

# VTX079K

## 6U VPX AC Input Power Interface Board (PIB)

VTX079K

### Key Features

- 6U VPX single slot AC input Power Interface Board (PIB)
- Compliant to VITA 62 baseline specification
- Input voltage 85 to 265VAC via socket/pin Connector
- PO1, PO2, PO3 and +3.3V\_AUX via power studs to interface to the backplane
- SM0 thru SM3 (I2C as IPMB-A and IPMB-B) for health management
  - Geographic address is set by a toggle switch
  - Dual connector for interfacing to optional push/pull fan tray
- Geographic address and \*Enable/\*Inhibit can be set by a toggle switch
- LED to the front/rear for the \*Fail signal indication
- All signals from the power module are routed to connectors for interfacing to the backplane and fan trays

### Benefits

- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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The VTX079K is a 6U VPX single slot backplane Power Interface Board (PIB) that breaks out the VPX Power connector per VITA 62. Three pin/socket connector style is for the single or three phase input power. Power studs are used for the output power PO1, PO2, PO3 and +3.3V\_AUX. The +/-12V\_AUX and VBAT are routed to a connector for the backplanes that may need these auxiliary voltages.

All the ancillary signals such as SM0 thru SM3 (IPMB-A and IPMB-B), Geographic Address (GA), \*Enable/\*Inhibit, UD0 thru UD6, etc. are routed to connectors to allow the PIB to interface to the backplane and/or external connection.

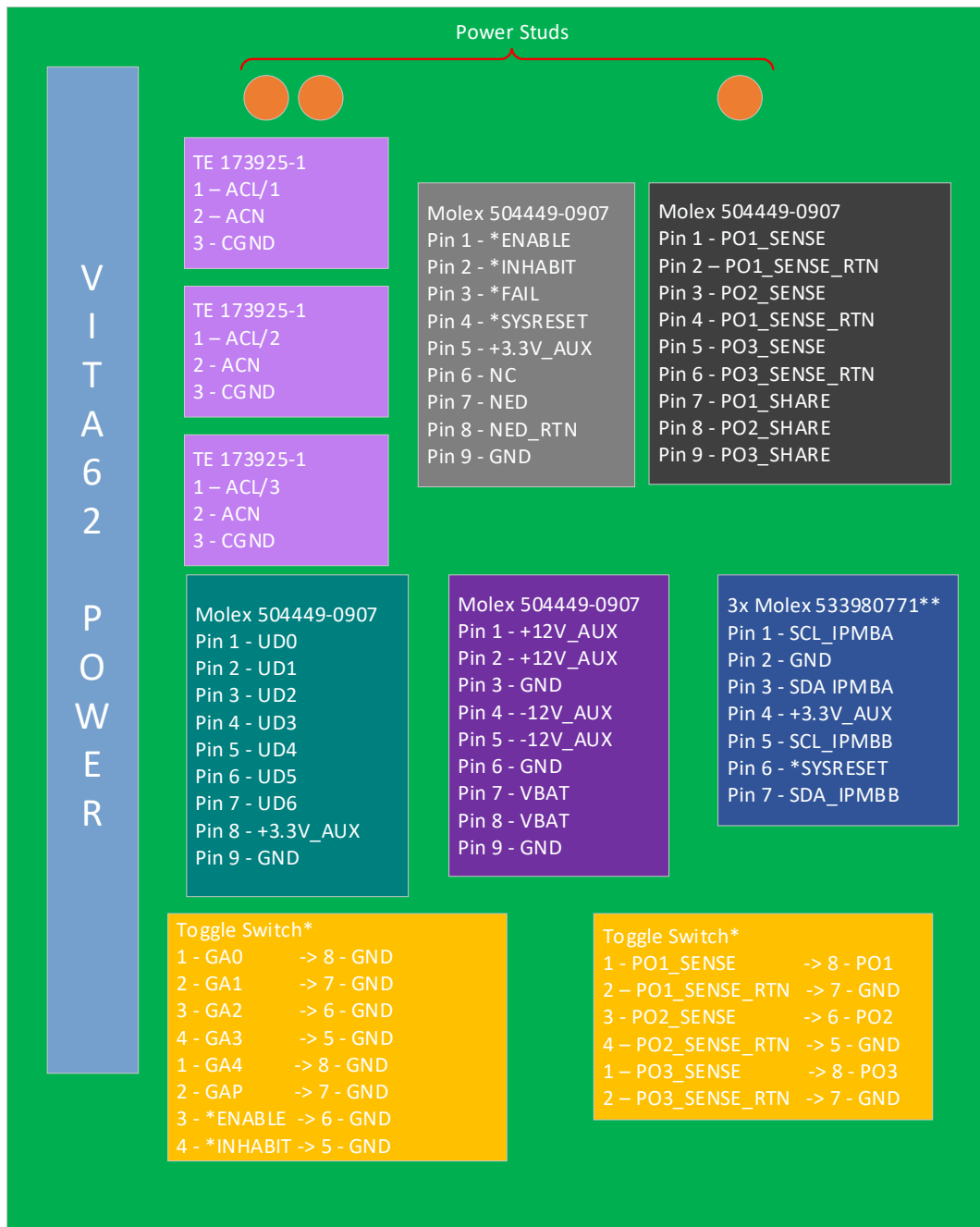
There are four 4 port toggle switches on PIB. Two set the Geographic address and the \*Enable/\*Inhibit. The second set allows the remote sense to be connected directly on the PIB vs. connection to the backplane. The PIB has resistors that could be set to increase the Power Module output voltage to take into account the cable voltage loss. These switches allow the reduction of the cables that go between the PIB and the backplane.

