VTX079C

3U VPX DC Dual Slot Input Power Interface Board (PIB)

VTX079C

Key Features

- 3U VPX dual slot DC input Power Interface Board (PIB)
  - Allows for two power supplies
- Compliant to VITA 62 baseline specification
- Input voltage 0 to 85VDC via power studs
- 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/*Inhabit 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 VTX079C is a 3U VPX dual slot backplane Power Interface Board (PIB) that breaks out the VPX Power connector per VITA 62. Power studs are used for the input power as well as 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/*Inhabit, UD0 thru UD4, etc. are routed to connectors to allow the PIB to interface to the backplane and/or external connection. The share lines are routed between the two power connectors.

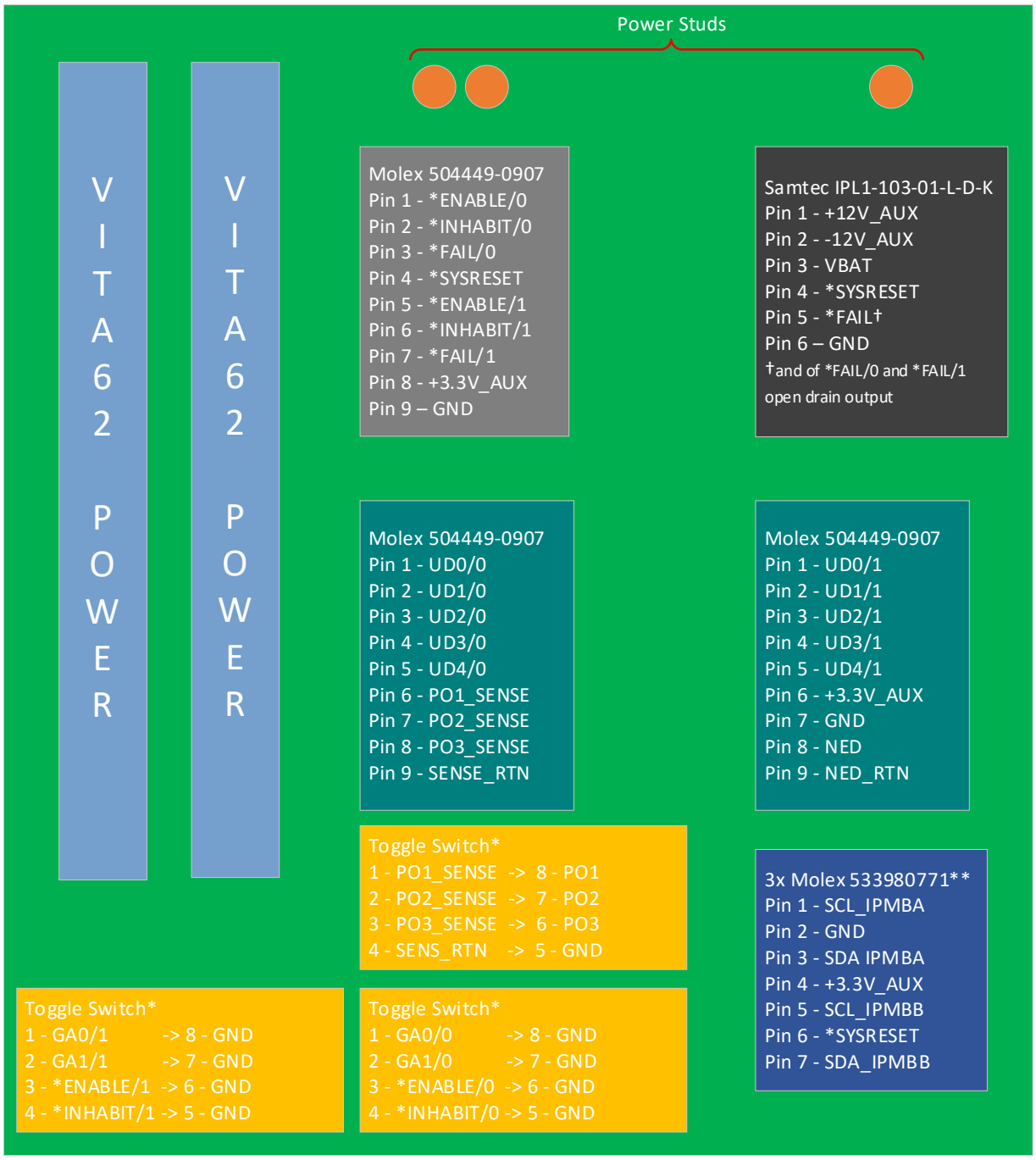
There are three 4 port toggle switches on PIB. Two set the Geographic address and the *Enable/*Inhabit per slot. The third switch allows the remote sense to be connected directly on the PIB vs. connection to the backplane. The PIB has resistors that could be set to increase the Power Module output voltage 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: VTX079C

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	**Dimensions**	3U VPX input Power Interface Board (PIB); 2” Pitch (10HP)
Type	**Backplane**	2x J0 Connector per VITA 62
Standards		
VPX	**Type**	VITA 46
VPX	**Type**	VITA 62
Configuration		
Power		Studs for Input Power as well as PO1, PO2, PO3 and +3.3V_AUX
I/O	**Interface Connector**	3x Molex 504449-0907; one Samtec IPL1-103-01-L-D-K
		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 VadaTech Terms and Conditions	

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

VTX079C – AB0-D00-00J

A = Input Power Key 1*	D = Toggle Switches**	
0 = 18V to 36V (0°) 1 = 0V to 18V (45°) 2 = 36V to 85V (90°) 3 = Reserved 4 = Reserved 5 = Reserved	0 = Installed 1 = Not installed, configured per customer requirement	
B = Output Power Key 2*		
0 = PO1 +12V; PO2 +3.3V; PO3 +5V (0°) 1 = PO1 +18V-36V; PO2 Return; PO3 N/C (90°) 2 = PO1 +36V-72V; PO2 Return; PO3 N/C (270°) 3 = Reserved 4 = Reserved 5 = Reserved		
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic 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

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

VPX023

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

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