

VT877

1U MTCA Conduction Cooled Chassis with 3 AMC Slots



VT877

Key Features

- Three mid-size single module AMC slots
- Hardened MTCA Chassis
- Conduction cooling, fanless operation
- MicroTCA.3 style slots
- AC Universal or DC power supply
- RoHS compliant

Benefits

- Conduction cooled 3 slots in a 1U chassis for fanless operation
- Direct module-to-module connectivity operates without MCH
- 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

Hardened μ TCA[®]



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VT877

The VT877 is a 1U Hardened MTCA chassis that provides three mid-size AMC slots that can accept any AMC modules per MTCA.3 specification (with modified front panel). The VT877 provides conduction cooling for fanless operation in environments requiring very low acoustic and electrical emission.

A front panel covers the complete front of the chassis, fitting over the AMC front panels. The front panel will have cut-outs to allow access to connectors and switches of the AMCs.

VadaTech can modify the backplane to accommodate any routing required by customers. The VT877 does not need an MCH (MicroTCA Controller Hub) slot.

Power Supply

The VT877 has a single power supply with Universal AC input (85 V to 265 V) or DC input. Option for DC is -36V to -75V or +18V to +36V. 150W total power.

Cooling

The VT877 chassis is conduction cooled for fanless operation and is designed for 19" rackmount installation with convection over the integral fin structure of the chassis.



Figure 1: VT877 Front View



Figure 2 Rear View with AC Input

Block Diagram

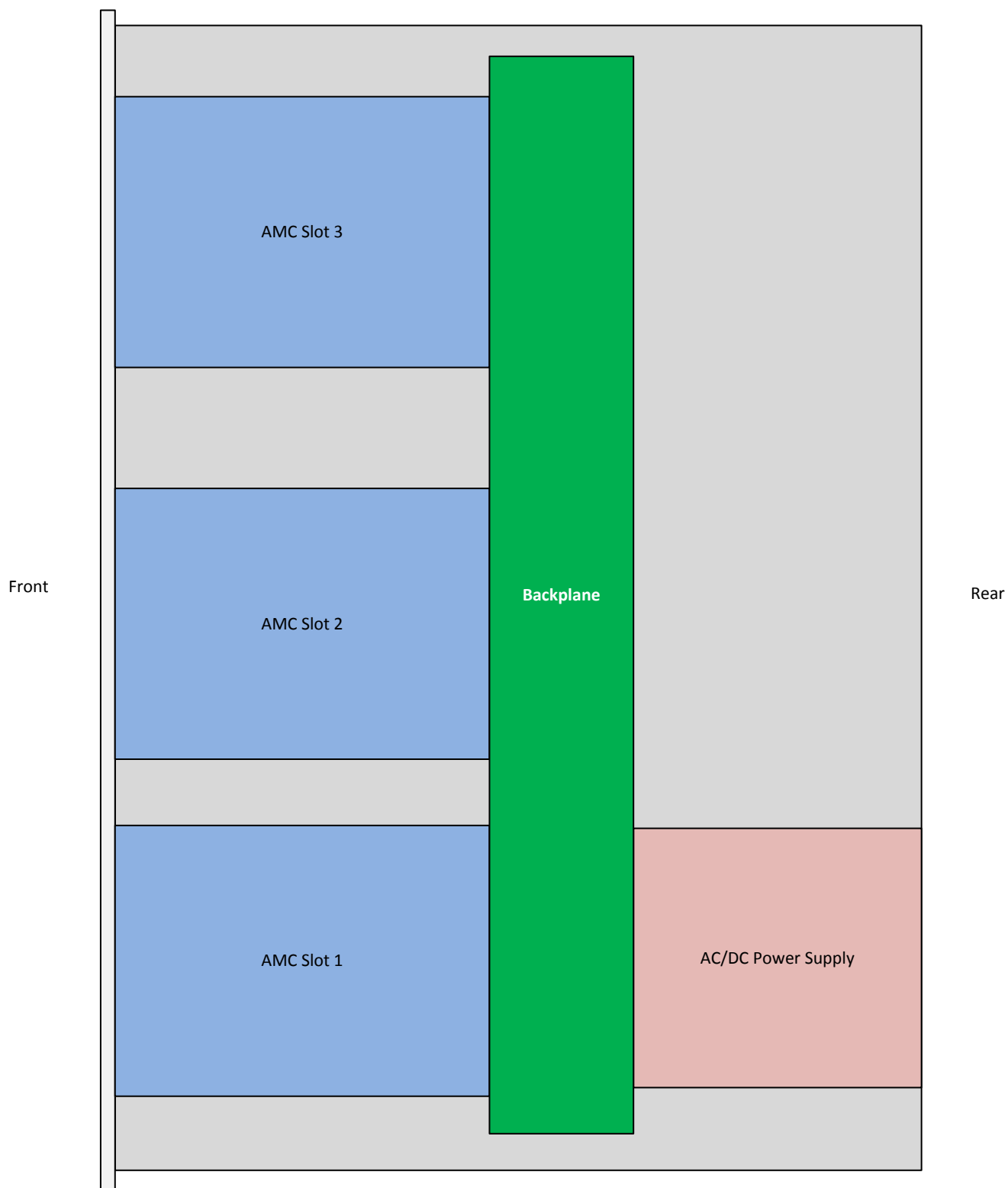
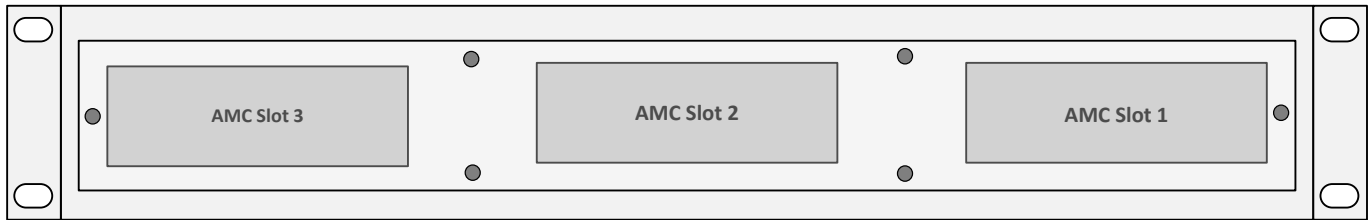


