PCI127

PCIe Gen4 x16 Bus Expansion via Quad x4 OCuLink (as a single combined x16)

PCI127

Key Features

- PCIe Gen4 (x16) Bus Expansion
- Links to external devices via Quad PCIe x4 OCuLink connectors for x16 uplink, dual x8 or quad x4
- Programmable Retimer/Conditioner for different length of cable

Benefits

- VadaTech has full eco-system across multiple I/O modules
- 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 PCI127 is one of VadaTech's 4th generation PCIe expansion module based on the PCI-SIG specification. The Module has a Retimer/Conditioner to improve signal integrity for enhancing system performance and reliability across long cables. It removes both random and deterministic jitter from the input signals eliminating inter-symbol interference and resets the output jitter budget. It supports the full 16 lanes.

The Retimer/Conditioner configuration is programmable for different length of cable via the RS-232 port.

The PCI127 allows expansion to an external module via quad OCuLink x4 connectors as a combined x16, or dual x8 or quad x4.
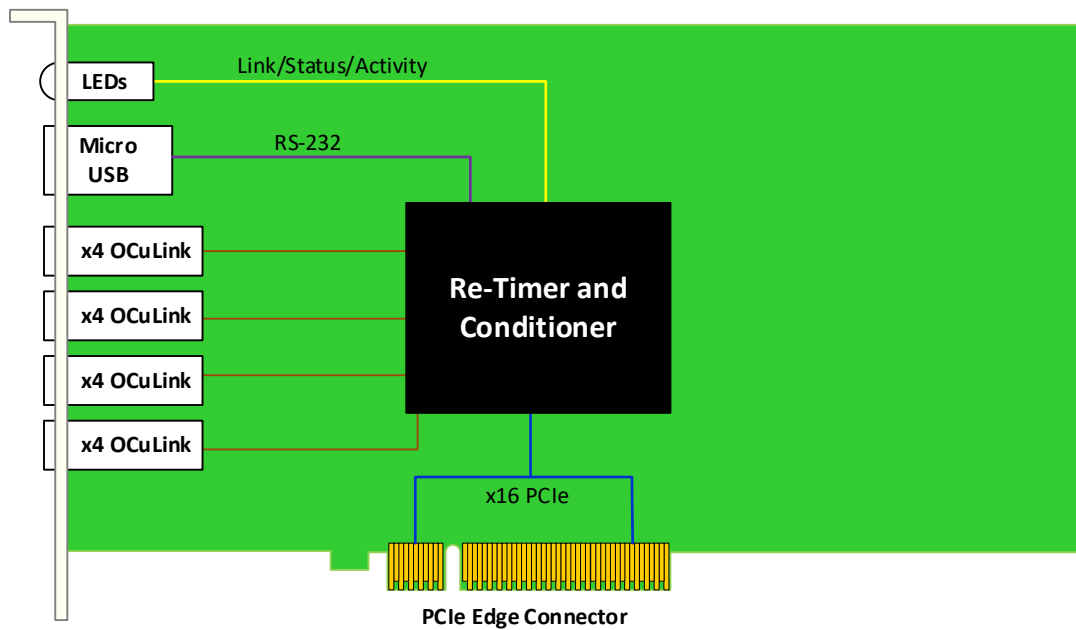

Figure 1: PCI127

Block Diagram

Figure 2: PCI127 Functional Block Diagram

Front Panel

Figure 3: PCI127 Front Panel

PCI127 – PCIe Gen4 x16 Bus Expansion via quad x4 OCuLink

Specifications

Architecture		
Physical	**Dimensions**	Single Module
		Width: 2.71" (69 mm)
		Depth: 3.01" (76.5 mm)
Type	**PCIe**	PCIe Module for I/O Bus Expansion
Standards		
PCIe	**Type**	x16 Lane edge style per PCIe Sig specification
Configuration		
Power	**PCI127**	6W
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +85°C
	Altitude	40,000 ft non-operating
	Vibration	Operating 9.8 m/s2 (1G), 5-500 Hz
	Shock	Operating 30Gs each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	Quad OCuLink x4 for x16 uplink
	LEDs	Status
Software Support	**Operating System**	Agnostic
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

PCI127 – 000-000-0HJ

		H = Temperature Range
		0 = Commercial (–5° to +55°C) 1 = Industrial (–20° to +70°C) 2 = Extended (–40° to +85°C)
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Related Products

PCI592

- PCIe FPGA carrier for FMC+ per VITA 57
- Xilinx Kintex UltraScale™ XCKU115 FPGA
- Active cooling for FPGA and FMC+

PCI596

- PCIe x16 FPGA carrier for FMC+ per VITA 57.4
- Xilinx UltraScale+™ VU13P FPGA
- Allows expansion of a daughter card on top of the FMC for more I/O

PCI325

- Multi-Channel Synchronous/Asynchronous RS-422 communication
- 24 – RS-422 input pairs
- 30 – RS-422 output pairs

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, Wenhu 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

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- Partnerships power innovation
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We deliver complexity

- Complete signal chain
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