The toggle switches could be removed and hardwired based on customer requirement.

The IPMB-A and IPMB-B are routed to three connectors, one for the main backplane and two for optional push/pull fan tray in the system.

*Figure 1: VTX079K*

# Block Diagram



\*If the switch positions are utilized, there is no need to jump the redundant signals to the backplane. In addition PIB has resistors that may be modified to increase the voltage output of the Power Supply. Contact Vadatech Sales.

\*\*One is used for the backplane and two are for the push/pull fan tray option

# Specifications

| Architecture   |                                                                             |
|----------------|-----------------------------------------------------------------------------|
| Physical       | <b>Dimensions</b> 6U VPX input Power Interface Board (PIB); 1" Pitch (5H)   |
| Type           | <b>Backplane</b> J0/J1 Connector per VITA 62                                |
| Standards      |                                                                             |
| VPX            | <b>Type</b> VITA 46                                                         |
| VPX            | <b>Type</b> VITA 62                                                         |
| Configuration  |                                                                             |
| Power          | Input 3x TE 173925-1 and studs for output power PO1, PO2, PO3 and +3.3V_AUX |
| I/O            | <b>Interface Connector</b> 4x Molex 504449-0907<br>3x Molex 533980771       |
| 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 <a href="#">VadaTech Terms and Conditions</a>            |

## INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of VPX, 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

## VTX079K – ABC-D00-00J

|                                                                                                                                                                                                                 |                                                                                                         |                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>A = Input Power Key 1*</b><br>0 = AC input (270°)<br>3 = Reserved<br>4 = Reserved<br>5 = Reserved                                                                                                            | <b>D = Toggle Switches**</b><br>0 = Installed<br>1 = Not installed, configured per customer requirement |                                                                                                                               |
| <b>B = Output Power Key 2*</b><br>0 = Single-phase input (45°)<br>1 = Three-phase input (90°)<br>2 = Reserved<br>3 = Reserved                                                                                   |                                                                                                         |                                                                                                                               |
| <b>C = Output Power Key 3*</b><br>0 = PO1/PO2 +12V; PO3 +5V (0°)<br>1 = PO1/PO2/PO3 +12V (45°)<br>2 = PO1/PO2/P3 +18V-36V (90°)<br>4 = PO1 +36V-72V; PO2 Return; PO3 +5V (270°)<br>5 = Reserved<br>6 = Reserved |                                                                                                         | <b>J = Conformal Coating</b><br>0 = No coating<br>1 = Humiseal 1A33 Polyurethane<br>2 = Humiseal 1B31 Acrylic<br>3 = Parylene |

### Notes:

\*These are standard VITA 62 Key positions. Customer may change the key to any key position. VadaTech can set the keys before shipment if different from the ordering option above based on customer's request. \*\*The toggle switches may be removed and hardwired per customer request. The PO1, PO2 and PO3 sense could be adjusted on PIB to allow power module to output higher voltage. The part number will add -XXX at the end to capture customer specific configuration.

## Related Products

VPX028



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

VPX025

- Power Module for Open VPX VITA 62
- 6U VPX Systems
- 1100W Output Power

VPX026

- Power Module for Open VPX VITA 62 in 6U VPX 10HP
- Universal AC input 85VRMS to 264VRMS (nominal 100VRMS to 240VRMS) with 3 Phase (3P) option
  - DC Input 120V to 370V
- AC Input Frequency 47 to 63Hz (typical 50/60)
  - 400Hz operational

# Contact

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# Choose VadaTech

## We are technology leaders

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- 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



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DOC NO. 4FM737-12 REV 01 | VERSION 1.1 – NOV/25