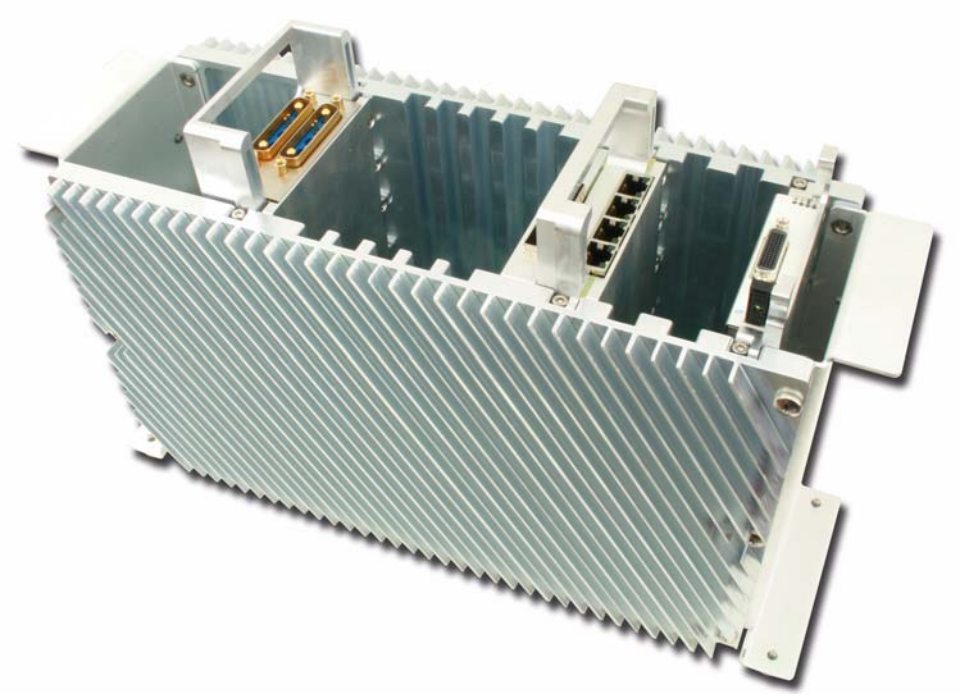
µTCA Conduction Cooled Development Chassis 8 Slots

VT875



KEY FEATURES

- µTCA System Platform 1/2 Air Transport Rack (ATR), with NO internal fan (with handle 15” deep) for development
- Single MCH and Power Module slot
- Up to 8 AMCs: Four mid-size and four compact-size (MCH and Power Module are not included)
- Radial I2C bus to each AMC
- High-speed routing on 20 layers
- High-speed µTCA connectors (12.5 GHz)
- FRU information devices with chassis locator
- Telco Alarm
- CLK3
- No active components on the backplane
- RoHS compliant

The VT875 is a bench top 1/2 ATR µTCA chassis that provides four AMC mid-size and four compact slots that can accept any AMC.1, AMC.2, AMC.3 and/or AMC.4. It provides Fabric clock (CLK3) to each slot. The chassis can be utilized for development before deployment.

The VT875 is made from lightweight aluminium 6061-T6.

Conduction cooling is through precision-machine card guides in the sidewalls.

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

VadaTech Incorporated • 11540 South Eastern Avenue, Henderson, NV 89052 • Tel: (702) 896-3337 • Fax (702) 896-0332
Email: info@vadatech.com • www.vadatech.com

