VIAVI

Xgig® 4K16 PCI Express® 4.0 Protocol Analyzer/Jammer

The Xgig 4K16 is a single platform that allows for simultaneous protocol analysis and error injection for PCIe 4th generation protocol traffic at all layers of the stack. It supports Lane Widths of x1, x2, x4, x8, and x16 at Link Speeds of 2.5 GT/s, 5.0 GT/s, 8.0 GT/s and 16 GT/s.

The Xgig 4K16 Protocol Analyzer is the latest addition of PCI Express 4.0 Analyzer and Jammer test tools to the family of Viavi protocol products. Multicolored LEDs on the front panel specify Link Speed, Lane Width, and Signal Quality. In today's complex, multiprotocol environments where integrated analysis with other interfaces such as Ethernet, SAS, and FC are required, the Xgig 4K16 connects with other Viavi protocol analyzers designed for these protocols to provide time correlated multi-protocol views.

The Xgig 4K16 chassis has 128 GB of memory; 64GB for upstream and 64GB for downstream traffic capture. The chassis provides advanced PCIe and NVMe level trigger and search capabilities designed to reduce debug and problem resolution down time. Software and firmware supports the latest PCIe and NVMe specifications and will alert the user to all errors at every layer of the PCIe stack, including state and sub-state level errors within the LTSSM viewer. Additional features include interposer auto-tuning, PCIe and NVMe Device & Addresses, configuration space viewer, PCIe link performance measurements, trace view packet compression, and sideband signal triggers for PERST#, PEDET#, PEWAKE#, and CLKREQ#.

With a full complement of Interposers and probes, the Xgig 4K16 supports all PCIe and NVMe connector interfaces including the addition of x8 and x16 solder-down style Flying Lead probes. Using a time-synchronized packet trace view, the Xgig 4K16 supports the SMBus status to be shown alongside PCIe or NVMe packets.

Key Features

- Interposers: x8 & x16 Slot, x4 Flying Lead pod (4 pods = x16), x4 M.2, x4 U.2, and x4 SFF-8644
- 1U+ chassis with 128GB memory (64GB Up Stream and 64GB Down Stream)
- Host-Client connection for remote debugging using Ethernet or local debugging using USB
- SMB capture and trigger for NVMe Management Interface (NVMe-MI) observability
- Simultaneously Analyze and Jam on a single chassis using one interposer
- Decodes all PCIe and NVMe traffic at all layers of the stack including the TLP, DLLP, and PHY layer logic sub-blocks
- Trigger and Search events include training sequences, ordered sets, queue pairs, PRPs, Scatter/Gather Lists (SGL), SMB, etc.
- The Tap Upstream and Downstream ports allow AJA configuration Jamming
- Cascade up to 4 Xgig captures into a single trace view
- Full support of LTSSM for PCI Express
- Memory segmentation for capture of multiple traces
- Field replaceable modular fan and power supply assemblies
- Portable, lightweight, and stand-alone
- One-year hardware and three-year software warranties

Specifications

Hardware	
Link Speeds	2.5 GT/s, 5.0 GT/s, 8 GT/s and 16 GT/s
Lane Width	x1, x2, x4, x8 and x16
I/O	USB3, Ethernet, Trigger In/Out, Cascade Ports, Interposer leads
Dimensions (W x D x H)	17.0 x 14.5 x 2.3 in; 43.2 x 36.8 x 5.8 cm (1U > H > 1.5U)
Weight	15 lbs; 6.8 kg
Power Adaptor	I/P: 100 – 240 VAC, 450W max

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