

VPX022

3U VPX Universal AC or DC Input Power Module 300W

VPX022

Key Features

- Power Module for Open VPX VITA 62 in 3U VPX 10HP
- Universal AC input 85V_{RMS} to 264V_{RMS} (nominal 100V_{RMS} to 240V_{RMS})
 - DC Input 120V to 370V
- AC Input Frequency 47 to 63Hz (typical 50/60)
 - 400Hz operational
- 300W Output Power
- +12V and +3.3V_AUX output only
- Available in Conduction Cooled
- Meets Mil-STD-704F, MIL-STD-461F, MIL-STD-810G
- 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

OpenVPX™



vadatech
THE POWER OF VISION



VPX022

The VPX022 is a power module per VITA 62. The VPX022 is designed for 3U VPX systems and provides +12V and +3.3V_AUX to the backplane. Up to four VPX022 could be utilized for parallel operation and/or redundancy. The total output power of 300W per module.

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:

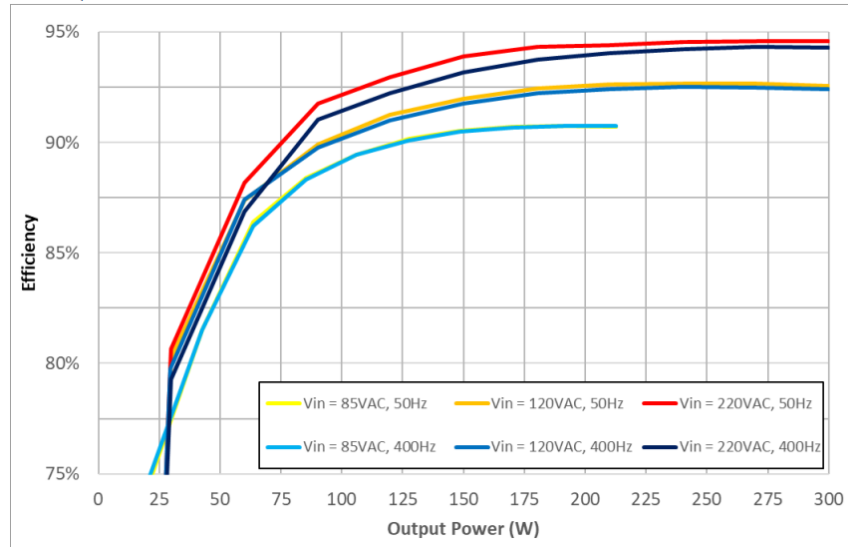
- MIL-STD-704F
- MIL-STD-461F
- MIL-STD-810G

