

Data Sheet

VIAVI

Xgig CDFP 16-lane Interposer

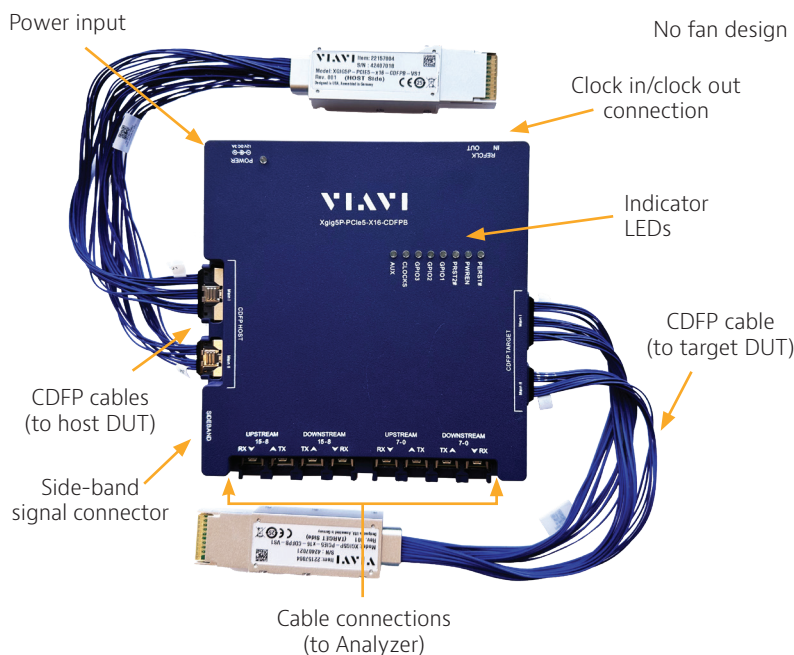
for PCI Express® 5.0

Provides a tap of PCIe/CopprLink™ signals between two cable-connected CDFP devices

VIAVI Solutions Xgig® CDFP Interposer, the Xgig5P-PCIe5-X16-CDFPB, supports analysis of PCIe5 communication between two CDFP devices connected by external cabling. CDFP/CopprLink is an emerging external cabling interface used for applications such as PCIe fabrics.

This Interposer enables protocol analysis of communication between a 16-lane CDFP host server and a CDFP 16-lane endpoint DUT. Bidirectional PCIe 5.0 protocol data on each of 16 lanes is captured at up to 32GTps 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 at 32GT/s PCIe 5.0 data rates, and is compatible with PCIe rates of 2.5, 5.0, 8.0 and 16GT/s
- CDFP host and target connectors support PCIe links over CDFP/CopprLink cables of 16-lanes
- Supplied with high-quality 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
- 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): 163 x 260 x 42 mm
- Works with VIAVI Xgig 5P16 and 5P8 Analyzer types
- Provides consistent, repeatable capture of link training, equalization negotiation and other data
- Supports Jammer error injection for deep system analysis and debug
- Supports Exerciser functionality as either Root Complex or Endpoint
- Supported by VIAVI Xgig tool suite including Trace Control, Expert™ and Serialytics™

Applications

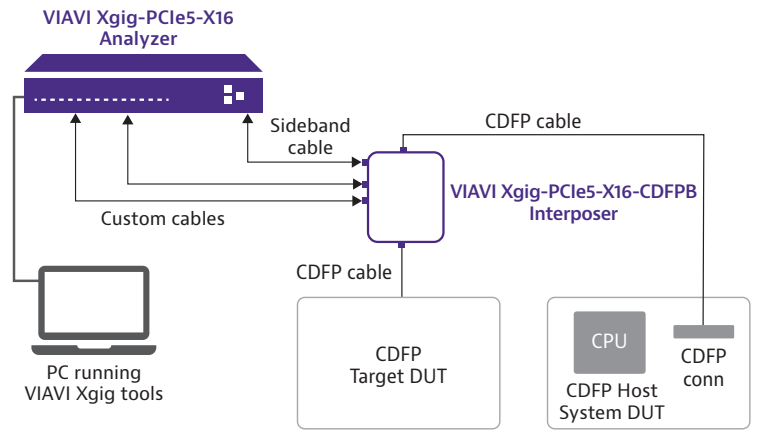
Working together with the Xgig VIAVI PCIe 5.0 Analyzer/Exerciser/Jammer platform, the CDFP Interposer enables debug and validation of products using the CDFP external PCIe interface, helping engineers validate firmware and drivers, system BIOS and software as well as manufacturing test. It supports full decode and analysis of PCIe data traffic and link states.

To install the Xgig5P-PCIe5-X16-CDFPB Interposer, with the system power-off, connect the Interposer into the CDFP 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 block diagram to the right indicates the signal data path. Data flows between the host system's CDFP interface and the CDFP 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. When operating in Exerciser mode, the Interposer enables the Exerciser to operate in root complex or endpoint mode.

In addition to this 16-lane CDFP Interposer, VIAVI offers a variety of other Interposer types for connecting into many popular PCIe system applications, including CEM, U.2, M.2, EDSFF, Flying-Lead and others.



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Kit Contents

Item	Description	Qty
1	CDFP 16-lane Interposer for PCIe 5.0	1
2	CDFP (aka CopprLink™) external cables	2
3	Custom high-performance cables	8
4	Sideband signal cable (to Analyzer)	1
5	MCX 50-Ohm coax cables for optional clock	2
6	Power brick, 120/220 input, 12V/3A output	1
7	Quick Start Guide	1

Ordering Information

Part Number	Description
Xgig5P-PCIe5-X16-CDFPB	CDFP Interposer, 16-lane, 32GTps, for PCIe 5.0
XGIG-INTPSR-C-Hx (x=1, 2, 3, 4)	x-year extended hardware warranty



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