PCI124

PCIe Gen3 x16 Bus Expansion via Dual x8 OCuLink (as a single combined x16) via rear I/O

PCI124

Key Features

- PCIe Gen3 (x16) Bus Expansion
- Links to VadaTech PCI597 to provide additional x16 PCIe lanes to the FPGA
- Links to modules that need PCIe expansion via the rear
- 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

vadatech
THE POWER OF VISION

PCI EXPRESS®

PCI124

The PCI124 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 PCI124 mates via OCuLink connectors to the VadaTech PCI597 module to allow an additional x16 PCIe transport layer to the FPGA and the host.

The PCI597 can transfer data In/Out to the host as dual x16 with the PCI124, in addition to its native x16 PCIe lanes. FPGA data rates of 384 Gb/s to the host is achievable when combined with the PCI124.

The PCI124 can also mate to any module that need PCIe via the rear of the module.
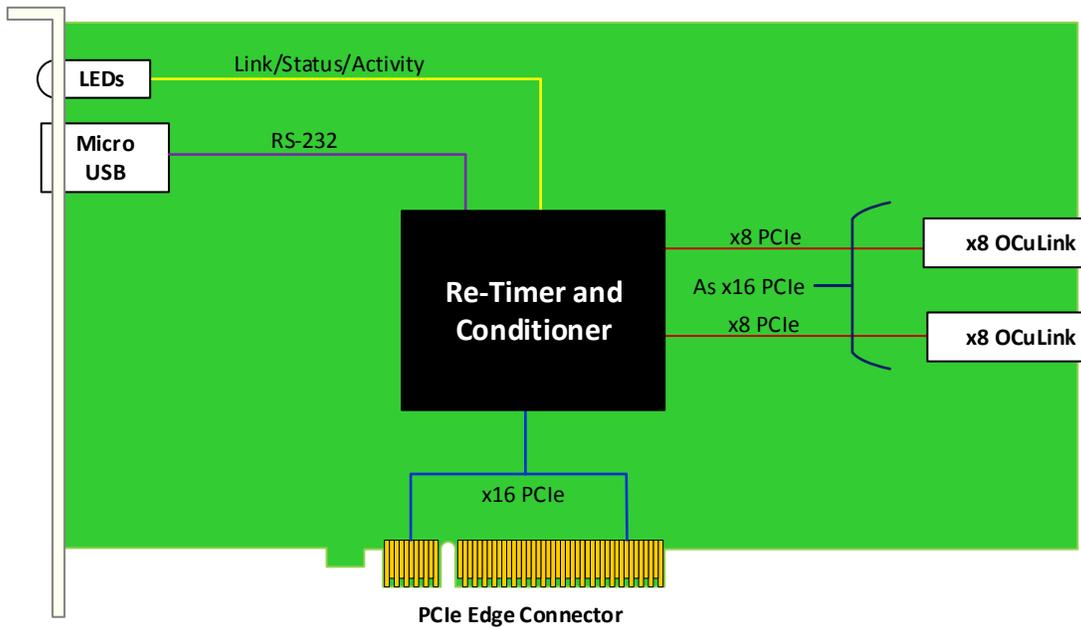

Figure 1: PCI124

PCI124 – PCIe Gen3 x16 Bus Expansion via Dual x8 OCuLink

Block Diagram

Figure 2: PCI124 Functional Block Diagram

PCI124 – PCIe Gen3 x16 Bus Expansion via Dual x8 OCuLink

info@vadatech.com | www.vadatech.com

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 Lanes edge style per PCIe Sig specification
Configuration		
Power	**PCI124**	3W
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**	Dual OCuLink x8 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

PCI124 – 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

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