Data Sheet



# **VIAVI**

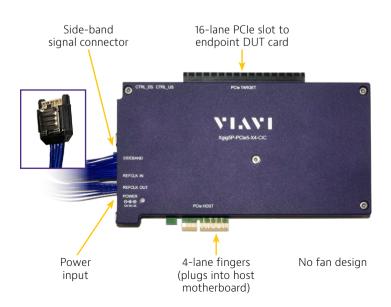
## **Xgig 4-lane CEM-slot Interposer**

for PCI Express® 5.0

Provides a tap of data signals between a host system and adapter card for input to the VIAVI Analysis System

VIAVI Solutions Xgig® 4-lane, CEM-slot Interposer, the 5P-PCle5-X4-CIC, provides connection between the VIAVI PCle 5.0 Analyzer/Exerciser/Jammer platform and a system under test. The Interposer installs into a 4-lane PCle CEM slot that is common on many servers, workstations, and desktop PCs. The Interposer provides a data signal tap for the Analyzer of communication between host and endpoint devices. It operates at the PCle 5.0 rate of 32GT/s across 4-lanes (bi-directional).

This Interposer uses high-speed linear signal redrivers to buffer system data signals across the Interposer between the PCIe slot and PCB fingers. This design ensures a clean signal is delivered to the Analyzer and DUT devices for reliable protocol capture and analysis.



#### **Features**

- Supports link widths up to and including 4-lanes
- Operates at 32GT/s PCle 5.0 data rates, and is compatible with PCle rates of 2.5, 5.0, 8.0 and 16GT/s
- A top edge 16-lane CEM slot connector accepts all endpoint DUT adapter cards
- Bottom edge 4-lane PCB finger connector installs into host test system's 4-, 8- or 16-lane PCle slot
- Supplied with high-quality custom data cables for Analyzer attachment
- Data path uses high-speed linear redrivers to ensure good signal capture with minimal tuning
- Supports Analyzer side-band signal triggering and capture via custom cable
- Interposer power is independent of host system. A 120/220 AC in, 12V/3A DC out converter is included
- Custom, exchangeable brackets enable secure chassis and endpoint card installations
- LEDs give quick indication of power and operation
- Format: Design is based on the PCle Card Electro-Mechanical (CEM) specification
- Size: 180.4mm deep x 105.1mm tall x 18.28mm thick
- Works together with the VIAVI Xgig 5P16 or 5P8 analysis platform
- Provides consistent, repeatable capture of link training, equalization negotiation and other data
- Supports error injection for deep system analysis
- Supported by Xgig tool suite including Trace Control, Expert™ and Serialytics™

## **Applications**

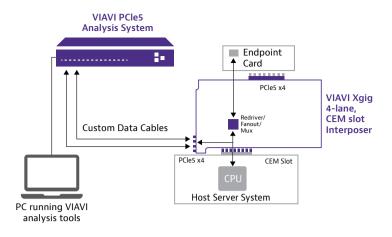
Working together with the VIAVI PCIe 5.0 Analyzer/Exerciser/Jammer platform, the Interposer enables debug and verification of new ICs, new system hardware implementations, FPGA firmware, validation of system BIOS and software, and supports manufacturing test.

The Xgig5P-PCIe5P-X4-CIC Interposer is inserted into a 4-, 8- or 16-lane PCIe slot in the host system, and an endpoint card is inserted into the top 16-lane slot connector creating the test data path. Cables connect the Interposer to the VIAVI protocol analysis platform chassis.

The block diagram to the right indicates the signal data paths. Note that this Interposer requires an open chassis while in use.

When operating in Analyzer mode, the DUT data is captured (tapped) from both the upstream and downstream data paths as inputs to the Analyzer. When operating in Analyzer/Jammer mode, the Interposer data path is switched to route data into and out of the Xqiq analysis system.

In addition to this 4-lane CEM-Slot Interposer, VIAVI offers a variety of other Interposer types for connecting into many popular PCIe system applications, including other CEM, U.2, M.2, EDSFF, Flying-Lead and others.



#### **Kit Contents**

Item	Description	Qty
1	Xgig5P-PCle5-X4-ClC, 4-lane CEM-Slot Interposer card with cables for PCle 5.0	1
2	Sideband cable for PCle5	1
3	MCX coax cables (for optional clock)	2
4	Power brick, 120/220 input, 12V/3A output	1
5	Replaceable bracket kit	1
6	Quick Start Guide	1

### **Ordering Information**

Part Number	Description	
Xgig5P-PCle5-X4-CIC	Xgig 4-lane, 32GT/s CEM*-Slot Active Interposer Kit for PCle 5.0	
XGIG-INTPSR-C-Hx (x=1, 2, 3, 4)	x-year extended hardware warranty	

<sup>\*</sup> CEM: Card Electro-Mechanical Specification (a PCIe spec)









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