VT895

6U MTCA Chassis with 12 AMCs

VT895

Key Features

- MTCA System Platform 19" x 6U x 10.4" deep (with handles 12" deep)
- Up to twelve AMCs: 12 full size double-module
- 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
- Redundant FRU information devices & Carrier Locator
- CLK1, CLK2 and CLK3 routed to each slot

Benefits

- Lightweight aluminum MicroTCA chassis
- Bottom-to-top redundant cooling configuration for double modules in compact 6U height
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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The VT895 is a 6U MTCA chassis with 12 AMC full-size, double module slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4.

The VT895 has full redundancy, including redundant MCH, Power Modules, as well as redundant Cooling Units (CU) for high availability. The cooling configuration is from bottom-to-top. There is an option for redundant/non-redundant clock per MTCA specification. It provides CLK1, CLK2, and CLK3 to each slot. The CLK3 option can be configured for the Fabric clock as well as Telecom clock.

An option is available for Port 2 and 3 to be directly connected among the adjacent AMCs or to the fabric B (AMC.3 SATA/SAS switch option on the MCH). The chassis routes Ports 12-15 and 17-20 to each slot.

A JTAG Switch Module (JSM) slot routes to the JTAG port of each AMC.

VadaTech can modify this product to meet special customer requirements. Contact us to discuss your application.

Power Supply

The VT895 has two power module slots in the chassis. AC or DC power modules can be used.

Cooling and Temperature Sensors

The VT895 has airflow from bottom to top with Dual intelligent Cooling Units. This redundancy ensures fail-safe operation should one of the cooling units become non-operational. A sensor detects the presence of the replaceable Air Filter, allowing it to be monitored for when it is due to be cleaned/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 VT895 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 is located above the fan tray and can be directly accessed via a Micro DB-9 connector.

FRU Information and Carrier Locator

The VT895 has dual redundant FRU information and Carrier Locators. The Carrier Locator is assigned by easily accessible mechanical dip switches. The MCH reads the Locator via its private I2C bus.

No Active Components

Unlike other MTCA chassis on the market, the VT895 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: VT895

Ports 12-15 and 17-20

Ports 12-15 and ports 17-20 are routed as shown in Figure 2 below.
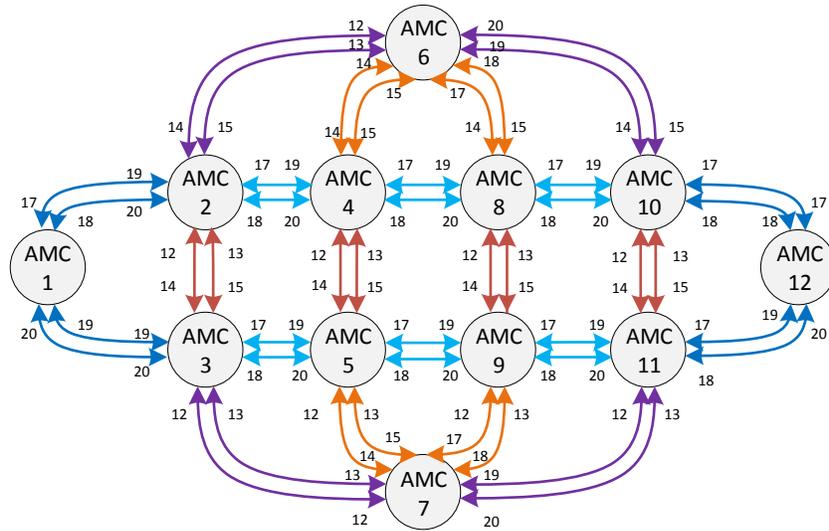
Figure 2: VT895 Routing for Ports 12-15 and 17-20

