Power Module, AC, 500W (Double Module) – UTC017

KEY FEATURES

- Double module, full-size module per AMC.0
- Universal AC input (85 to 265V), 500W
- Modules can be turned on without an MCH
- Provides power for up to 12 AMCs, 2 MCHs and Cooling Units
- Very low ripple voltage on +12 V
- Hot swappable with dual 256K Flash for redundancy support
- Dual IPMI bus
- 32–bit RISC processor
- Blue, red, amber and red LEDs
- IPMI 2.0 and HPM.1 compliant
- Menu driven software for ease of configuration
- Current sensor per slot

Benefits of Choosing VadaTech

- AC PSU for MicroTCA (500W)
- Very low ripple voltage
- Support for power module redundancy
- Efficient re-use of existing designs/components reduce costs
- Electrical, mechanical, software and system-level expertise in house
- Full ecosystem of front and rear boards, enclosures, speciality modules, and test/dev product from one source

The VadaTech UTC017 is a 500W (42A @ 12V) power module for use in a μTCA chassis. It is fully compliant with the MicroTCA.0 revision 1.0 specification; including dual-redundant I²C buses (IPMB-0).

The UTC017 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 UTC017 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.

IPMI FUNCTIONALITY

The UTC017 is IPMI 2.0 and HPM.1 compliant with optional IPMI commands including warm/cold reset, re-arm sensor events, get device GUID, and get/set the hysteresis, threshold, and/or sensor event enable. The PMs provide fail-over for redundant IPMB-0 and FRU LED control. The units also have power channel control, get power channel status, PM reset, get PM status, and PM heartbeat. Temperature and current sensors are also included.

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.
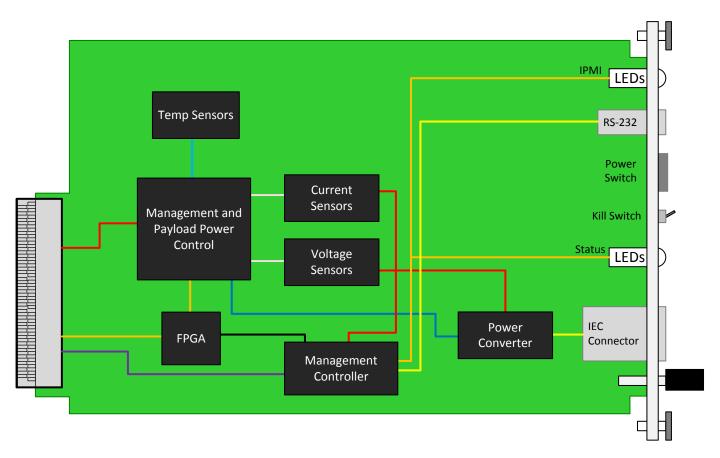
BLOCK DIAGRAM

Figure 1: UTC017 Block Diagram

SPECIFICATIONS

Architecture			
Physical	Dimensions	Width: 5.85" (148.5 mm)	
		Depth 7.11" (180.6 mm)	
Type	AMC Power Module	Intelligent power controller for µTCA chassis	
Standards			
Module Management	IPMI	IPMI version 2.0	
	ATCA	PICMG 3.0 Revision 2.0 (AdvancedTCA)	
	AMC	PICMG AMC.0 Revision 1.0 (AdvancedMC)	
	µTCA	PICMG MicroTCA.0 Revision 1.0	
	HPM	HPM.1 Revision 1.0	
Power	UTC0017	500W supply (42A @ 12V)	
		Input 85 to 265V AC (Input current 6.8 A / 3.4 A) with frequency 47 to 63 Hz	
Environmental	Temperature	Operating Temperature: 0° to 65°C with air flow greater than 400 LFM (available in µTCA.3)	
		Storage Temperature: –40° to +90°C	
	Vibration	1G, 5 to 500Hz on each axis	
	Shock	30Gs on each axis	
	Relative Humidity	5 to 95 per cent, non-condensing	
Front Panel	External Interface	RS-232 front panel access	
	LEDs	IPMI management control: blue, red, amber, green and fuse indicator for each input rail	
	Switch	Hot swap switch input with ±15 KV ESD protection	
	Input Power	Universal AC	
	Temperature Sensor	Multiple temperature sensors on-board	
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		
Trademarks and Disclaimer	The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice		

ORDERING OPTIONS

UTC017 – 0BC – 000 – 0HJ

B = Specification
0 = uTCA.0*
1 = uTCA.1
2 = uTCA.2
3 = uTCA.3

C = Front Panel Size
0 = Full-size (6 HP), Standard
1 = Extended-size (8 HP)*

H = Temperature Range

1 = Commercial (0° to +65°C)
2 = Industrial (-20° to +70°C)
3 = Military (-40° to +80°C)

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

* For use with Vadatech 2U chassis. such as VT812 and VT814

RELATED PRODUCTS

UTC003 MCH	**VT812 MicroTCA.4 Chassis Platform**	**UTC011 Power Module Conduction Cooled**

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