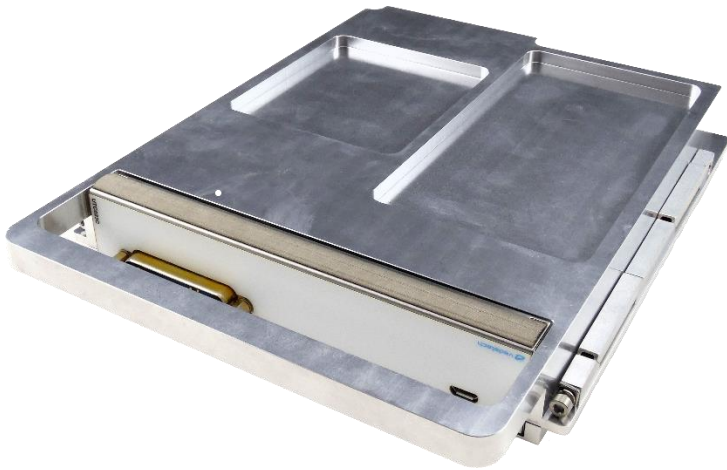


## UTC023 / UTC023C – DC Power Module, 241W or 460W, Double Module

241W or 460W DC Power Module



### KEY FEATURES

- Double module, full-size per AMC.0
- 10 to 36 VDC input for 241W option and 18 to 36 VDC input for 460W option
- Support for power module redundancy
- Dual IPMI bus
- 32-bit RISC processor
- Two banks of 256K flash for redundancy
- Field upgradable
- IPMI 2.0 compliant
- HPM.1 compliant
- Modules can be turned on without the presence of an MCH
- Menu driven software for ease of configuration
- Current measure for each module
- External as well as internal WDT

**μTCA™**

### Benefits of Choosing VadaTech

- 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 UTC023 is a 241/460W power module for use in a μTCA chassis. The power module runs at 84% efficiency when running at maximum load. This results in 200/400W output (available to the system). It is fully compliant with the MicroTCA.0 and MicroTCA.1 specifications; including dual-redundant I<sup>2</sup>C buses (IPMB-0).

The UTC023 is 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.

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. The firmware is upgradable via HPM.

The module is available in conduction cooled variant for harsh environments.

