

PCI128

PCIe Gen4 x16 Bus Expansion via
Dual x8 OCuLink (as a single
combined x16)



PCI128

Key Features

- PCIe Gen4 (x16) Bus Expansion
- Links to external devices via Dual PCIe x8 OCuLink connectors for x16 uplink or dual x8
- 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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PCI EXPRESS



PCI128

The PCI128 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 PCI128 allows expansion to an external module via dual OcuLink x8 connectors as a combined x16 or dual x8.



Figure 1: PCI128

Block Diagram

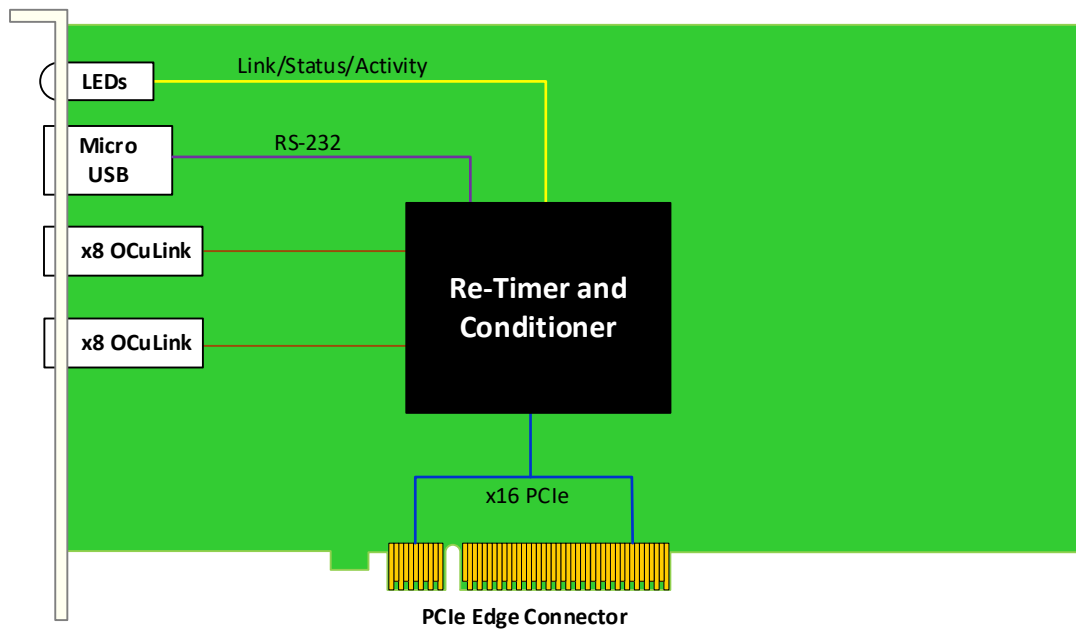


Figure 2: PCI128 Functional Block Diagram

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	PCI128	6W
Environmental	Temperature	See Ordering Options Storage Temperature: -40° to +85°C
	Altitude	40,000 ft non-operating
	Vibration	Operating 9.8 m/s ² (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 or as dual x8 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

PCI128 – 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

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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
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