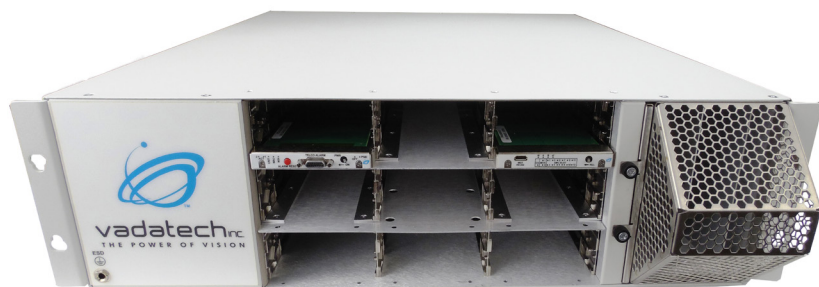# VT884 – 3U μTCA Chassis, 12 AMC, 40G

3U μTCA Chassis, 12 AMCs, 40G

KEY FEATURES

- Twelve mid-size single module AMC slots (option to have double-width modules)
- Dual MicroTCA Carrier Hub (MCH)
- PinoutPlus™ support, 2nd tongue on all AMC slots
- Front to back cooling
- Up to 85W per AMC slot
- AMC.1, AMC.2, and AMC.3 compliant
- TCLKA, TCLKB, TCLKC, TCLKD and FCLKA with advanced redundancy capability
- Redundant 2+1 power supply
- JSM Support

40_G

Benefits of Choosing VadaTech

- Vast performance density with dual 40G across 12 slots in a 3U chassis (option for double-width modules)
- High bandwidth local interconnects via innovative PinoutPlus™
- Redundant, hot-swappable power
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

The VT884 is a 3U μTCA chassis that provides twelve mid-size AMC slots that can accept any AMC.1 (ports 4 to 11), AMC.2 (ports 0 and 1) and AMC.3 (ports 2 and 3 are routed to adjacent slots). It provides FCLKA, TCLKA, TCLKB, TCLKC and TCLKD to each slot with clock redundancy between the two MCH modules. The Chassis has 40GbE capabilities.

With dual MCH installed the VT884 routes dual 40G to each slot on ports 4-7 and 8-11. The module provides Private lanes on the PinoutPlus™ on tongue 2, providing 16 lanes of high-bandwidth point-to-point connectivity. The use of the tongue 2 connector complies with the AMC.0 specification.

The power supplies, air filter and fan trays are all hot swappable.

COOLING AND TEMPERATURE SENSORS

The VT884 has intelligent cooling units. The cooling unit has redundant fans within the each fan unit. The cooling airflow is from front to back. The removable air filter has a switch to detect its presence and can be monitored for when it needs to be replaced.

There are numerous temperature sensors in the chassis that monitor the intake and the outtake air temperature throughout the chassis.

POWER SUPPLIES

The VT884 allows up to three 1100 w power supplies. The input voltage is from 110-240V AC (frequency from 47-63 Hz).

TELCO ALARM

The VT884 provides Telco Alarm functionality to alert about any anomaly within the chassis. The Telco Alarm is provided via a Micro DB-9 as well as LEDs in the front to show any anomaly. The Telco Alarm has its own dedicated slot.

FRU INFORMATION AND CARRIER LOCATOR

The VT884 has FRU information and a Carrier Locator. The Carrier Locator is assigned by mechanical dip switches which are easily accessible via the front panel. The MCH reads the Locator via its private I2C bus.
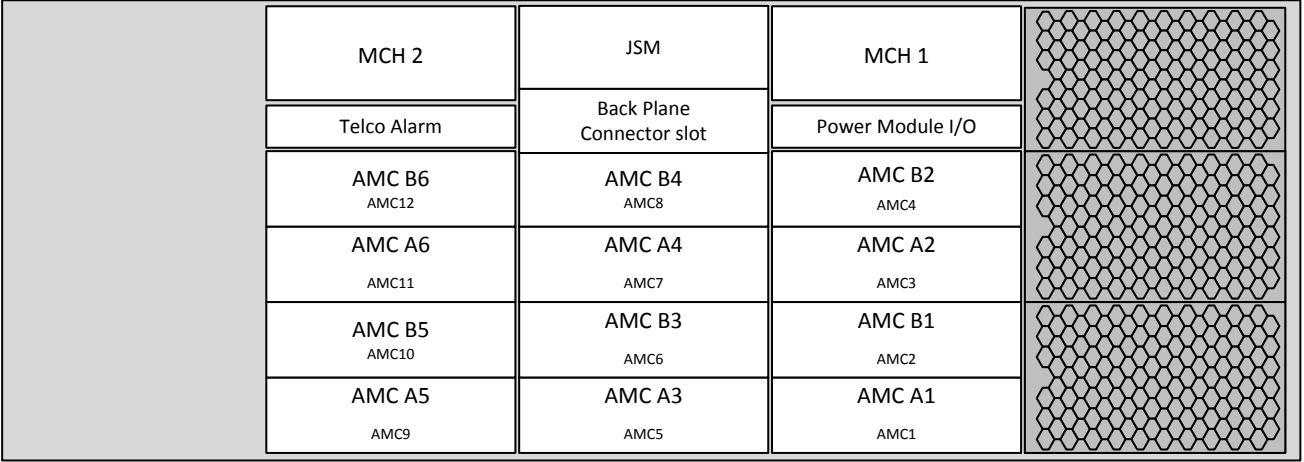
SCORPIONWARE™ SOFTWARE

