

VT813 – 8U μ TCA.4 Chassis, 12 AMC, (N+1), 4400W

8U μ TCA.4 Chassis, 12 AMC



KEY FEATURES

- μ TCA.4 Chassis Platform with rear I/O
- 19" x 8U x 14.9" deep (with handles 16.23" deep)
- Full redundancy with dual MicroTCA Carrier Hubs (MCH), dual cooling units and quad PSUs
- Up to twelve AMCs: 12 mid-size double modules in front with 12 mid-size, double-module in the rear
- Provision to route cables from the front to the back
- Radial I2C bus to each AMC
- High-speed 30 layer passive backplane (40GbE ready)
- Redundant FRU information devices and carrier locators
- Four 1.1 kW AC Power supply for 4.4 kW total
- Telco alarm
- FCLKA, TCKA, TCKB, TCLKC AND TCLKD
- JTAG Switch Module (JSM) Slot
- ESD Jack at the top front and back

40G

Benefits of Choosing VadaTech

- N+1 redundant PSUs for up to 4400W of power
- Lightweight aluminum design in MTCA.4 format
- Ideal for High Energy Physics and other applications requiring rear I/O
- Cable channel below card cage for clean cable management going from front to back
- Electrical, mechanical, software, and system-level expertise in house
- Full ecosystem of front and rear boards, enclosures, specialty modules, and test/dev products from one source
- AS9100 and ISO9001 certified company

The VT813 is an 8U μ TCA.4 chassis that provides 12 AMC mid-size double module slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4. It provides FCLKA, TCLKA, TCLKB, TCLKC and TCLKD to each slot. The VT813 has full redundancy. It's capable of having redundant MCH, power modules, as well as redundant cooling units for high availability. The four hot-plug capable power supplies can provide 1100W AC each for a total of 4400W.

Ports 2-3, 12-15 and 17-20 are connected among the slots per the μ TCA.4 recommendation. The VT813 has a Telco Alarm as well as redundant FRU information devices and carrier locators. The VT813 has a JSM slot which routes to each JTAG port of the AMC. The VT813 has provision to route cables from the front to back via channel below the card cage.

POWER SUPPLY

The VT813 has up to four 1100W N+1 AC power supplies. The input voltage is from 110-240V AC (frequency from 47-63 Hz).

COOLING AND TEMPERATURE SENSORS

The VT813 has Dual intelligent Cooling Units. This redundancy allows fail-safe operation in case one of the cooling units becomes non-operational. The cooling airflow is from front to back. The removable Air Filter has a switch to detect its presence and can be monitored for when it needs to be replaced.

There are a total of 12 Temperature sensors in the chassis that monitor the intake and the outtake air temperature throughout the chassis..

TELCO ALARM

The VT813 provides Telco Alarm functionality to alert about any anomaly within the chassis. The Telco Alarm is provided via a Micro DB-9 as well as LEDs in the front to show any anomaly. The Telco Alarm has its own dedicated slot.

FRU INFORMATION AND CARRIER LOCATOR

The VT813 has dual redundant FRU information and Carrier Locators. The Carrier Locator is assigned by mechanical dip switches which are easily accessible. The MCH reads the Locator via its private I2C bus.

NO ACTIVE COMPONENTS

Unlike some other μ TCA chassis on the market, the VT813 has no active components on the backplane. This supports ease of serviceability.

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.

CHASSIS CONFIGURATION

PM1	JSM	Telco Alarm Module	MCH1	AMC1	AMC2	AMC3	AMC4	AMC5	AMC6	AMC7	AMC8	AMC9	AMC10	AMC11	AMC12	MCH2
PM3																
PM2																
PM4																

Figure 1: Chassis Layout Front View

MCH2 RTM	AMC12 RTM	AMC11 RTM	AMC10 RTM	AMC9 RTM	AMC8 RTM	AMC7 RTM	AMC6 RTM	AMC5 RTM	AMC4 RTM	AMC3 RTM	AMC2 RTM	AMC1 RTM	MCH1 RTM		Power Supply Inputs
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Figure 2: Chassis Layout Rear View