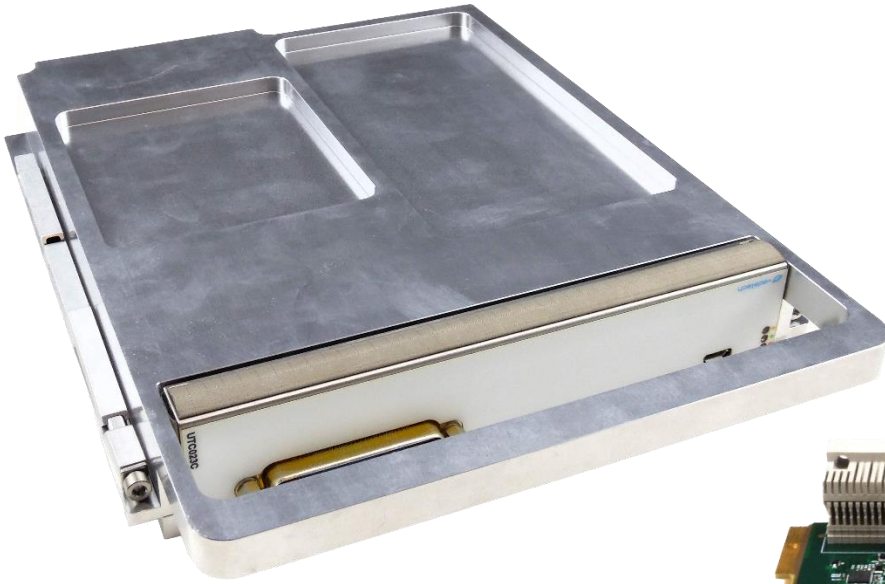


Figure 1: UTC023 Conduction Cooled Assembly

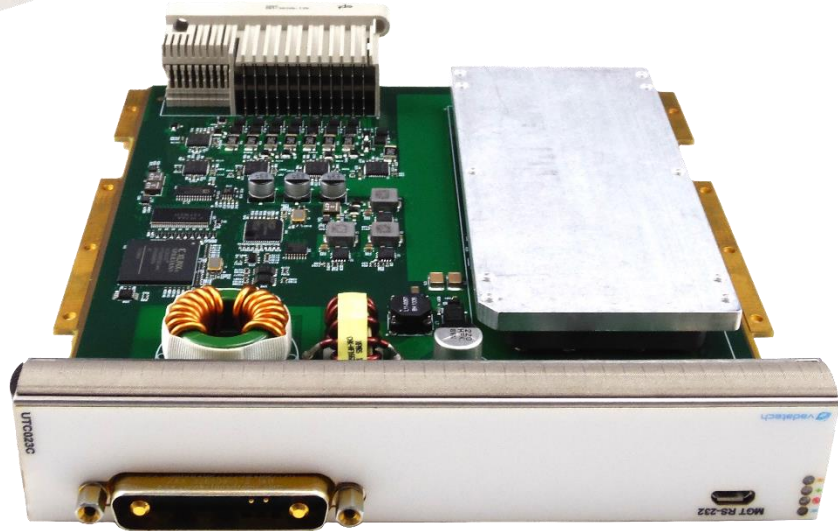


Figure 2: UTC023 without Cover



Figure 3: UTC023 without Cover (isometric)

## IPMI FUNCTIONALITY

The UTC023 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 follow the ATCA specification in 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.

