

VIAVI

Xgig OCulink 4-lane Interposer

for PCI Express® 4.0

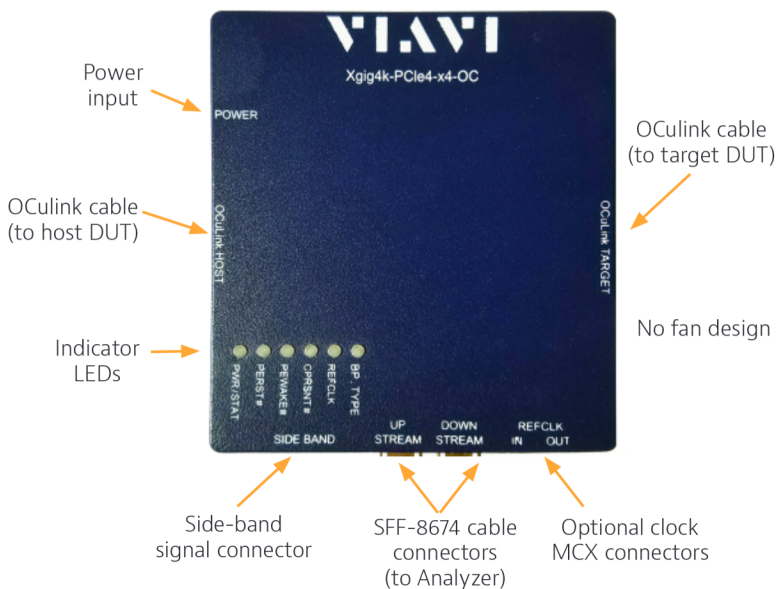
Provides a tap of OCulink or Slimline PCIe data signals for input to the VIAVI PCIe 4.0 Analyzer

VIAVI Solutions Xgig® PCIe 4.0 OCulink Interposer, the Xgig4K-PCIe4-x4-OC, supports analysis of PCIe communication across an OCulink connection. This Interposer enables protocol analysis of communication between a 4-lane OCulink host port and an OCulink attached endpoint device. This Interposer can also be used for Slimline links using the included OCulink to Slimline conversion cables. Bidirectional PCIe 4.0 protocol data on each of 4 lanes is captured at up to 16GTps rate for analysis. High-performance, low-loss, custom cables are supplied for connection into the VIAVI Analyzer.

This Interposer uses high-speed linear signal redrivers to buffer the system data signals ensuring a clean signal is delivered to both the Analyzer and the devices-under-test (DUT) for accurate protocol capture and analysis.

Key Features

- Operates up to 16GTps, PCIe gen-4 data rates
- Downward compatible with PCIe gen-1, gen-2 and gen-3 data rates of 2.5, 5.0 and 8.0GTps
- OCulink host and target connectors support PCIe links of up to and including 4-lanes
- Supplied with two high-quality SFF-8674 equivalent custom cables for Analyzer attachment
- Data path uses high-speed linear redrivers to ensure good signal capture with minimal tuning
- Supports Analyzer side-band signal capture and triggering via custom cable
- Provided with Slimline 4-lane to 4-lane OCulink conversion cables
- Two cables supplied for optional clocking sources
- Interposer power is independent of host system
- A 120/220 AC in, 12V/3A DC output converter is included
- LEDs give quick indication of power and operation
- Size: (L x W x H): 112 x 103 x 30 mm (incl. rubber stands)
- Works together with VIAVI Xgig 4K Analyzer platforms
- Provides consistent, repeatable capture of link training, equalization negotiation and other data
- Supports Jammer error injection for deep system analysis and debug
- Up to four Interposers are stackable to support wider length widths
- Supported by VIAVI Xgig tool suite including Trace Control, Expert™ and Serialytics™



