

## VT878 – Compact $\mu$ TCA Conduction Cooled Chassis, 2 AMCs

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### KEY FEATURES

- Conduction-cooled
- Two-module chassis.
- Compact and robust design
- Designed for bulkhead mount in ground or air vehicle
- High-bandwidth (40G) connection between modules
- Customized for each particular module pair
- RoHS compliant

**$\mu$ TCA<sup>®</sup>**

### Benefits of Choosing VadaTech

- Thermal design for compact solution
- Proven and readily available payload modules
- Strong mil/aero support
- 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 VT878 is a conduction cooled chassis designed to accept two AMC modules with direct port-to-port connections.

The modules are captive within the chassis, with close thermal coupling to the upper surface. Depending on installation requirements, the lower surface of the unit can be bolted to a vehicle bulkhead or a cold plate for additional cooling.

The chassis includes a DC input power provision that can be customized for particular vehicle platform requirements. No MCH provision is included, so the unit will boot autonomously.

Since the backplane and the internal sky lining of the chassis are specific to the AMC module pair integrated into the system, this unit is intended for volume applications.

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## COOLING

The VT878 chassis is conduction cooled.

## POWER SUPPLIES

The VT878 has DC input power provision, customised per required AMC set and thermal requirement.

## NO ACTIVE COMPONENTS

Unlike some other  $\mu$ TCA chassis on the market, the VT878 has no active components on the backplane. This supports ease of serviceability

## BACKPLANE CONNECTIONS

The VT878 backplane is fully customizable to meet specific customer requirements.

## PAYLOAD AMCS

The VT878 will accept VadaTech MTCA.3 product without clamshell, examples of which are shown below. This allows a very capable sensor processing sub-system to be implemented from COTS boards and in a small size/mass envelope.