## UTC023

### BLOCK DIAGRAM

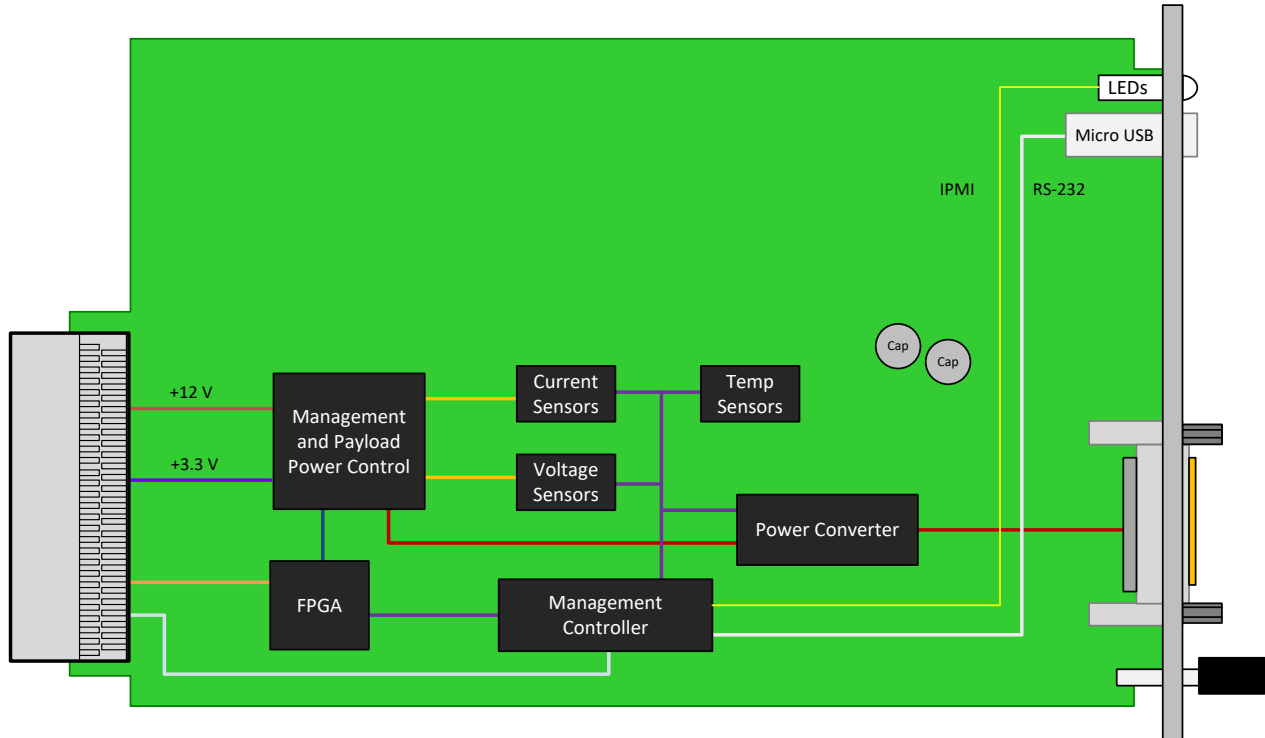


Figure 4: Block Diagram – Air Cooled Version

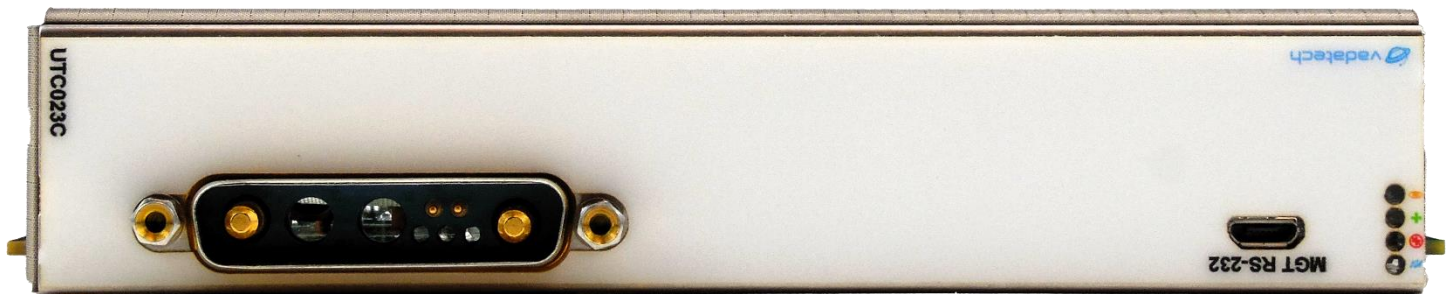


Figure 5: UTC023 Front Panel View

UTC023C

BLOCK DIAGRAM

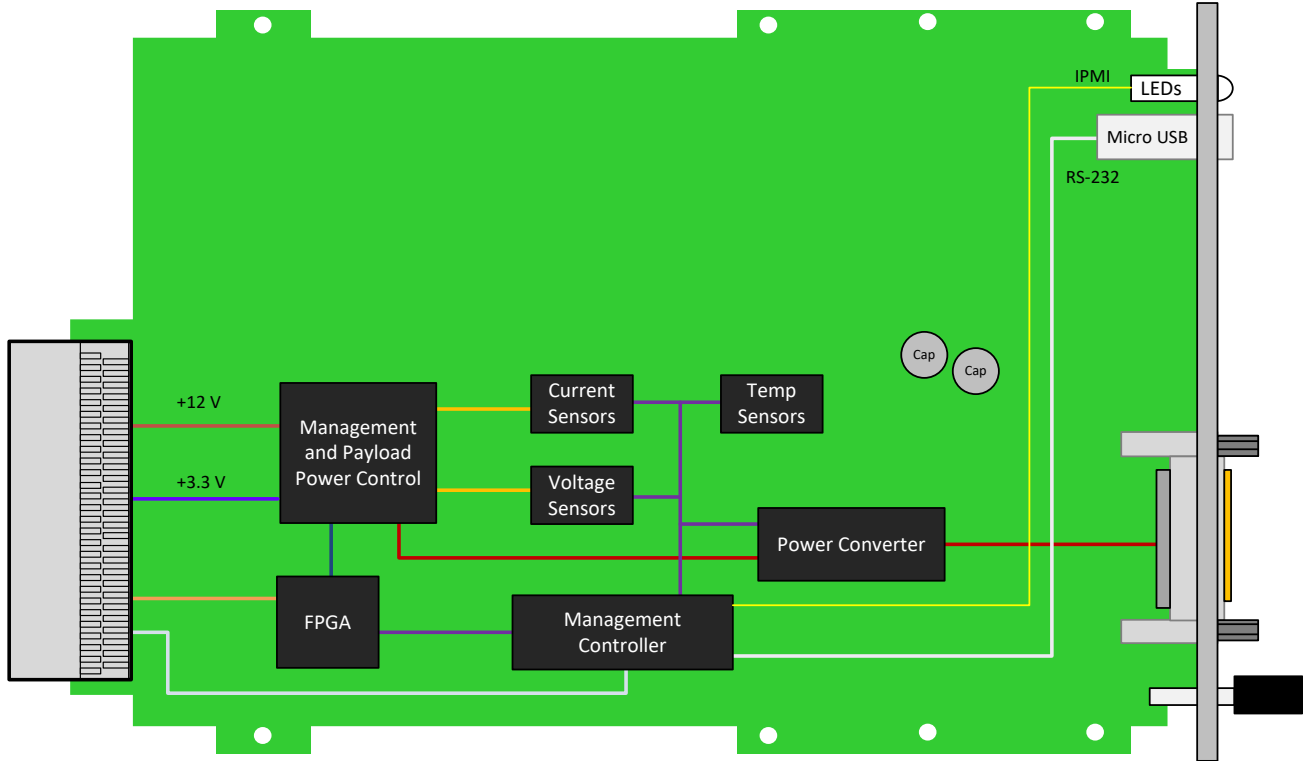


Figure 6: Block Diagram - Conduction Cooled Version

# UTC023 / UTC023C – DC Power Module, 241W or 460W, Double Module

## SPECIFICATIONS

Architecture		
Physical	Dimensions	Width: 5.85" (148.5 mm)
		Depth 7.11" (180.6 mm)
Type	AMC Power Module	Intelligent power controller for $\mu$ TCA chassis
Standards		
Module Management	IPMI	IPMI version 2.0
	AMC	PICMG AMC.0 Revision 1.0 (AdvancedMC)
	$\mu$ TCA	PICMG MicroTCA.0 Revision 1.0
	HPM	HPM.1 Revision 1.0
Power	UTC023	241 W, input supply: 10 to 36 VDC 460 W, input supply: 18 to 36 VDC
Environmental	Temperature	Operating Temperature: -5° to 55°C industrial and military versions also available ( <a href="#">See environmental spec sheet</a> ) Storage Temperature: -40° to +85°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
	Mechanical	Hot swap 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	
Compliance	RoHS and NEBS	
Warranty	Two (2) years	

### INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and  $\mu$ TCA 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.

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# UTC023 / UTC023C – DC Power Module, 241W or 460W, Double Module

## ORDERING OPTIONS

### UTC023 – A0C – 000 – 00J

#### A = Power

- 1 = 241W (input voltage 10 to 36V)
- 2 = 460W (input voltage 18 to 36V)

#### C = Front Panel

- 1 = Reserved
