

VIAVI

Xgig Exerciser Host Test Stand

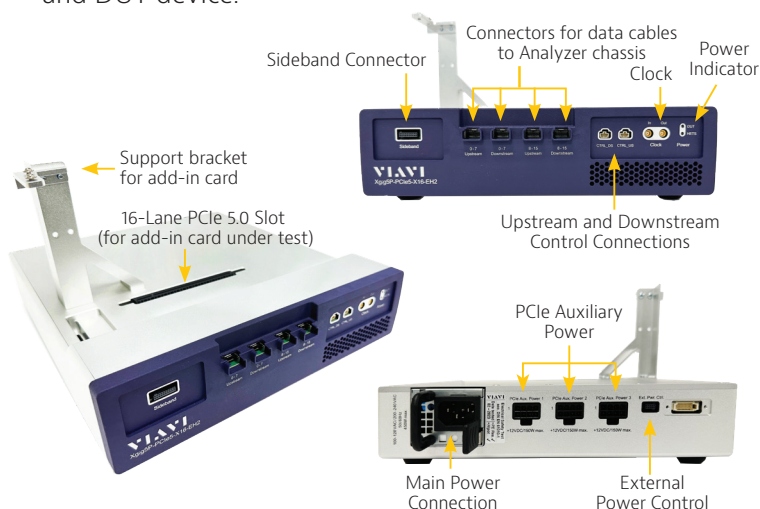
for PCI Express® 5.0

Provides connectivity and power to a PCIe® adapter card endpoint for testing and qualification

VIAVI Solutions Xgig® Exerciser Host Test Stand, the Xgig5P-PCIe5-X16-EH2, is a test stand used with the PCIe 5.0 Exerciser operating in host emulation mode. The Test Stand provides a PCIe CEM slot for connectivity and power to the adapter card endpoint Device Under Test (DUT). It supports testing of Ethernet, RAID controllers, graphics cards and many other device functions. The Exerciser Host-mode Test Stand uses custom, high-performance cabling to connect to the Analysis Platform running the Exerciser function.

The Test Stand complements the Exerciser and is intended for developing, debugging and performance tuning PCIe adapter cards and their controllers and firmware. Bi-directional PCIe 5.0 protocol data across 16-lanes and at 32Gbps can be transferred through the test stand between DUT and exerciser platform.

The Test Stand uses high-speed linear signal redrivers to buffer the high-speed data signals ensuring clean signals are delivered to the Analysis Platform chassis and DUT device.



Key Features

- Operates up to 32GTps at PCIe 5.0 data rates
- Downward compatible with PCIe data rates of 2.5, 5.0, 8.0 and 16.0GTps
- Supports link widths up to 16-lanes
- CEM adapter card endpoint DUT devices plug directly into the Test Stand with support from an included mechanical bracket
- Includes cables for Analyzer connection
- Supports Analyzer side-band signal capture and triggering with display in multiple formats
- Data path uses high-speed redrivers to ensure good signaling
- Supports automatic link tuning for optimum communication and lowest BER
- Modular, replaceable 450W power supply powers Test Stand and DUT
- Provides additional auxiliary power for high-power cards, up to 300W nominal, with included cables
- Supports testing of high-power graphics cards
- LEDs give quick indicators of power and status
- Size: Base Pod: 120 x 162 x 30 mm (DxWxH)
- Works with the VIAVI Xgig5P-PCIe5-X16-PF Analyzer/Exerciser/Jammer chassis platform
- Supported by VIAVI Xgig® Analysis tools for test setup, trace capture, protocol evaluation, etc.
- Provides consistent, repeatable capture of link training, equalization negotiation and other information

Application

Working together with the Xgig5P-PCIe5-X16-PF Analyzer/Exciser/Jammer chassis, the Test Stand enables debug and verification of new controller ICs, firmware tuning, and validation of application software.

Setting up the Test Stand for operation is easy. Connect the cables between the Test Stand and the 5P16 system chassis. Next, install the Adapter Card DUT into the Test Stand. Plug in AC power to both the system chassis and Test Stand, and power-on the chassis. The Xgig analysis tools which are loaded onto a Windows PC will give full control of the test bench, enabling the setup, execution and analysis of results.

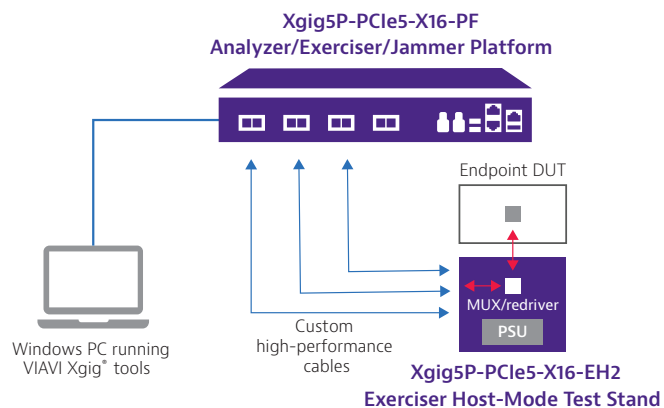
The adjacent photo shows an example application, while the corresponding block diagram indicates the signal data flow.

In operation, the Exciser function of the 5P16 system chassis transmits PCIe protocol stream to the Test Stand, which electrically buffers the signals and forwards them to the Device Under Test. Responses transmitted by the DUT are electrically terminated at the Test Stand to ensure good signal integrity and are retransmitted to the 5P16 system platform. The analysis function determines if the response is correct as expected. Real-time branching is executed by the Exciser to maintain an active PCIe link.

VIAVI Exciser Test Stand for PCIe5 Xgig5P-PCIe5-X16-EH2 (included mechanical support bracket not shown)



VIAVI 5P16 PCIe5 Analyzer/Exciser/Jammer Platform chassis



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Kit Contents

Item	Description	Qty
1	Xgig5P-PCIe5-X16-EH2 16-lane Exciser Host Test Stand	1
2	Custom high-performance cables for connection to chassis	4
3	Cable for Interposer control	2
4	Sideband cable (to analyzer)	1
5	Coax cable for optional clock	2
6	Power cable PCIe (2x4) for DUT ext. power	2
7	Power supply plug in 450W	1
8	AC power cord	1
9	Quick Start Guide	1

Ordering Information

Part Number	Description
XGIG5P-PCIe5-X16-EH2	Xgig 16-lane Exciser Host Test Stand for PCIe 5.0
XGIG-INTPSR-A-Hx (x=1,2,3,4)	1-year extended hardware warranty

Optional Equipment

Part Number	Description
XGIG5P-PCIE5-X16-ASEX	PCIe5 Exciser x16 EP Mode Supplemental Adapter kit for 5P16
XGIG5P-PCIE5-X8-ASEX	PCIe 5 Exciser x8 EP Mode Supplemental Adapter kit for 5P8



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