VadaTech's Scorpionware software can be used to access information about the current state of the Shelf or the Carrier, obtain information such as the FRU population, or monitor alarms, power management, current sensor values, and the overall health of the Shelf. The software GUI is very powerful, providing a Virtual Carrier and FRU construct for a simple, effective interface.

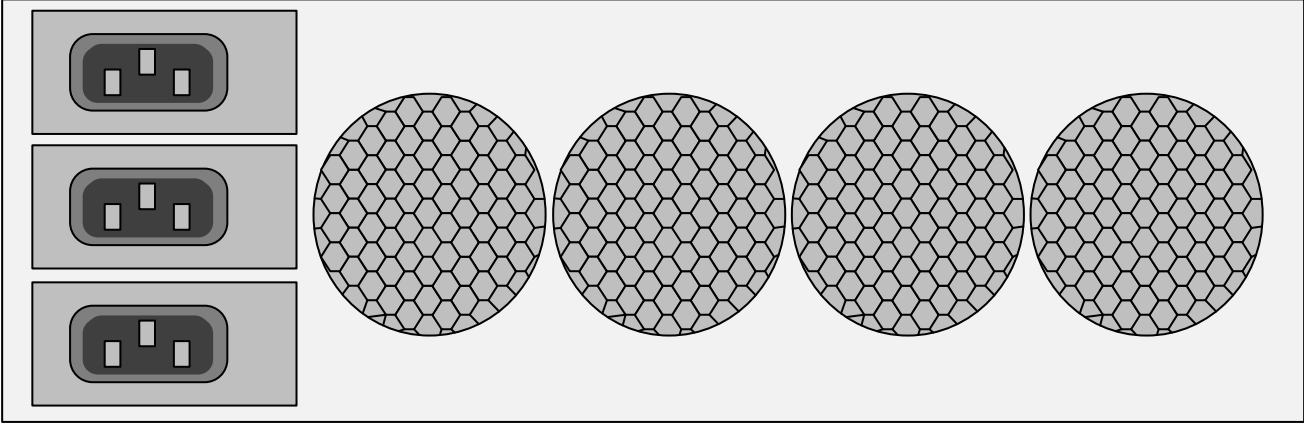## REAR VIEW

CHASSIS CONFIGURATION

Front View

MCH 2	JSM	MCH 1	
Telco Alarm	Back Plane Connector slot	Power Module I/O	
AMC B6 AMC12	AMC B4 AMC8	AMC B2 AMC4	
AMC A6 AMC11	AMC A4 AMC7	AMC A2 AMC3	
AMC B5 AMC10	AMC B3 AMC6	AMC B1 AMC2	
AMC A5 AMC9	AMC A3 AMC5	AMC A1 AMC1	

