

VT872



VT872 KEY FEATURES

- μTCA.3 System Platform 1/2 short Air Transport Rack (ATR) per ARNIC404A, with NO internal fan (12.62" deep without handle)
- Customized Front Panel Input/Output (I/O) Panel Connector layout per customer requirement (option per MIL-DTL-M38999)
- Vib/Shock per MIL-STD-810E and MIL-STD-810
- Single MCH and Power Module slot
- Up to 6 AMCs mid-height
- Radial I2C bus to each AMC
- High-speed routing on 26 layers
- High-speed μTCA connectors (12.5 GHz)
- 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

.The VT872 is 1/2 ATR μTCA.3 Short chassis that provides six AMC mid-size slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4.

The VT872 is designed for avionics, space and ground vehicles applications. The VT872 is designed to withstand extreme environmental conditions such as temperature, shock, vibration, chemical, EMI and altitude.

The VT872 is made from lightweight aluminium 6061-T6. The front is hinged and allows the cover to remain intact to chassis when servicing in the field. The front cover utilizes stainless steel captive hardware and self-locking helicoils to withstand maximum shock and vibration.

Conduction cooling is through precision-machine card guides in the sidewalls. The front panel accommodates MIL style M38999 connectors. The front panel can be customized to meet each customer's unique requirements.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).

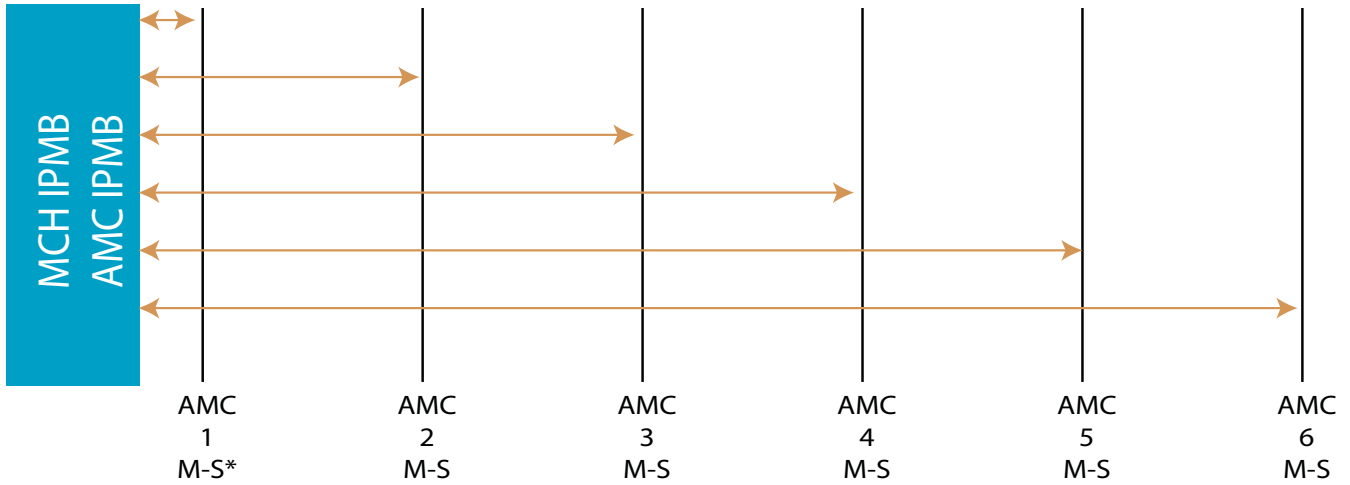
μTCA™

SPECIFICATIONS

Architecture		
Physical	Dimensions	1/2 Short ATR per ARINC404A (4.88"x12.62"x9.4", without handle)
Type	μTCA Chassis	Six AMC.0 slots
Standards		
AMC	Type	AMC.0, AMC.1, AMC.2, AMC.3, and AMC.4
μTCA	Type	Per μTCA.3 specification
Configuration		
Power	VT872	Power Module inputs such as UTC011 or UTC010 (conduction cool versions)
Environmental	Temperature	Operating Temperature: -40° to 80° C Storage Temperature: -45° to +95° C
	Vibration	MIL-STD-810E Method 514.4 Procedure 1, Cat. 4 propeller, Cat. 5 Jet aircraft Cat. 6 helicopter
	Shock	MIL-STD-810 Method 516.4 Procedure 1 20g, 1/2 sine, 11 msec.
	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
		Humiseal 1B31 Acrylic
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 NEBS
Warranty		Two (2) years
Trademarks and Logos		The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.

