

# UTC020

DC Power Module, 936 W



UTC020

## Key Features

- 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
- Dual IPMI bus
- 32-bit RISC processor
- Two banks of 256 K flash for redundancy

## Benefits

- Highest power DC PSU for MTCA in industry (936 W)
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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# UTC020

UTC020 is a 936 W power module (available in 468 W) for use in a MTCA 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 MTCA.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 MTCA 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 UTC020 can be configured to power and enable the modules without the presence of an MCH.

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



*Figure 1: UTC020 Front View*

# Block Diagram

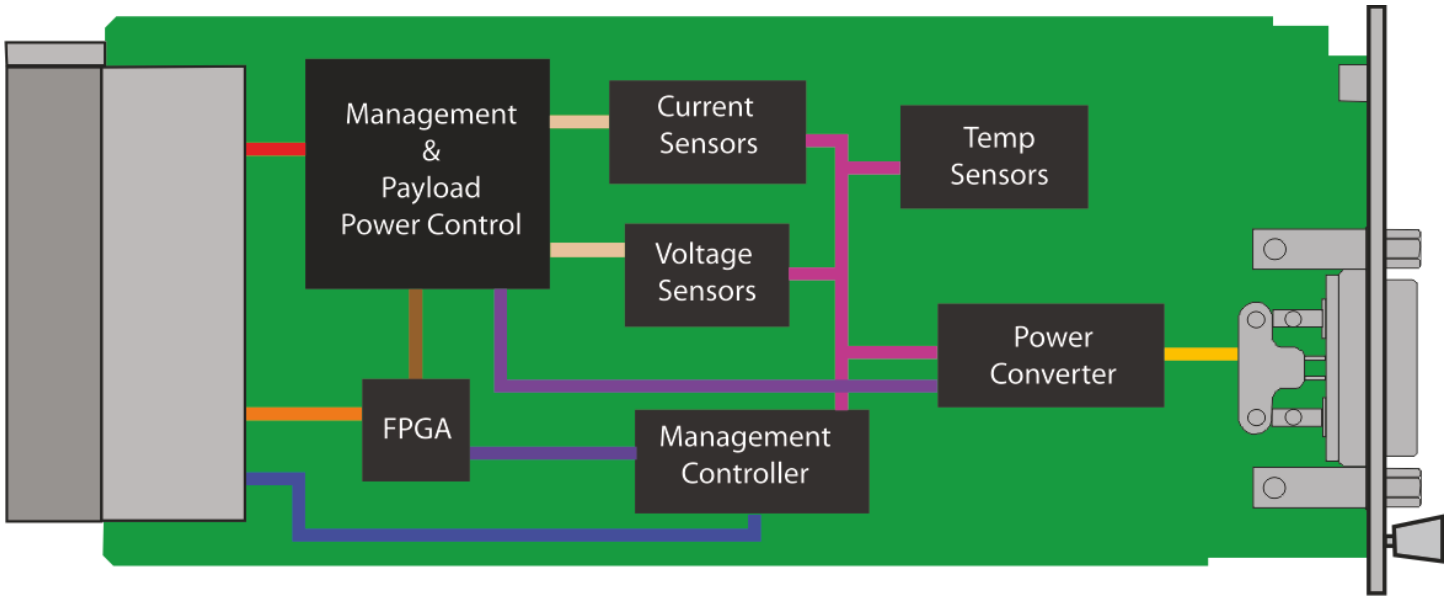


Figure 2: UTC020 Functional Block Diagram

# Front panel

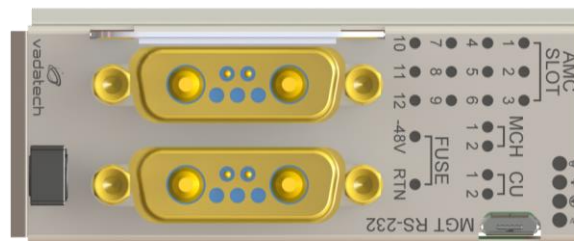


Figure 3: UTC020 Front Panel

# Specifications

Architecture		
<b>Physical</b>	<b>Dimensions</b>	Width 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
<b>Type</b>	<b>AMC Power Module</b>	Intelligent power controller for MTCA chassis
Standards		
<b>MTCA</b>	<b>Type</b>	PICMG MTCA.0 Revision 1.0
<b>AMC</b>	<b>Type</b>	AMC.0 v1.0
<b>ATCA</b>	<b>Type</b>	PICMG 3.0 Revision 2.0
<b>Module Management</b>	<b>HPM</b>	HPM.1 Revision 1.0
	<b>IPMI</b>	IPMI v2.0
Configuration		
<b>Power</b>	<b>UTC020</b>	936 W supply with 95% efficiency; providing over 890 W to the system
<b>Environmental</b>	<b>Temperature</b>	See ordering options and <a href="#">environmental spec sheet</a>
		Storage Temperature: -40° to +85°C
	<b>Vibration</b>	1 G, 5 to 500 Hz each axis
	<b>Shock</b>	30 Gs each axis
<b>Features</b>	<b>External Interface</b>	RS-232 front panel access
	<b>LEDs</b>	IPMI management control
		Activity/Status LEDs
		Fuse indicator for each input rail. Power state per slot
	<b>Switch</b>	Hot-swap switch input with ±15 kV ESD protection
	<b>Temperature Sensor</b>	Multiple temperature sensors on-board
Other		
<b>MTBF</b>		MIL Hand book 217-F@ TBD hrs
<b>Certifications</b>		Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>		VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
<b>Warranty</b>		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

## UTC020– AB0-000-0HJ

### A = Power

- 1 = 468 W
- 2 = 936 W

### B = Specification

- 0 = MTCA.0 (convection cooled)
- 1 = MTCA.0 (conduction cooled)
- 2 = MTCA.1 (retention screws)

### H = Operating Temperature

- 1 = Commercial (–5° to +55°C)
- 2 = Industrial (–20° to +70°C)
- 3 = Extended (–40° to +85°C)\*

### J = Conformal Coating\*

- 0 = No coating
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

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

## Related Products

VT899



- MTCA System Platform 5" x 7U x 9" deep (with handles 10" deep)
- Up to six AMCs. Six full size single width or 3 full size double width
- Radial 12C bus to each AMC

UTC003



- 400 MHz RISC CPU with 64 MB DDR for MTCA Carrier Management Controller (MCMC) and Shelf Manager
- Single width, full height module per AMC.0
- Fail-over with dual UTC003 in system

VT811



- MTCA System Platform 19" x 8U x 14.9" deep (with handles 16.23" deep)
- Full redundancy with dual MTCA Carrier Hub (MCH), dual Cooling Units and quad Power Modules
- Up to twelve AMCs. 12 front mid-size double module slots and RTM slots

# Contact

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- Accelerated deployment
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