

VT881

2U MTCA Chassis with 12 AMCs, Dual DC Input



VT881

Key Features

- MTCA System Platform 19" x 2U x 14.2" deep
- Up to twelve AMCs: four full-size and eight mid-size
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and dual Power Modules
- Dual star topology
- Radial I2C bus to each AMC
- High-speed routing on 26 layers (40G capable)
- High-speed MTCA connectors (12.5 GHz)
- Removable Air Filter, Power Module and Fan Tray

Benefits

- Compact and versatile configuration
- Full power, cooling and MCH redundancy
- Passive backplane
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

μTCA™



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The VT881 is a 2U MTCA chassis that provides four full-size and eight mid-size AMC slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4. It provides CLK1, CLK2, and CLK3 to each slot in addition to the JTAG signals.

The VT881 has full redundancy. It's capable of having redundant MCH, Power Modules, as well as redundant Cooling Units for high availability Option for redundant/non-redundant clock per MTCA specification. The CLK3 option can be configured for the Fabric clock as well as Telecom clock.

The chassis has a JTAG Switch Module (JSM) slot per MTCA specification. This provides transparent communication between the front JTAG port and the selected AMC device. The VT881 has a Telco Alarm as well as Redundant FRU information devices and carrier locator.

Power Supply

The VT881 has an option for Dual Power Module (PM). The PM slots are in the rear with DC input from -36 V to -75 V input. Each PM has dual input for optimal redundancy.

Cooling and Temperature Sensors

The VT881 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 right to left. The removable Air Filter has a switch to detect its presence and can be monitored for when it needs to be replaced.

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

Telco Alarm

The VT881 is fitted with a Telco alarm that constantly monitors the chassis for any anomalies and alerts the user by LED indication on the Front Panel. It has its own dedicated slot and can be directly accessed via a Micro DB-9 connector.

FRU Information and Carrier Locator

The VT881 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 other MTCA chassis on the market, the VT881 has no active components on its back plane, making maintenance and servicing tasks straightforward.

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.