IPMB Bus

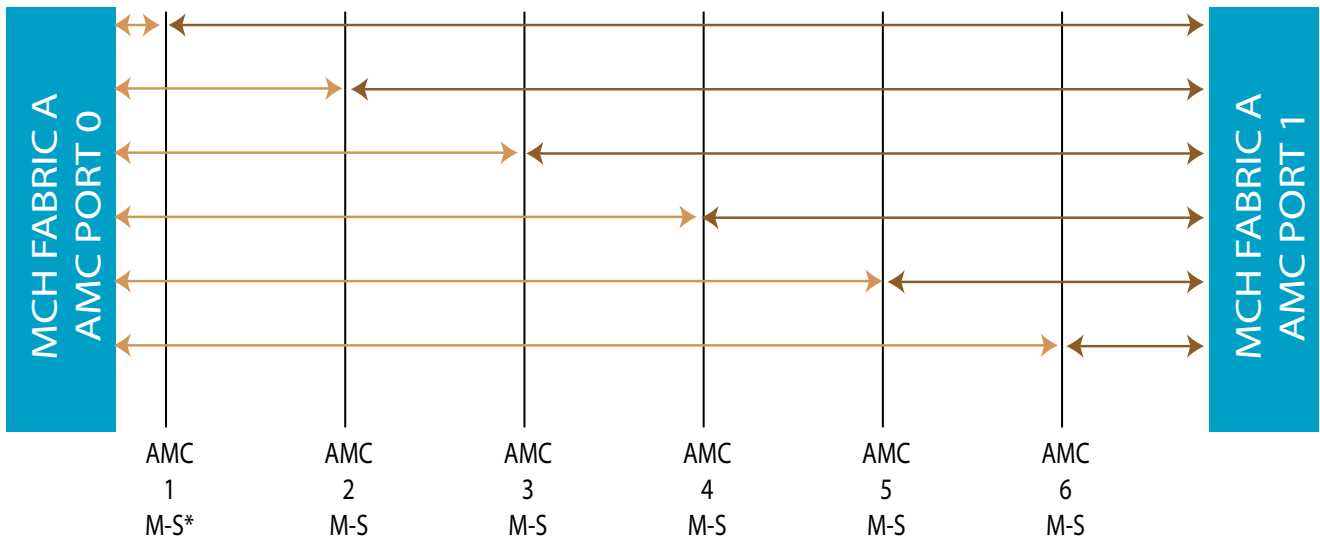
The I2C bus from each AMC is routed radially to each of the MCH.



*M-S (Mid-Size)

FIGURE 1. VT872 Topology for AMC I2C Bus

Ports 0 and 1

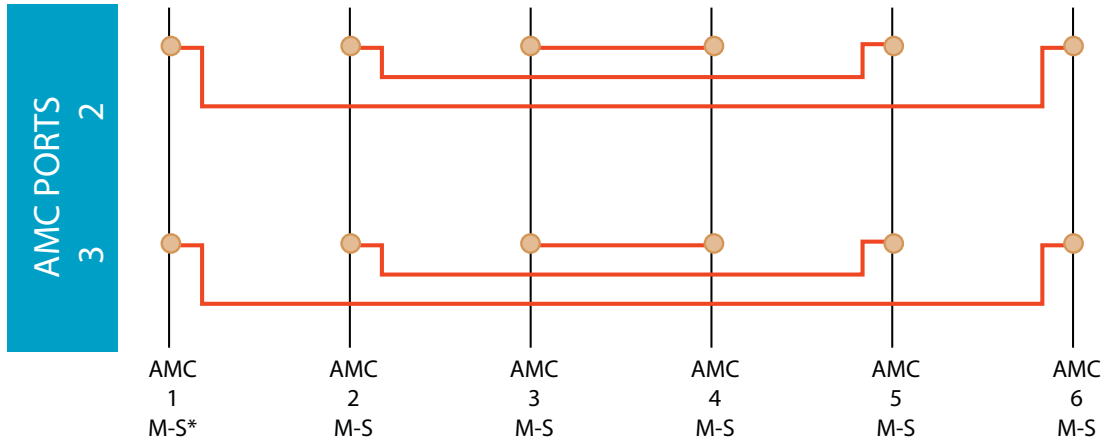


*M-S (Mid-Size)