Rear View

Figure 1: VT884 Chassis Layout

AIR FLOW

JSM and Telco Alarm Modules

Dual MCHs

Backplane

AMCs 1-12

Front

Rear

Air Flow

Air Flow
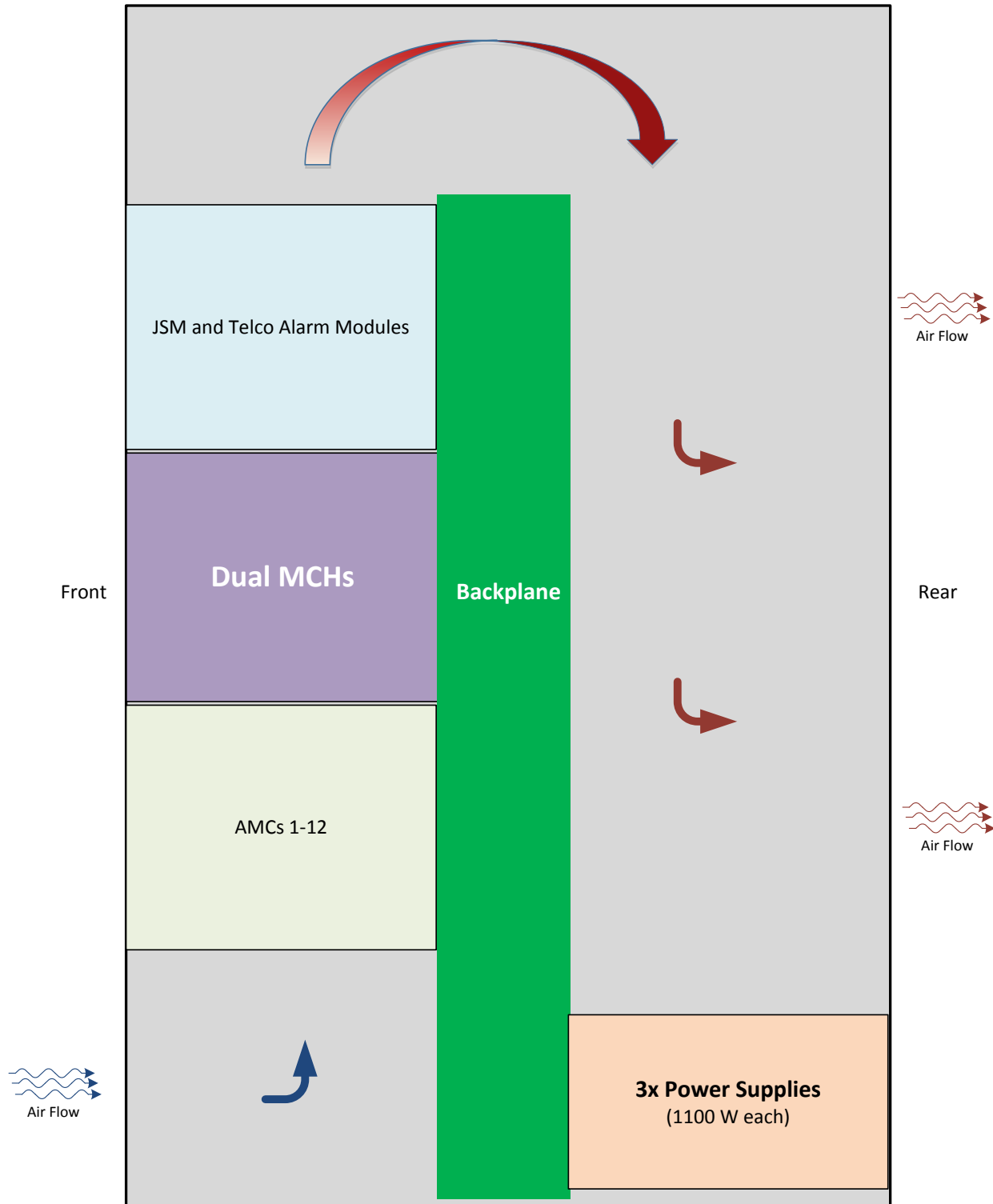
Air Flow

3x Power Supplies
(1100 W each)