- 2 = Reserved
- 3 = Full-size
- 4 = Reserved
- 5 = Reserved
- 6 = Full-size, MTCA.1 (captive screw)

#### J = Temperature Range and Coating

- 0 = Commercial (–5° to +45° C), No coating
- 1 = Commercial (–5° to +45° C), Humiseal 1A33 Polyurethane
- 2 = Commercial (–5° to +45° C), Humiseal 1B31 Acrylic
- 3 = Reserved
- 4 = Industrial (–20° to +70° C), Humiseal 1A33 Polyurethane
- 5 = Industrial (–20° to +70° C), Humiseal 1B31 Acrylic
- 6 = Military (–40° to +85° C), Humiseal 1A33 Polyurethane
- 7 = Military (–40° to +85° C), Humiseal 1B31 Acrylic

### UTC023C – A0C – 000 – 00J

#### A = Power

- 1 = 241W (input voltage 10 to 36 VDC)
- 2 = 460W (input voltage 18 to 36 VDC)

#### C = Ruggedization Level\*

- 0 = None
- 1 = Contact Vadatech
- 2 = Contact Vadatech
- 3 = Contact Vadatech

#### J = Temperature Range and Coating \*\*

- 0 = Commercial (–5° to +45° C), No coating
- 1 = Commercial (–5° to +45° C), Humiseal 1A33 Polyurethane
- 2 = Commercial (–5° to +45° C), Humiseal 1B31 Acrylic
- 3 = Reserved
- 4 = Industrial (–20° to +70° C), Humiseal 1A33 Polyurethane
- 5 = Industrial (–20° to +70° C), Humiseal 1B31 Acrylic
- 6 = Military (–40° to +85° C), Humiseal 1A33 Polyurethane
- 7 = Military (–40° to +85° C), Humiseal 1B31 Acrylic

\* Ruggedization level is per the uTCA.2 and uTCA.3 specification

\*\* Edge of module



# UTC023 / UTC023C – DC Power Module, 241W or 460W, Double Module

## RELATED PRODUCTS



**8U MTCA.4 Chassis Platform**  
12 AMCs



**UTC004 Gen 3**  
MCH



**AMC720 Processor**  
AMC

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