FIGURE 2. VT872 Topology for AMC Ports 0 and 1

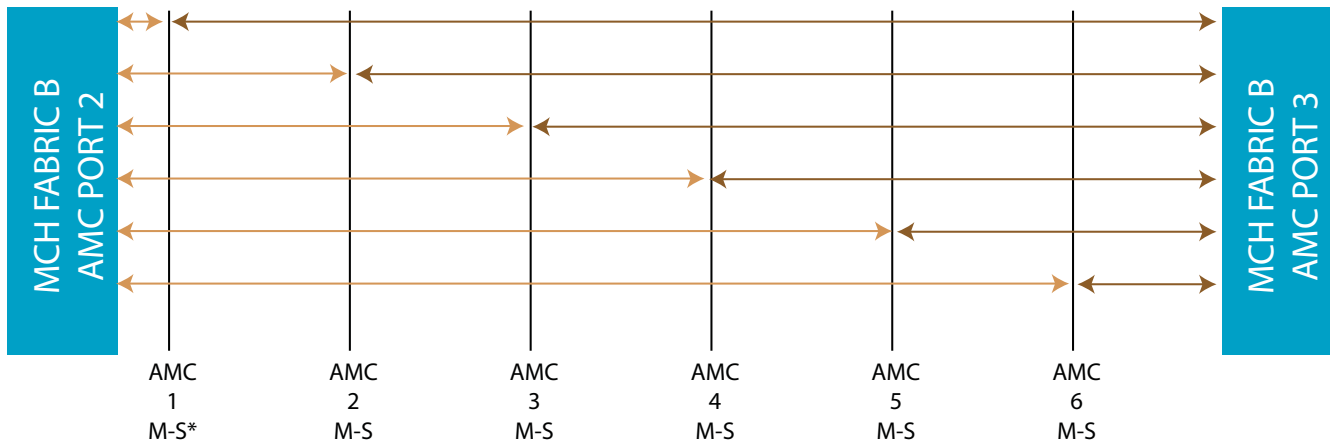
Ports 2 and 3

Topology for Ports 2 and 3 with direct connections among the slots (ordering option)



*M-S (Mid-Size)

Topology for Ports 2 and 3 to MCH (ordering option for direct connection between the ports)

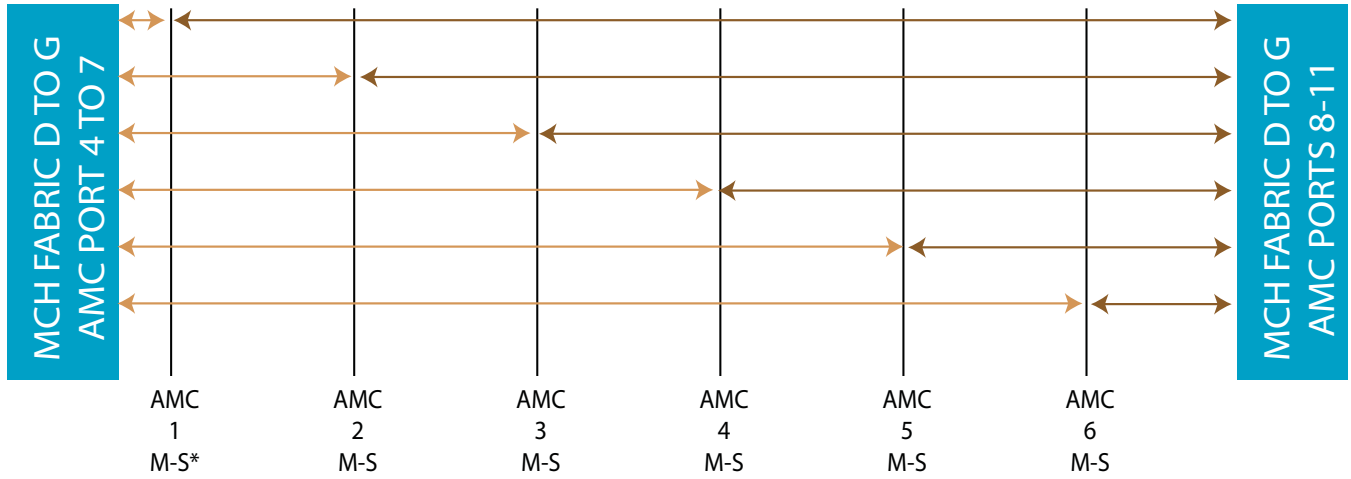


*M-S (Mid-Size)

FIGURE 3. VT872 Topology for AMC Ports 2 and 3

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.