Figure 1: VPX022

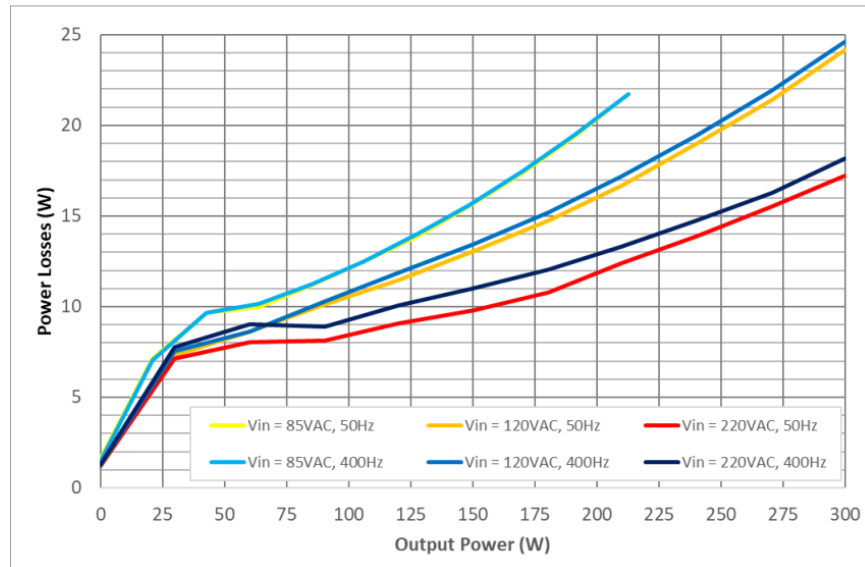
Figure 2: VPX022 Top View

Figure 3: VPX022 Front Panel View

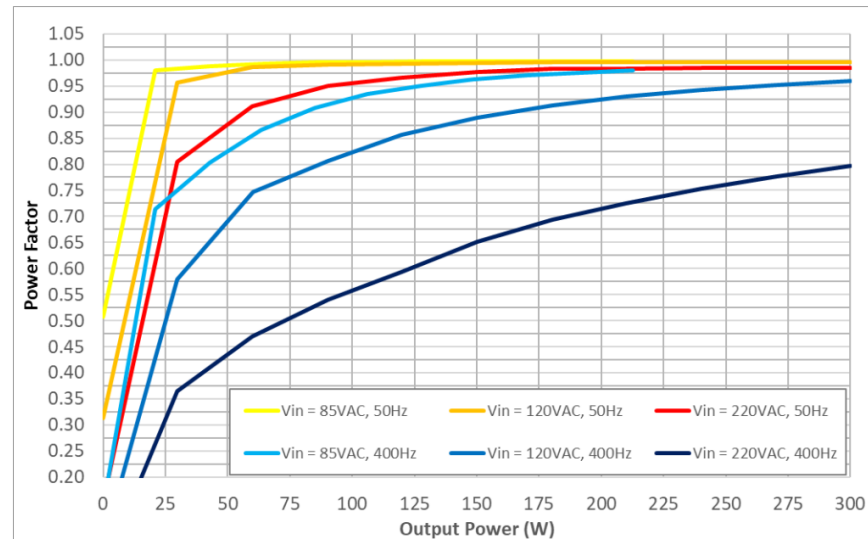
Efficiency



Power Loss



Power Factor



Block Diagram

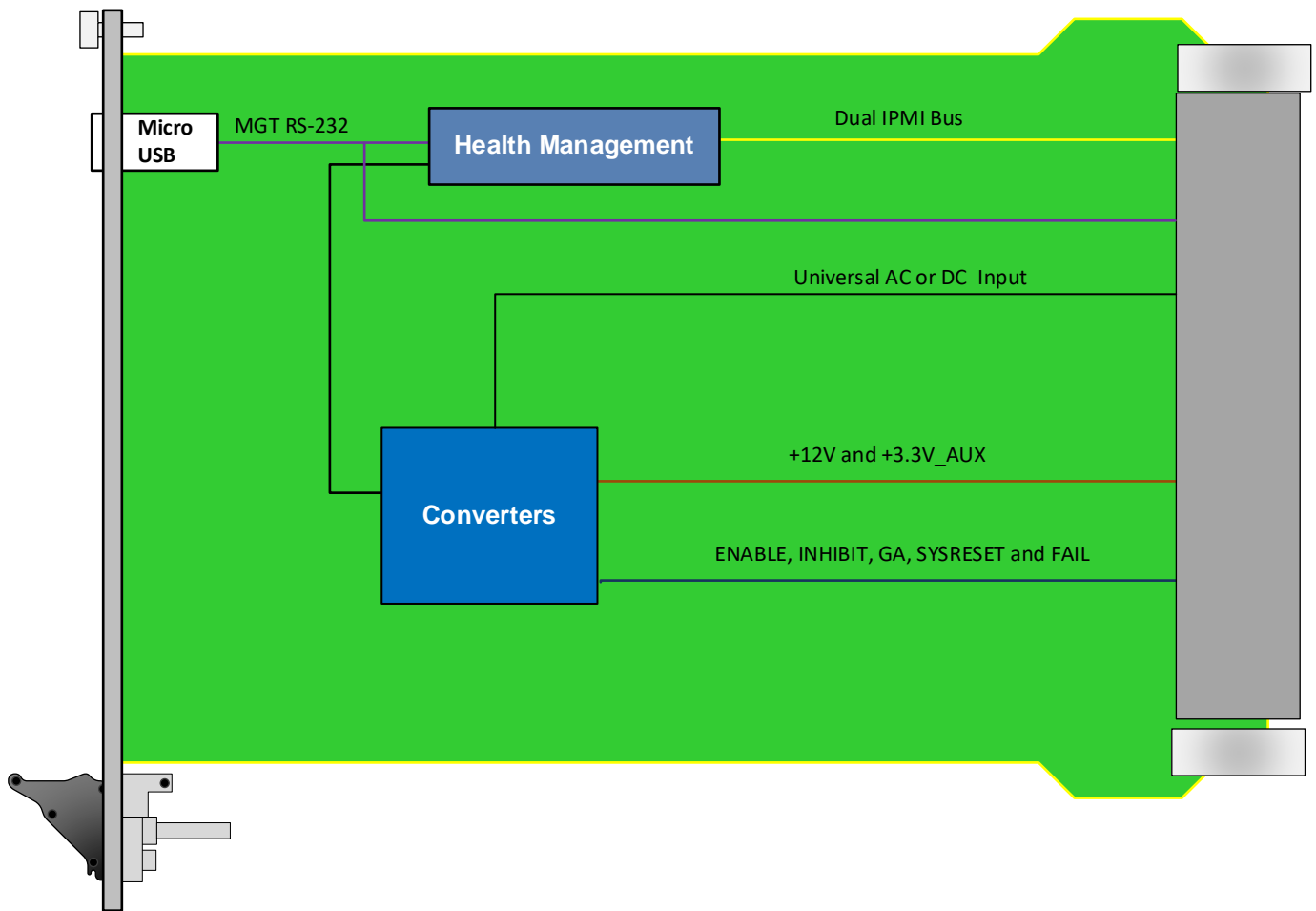


Figure 4: VPX022 Functional Block Diagram

Specifications

Architecture		
Physical	Dimensions	3U, 2" pitch (10 HP panel)
Standards		
VPX	Type	VITA 46.0
VPX	Type	VITA 65 OpenVPX
Module Management	IPMI	IPMI v2.0
Configuration		
Power	VPX022	Power Entry Module with universal AC or DC input 300W Input to output 4000V _{AC} ; 2KV _{AC} Isolation input to Chassis; 1500V _{AC} Output to Chassis
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

VPX022*-000-000-GHJ

		G = Applicable Slot Profile 0 = 10 HP, VITA 48.1 1 = Reserved
		H = Environmental See Environmental Specification
		J = Conformal Coating 0 = No coating 1 = Reserved 2 = Reserved 3 = Parylene

Notes:

*Per VITA specification +5V, +3.3V, +12V_AUX and -12V_AUX is required. The VPX022 provides only +12V and +3.3V+_AUX to the backplane. Please consider VPX020 if other voltages are needed.

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

VPX021



- Power Module for Open VPX VITA 62
- 3U VPX Systems
- 600W Output Power

VPX029



- Power Module for Open VPX VITA 62
- 3U VPX Systems
- 600W Output Power

VPX028



- Power Module for Open VPX VITA 62
- 6U VPX Systems
- 500W Output Power

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhui Street, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

Choose VadaTech

We are technology leaders

- First-to-market silicon
- Constant innovation
- Open systems expertise

We commit to our customers

- Partnerships power innovation
- Collaborative approach
- Mutual success

We deliver complexity

- Complete signal chain
- System management
- Configurable solutions

We manufacture in-house

- Agile production
- Accelerated deployment
- AS9100 accredited



vadatech
THE POWER OF VISION

Trademarks and Disclaimer

The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.

© 2023 VadaTech Incorporated. All rights reserved.
DOC NO. 4FM737-12 REV 01 | VERSION 1.6 – MAY/25