

UTC010

MicroTCA DC Power Module, 792 W



UTC010

Key Features

- Dual -36 V DC to -75 V DC input
- 792 W (available in 396 W)
- Hot swappable, support for power module redundancy
- Available in MTCA.3 Conduction Cooled format
- Dual IPMI bus
- 32-bit RISC processor
- Two banks of 256 K Flash for redundancy
- Modules can be turned on without an MCH in the system
- External as well as internal WDT

Benefits

- High-performance DC PSU for MicroTCA (792 W)
- Very low ripple voltage
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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UTC010

The VadaTech UTC010 is a 792 W power module (available in 396 W) for use in a MTCA chassis. The power module runs at 95% efficiency when running at maximum load. This results in over 752 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 UTC010 is hot-swappable and fully redundant when used in conjunction with a second instance of the module. It provides power to twelve AMC slots, two MicroTCA Carrier Hubs (MCHs) as well as the Cooling Units (CUs). 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 UTC010 can be configured to power and enable the modules without an MCH.



Figure 1: UTC010 Convection Cooled Version



Figure 2: UTC010 Conduction Cooled Version

Block Diagram

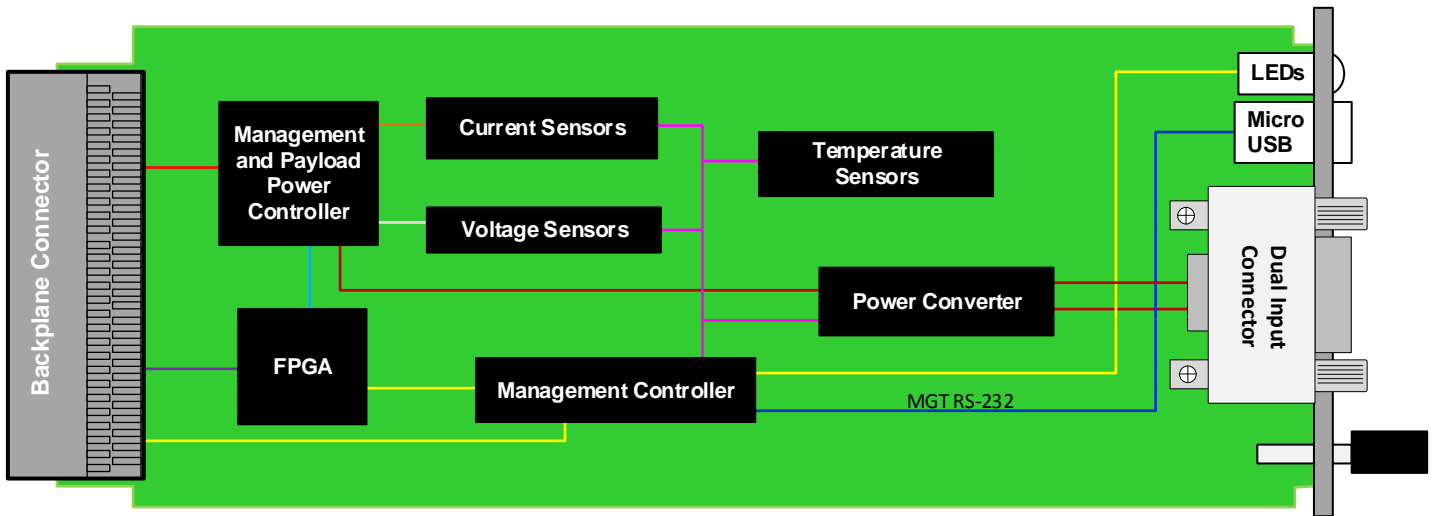


Figure 3: UTC010 Functional Block Diagram

Front Panel



Figure 4: UTC010 Front Panel

Specifications

Architecture		
Physical	Dimensions	Single module, full-size
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	Power Module	Intelligent power controller for MTCA chassis
Standards		
Module Management	IPMI	IPMI v2.0
	AdvancedTCA	PICMG 3.0 Rev 2.0 (AdvancedTCA)
	AMC	AMC.0
	HPM	HPM.1 Rev 1.0
	MicroTCA	PICMG MicroTCA.0 Rev 1.0
Configuration		
Power	UTC010	796 W supply with 95% efficiency; providing over 752 W to the system
Environmental	Temperature	See ordering options and environmental spec sheet
		Storage Temperature: -40° to +90°C
	Vibration	Operating 9.8 m/s ² (1G), 5 to 500 Hz on each axis
	Shock	Operating 30G on each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	Interface Connectors	Micro USB for Management RS-232
	Input Power	-36 V DC to -75 V DC
	LEDs	IPMI management control
		Fuse indicator for each rail
	Mechanical	Hot swap ejector handle
	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
Warranty		Two (2) years

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

UTC010 – AB0-000-0HJ

A = Power		
1 = 396 W 2 = 792 W		
B = Specification		H = Temperature Range
0 = MTCA.0 (Convection cooled) 1 = MTCA.3 (Conduction cooled) 2 = MTCA.1 (captive screws)		1 = Commercial (0° to +65° C) 2 = Industrial (-20° to +70° C) 3 = Extended (-40° to +80° C)*
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Notes: *Conduction cooled, temperature is at edge of module. Consult factory for availability.

Related Products

UTC003



- 400 MHz RISC CPU with 64 MB DDR for MicroTCA Carrier Management Controller (MCMC) and Shelf Manager
- Redundant boot system to ensure fail-safe upgrades
- Fail-over with dual UTC003 in system

UTC020



- Single module, full-size per AMC.0
- Dual -36 V DC to -75 V DC input, 936 W (available in 468 W)
- Hot swappable with support for power module redundancy

UTC011



- Dual 10 to 36 V DC input for 241 W option and 18 to 36 V DC input for 460 W option
- Support for power module redundancy
- 32-bit RISC processor

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