REAR PHOTO

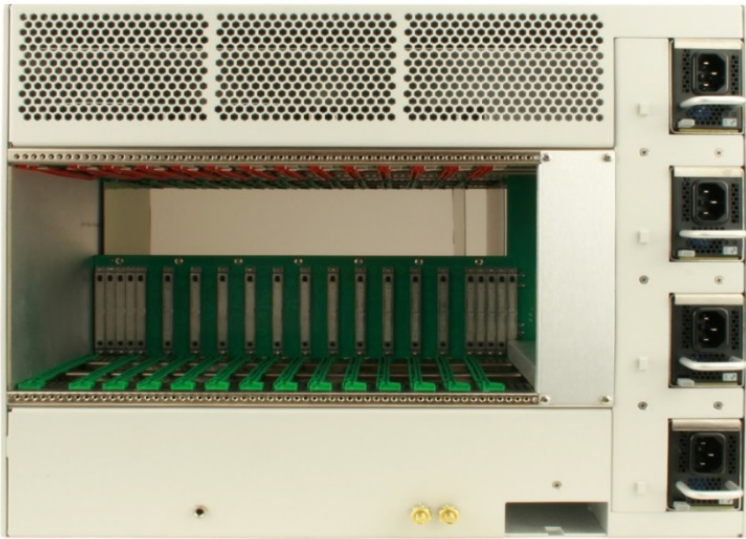


Figure 3: Chassis Rear View

BACKPLANE CONNECTIONS

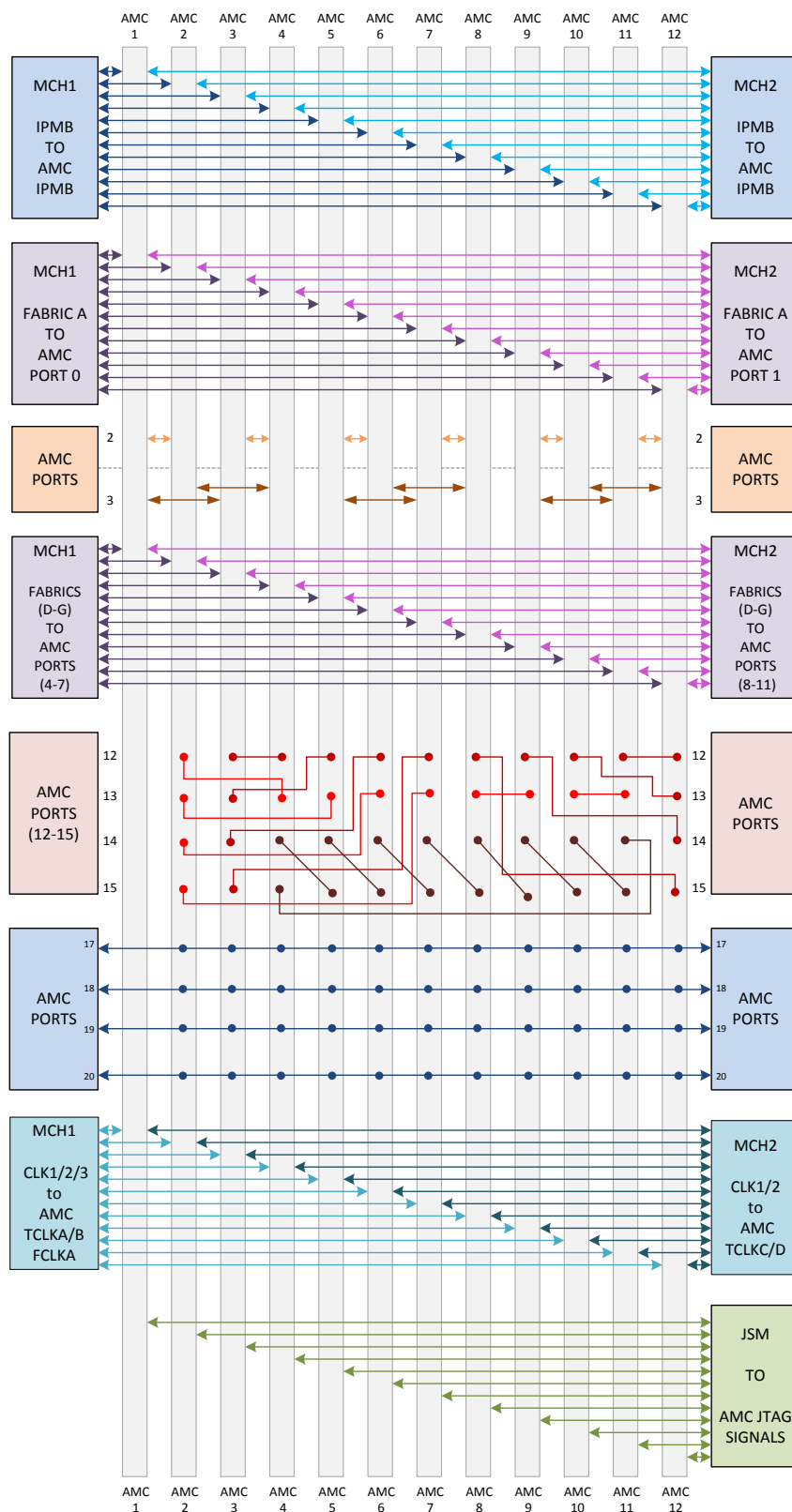


Figure 4: Backplane Connections

SPECIFICATIONS

Architecture		
Physical	Dimensions	Height 8U
		Width 19"
		Depth 14.9" without handles, 16.23" with handles
Type	μ TCA Chassis	12 mid-size AMC.0 double module slots
Standards		
AMC	Type	AMC.1, AMC.2, AMC.3 and AMC.4
μ TCA	Type	JSM, Telco Alarm, Dual MCH, Quad Power Module and Dual Intelligent Cooling Unit
Configuration		
Power	VT813	Up to <u>four</u> 1100 W AC supply 90-246V AC with frequency from 47-63 Hz
Environmental	Temperature	Operating Temperature: 0° to 55° C
		Storage Temperature: -40° to +70° C
	Altitude	10,000 ft operating
		40,000 ft non-operating
Conformal Coating	Relative Humidity	
	5 to 95 percent, non-condensing	
	Humiseal 1A33 Polyurethane (Optional)	
Other	Humiseal 1B31 Acrylic (Optional)	
	MTFB	
	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	Two (2) years	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and μ TCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), 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.

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ORDERING OPTIONS

VT813 – ABC – 000 – 00J*

A = Power Module

- 1 = Single supply (total 1100 W)
- 2 = Dual supply (total 2200 W)
- 3 = Triple supply (total 3300 W)
- 4 = Quad supply (total 4400 W)

B = JSM**

- 0 = No JSM module
- 1 = With JSM module (UTC008)

C = Chassis FRU Configuration for Power Modules

- 0 = 1+1 (One primary, one redundant)
- 1 = 2+1 (Two primary, one redundant)
- 2 = 2+2 (Two primary, two redundant)
- 3 = 3+1 (Three primary, one redundant)

J = Conformal Coating

- 0 = None
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

Notes:

* Contact VadaTech sales for end-to-end integrated solutions

** JSM can be purchased separately

RELATED PRODUCTS



AMC522 MTCA.4
250 MSPS ADC



UTC004 MCH



AMC738 100G
Processor AMC

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