VT818

11U MicroTCA.4.1 Chassis @ 4400 W, 360 W per slot

VT818

Key Features

- Twelve full-size double-width AMC slots

- Rear Transition Module (RTM) with extra power connector

- 360 W per slot (200 W front module and 160 W RTM)

- PinoutPlus™ support, 2nd tongue on all AMC slots

- Front to back cooling

- Single MCH with TCLKA, TCLKB and FCLKA

- Four power supply for a total of 4400W

- Option for RTM in the front or rear

- JSM (JTAG Switch Module) Support

Benefits

- Vast performance density with 12 full-height slots

- High bandwidth local interconnects via innovative PinoutPlus™

- Redundant power

- Full system supply from industry leader

- AS9100 and ISO9001 certified company

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VT818

The VT818 is an 11U MTCA.4.1 chassis (RTM backplane does not route all the MTCA.4.1 specification signals) that provides twelve full-size, double-width AMC slots. The chassis backplane is routed on high speed low loss material for high speed applications such as 40GbE.

The VT818 has the PinoutPlus™, which allows dual tongue AMC modules to be utilized. The PinoutPlus™ allows more power to each module (up to 200W) as well as adding an additional 21 pairs of high speed differential signals between the two adjacent slots. The use of the tongue 2 connector complies with the AMC.0 specification.

The VT818 has four power supplies for a total of 4400W. Each slot can dissipated up to 360W (including the RTM). The VT818 has an additional power connector on the RTM backplane to allow RTMs to draw up to 160W per slot.

The VT818 has a single MCH slot, Telco Alarm, as well having an option for the JSM (JTAG Switch Module). It provides FCLKA, TCLKA and TCLKB to each slot.

The Chassis has option to have the RTM in the front or the rear.

Figure 1: VT818 Chassis Front View

Figure 2: VT818 Chassis Rear View

Architecture

Cooling and Temperature Sensors

The VT818 has intelligent cooling units. The cooling airflow is from front to back. There are numerous temperature sensors in the chassis that monitor the intake and the outtake air temperature throughout the chassis.

Power Supplies

The VT818 allows up to four 1100 w power supplies. The input voltage is from 110-240V AC (frequency from 47-63 Hz).

Telco Alarm

The VT818 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.
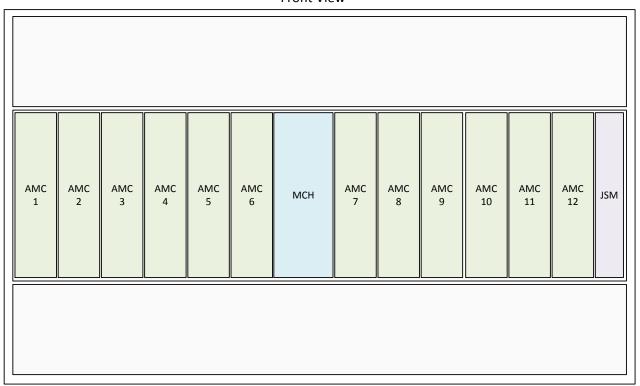
FRU Information and Carrier Locator

The VT818 has FRU information and a Carrier Locator. The Carrier Locator is assigned by mechanical dip switches which are easily accessible via the front panel. The MCH reads the Locator via its private I2C bus.
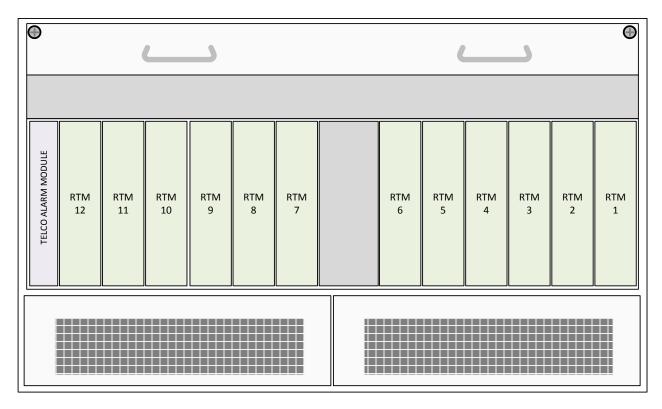
Scorpionware™ Software

