

UTC020

DC Power Module, 936W



UTC020

Key Features

- Single module, full-size per AMC.0
- Dual -36V DC to -75V DC input, 936W (available in 468W)
- 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 (936W)
- Modifiable to rugged conduction-cooled version
- 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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UTC020

UTC020 is a 936W power module (available in 468W) for use in a MTCA chassis. The power module runs at 95% efficiency when running at maximum load. This results in over 890W 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

Block Diagram

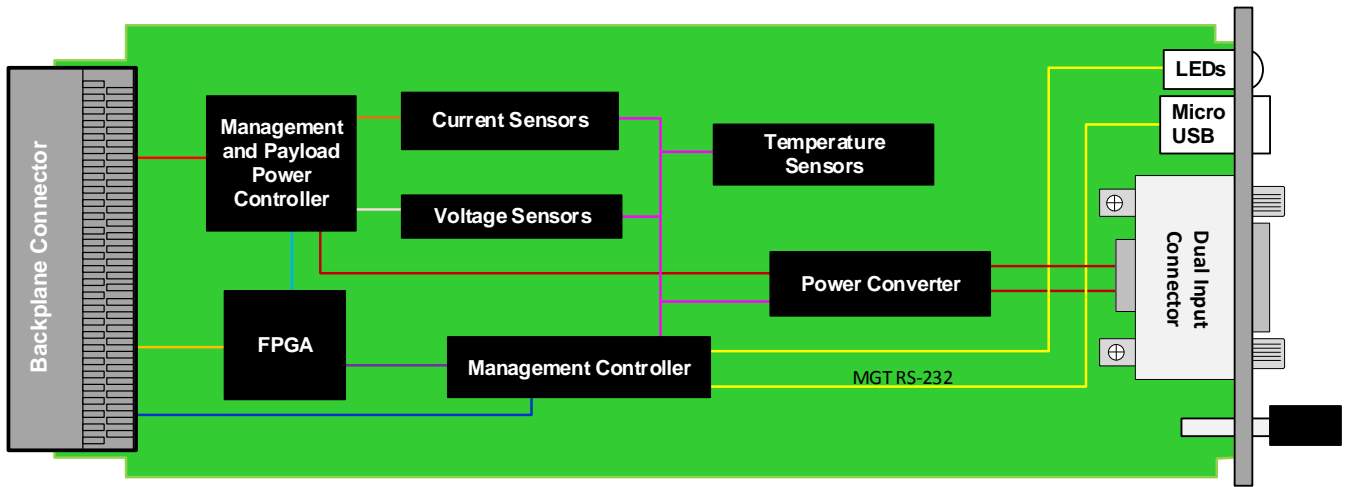


Figure 2: UTC020 Functional Block Diagram

Front panel

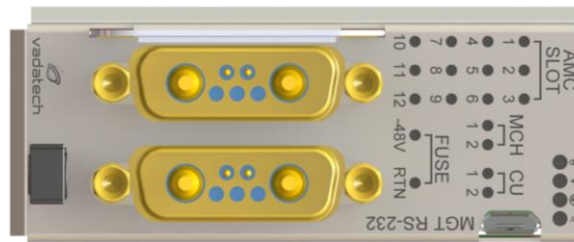


Figure 3: UTC020 Front Panel

Specifications

Architecture	
Physical	Dimensions Width 2.89" (73.5 mm) Depth 7.11" (180.6 mm)
Type	AMC Power Module Intelligent power controller for MTCA chassis
Standards	
MTCA	Type PICMG MTCA.0 Revision 1.0
AMC	Type AMC.0 v1.0
ATCA	Type PICMG 3.0 Revision 2.0
Module Management	HPM HPM.1 Revision 1.0 IPMI IPMI v2.0
Configuration	
Power	UTC020 936W supply with 95% efficiency; providing over 890W to the system
Environmental	Temperature See ordering options and environmental spec sheet Storage Temperature: -40° to +85°C
	Vibration 1G, 5 to 500 Hz each axis
	Shock 30Gs each axis
Features	External Interface RS-232 front panel access LEDs IPMI management control Activity/Status LEDs 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	
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

UTC020 – AB0-000-0HJ

A = Power

- 1 = 468W
- 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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