Applications

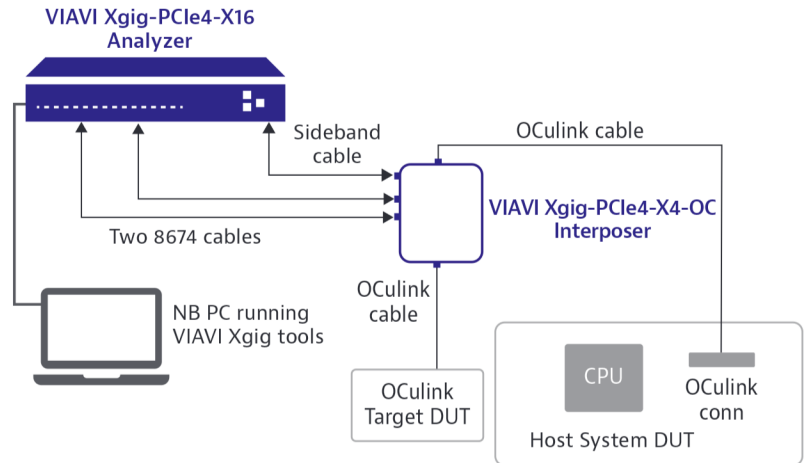
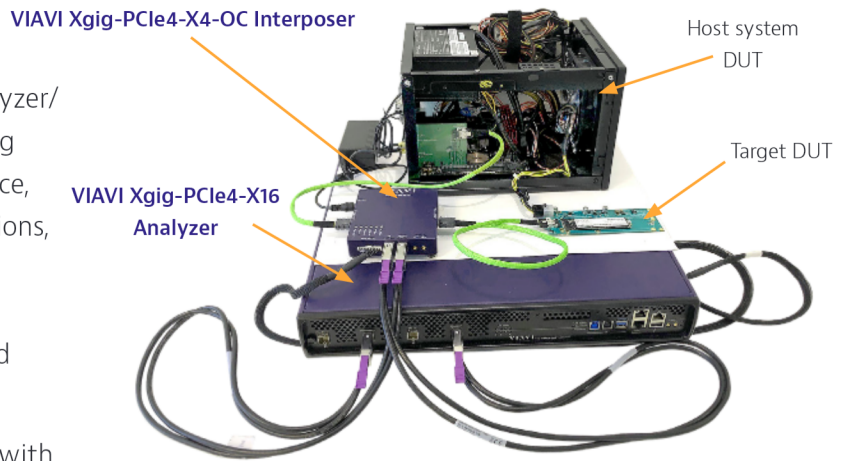
Working together with the VIAVI PCIe 4.0 Analyzer/Jammer platform, the Interposer enables debug and validation of new ICs with OCulink interface, OCulink peripherals, host system implementations, firmware and drivers, validation of system BIOS and software, error injection, and for manufacturing test. It supports full decode and analysis of PCIe data traffic and link states.

To install the Xgig4K-PCIe4-X4-OC Interposer, with the system power-off, connect the Interposer into the OCulink cable path and to the Analyzer chassis. Power-on the Interposer and Analyzer, specify the trace capture conditions using the Xgig tools and then power-up the system under test.

The photo to the right shows a typical application, while the corresponding block diagram below indicates the signal data path. Data flows between the host system's OCulink interface and the OCulink target DUT as normal. The signal is "tapped" for use by the Analyzer inside the Interposer.

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 Jammer mode, or Analyzer/Jammer mode, data flows through the Analyzer chassis.

VIAVI offers a variety of other Interposer types for connecting into different PCIe system applications, including CEM slot cards, U.2, M.2 and others.



Kit Contents

Item	Description	Qty
1	OCulink 4-lane Interposer pod for PCIe 4.0	1
2	OCulink cables	2
3	Slimline (SFF-8654) to OCulink cable	2
4	SFF-8674 custom high-performance cables	2
5	Sideband signal cable (to Analyzer)	1
6	MCX 50-Ohm coax cables for optional clock	2
7	Interposer stacking kit	1
8	Power brick, 120/220 input, 12V/3A output	1
9	Quick Start Guide	1

Ordering Information

Part Number	Description
Xgig4K-PCIe4-X4-OC	OCulink Active Interposer, 4-lane, 16GTps, for PCIe 4.0
Xgig4K-PCIe4-X4-OC-H1	1-year extended hardware warranty



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