Ports 4-7 and 8-11



*M-S (Mid-Size)

FIGURE 4. VT872 Topology for AMC Ports 4-7 and 8-11

Ports 12-15

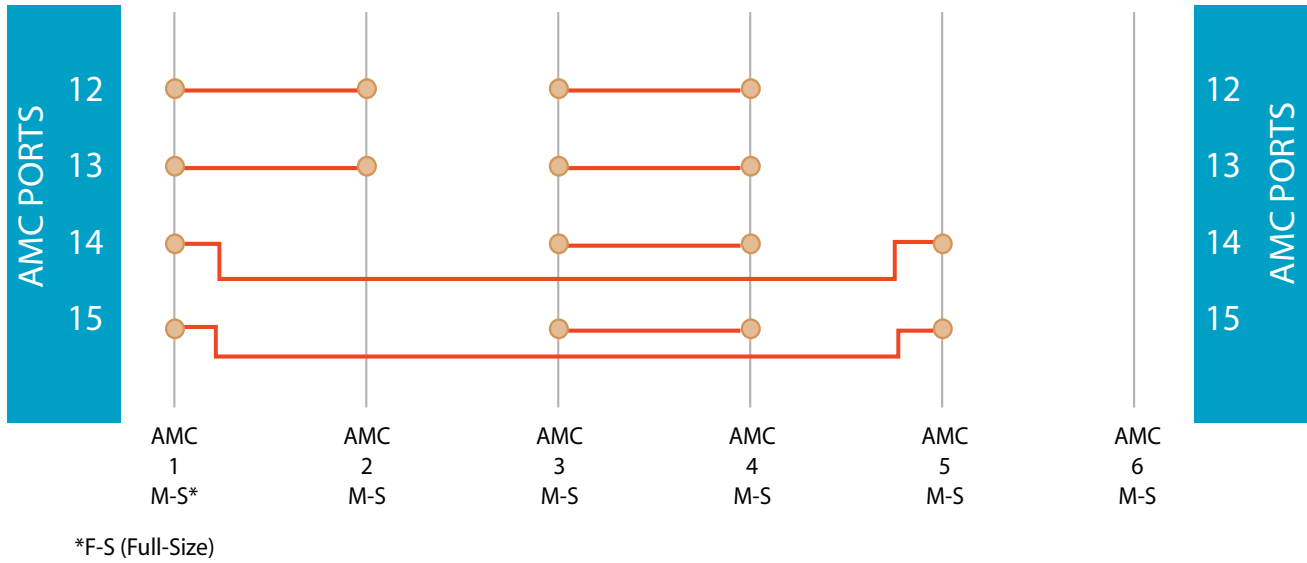


FIGURE 6. VT872 Topology for AMC Ports 12-15

Ports 17-20

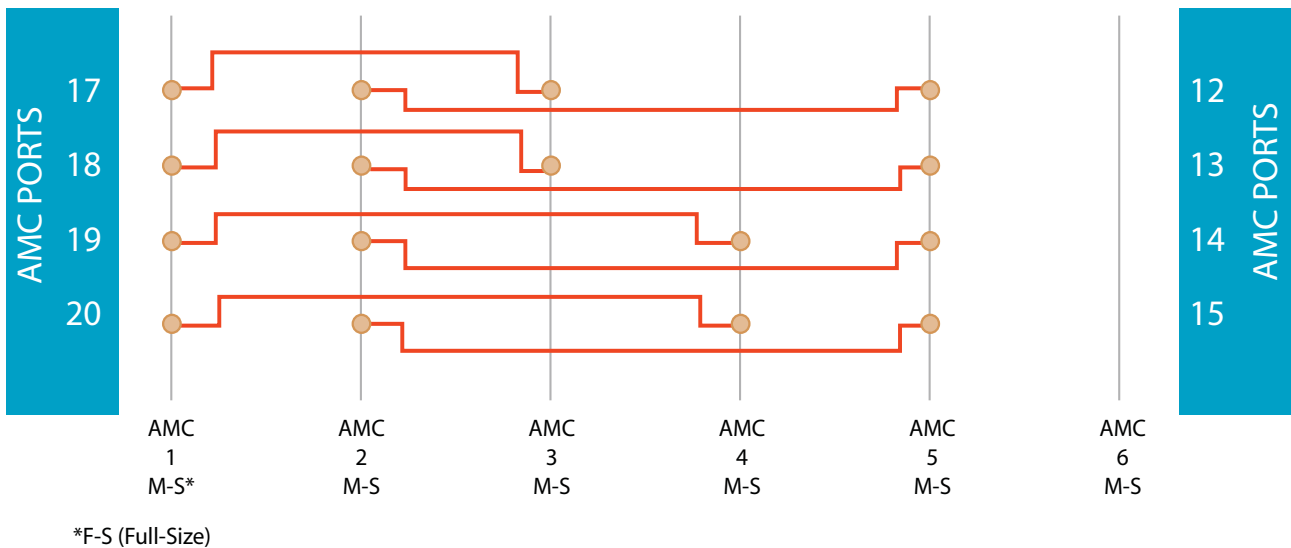


FIGURE 7. VT872 Topology for AMC Ports 17-20

Clock Options

The μTCA specifies three clocks: CLK1, CLK2, and CLK3. They are routed to each of the AMC slots from the MCH. The CLK3 could be routed as the Fabric Clock (PCIe clock, HCSL) or as MLVDS as Telco clock.

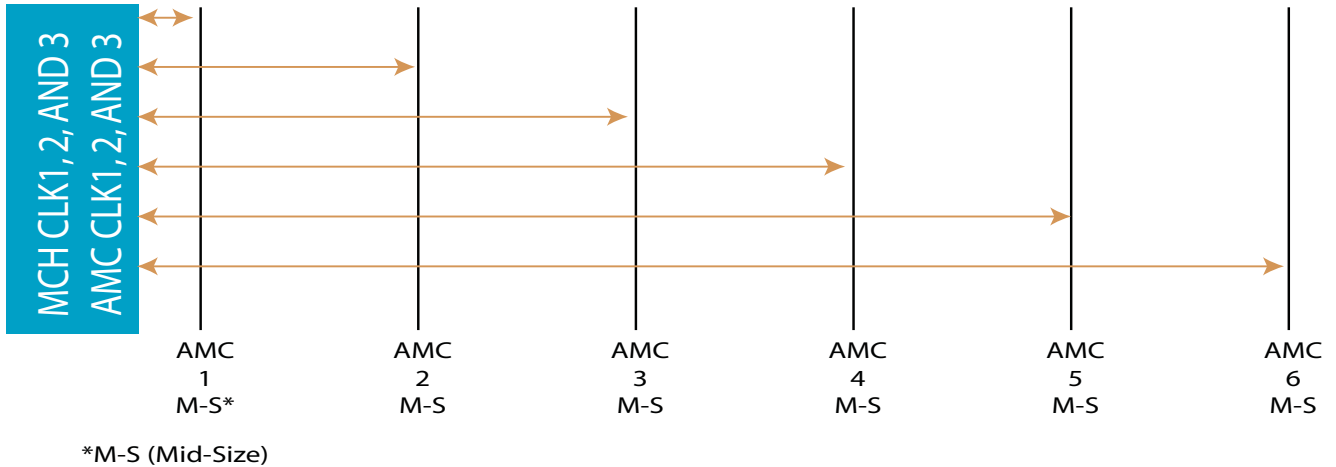


FIGURE 8. VT872 non-redundant clock Topology, CLK3 can run as Fabric Clock (i.e. PCIe clock)

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 I2C bus.

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.

End to End Integrated Solution

VadaTech has the entire μTCA infrastructure: MicroTCA Carrier Hub (product UTC003 or UTC004) and Power Module (UTC010 and/or UTC011). Please consult the appropriate data sheet to obtain more information.

VadaTech can integrate any of its over 220 AMC modules, customer AMCs, as well as other third party AMCs into the chassis and deliver a complete system for deployment. Please contact VadaTech Sales for more information.

ORDERING OPTIONS

VT872 - 0BC - 000 - 00J*

B = Ports 2 and 3

- 1 = Direct connection per Fig. 3
- 2 = To MCH

C = CLK3

- 1 = Telco
- 2 = Fabric CLK

J = Conformal Coating

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

*VadaTech has an MCH (UTC003, UTC004, etc.) and Power Module (UTC010 or UTC011) as well as over 220 AMC modules. Contact your sales representative for an end-to-end integrated solution.

