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

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 system supply from industry leader
- AS9100 and ISO9001 certified company

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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.

The front panel covers all fitted AMC modules but has cut-outs to allow access to connectors and switches.

The VT877 does not require a MicroTCA Controller Hub (MCH) slot. VadaTech can modify the backplane to accommodate any customer routing requirements.

Figure 1: VT877 Front View

Power Supply

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

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 2: VT877 Rear View

Block Diagram

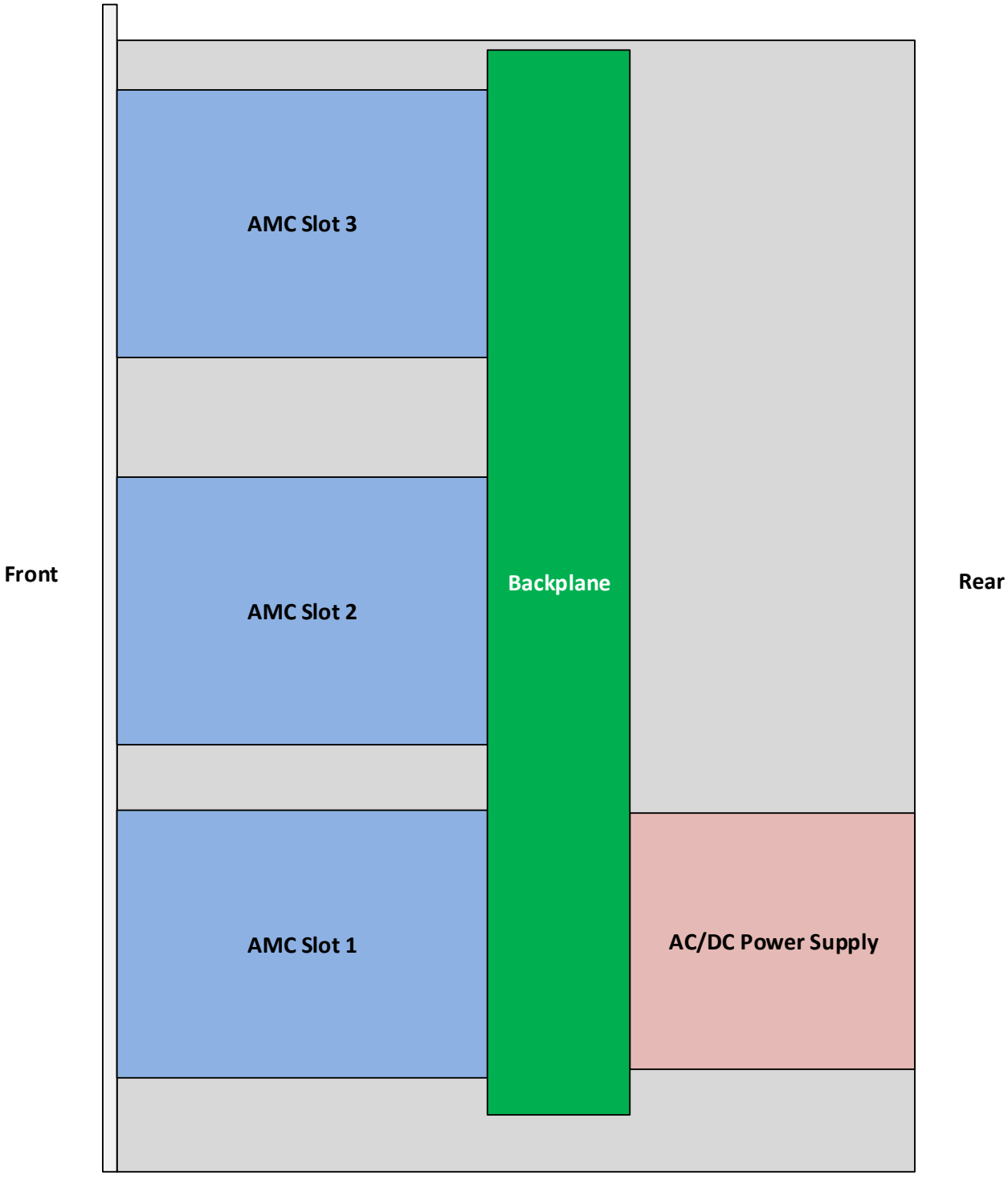

Figure 3: VT877 Top Level Block Diagram

Chassis Layout

