

# 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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# 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

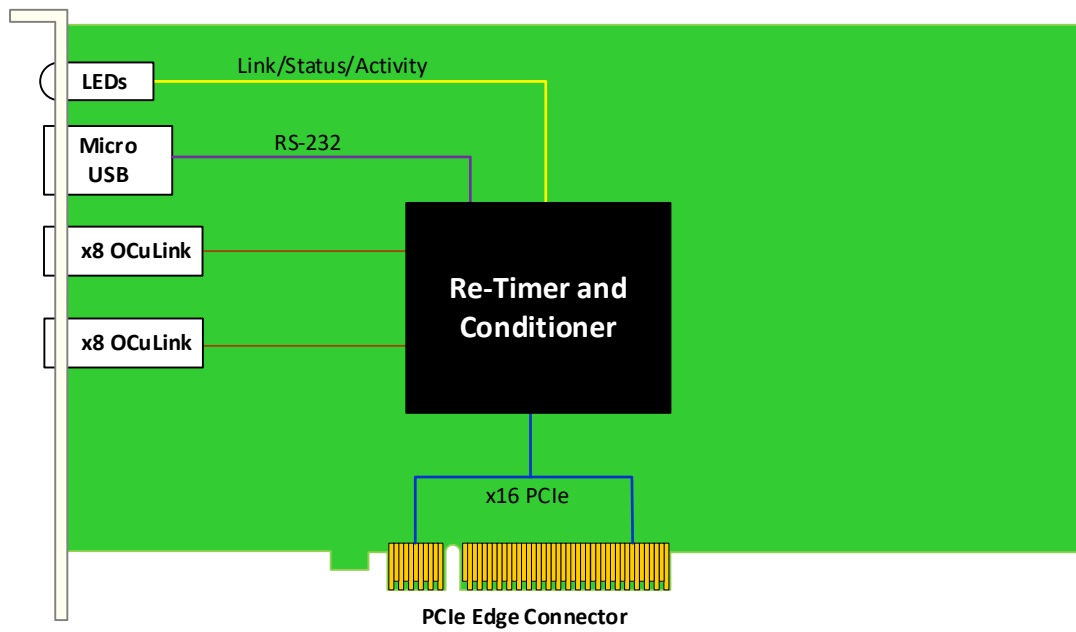


Figure 2: PCI128 Functional Block Diagram

# Specifications

<b>Architecture</b>		
<b>Physical</b>	<b>Dimensions</b>	Single Module
		Width: 2.71" (69 mm)
		Depth: 3.01" (76.5 mm)
<b>Type</b>	<b>PCIe</b>	PCIe Module for I/O Bus Expansion
<b>Standards</b>		
<b>PCIe</b>	<b>Type</b>	x16 Lane edge style per PCIe Sig specification
<b>Configuration</b>		
<b>Power</b>	<b>PCI128</b>	6W
<b>Environmental</b>	<b>Temperature</b>	See <a href="#">Ordering Options</a>
		Storage Temperature: -40° to +85°C
	<b>Altitude</b>	40,000 ft non-operating
	<b>Vibration</b>	Operating 9.8 m/s <sup>2</sup> (1G), 5-500 Hz
	<b>Shock</b>	Operating 30Gs each axis
<b>Relative Humidity</b>		5 to 95% non-condensing
<b>Front Panel</b>	<b>Interface Connectors</b>	Dual OCuLink x8 for x16 uplink or as dual x8 uplink
	<b>LEDs</b>	Status
<b>Software Support</b>	<b>Operating System</b>	Agnostic
<b>Other</b>		
<b>MTBF</b>	MIL Hand book 217-F@ TBD hrs	
<b>Certifications</b>	Designed to meet FCC, CE and UL certifications, where applicable	
<b>Standards</b>	VadaTech is certified to both the ISO9001:2015 and AS9100D standards	
<b>Warranty</b>	Two (2) years, see <a href="#">VadaTech Terms and Conditions</a>	

## 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

		<b>H = Temperature Range</b> 0 = Commercial (–5° to +55°C) 1 = Industrial (–20° to +70°C) 2 = Extended (–40° to +85°C)
		<b>J = Conformal Coating</b> 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

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- 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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