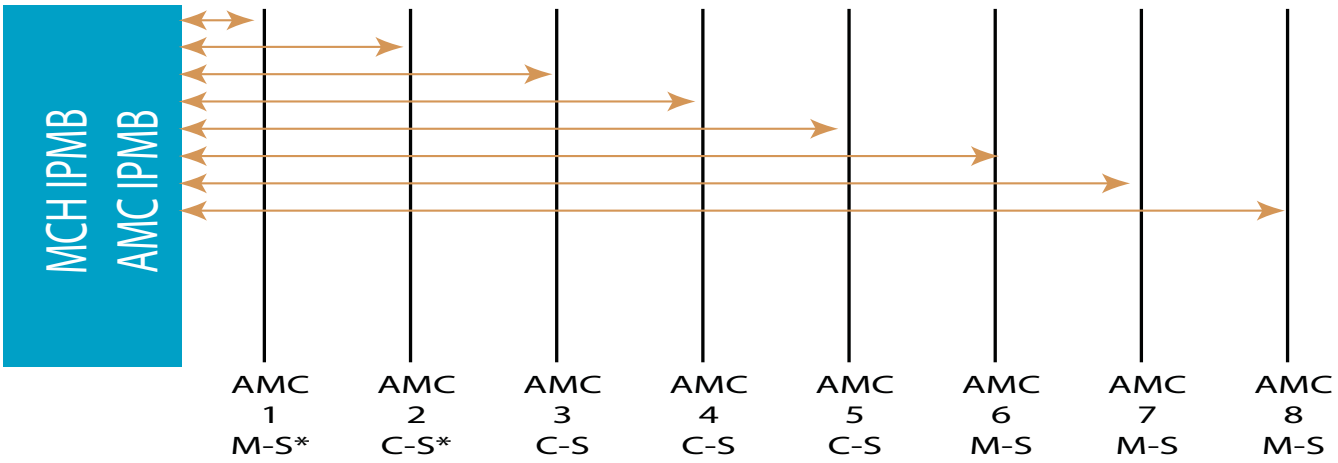
µTCA Conduction Cooled Development Chassis 8 Slots

SPECIFICATIONS

Architecture		
		Height 214nn
Physical	**Dimensions**	Width:124mm
		Depth 248mm (without the cables)
Type	**µTCA Chassis**	8 AMC.0 slots
Standards		
AMC	**Type**	AMC.0, AMC.1, AMC.2, AMC.3, and AMC.4
µTCA	**Type**	Telco Alarm, Single MCH, Power Module and SFM (System Management Module)
Configuration		
Power	**VT875**	Single PM (consult UTC011 data sheet for the power module)
Environmental	**Temperature**	Operating Temperature: -40° to 80° C
		Storage Temperature: -45° to +95° C
	Vibration	TBD
	Shock	TBD
	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

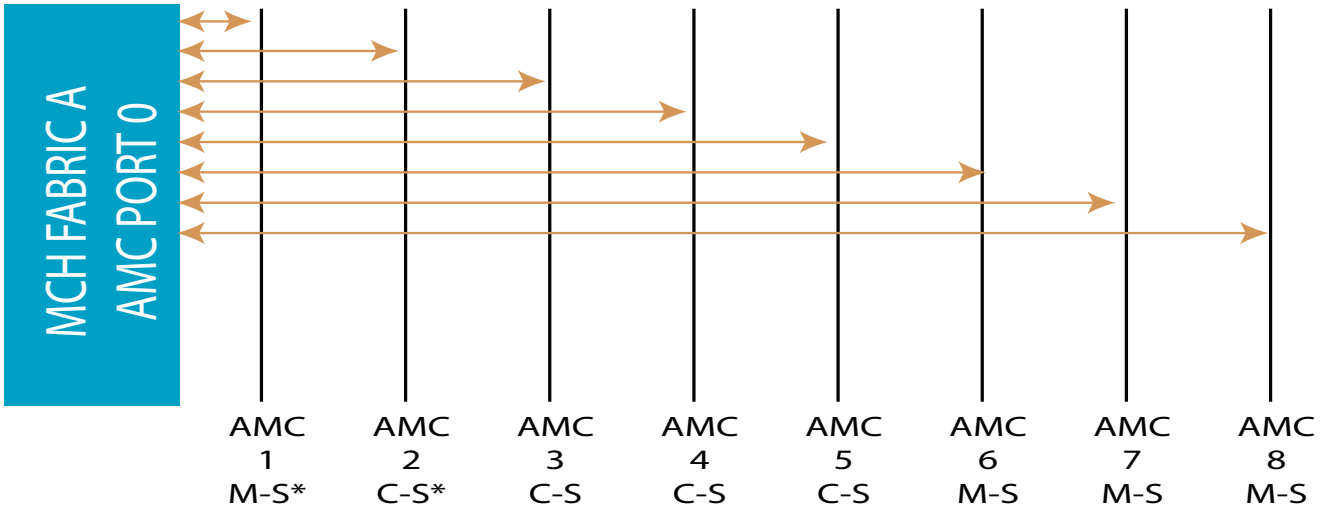
The I2C bus from each AMC is routed radially to the MCH.



