µTCA Power Module, 936W

KEY FEATURES

- Single module, full-size per AMC.0
- Dual -36V DC to -75V DC input, 936 W (available in 468 W)
- Hot swappable with support for power module redundancy
- Dual IPMI bus
- 32-bit RISC processor
- Two banks of 256K flash for redundancy
- Blue, Red, Amber and Green LEDs
- Field upgradable
- IPMI 2.0 and HPM.1 compliant
- Without the presence of an MCH the modules can be turned on
- Menu driven software for ease of configuration
- Current measure for each module
- External as well as internal WDT

Benefits of Choosing VadaTech

- Highest power DC PSU for MicroTCA in industry (936W)
- Modifiable to rugged conduction-cooled version
- Very low ripple voltage
- Support for power module redundancy
- LED power status for each payload
- 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 VadaTech UTC020 is a 936 W power module (available in 468 W) for use in a µTCA chassis. The power module runs at 95% efficiency when running at maximum load. This results in over 890 W available to the system. It is fully compliant with the MicroTCA.0 revision 1.0 specification; including dual-redundant I2C buses (IPMB-0). The UTC020 is hot-swappable and fully redundant when used in conjunction with a second instance of the module. It provides power to the twelve slots, two MCHs (MicroTCA Carrier Hubs) as well as the CUs (Cooling Units).

Multiple temperature sensors are included on-board to monitor for over-temp conditions within the module. The current is continuously measured for each of the modules and reported to MCH for any fault. Once installed in the system the firmware is upgradable via the shelf manager. The UTC020 can be configured to power and enable the modules without the presence of an MCH.

VadaTech can modify this product to meet special customer requirements. Contact us to discuss your application.

LED POWER STATUS

VadaTech's power modules have individual power status LEDs for each payload slot. Other indicator LEDs include MCH, Cooling Units, and Fuse.

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.
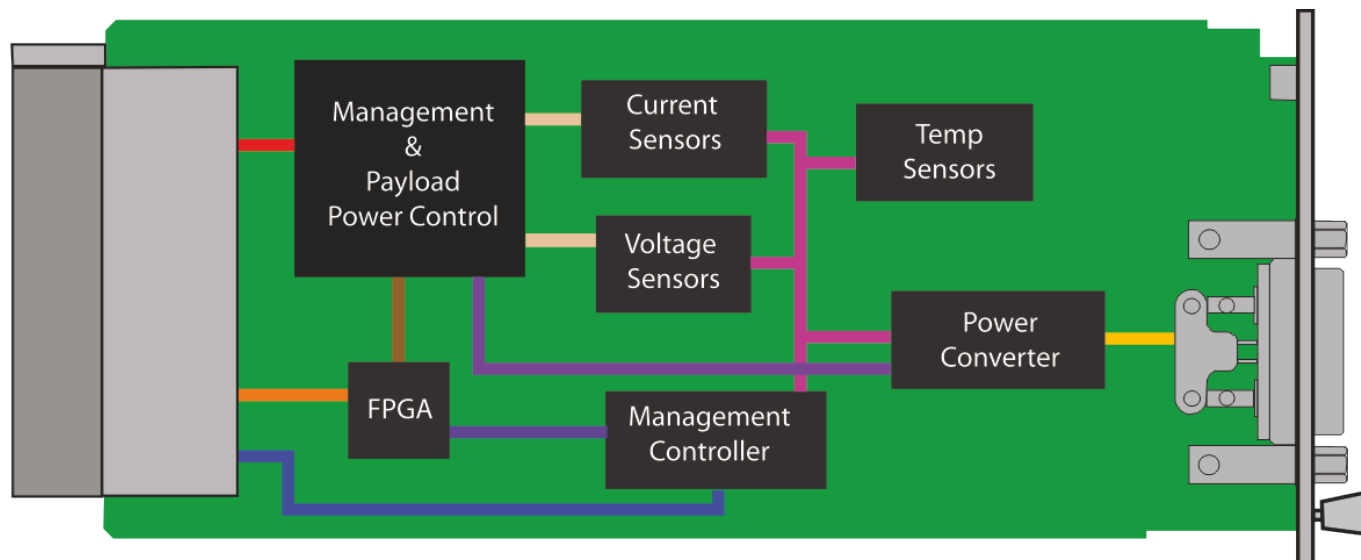
BLOCK DIAGRAM

Figure 1: Block Diagram

Figure 2: Front Panel

SPECIFICATIONS

Architecture		
Physical	Dimensions	Width 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	AMC Power Module	Intelligent power controller for µTCA chassis
Standards		
µTCA	Type	PICMG µTCA.0 Revision 1.0
AMC	Type	AMC.0 Revision 1.0
ATCA	Type	PICMG 3.0 Rev 2.0
Module Management	HPM	HPM.1 Revision 1.0
	IPMI	IPMI Version 2.0
Configuration		
Power	UTC020	936 W supply with 95% efficiency; providing over 890 W to the system
	Input Power	–36V DC to –75V DC
Environmental	Temperature	Operating Temperature: -5° to 55° C with air flow requirements >400 LFM (available in µTCA.3)
		Storage Temperature: –40° to +85° C
	Vibration	1G, 5 to 500 Hz each axis
	Shock	30Gs each axis
Features	Relative Humidity	5 to 95 percent, non-condensing
	External Interface	RS-232 front panel access
	LEDs	IPMI management control: Blue, Red, Amber and Green. Fuse indicator for each input rail. Power state per slot.
	Switch	Hot-swap switch input with ±15 kV ESD protection
	Temperature Sensor	Multiple temperature sensors on-board
Other		
MTFB	MIL Hand book 217-F @ 197,343 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	
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THE POWER OF VISION

DC Power Module, 936W – UTC020

ORDERING OPTIONS

UTC020 – AB0 – 000 – 0HJ

A = Power
1 = 468 W
2 = 936 W

B = Specification
0 = µTCA.0 (convection cooled)
1 = µTCA.3 (conduction cooled)

H = Temperature Range
1 = Commercial (-5° C to +55° C)
2 = Industrial (–20° C to +70° C)
3 = Military (–40° C to +85° C)*

J = Conformal Coating
0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

*Edge of module for conduction-cooled

RELATED PRODUCTS

**VT899 7U
Cube Chassis**

**UTC003 Conduction
Cooled MCH**

**VT811 MTCA.4
Chassis Platform**

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