Figure 2: VT884 Top Level Functional Block Diagram

BACKPLANE CONNECTIONS

PRIMARY CONNECTOR
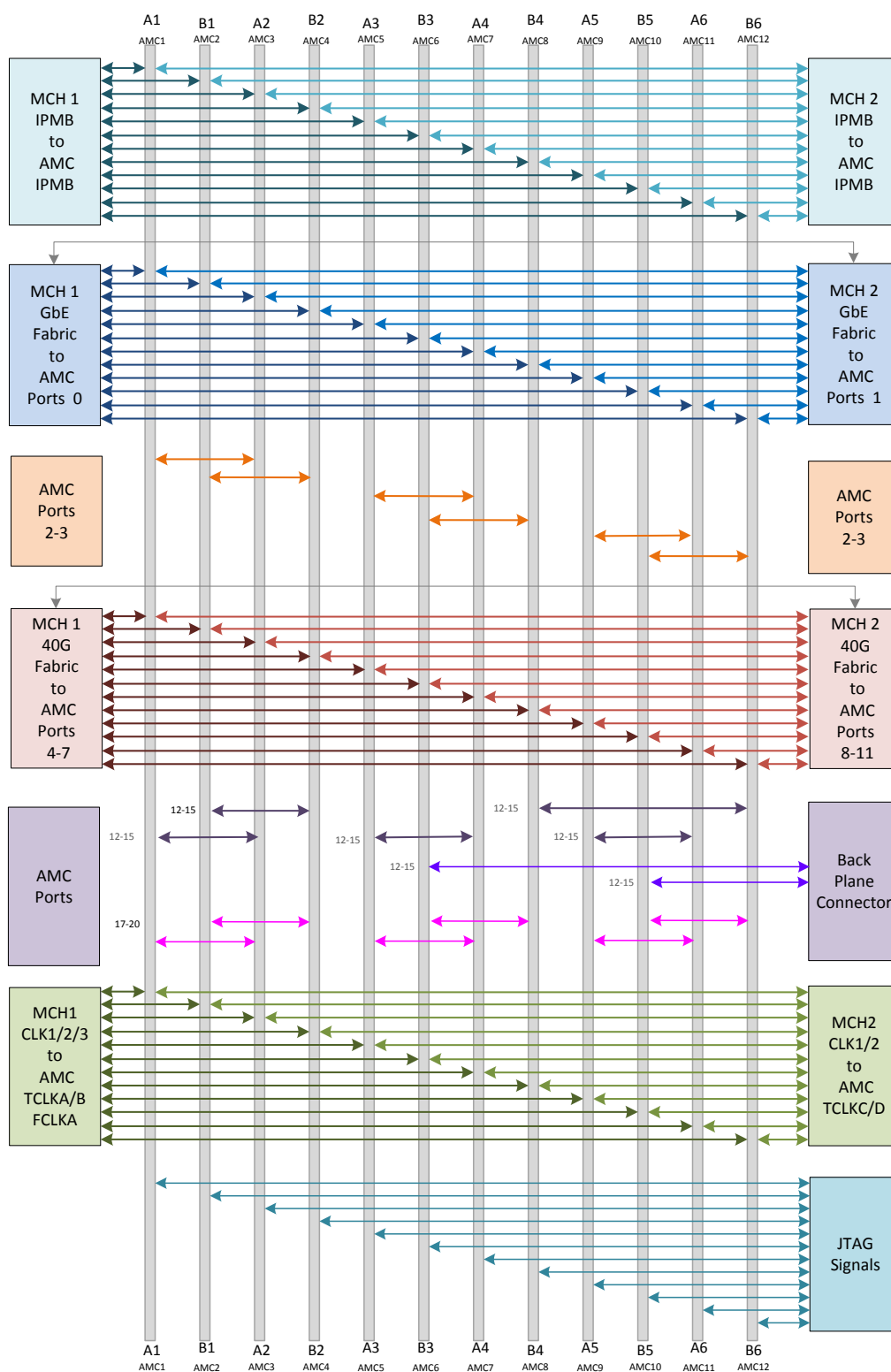
Figure 3: VT884 Backplane Connections on Primary AMC Connector

SECONDARY CONNECTOR

Figure 4: Backplane Connections on Secondary Connector (Tongue 2)