Clocks

The MTCA has three clocks: CLK1, CLK2, and CLK3. It defines non-redundant and redundant clock networks. The non-redundant clock network connects CLK1, CLK2 and CLK3 of one MCH point-to-point to CLK1, CLK2 and CLK3 of the AMCs. CLK3 can follow the Telco clock or become the Fabric clock per AMC.1 specification. Fabric B will be partially provided only on ports 1 to 6 CLK3 is routed on Fabric B on ports 7 to 12. The redundant clock network option connects the CLK1 of MCH1 and CLK1 of MCH2 point-to-point to each of the CLK1 and CLK3 respectively of each AMC. See Figure 3 below
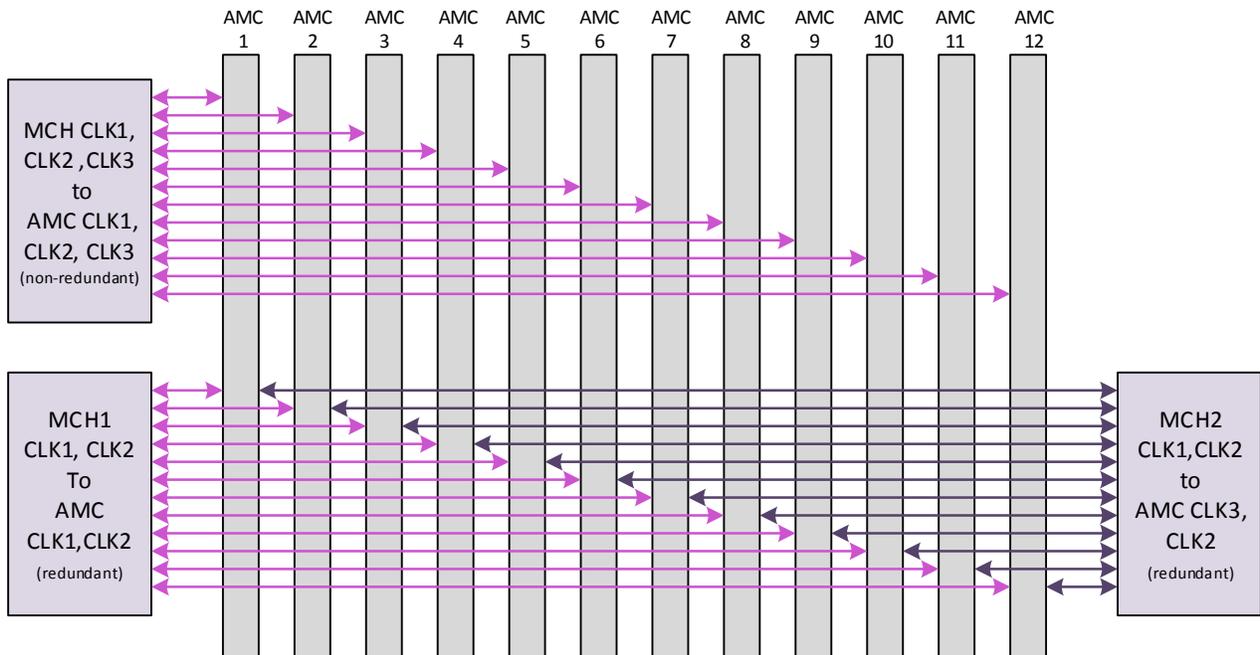

Figure 3: VT895 Backplane Clock Connections

VT895 – 6U MTCA Chassis with 12 AMCs

Backplane Connectors
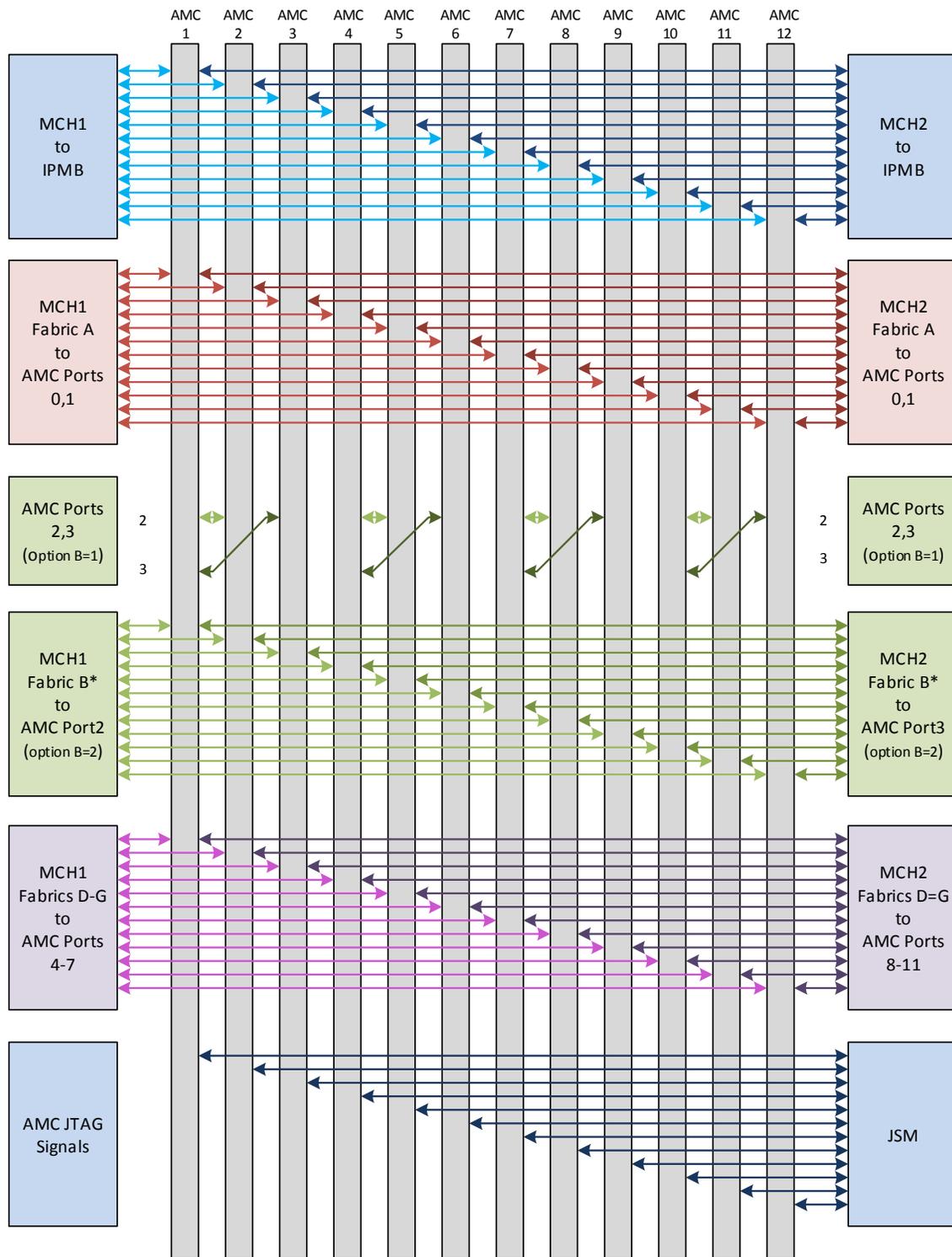
Figure 4:VT895 Backplane Connections