*M-S (Mid-Size), C-S (Compact-Size)

FIGURE 1. VT875 Topology for AMC I2C Bus

Ports 0 and 1

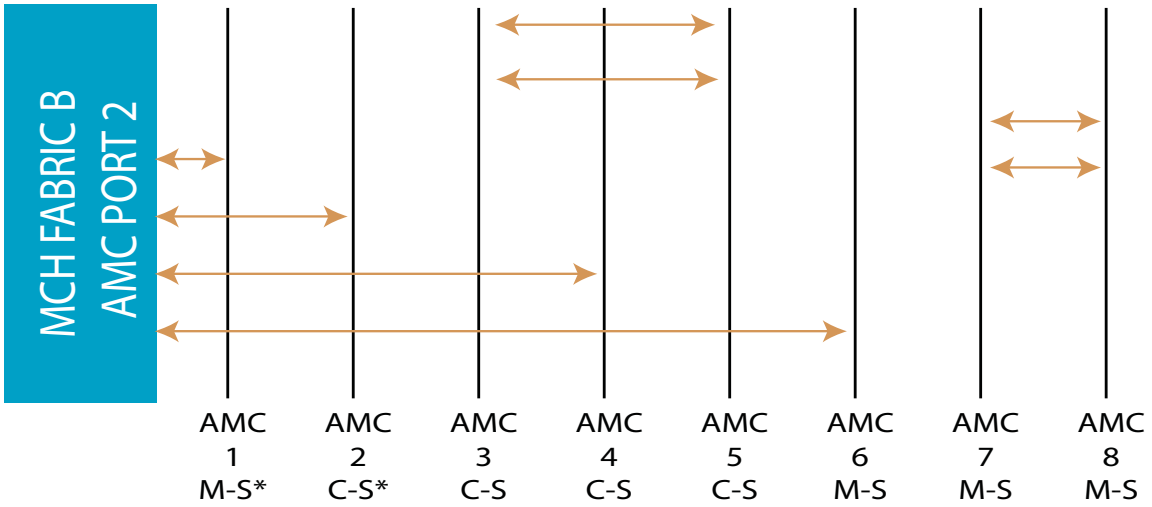


*M-S (Mid-Size), C-S (Compact-Size)

FIGURE 2. VT875 Topology for AMC Ports 0

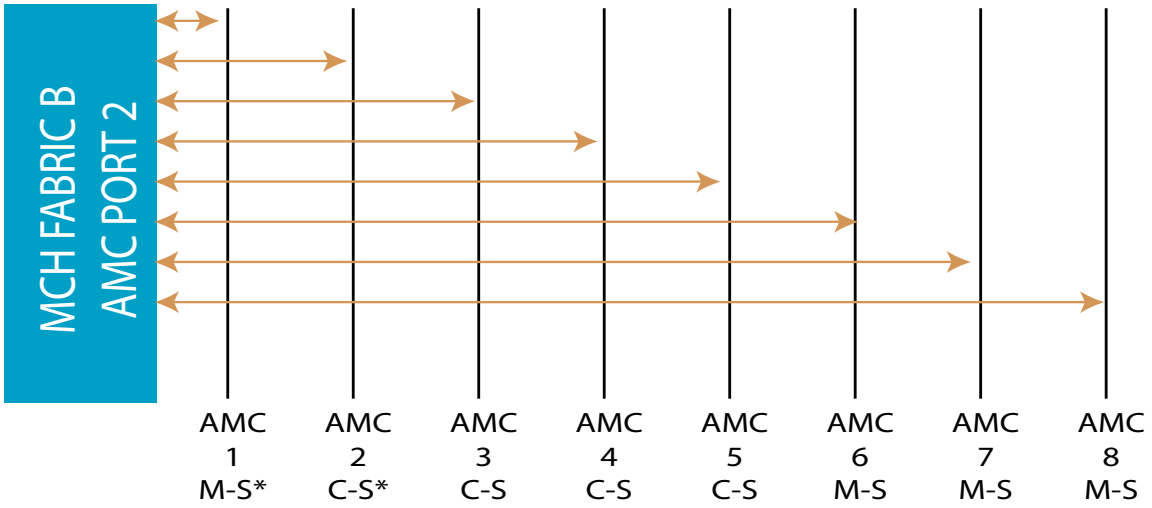
Ports 2 and 3

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



*M-S (Mid-Size), C-S (Compact-Size)

Topology for Ports 2 to MCH (ordering option)



*M-S (Mid-Size), C-S (Compact-Size)

