VT819

1U MTCA.4 Chassis with 2 AMC Slots, Economic

VT819

Key Features

- Compact 1U MicroTCA.4 chassis
- Compliant to MTCA.4 specifications with rear IO
- Supports up to two MTCA.4 mid-size, double module AMCs and Rear Transition Modules (RTMs)
- Side to side airflow
- Integrated shelf manager with GbE Switch
- Point-to-point backplane routing across the two AMC slots on Ports 4-7 and 8-11
- Single 400W AC pluggable from rear
- Optional JTAG Switch Module (JSM)

Benefits

- Low-cost development chassis for MicroTCA.4 in a compact 1U size
- Design utilizes proven VadaTech subcomponents and engineering techniques
- AS9100 and ISO9001 certified company
- Full system supply from industry leader

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The VT819 is the ideal MTCA.4 Development Platform. The low-cost unit offers two AMC slot, an integrated MCH and a managed Layer two GbE Switch. The double module AMCs meet the MTCA.4 specification for applications that require rear I/O and signal conditioning.

The Module routes TCLKA/B/C/D as well CLK3 as 100 MHz HCSL.

Figure 1: VT819 Chassis Front View

Power Supplies

The VT819 uses a removable 400W AC power supply. It is located in the rear of the chassis.

Cooling and Temperature Sensors

The VT819 has an intelligent Cooling Unit. The cooling airflow is from right to left. The removable air filter has an optical switch to detect its presence and can be monitored for when it needs to be replaced.

There are temperature sensors in the chassis that monitor the intake and the outtake air temperature throughout the chassis.

Figure 2: VT819 Chassis Rear View

Scorpion™ 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.

JSM

There is an optional JTAG Switch Module to provide JTAG access to the front.

