vadatech
THE POWER OF VISION

µTCA Conduction Cooled Chassis ½ ATR with 6 AMCs – VT872

µTCA ½ ATR, 6 AMCs

KEY FEATURES

- µTCA.3 Conduction Cooled System Platform
- 1/2 Short Air Transport Rack (ATR) per ARNIC404A, with NO internal fan (12.62" deep without handle)
- Customized Front Input/Output (I/O) Panel Connector layout per customer requirement (option per MIL-DTL-M38999)
- Designed to meet MIL-STD-810F for shock/vibration and MIL-STD-461E for EMI
- Single MCH and Power Module slot
- Up to 6 mid-size AMCs
- Radial I2C bus to each AMC
- High-speed routing on 26 layers
- FRU information devices with chassis locator
- CLK1, CLK2 and CLK3
- No active components on the backplane
- Secondary mounting provision to allow the chassis to be secured to a base plate
- RoHS compliant

Benefits of Choosing VadaTech

- Compact-size conduction cooled chassis platform
- Rugged ATR designed to meet MIL-STD-810F for shock and vibration and MIL-STD-461E for EMI
- Designed for rugged defense, industrial, and outdoor applications
- 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 VT872 is µTCA.3 1/2 ATR Short chassis that provides six AMC mid-size slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4 with accompanying clamshells for conduction cooling.

The VT872 is designed for the rugged extremes of avionics, naval, and ground vehicles applications. However, the unit is also utilized in outdoor and other rugged applications, including pole-mount communications, energy sector rigs/stations, and more. The VT872 is designed to withstand extreme environmental conditions such as temperature, shock, vibration, corrosion, EMI and altitudes to 15,000 feet.

The front cover panel accommodates MIL style M38999 connectors and can be customized to meet each customer's unique requirements.

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

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FRU INFORMATION AND CARRIER LOCATOR

The VT872 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 I^2C bus.

CONDUCTION COOLED CHASSIS AND FRONT COVER

Conduction cooling is achieved through precision-machined card guides in the side walls. The VT872 is made from lightweight aluminum 6061-T6 and includes a hinged front cover, allowing it to remain intact while serviced in the field. The cover utilizes stainless steel captive hardware and self-locking heli-coils to withstand maximum shock and vibration.

NO ACTIVE COMPONENTS

Unlike other µTCA chassis in the market, the VT872 has no active components on its back plane. This allows ease of serviceability.

