VPX021

3U VPX Power Module

VPX021

Key Features

- Power Module for Open VPX VITA 62
- 3U VPX Systems
- 600W Output Power (2KVdc input to output functional isolation)
- Input voltage +16V to +45V (nominal +28V)
- Available in Conduction Cooled
- Meets Mil-STD-704F, MIL-STD-461G, MIL-STD-810G MIL-STD-1275E
- Health Management through dedicated Processor
- Up to four modules for parallel operation and/or redundancy

Benefits

- Most comprehensive VPX products in the market
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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VPX021

The VPX021 is a power module per VITA 62. The VPX021 is designed for 3U VPX systems and provides +12V, +5V, +3.3V, -12V_AUX, +12V_AUX and +3.3V_AUX to the backplane. Up to four VPX021 could be utilized for parallel operation and/or redundancy.

The module has dedicated health management per VITA46.11 and interfaces to the backplane using dual IPMI buses. The module has ENABLE, INHBIT, FAIL, Geographic address, and SYSRESET connections to the backplane.

The module is designed to meet the following MIL-STDs:

- MIL-STD-704F
- MIL-STD-461G
- MIL-STD-810G
- MIL-STD-1275E

Figure 1: VPX021

Figure 2: VPX021 Top View

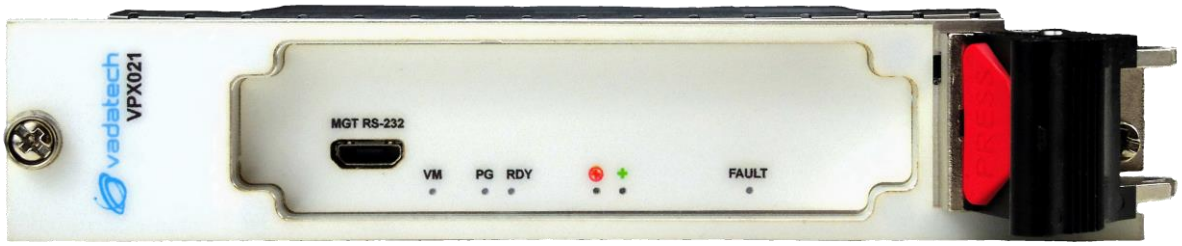

Figure 3: VPX021 Front View

Block Diagram

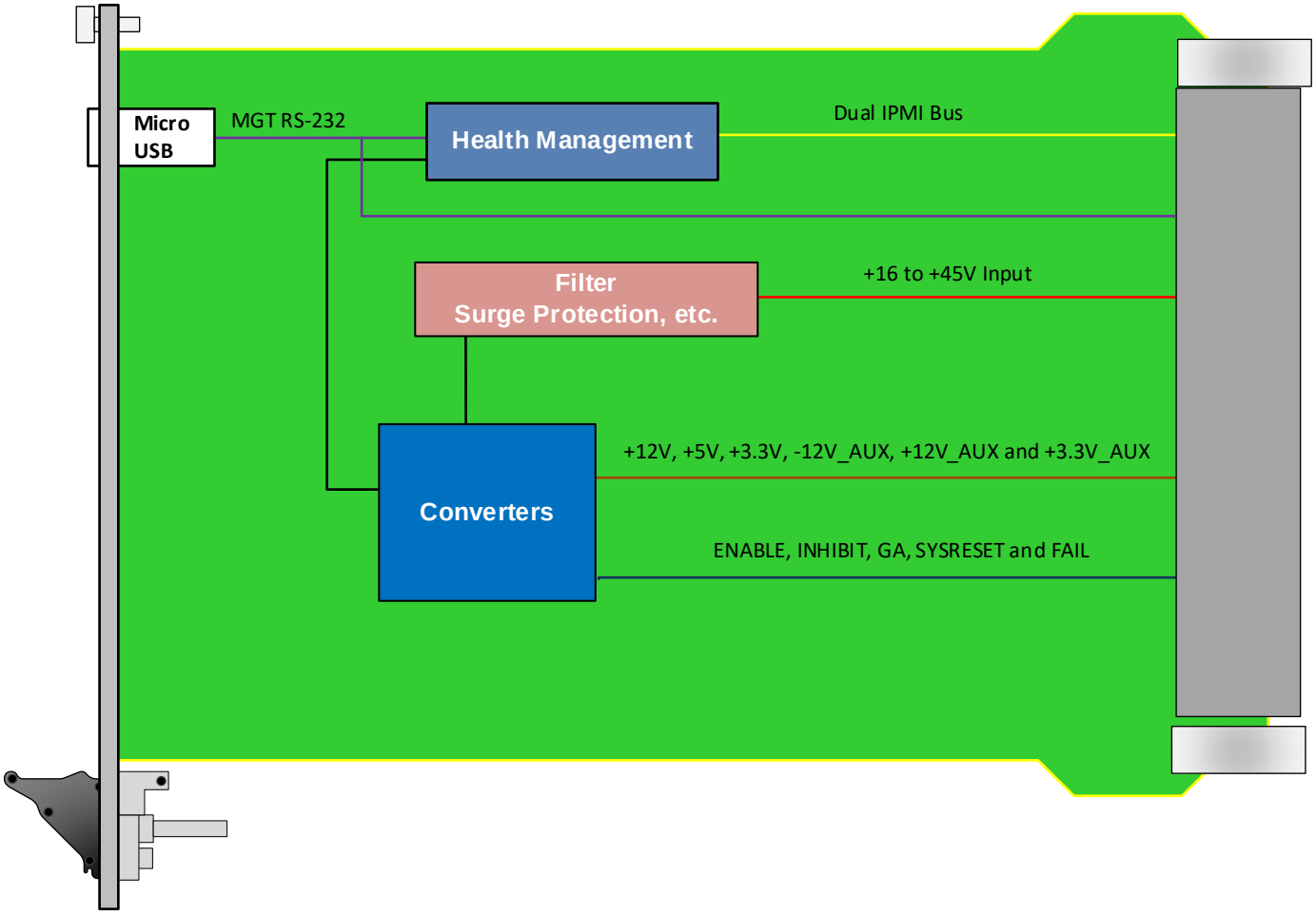

Figure 4: VPX021 Functional Block Diagram

Specifications

Architecture		
Physical	**Dimensions**	3U, 1” pitch
Standards		
VPX	**Type**	VITA 46.0
VPX	**Type**	VITA 65 OpenVPX
Module Management	**IPMI**	IPMI v2.0
Configuration		
Power	**VPX021**	Power Entry Module with +16 to +45V input
		2KVdc Isolation
Front Panel	**Micro USB**	RS-232 for Health Management
	LEDs	User defined by Health Management
Onboard Interfaces		Dual IPMI Buses