Figure 1: AMC720C



Figure 2: AMC524C

## CHASSIS CONFIGURATION

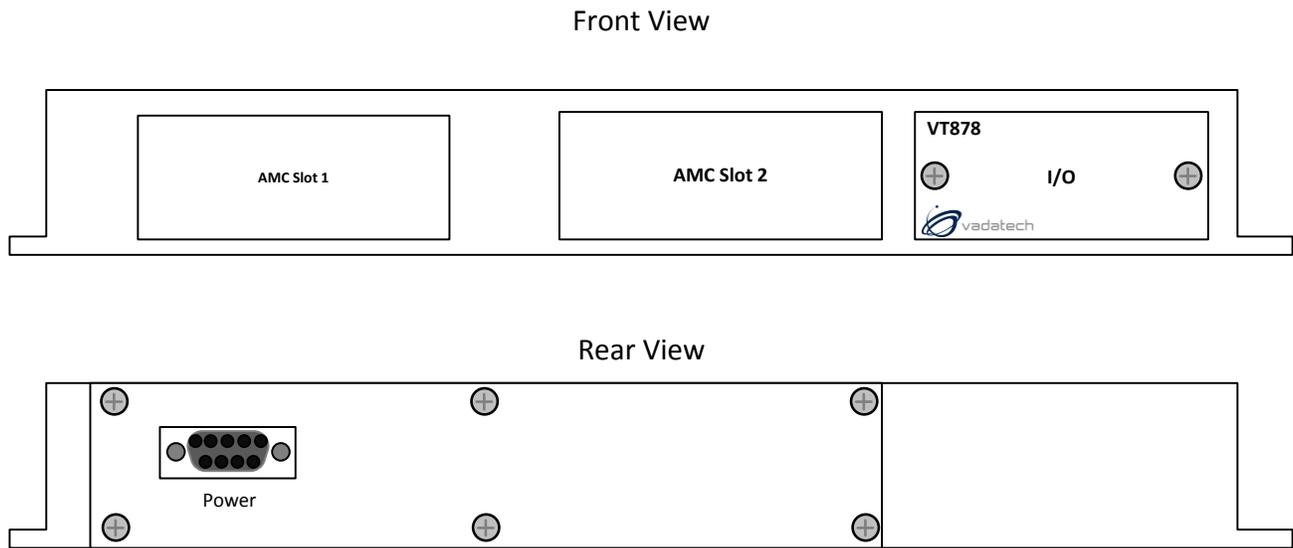


Figure 3: VT878 Chassis Layout

## BLOCK DIAGRAM

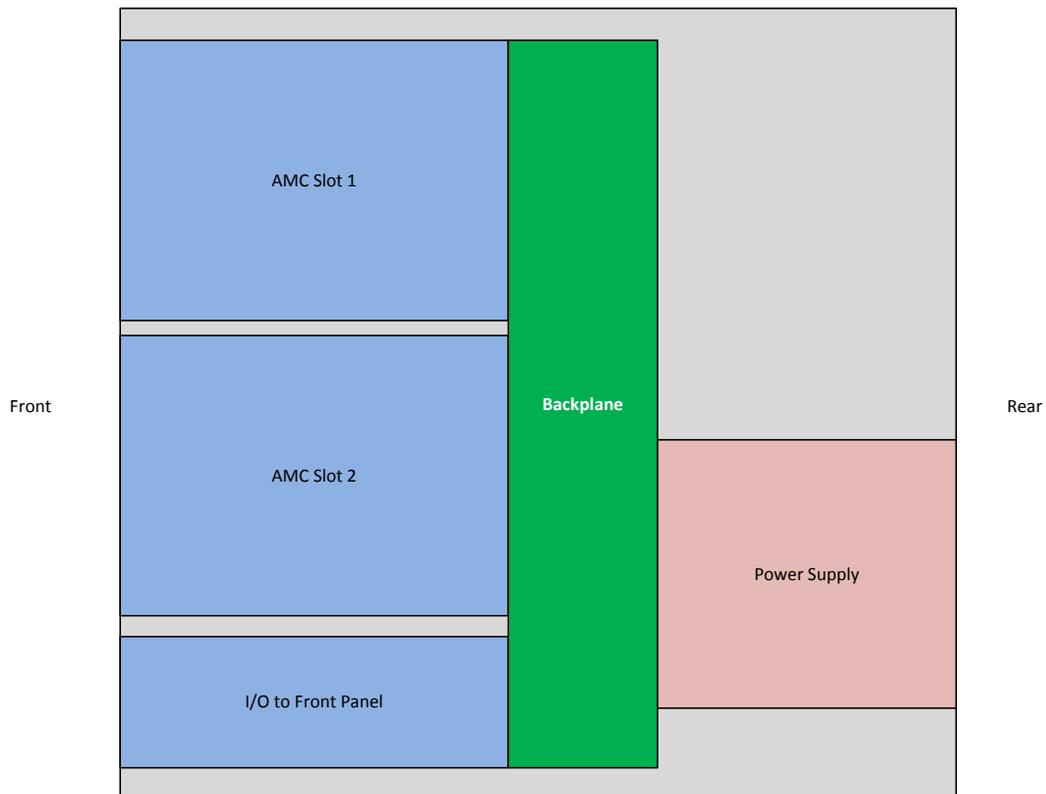


Figure 4: VT878 Top Level Block Diagram

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## SPECIFICATIONS

Architecture		
Physical	Dimensions	Height 1"
		Width 10.5"
		Depth 9.0"
		Weight: 2 kg (typical)
Type	$\mu$ TCA Chassis	2 AMC.0 mid-size, single module slots
Standards		
AMC	Type	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
$\mu$ TCA	Type	$\mu$ TCA.3 without clamshell
Configuration		
Power	VT878	12 VDC standard input, other available on request
Environmental	Temperature	Contact VadaTech (Installed Module Dependent)
		Storage Temperature: $-40^{\circ}$ to $+90^{\circ}$ C
	Vibration	Contact VadaTech
	Shock	30G on each axis
	Relative Humidity	5 to 95 percent, 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	
Compliance	RoHS and NEBS	
Warranty	Two (2) years	

### INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and  $\mu$ TCA 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

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## ORDERING OPTIONS

VT878 – 00C – 000 – 00J\*

### C = Input Power

- 0 = +12V non-isolated
- 1 = Reserved (Contact VadaTech)
- 2 = Reserved (Contact VadaTech)

### J = Conformal Coating

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

\* The VT878 is only available as part of an integrated system configuration and may not be ordered separately, except for spares/support purposes. VadaTech pre-sales engineers will work with you to define the complete platform, deliverable as an integrated unit against an agreed acceptance

## RELATED PRODUCTS



AMC524C Quad ADC, Dual DAC  
Artix-7



AMC720C  
Processor AMC Intel



AMC531 Altera EP4S100Gx  
FPGA

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