Chassis Layout

PM 2	JSM						MCH 2						
		AMC 2	AMC 3	AMC 4	AMC 5	AMC 6		AMC 7	AMC 8	AMC 9	AMC 10	AMC 11	AMC 12
PM 1	AMC 1						MCH 1						
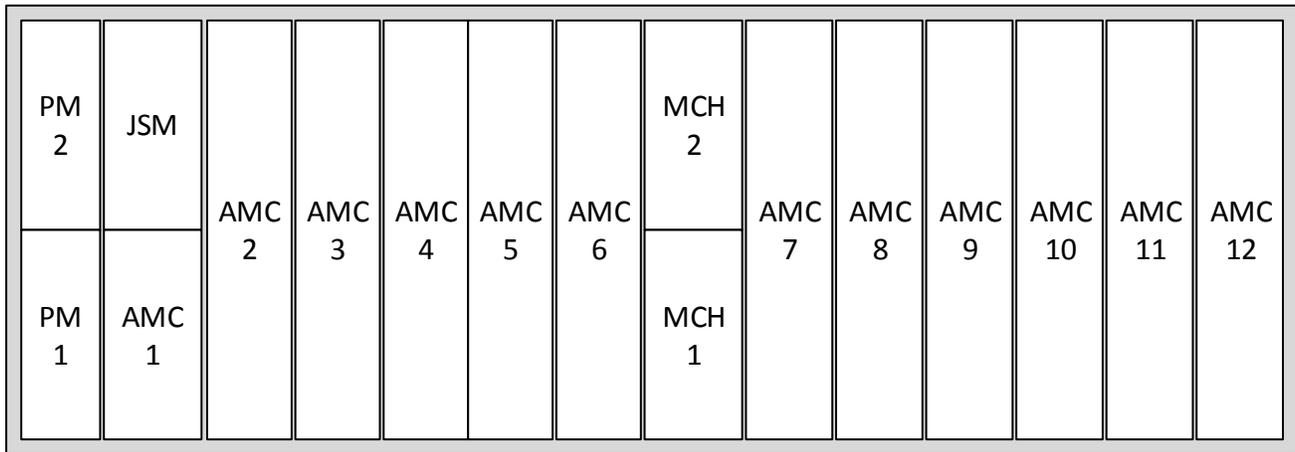
Figure 5: VT895 Chassis Layout Front View

Specifications

Architecture		
Physical	**Dimensions**	Height: 6U
		Width: 19"
		Depth: Depth 10.4" without the handles and 12" with the handles
Type	**MTCA Chassis**	12 AMC.0 Full-size 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	**VT895**	Dual Power Module (PM) slots
Environmental	**Temperature**	Operating temperature: -5° to 55°C
		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		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

VT895 – 0BC-000-00J

B = Ports 2 and 3		
1 = Direct Connection 2 = To MCH		
C = MCH CLK3 Channels		**J = Conformal Coating**
1 = Telco (non-redundant) 2 = FCLKA (non-redundant) 3 = Fabric B (redundant)		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Related Products

UTC004

- Unified 1 GHz quad-core CPU for MicroTCA Carrier Management Controller (MCMC), Shelf Manager, Clocking, and Fabric management
- 1GbE base switch with dual 100/1000/10G 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

UTC008

- Supports up to 12 AMCs, 2 MCHs, 4 Power Modules, 2 Cooling Units and front/rear (21) ports
- Provides transparent communications between the arbitrated master and a selected secondary port
- Mates directly to the chassis that have a JSM connector (standard compact-size AMC panel)

UTC010

- Dual -36V DC to -75V DC input
- Hot swappable, support for power module redundancy
- Two banks of 256K Flash for redundancy

Contact

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