VPX Interfaces	**Slot Profiles**	See Ordering Options
	Rear IO	Per VITA62 (Fail, Inhibit, Geographic address, etc.)
	Backplane	Connector per VITA 62
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 ISO9001:2015 and AS9100D standards	
Warranty	Two (2) years, see VadaTech Terms and Conditions	

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

VPX021 – 000-000-GHJ

		G = Applicable Slot Profile
		0 = 5 HP, VITA 48.1 1 = Reserved
		H = Environmental
		See Environmental Specification
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic3 3 = Parylene

Notes:

Environmental Specification

	Air Cooled		Conduction Cooled		
Option H	**H = 0**	**H = 1**	**H = 2**	**H = 3**	**H = 4**
Operating Temperature	AC1* (0°C to +55°C)	AC3* (-40°C to +70°C)	CC1* (0°C to +55°C)	CC3* (-40°C to +70°C)	CC4* (-40°C to +85°C)
Storage Temperature	C1* (-40°C to +85°C)	C3* (-50°C to +100°C)	C1* (-40°C to +85°C)	C3* (-50°C to +100°C)	C3* (-50°C to +100°C)
Operating Vibration	V2* (0.04 g2/Hz max)	V2* (0.04 g2/Hz max)	V3* (0.1 g2/Hz max)	V3* (0.1 g2/Hz max)	V3 (0.1 g2/Hz max)
Storage Vibration	OS1* (20g)	OS1* (20g)	OS2* (40g)	OS2* (40g)	OS2* (40g)
Humidity	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing

Notes:
*Nomenclature per ANSI/VITA 47. Contact local sales office for conduction cooled (H = 2, 3, 4).

Related Products

VPX516

- 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
- Xilinx Virtex-7 690T FPGA in FFG-1761 package
- High-performance clock jitter cleaner

VPX592

- 3U FPGA carrier for FMC per VITA 46 and VITA 57
- Xilinx Kintex UltraScale™ XCKU115 FPGA
- High-performance clock jitter cleaner

VPX599

- Xilinx Kintex UltraScale™ XCKU115 FPGA
- Dual ADC 12-bit @ 6.4 GSPS
- Dual DAC 16-bit @ 12 GSPS (AD9162 or AD9164)

Contact

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