Block Diagram

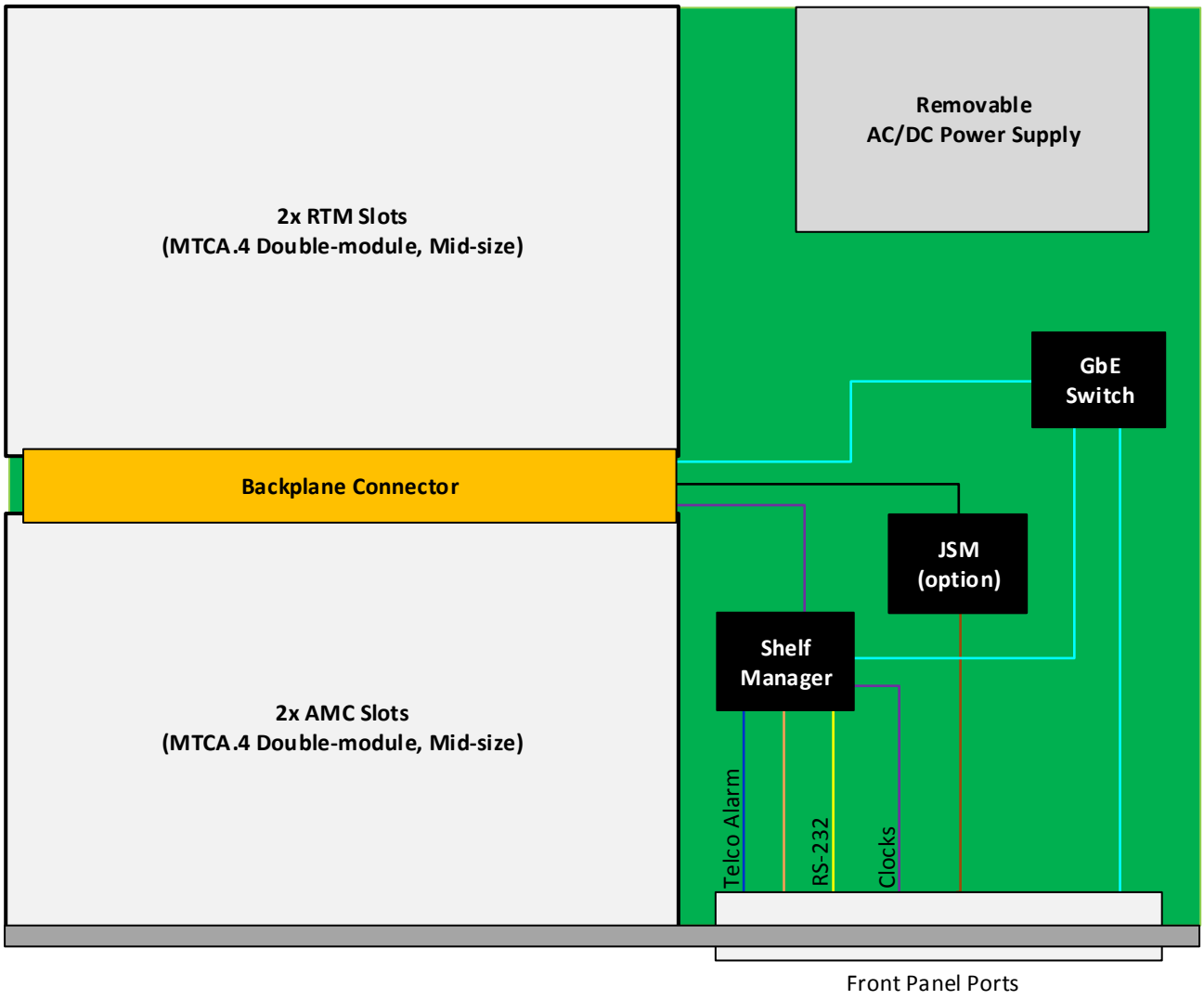

Figure 3: VT819 Functional Block Diagram

Backplane Connections

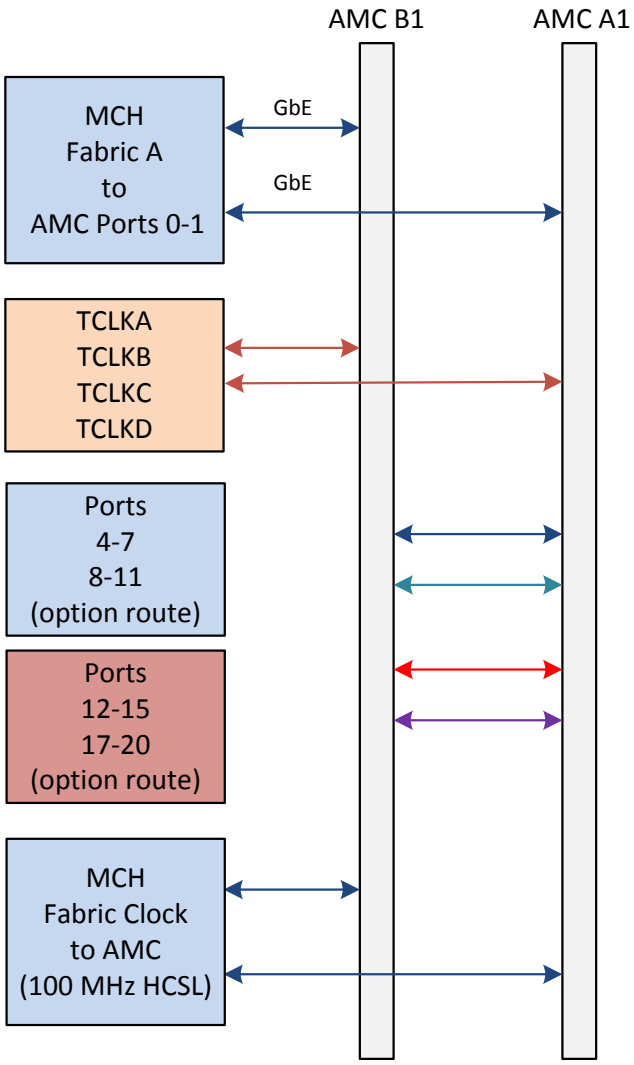

Figure 4: VT819 Backplane Connections

Chassis Layout

Figure 5: VT819 Chassis Layout (Front)

Figure 6: VT819 Chassis Layout (Rear)

Specifications

Architecture		
Physical	**Dimensions**	Width: 19”
		Depth: 14.2”
		Height: 1U
		Weight 8 lbs
Type	**MTCA Chassis**	Two MTCA.4 Slots with Micro RTMs
		Telco Alarm, JSM, integrated GbE, Single Power Module and Intelligent Cooling Unit
Standards		
AMC	**Type**	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
MTCA	**Type**	PICMG 3.0 Rev 3.0
Configuration		
Power	**VT819**	400W AC, 85-265V AC with frequency from 47-63 Hz
		400W DC, -36 to -75V DC
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +85°C
	Altitude	10, 000 ft operating
		40, 000 ft non-operating
	Relative Humidity	5 to 95% non-condensing
Cooling		Right to Left
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 ISO9001:2000 and AS9100B:2004 standards	
Warranty	One (1) year, 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

VT819 – ABC-DEF-GHJ

A = Power Supply	D = Ports 8-11 Connection	G = Module Slot Size
0 = Single AC 1 = DC -36 to -75V	0 = 8-11 point to point 1 = 8-11 not connected	0 = Dual double module mid-size slots 1 = One full-size double module slot (slot A1 not used) 2 = Dual Single module mid-size slots 3 = One full-size single module slot (slot A1 not used)
B = JSM	**E = Ports 12-15 Connection**	**H = Temperature Range**
0 = No JSM 1 = JSM	0 = 12-15 point to point 1 = 12-15 not connected	0 = Commercial (Operating Temperature -0° to 55°C) 1 = Industrial
C = Telecom/GPS Clock	**F = Ports 17-20 Connection**	**J = Conformal Coating**
0 = No Telecom/GPS Clock 1 = Telecom TCXO* 2 = GPS VCTCXO* (30.72 MHz)** 3 = GPS VCTCXO* (10.00 MHz)** 4 = Clock distribution only 5 = GPS VCTCXO[1] (50.00 MHz)** 6 = Reserved	0 = 17-20 point to point 1 = 17-20 not connected	0 = No coating 1 = Humiseal 1A33 polyurethane 2 = Humiseal 1B31 acrylic

Notes: *The Crystal Oscillator is Stratum-3; for lower cost solution contact VadaTech Sales.
**Frequencies from 8 MHz to 52 MHz are available.

Related Products

AMC522

- Dual channel MAX5878 DAC 16-bit @ 250 MSPS resolution
- Compliant to MTCA.4, double module, mid-size (full-size optional) with rear I/O
- Xilinx Kintex-7 FPGA

AMC725

- Double module, mid-size per AMC.0 and MTCA.4
- Intel® Xeon E3 processor options with PCH
- DVI graphics (SM750 w/ 16 MB DDR), up to 1920x1440 resolution

CM045

- Data Processing AMC in double module, mid-size (full-size optional)
- Compliant to MTCA.4
- High-speed Kintex-7 FPGA

Contact

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