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 Layout

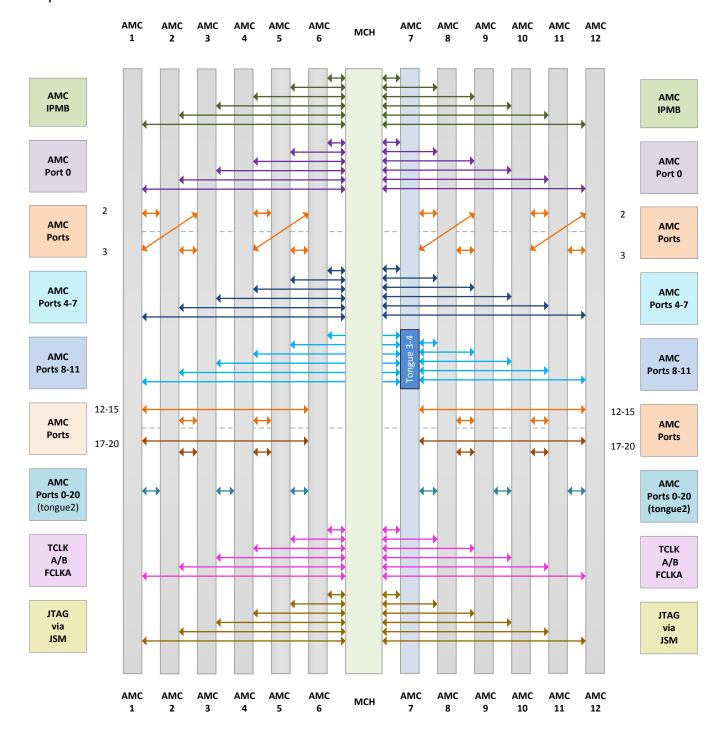## Front View

AMC 1	AMC 2	AMC 3	AMC 4	AMC 5	AMC 6	MCH	AMC 7	AMC 8	AMC 9	AMC 10	AMC 11	AMC 12	JSM

Rear View

TELCO ALARM MODULE	RTM 12	RTM 11	RTM 10	RTM 9	RTM 8	RTM 7		RTM 6	RTM 5	RTM 4	RTM 3	RTM 2	RTM 1

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Backplane Connections

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Chassis Layout

Figure 4: Chassis Layout - Front

Figure 5: Chassis Layout - Rear

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Specifications

Architecture		
Physical	**Dimensions**	Height: 11U
		Width: 19"
		Depth 17.1" (434 mm) rear mounting to rear of structure
		Depth 17.6" (447 mm) including the local protrusion (GND Nut)
Type	**MicroTCA Chassis**	12 AMC.0 mid-size double-width slots with Tongue 2 and RTM
Standards		
AMC	**Type**	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
MTCA	**Type**	MTCA.4.1 (not all the MTCA.4.1. RTM signals are routed on the RTM backplane)
Configuration		
Power	**VT818**	4400 W per supply (up to four 1100W supply, 90-240V AC universal AC with frequency from 47-63Hz)
Environmental	**Temperature**	Operating temperature: -5° to 45° C (55°C for limited time, performance restrictions may apply), industrial and extended versions also available (See environmental spec sheet)
		Storage Temperature: –40° to +85°C
	Altitude	10,000 operating
		40,000 non-operating
	Relative Humidity	5 to 95 per cent, non-condensing
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
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		Two (2) years

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and µTCA 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

VT818 – ABC-D00-00J

A = Power Supply	D = I/O (RTM in the front or rear)	
1 = Single (1100W, AC) 2 = Dual (2200W, AC) 3 = Triple (3300W, AC) 4 = Quad (4400W, AC) 5 = Reserved 6 = Reserved 7 = Reserved 8 = Reserved	0 = RTM in the Front 1 = RTM in the Rear	
B = Second Tongue		
0 = None 1 = Installed		
C = JSM		**J = Temperature Range and Coating**
0 = Reserved 1 = Not installed 2 = Installed		0 = Commercial (–5° to +55° C), No coating 1 = Commercial (–5° to +55° C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +55° C),Humiseal 1B31 Acrylic 3 = Industrial (–20° to +70° C), No coating 4 = Industrial (–20° to +70° C), Humiseal 1A33 Polyurethane 5 = Industrial (–20° to +70° C), Humiseal 1B31 Acrylic

Related Products

AMC594

- 8-bit ADC at up to dual 56 GSPS
- 2 x 56 or 4 x 28 GSPS channels
- Xilinx UltraScale™ XCVU190 FPGA

AMC750

- Intel® Xeon E5-2648L v4 (Haswell-EP)
- PCIe Gen 3 on ports 4-7 and 8-11(AMC.1)
- x16 PCIe Gen 3 via Tongue 2

UTC006

- Fabric options include PCIe Gen3, 40/10GbE, SRIO, Cross Bar Switch (CBS) or Xilinx Virtex-7 690T FPGA for complete flexibility
- Front panel fabric expansion, e.g. quad ports for PCIe Gen 3 (x4, x8, or x16)
- PLL synthesizer for generating any clock frequency

Contact

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