Figure 5: Backplane Speed on Secondary Connectors (Tongue 2)
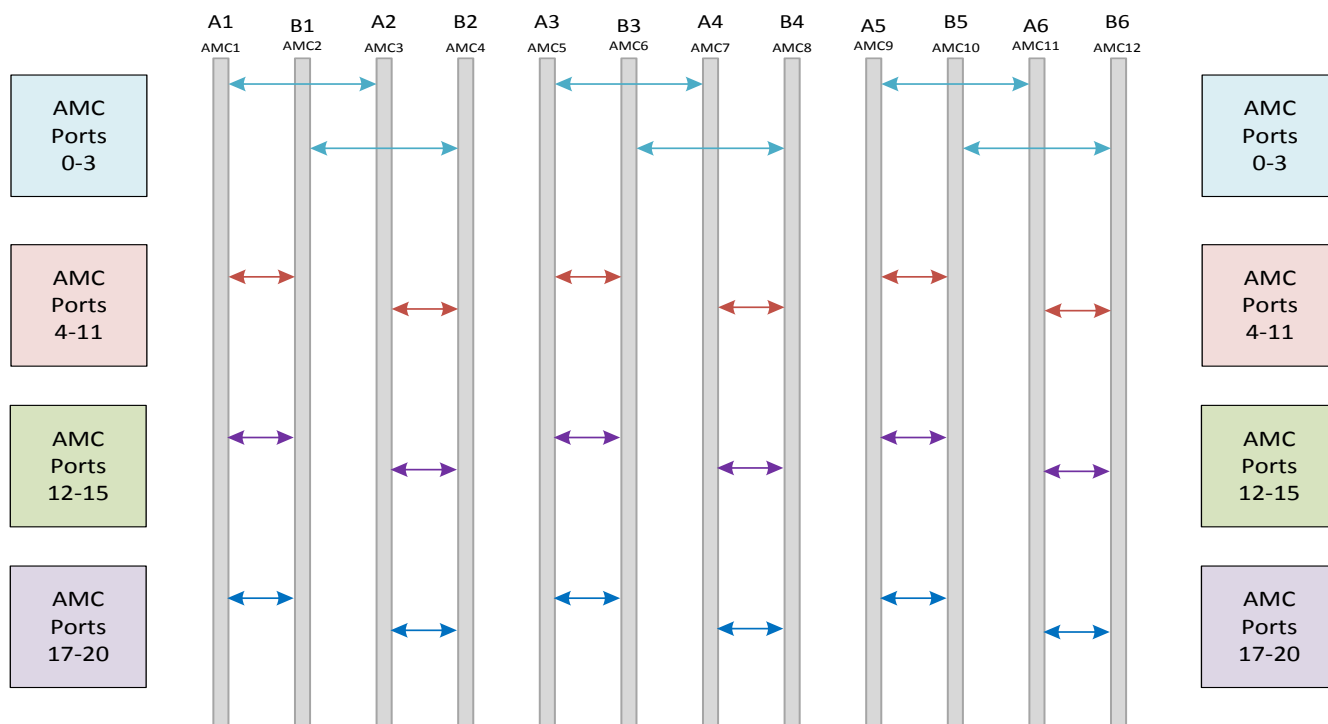
SPECIFICATIONS

Architecture		
Physical	Dimensions	Height 3U
		Width 19"
		Depth 23.6"(600 mm)
Type	µTCA Chassis	12 AMC.0 mid-size slots
Standards		
AMC	Type	AMC.0, AMC.1, AMC.2, AMC.3
µTCA	Type	PICMG 3.0 Rev 3.0
Module Management	IPMI	Version 2.0
Configuration		
Power	VT884	1100W per supply (up to three)
		110-240 VAC with frequency from 47-63Hz or DC -36V to -75V
Environmental	Temperature	Operating Temperature: -5° to 55° C (55° C for limited time, performance restrictions may apply)
		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 percent, non-condensing
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
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 µTCA 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.

Trademarks and Disclaimer

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THE POWER OF VISION

Version 1.3 – JUL/16

info@vadatech.com

VT884 – 3U µTCA Chassis, 12 AMC, 40G

ORDERING OPTIONS

VT884 – ABC – D00 – 00J

A = Power Supply
1 = Single (1100W, AC)
2 = Dual Supply (1100W, in 1+1 redundant, AC)
3 = Dual Supply (2200W, non-redundant, AC)
4 = Triple Supply (2200W, 2+1 redundant, AC)
5 = Single (1100W, DC -36V to -75V)
6 = Dual Supply (1100W, in 1+1 redundant, DC)
7 = Dual Supply (2200W, non-redundant, DC)
8 = Triple Supply (2200W, 2+1 redundant, DC)

B = Second Tongue
0 = None
1 = Installed

C = JSM
0 = None
1 = Installed

J = Temperature Range & Coating
0 = Commercial, No coating
1 = Commercial, Humiseal 1A33 Polyurethane
2 = Commercial, Humiseal 1B31 Acrylic
3 = Industrial, no coating
4 = Industrial, Humiseal 1A33 Polyurethane
5 = Industrial, Humiseal 1B31 Acrylic
6 = Military, Humiseal 1A33 Polyurethane*
7 = Military, Humiseal 1B31 Acrylic*

RELATED PRODUCTS

AMC720 Core i Processor	UTC018 1000W AC Power Module	AMC515 Virtex-7 FPGA

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