

VIAVI

Xgig Flying-Lead Probe

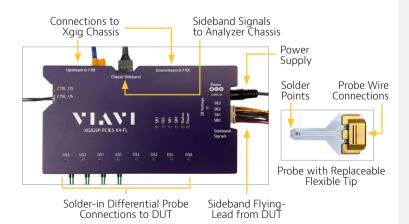
for PCI Express® 5.0

Provides the data signal connection between a device under test and the VIAVI Protocol Analyzer chassis

VIAVI Xgig® PCIe 5.0 Flying-Lead Probe, the Xgig5P-PCIe5-X4-FL, provides a data signal tap to the link between host and endpoint devices when a physical connector port is not available. Each Probe provides solder-down probe tips for attaching to the device under test (DUT). Using up to four Flying Lead Probes, the analyzer will support up to x16 lane width.

Our redesigned Flying-Lead Probe consists of high-quality, low-loss cables, in matched differential pairs connecting to replaceable probe tips. These narrow, flexible tips are easy to manipulate in tight spaces and can be staggered without creating interference. The tips are replaceable which allows for multiple uses of the probe cables. This Probe taps bidirectional data on each of 1-to-4 lanes. Data is captured at 32GT/s for analysis.

An optional Clock Probe is available for optimizing signal capture. Test setups using spread spectrum clocking (SSC) may benefit from using the optional Clock Probe to better lock into the incoming signal.



Key Features

- 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
- One Probe supports link widths up to 4-lanes.
 Multiple Probes can expand link widths to 16-lanes
- Probe supports simultaneous upstream and downstream capture
- Supplied with high-quality high-speed custom cables for Analyzer attachment
- Optional Clock Probe is available to better lock into the incoming signal
- Data path uses high-sensitivity amplifiers to ensure good signal capture with little or no tuning
- Supports PCle sideband signal triggering and capture
- Probe power is independent of host system
- Power supply, 120/220 input, 12V/3A output
- LEDs provide quick indicators of power and status
- Size: 198 x 109 x 30mm (6.7 x 4.2 x 1.3 in)
- Works together with multiple VIAVI Xgig PCle5 Analyzer chassis types
- Provides consistent, repeatable capture of link training, equalization negotiation and other data
- Supported by Xgig tool suite including Trace Control, Expert™ and Serialytics™

Applications

The VIAVI Xgig5P-PCIe5-X4-FL Probe supports the Analyzer functions of the VIAVI XgigPCIe5 system chassis. The intended use of this Probe is for capturing signals between controller ICs on the same PCB where there is no connector providing an access point. Single-Board-Computers (SBC) often include many PCIe linked controllers, as do other embedded and industrial system designs.

Flexible tips on this Flying-Lead Probe are soldered onto the traces, near the host or endpoint device.

The diagram to the right indicates the data path from DUT, through the Flying-Lead Probe to the Analyzer.

PCB DUT

VIAVI Xgig5P-PCle5-x4-FL
Flying-Lead Probe

Lane 0-3 DS

Lane 0-3 US

WISH Speed custom cables to Analyzer, capture path for TX and RX signals, lanes 0-3

Sideband signals not diagrammed

VIAVI Xgig PCle5 System Chassis

Flying-Lead Application Diagram

PCIe signal data of the DUT is captured (tapped) from both the upstream and downstream data paths as inputs to the Analyzer.

Working together with the Analyzer, the Flying-Lead Probe is used to debug and verify new hardware ICs, new system hardware implementations, firmware, validation of system BIOS and software, and supports manufacturing test.



Kit Contents

Item	Description	Qty
1	4-lane Flying-Lead Probe for PCle 5.0	1
2	12-inch mini SMP phase matched cable pairs	8
3	Flying Lead probe tips	9 (8+1 spare)
4	I/O and control cable bundle	1
5	Sideband analyzer cable	1
6	Sideband Flying-Lead cable	1
7	Mini-grabber clips	8
8	Power supply, 120/220 AC in, 12V/3A DC out	1
9	Quick Start Guide	1

Ordering Information

VIAVI Part Number	Description
Xgig5P-PCle5-x4-FL	4-lane 32GTps PCIe 5.0 Flying-Lead Probe
Xgig5P-PCle5-x4-FLC	Replacement cable set (optional)
Xgig5P-PCle5-x4-FLCP	Clock Probe (optional)



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