reset Switch
	LEDs	IPMI management control Activity/Link user LEDs
Rear	Interface Connectors	DB15 for Telco Alarm
		DB15 with x5 I ² C busses
		Input power 12V
Software Support	Operating System	Linux v2.6.15
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

VT007 – A00-000-0HJ

A = Software Option		
1 = Shelf Manager 2 = IPMI Protocol Analyzer 3 = Chassis Manager (VPX)		
		H = Temperature Range
		1 = Commercial (Operating Temperature 0° to 65°C) 2 = Industrial
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Related Products

VT003



- Quad Core ARM Freescale processor @ 1 GHz per core
- One GB DDR3 memory
- FRAM for log messages

VTX980



- One slot benchtop 3U VPX development platform
- P0 to P2 connectors are installed
- Variable fan speed control for front and rear

VTX981



- One slot benchtop 3U VPX development platform
- P2 with two VITA 66.5 or 66.4 connectors option
- Support for Rear Transition Modules (RTMs)

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 | www.vadatech.com

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