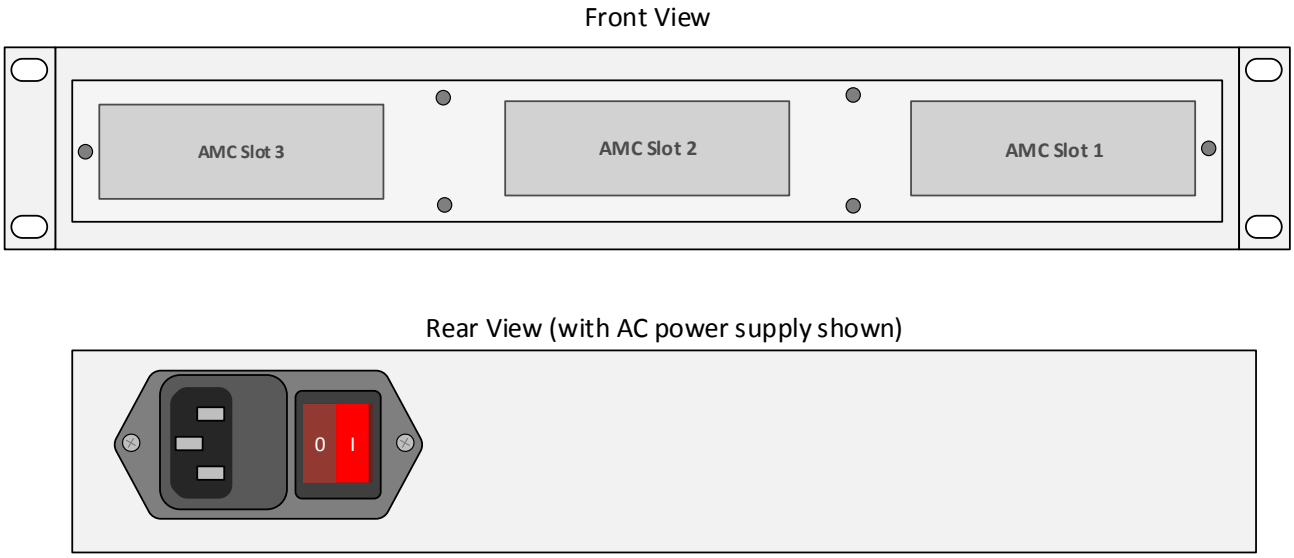

Figure 4: VT877 Chassis Layout

Backplane Connections

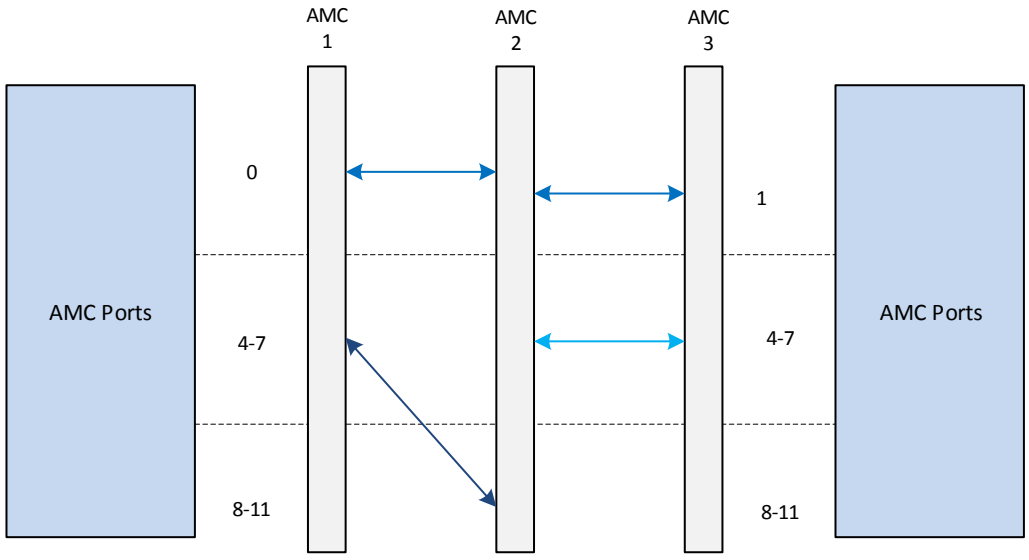

Figure 5: VT877 Backplane Connections (example)

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)
Configuration		
Power	**VT877**	DC input: -36V to -75V or +18V to +36V
		AC input: 85-265V Universal AC
Ports	**Backplane**	See Figure 5
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% 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	One (1) year, see VadaTech Terms and Conditions	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), 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.

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 = No coating 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

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