FIGURE 3. VT875 Topology for AMC Ports 2 and 3

Ports 4-7

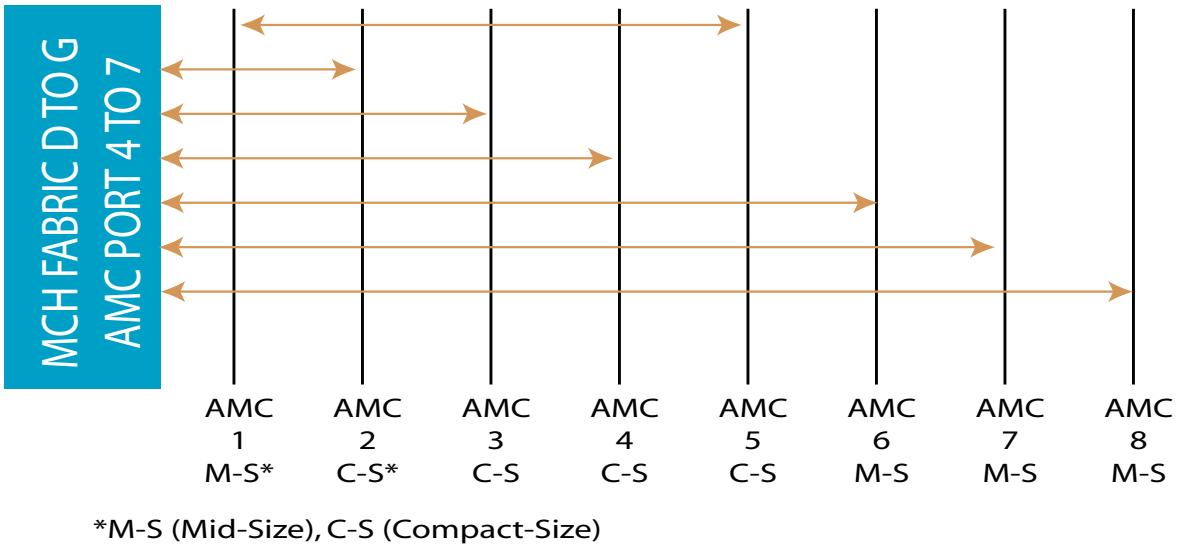


FIGURE 4. VT875 Topology for AMC Ports 4-7 with direct connect across two slots

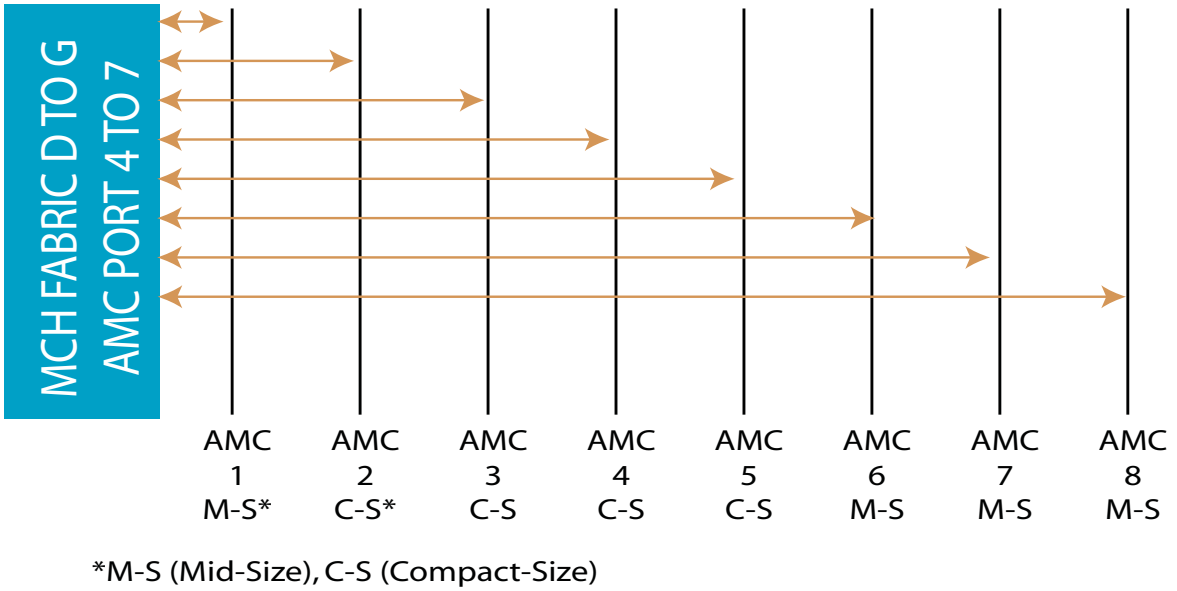
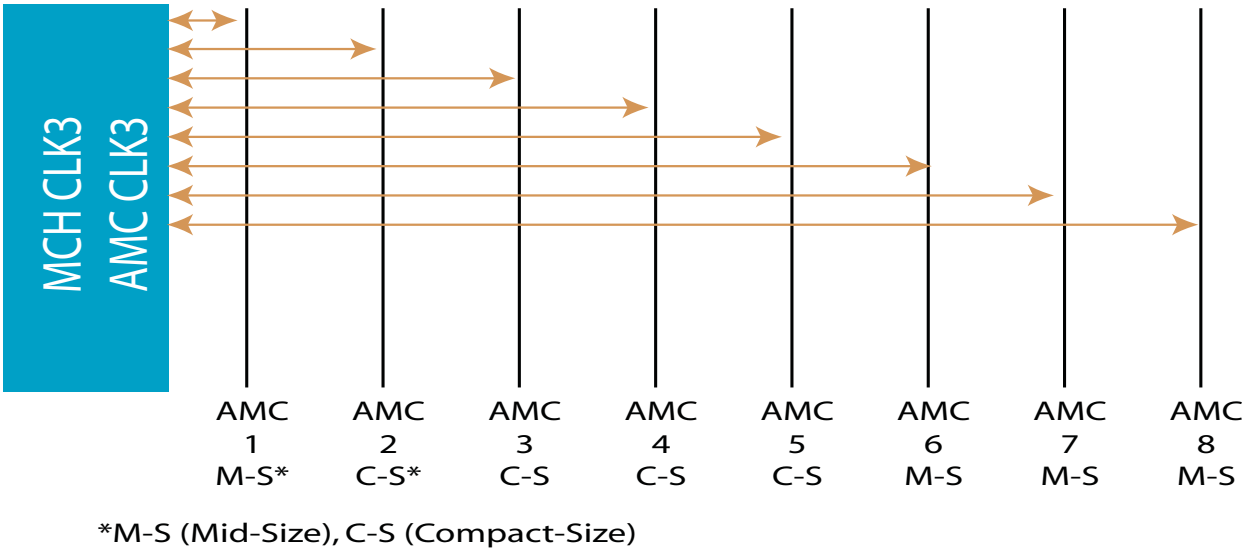


FIGURE 5. VT875 Topology for AMC Ports 4-7

Clock Options

The µTCA specifies CLK3 for possible use as Fabric clock. VT875 routes CLK3 to each of the AMC slots as Fabric clock.



*M-S (Mid-Size), C-S (Compact-Size)

FIGURE 6. VT875 CLK3 can run as Fabric Clock (i.e. PCIe clock)

Power supply

The VT875 has an option for a conduction cool Power Module (PM). The input voltage depends on the PM. If utilizing VadaTech UTC011 power module the input voltage is from 10V to 36V.

Cooling and Temp Sensors

The VT875 has a System Management Module (SFM). The SFM allows, if desired for high altitude, to have external Fan to cool the Chassis. The SFM monitors the external FAN by reading it's TACH input. It has temp sensor on board to monitor the internal temp of the chassis.

Telco Alarm

The VT875 provides Telco Alarm functionality to alert about any anomaly within the chassis. Only the Minor, Major and Critical Alarm LED are routed to the front of the chassis for notification.

FRU Information and Carrier Locator

The VT875 has FRU information and Carrier Locator. The Carrier Locator is assigned by mechanical dip switches which are easily accessible. The MCH reads the Locator via it's private I2C bus.

No active components

With respect to other µTCA chassis in the market, the VT875 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), Power Module (UTC011), etc. Please consult the appropriate data sheet to obtain more information.

VadaTech can integrate any of its over 70 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

VT875 - AB0 - 000 - 00J*

A = Ports 4-7

1 = All ports to MCH
2 = Direct connection per Fig. 4

B = Ports 2 and 3

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

J = Conformal Coating

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

*VadaTech has an MCH (UTC003 and, Power Module (UTC011) as well as over 70 AMC modules. Contact your sales representative for an end-to-end integrated solution.

VadaTech Incorporated • 11540 South Eastern Avenue, Henderson, NV 89052 • Tel: (702) 896-3337 • Fax (702) 896-0332
Email: info@vadatech.com • www.vadatech.com