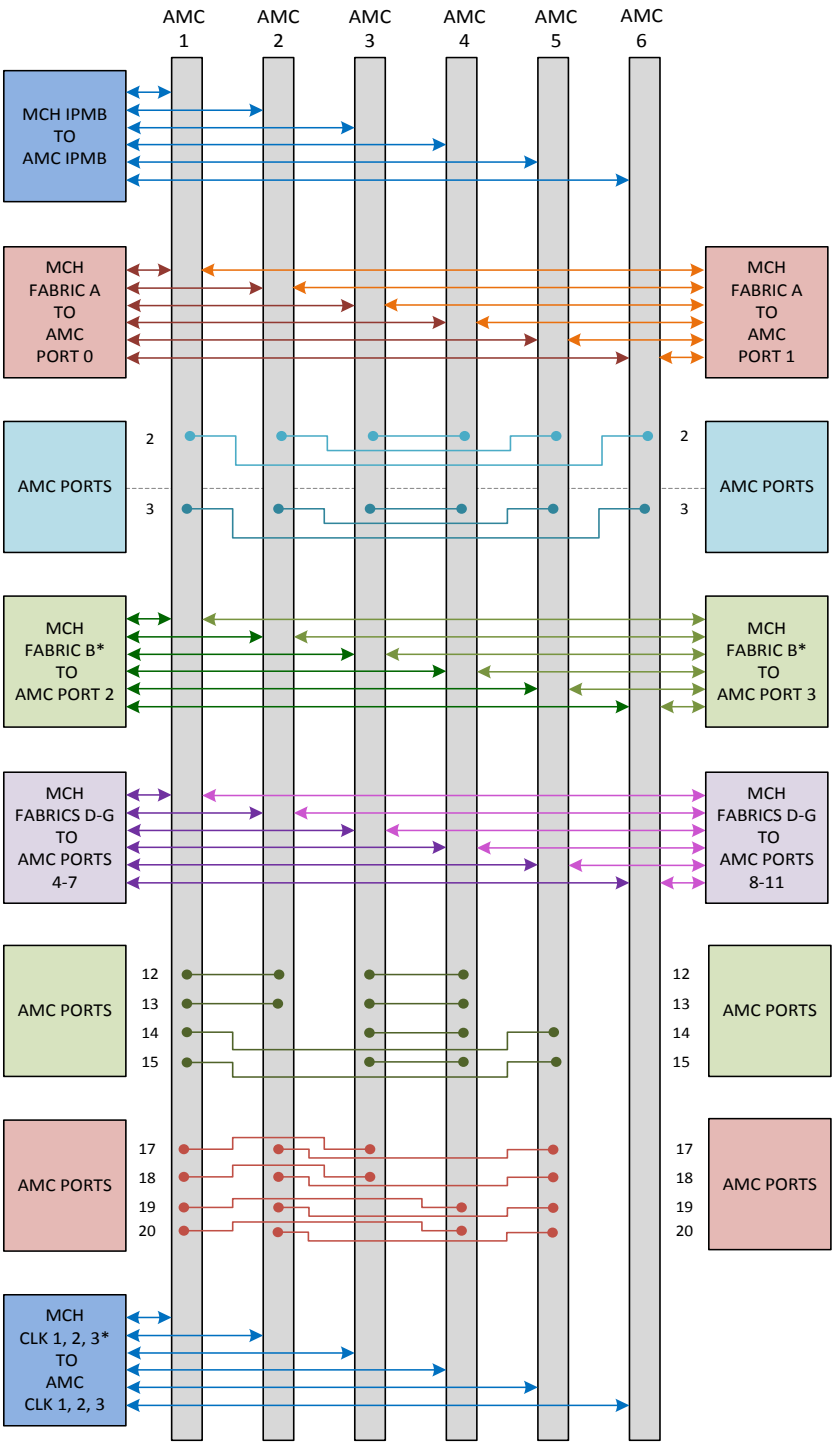
SCORPIONWARE™ SOFTWARE

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.

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.

BACKPLANE CONNECTIONS



* uTCA specifies three clocks CLK1, CLK2 and CLK3. The CLK3 can be routed to each AMC slots as Fabric clock (PCIe clock or HCSL) or as Telco clock. 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

SPECIFICATIONS

Architecture		
Physical	Dimensions	½ Short ATR per ARINC 404A (4.88" x 12.62" x 9.4", without handles)
Type	µTCA Chassis	6 AMC.0 full-size (single module) slots
Standards		
AMC	Type	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
µTCA	Type	uTCA.3
Configuration		
Power	VT872	Power module inputs such as UTC011 (conduction cooled version)
Weight	Empty Chassis	10.5 lbs
	Modules	Typical AMC module with CC clamshell weight is 1.2-1.5 lbs
Environmental	Temperature	Operating Temperature: –40° to 80° C
		Storage Temperature: –45° to +95° C
	Vibration	MIL-STD-810F Method 514.4 Procedure 1, Cat.4 propeller, Cat. 5 Jet aircraft Cat.6 helicopter
	Shock	MIL-STD-810F Method 516.4 Procedure 1 20G, ½ sine, 11 ms
	Altitude	15,000 ft operating with no external fan with 105W dissipation
		40,000 ft non-operating
	Relative Humidity	5 to 95 percent, 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	
Compliance	RoHS and MIL-STD	
Warranty	Two (2) years	
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SIDE VIEW

ORDERING OPTIONS

VT872 – 0BC – 000 – 00J

B = Ports 2 and 3
1 = Direct connections
2 = To MCH

C = MCH CLK3 Channels
1 = Telco
2 = FCLK

J = Conformal Coating
0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

RELATED PRODUCTS

UTC003 Conduction Cooled MCH

UTC011 Conduction Cooled Power Module

AMC713 Freescale Processor AMC

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