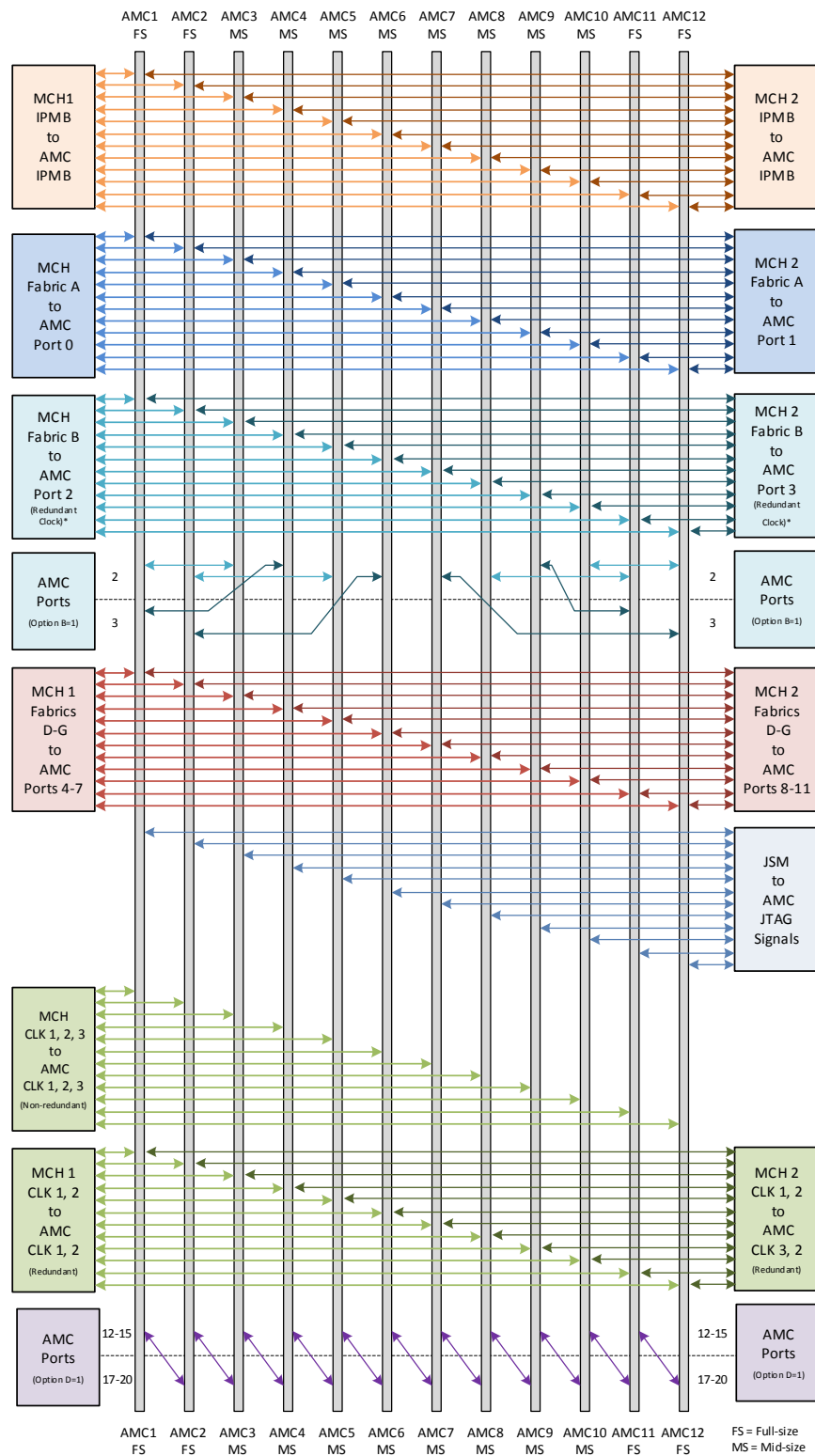


Figure 1: VT881 Front View



Figure 2: VT881 Rear View

Backplane Connectors

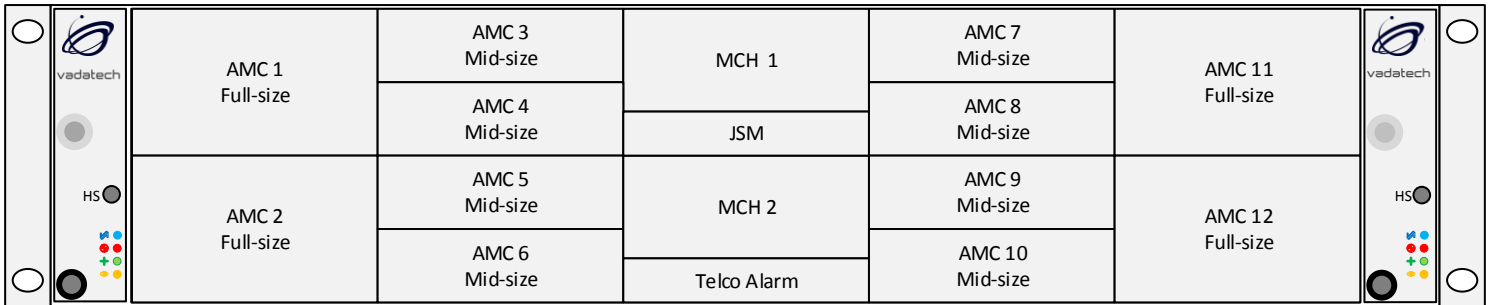


Note: When CLK3 is non-redundant, Fabric B will be partially provided only on ports 1 to 6. CLK3 is routed on Fabric B on ports 7 to 12.

Figure 3: VT881 Backplane Connections

Chassis Layout

Front View



Rear View

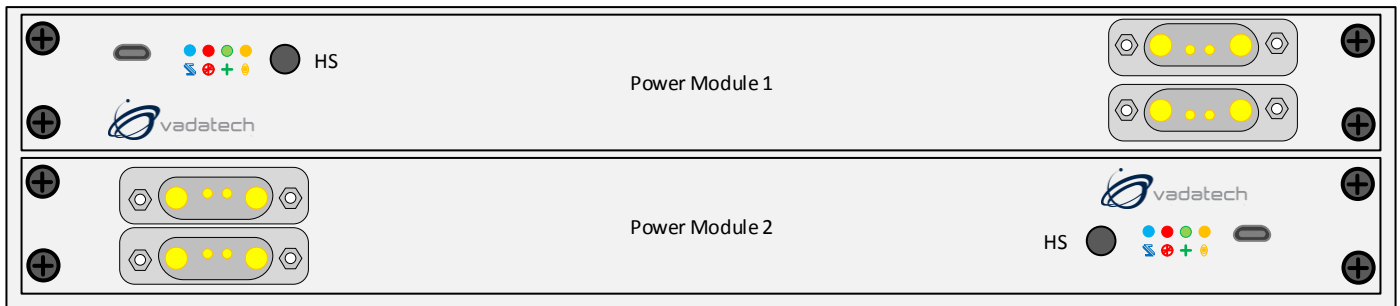


Figure 4: VT881 Chassis Layout

Specifications

Architecture	
Physical	Dimensions Height: 2U Width: 19" Depth: 12"
Type	MTCA Chassis 12 AMC.0 Slots
Standards	
AMC	Type AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
MTCA	Type JSM, Telco Alarm, Dual MCH, Dual Power Module and Dual Intelligent Cooling units
Configuration	
Power	VT881 Dual Power Module (PM) Inserted from the rear (each PM has dual input) 800 W supply with 90% efficiency; providing over 720 W to the system
Environmental	Temperature Operating temperature: -5° to 55°C, See environmental spec sheet Storage Temperature: -40° to +70°C
	Altitude 10,000 ft operating 40,000 ft non-operating
	Relative Humidity 5 to 95% non-condensing
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 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

VT881 – ABC-D0F-00J

A = Power Supply	D = Ports 12-15 and 17-20	
1 = Reserved 2 = Reserved 3 = Single DC supply (800 W) 4 = Dual DC supply (800 W)	0 = No routing 1 = Backplane routing	
B = Ports 2 and 3		
0 = To MCH 1 = Direct Connection		
C = CLK3	F = JSM	J = Conformal Coating
1 = Non-redundant (Telco) 2 = Non-redundant (Fabric CLK) 3 = Redundant	0 = No JSM 1 = JSM	0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Related Products

AMC720



- Intel® Xeon™ E3 processor
- Single module, mid-size per AMC.0
- PCIe Gen2 (Gen3 on v2 option) x4 on ports 4-7 and 8-11 or single PCIe x8 on ports 4-11 (AMC.1)

UTC004



- Unified 1 GHz quad-core CPU for MCMC (MicroTCA Carrier Management Controller), Shelf Manager, Clocking, and Fabric management
- 1GbE base switch with dual 100/1000/10 G uplink
- Non-blocking PCIe Gen 3, SRIO Gen 2, 10GbE/40GbE, or Crossbar Switch option to AMC fat pipes with options for up to 40GbE uplink

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- MTCA System Platform 19" x 2U x 14.2" deep
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and dual Power Modules
- Up to twelve AMCs: four full-size and eight mid-size

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