Figure 3: Top Level Block Diagram

Chassis Layout

Front View



Rear View (with AC power supply shown)



Figure 4: Chassis Layout

Backplane Connections

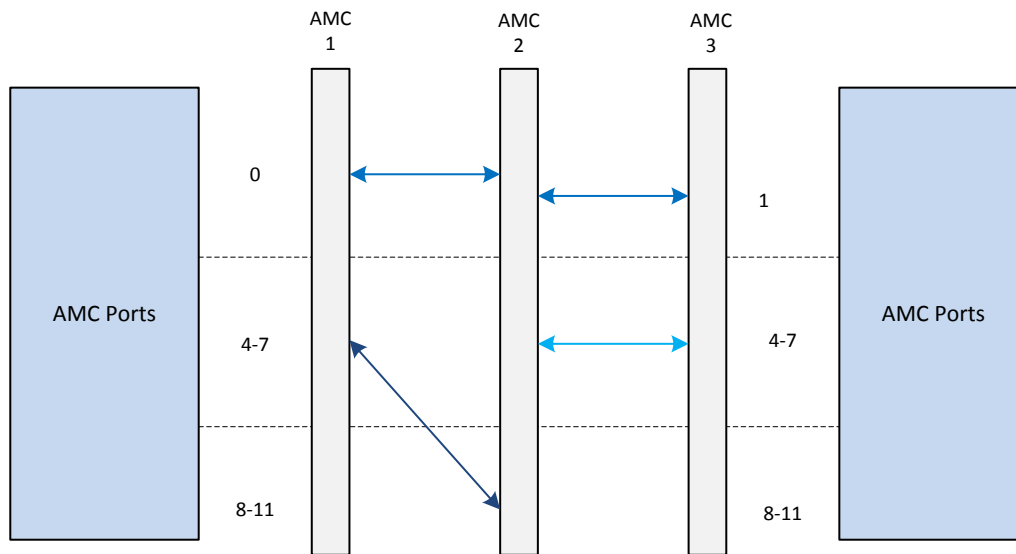


Figure 5: VT877 Backplane Connections

The VT877 supports 1 to 3 AMCs with direct connection between the slots, having no MicroTCA Carrier Hub (MCH). VadaTech can provide backplane routing to meet specific customer requirements based on AMC selection.

Specifications

Architecture		
Physical	Dimensions	Height: 1U
		Width: 19"
		Depth 18"
Type	MTCA Chassis	3 AMC conduction cool mid-size slots
Standards		
AMC	Type	AMC.0, AMC.1, AMC.2 and AMC.3
MTCA	Type	MTCA.3 (with modified front panel)
Module Management	IPMI	Version 2.0
Configuration		
Power	VT877	DC input: -36V to -75V or +18V to +36V
		AC input: 85-265 V Universal AC
Ports		See Figure 5 notes
Environmental	Temperature	Operating Temperature: Module dependent
		Storage Temperature: -40° to +90°C
	Vibration	0.5G RMS, 20-20,000 Hz random (Operating): 6G RMS (non-operating)
	Shock	30G on each axis
	Relative Humidity	5 to 95 per cent, 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		Two (2) years

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and μ 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

VT877 – A00-000-00J

A = Power Supply		
0 = AC Universal		
1 = DC -36V to -75V		
2 = DC +18V to +36V		
		J = Conformal Coating
		0 = None
		1 = Humiseal 1A33 Polyurethane
		2 = Humiseal 1B31 Acrylic

Related Products

VT878



- Two-module chassis.
- Compact and robust design
- Designed for bulkhead mount in ground or air vehicle

AMC524C



- Quad ADC 16-bit @ 125 MSPS (AD9653)
- Dual DAC 12-bit @ 2.5 GSPS (DDS AD9915)
- Artix-7 FPGA with dual banks of DDR-3, 2 GB total

AMC710C



- Single module, mid-size per AMC.0
- Conduction cooled version available
- Freescale QorIQ P4040/P4080 processor

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhui Street, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

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