PCI Express® 4.0 Interposer
For Summit™ T416

The Teledyne LeCroy PCI Express Interposer provides a simple and easy-to-use way to probe Gen4 PCI Express traffic between a host and PCIe® add-in card. The interposer assures reliable data transmission while providing 100% capture of all data traffic flowing through the PCIe CEM slot interface. Connecting the interposer to a Teledyne LeCroy Summit Gen4 analyzer allows decoding and display of data flowing in both directions and across all lanes, and will display data traffic using the industry-standard CATC Trace™ data display, along with a wide range of traffic and error reports.

The Gen4 Interposer supports data rates of 2.5, 5.0, 8.0, and 16.0 GT/s, and is available in three configurations: x1, x4, x8 and x16. Each configuration supports lesser link widths (e.g., the x4 configuration supports x4, x2 and x1 through the x4 PCIe connector mounted on the card, but cannot support greater than x4 since the host slot connector is limited to x4).

The Gen4 Interposer is a powerful and versatile tool for all developers working with PCIe 4.0 add-in cards.

Specifications
- Dimensions: 167 x 190mm (6.6” x 7.477”)
- Link Width: x1, x4, x8 or x16
- Data Rates: 2.5 GT/s, 5.0 GT/s, 8.0 GT/s and 16.0 GT/s (Gen4)
- System Compatibility: Summit T416

Ordering Information

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Product Code</th>
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<tr>
<td>G4x1 Interposer (includes G4x1 Interposer Card and (2) two high speed connector cables)</td>
<td>PE125UIA-X</td>
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<tr>
<td>G4x4 Interposer (includes G4x4 Interposer Card and (2) two high speed connector cables)</td>
<td>PE124UIA-X</td>
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<td>G4x8 Interposer (includes G4x8 Interposer Card and (4) four high speed connector cables)</td>
<td>PE123UIA-X</td>
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<td>G4x16 Interposer (includes G4x16 Interposer Card and (4) four high speed connector cables)</td>
<td>PE122UIA-X</td>
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The Gen4 Interposer supports, in combination with a Summit Gen 4 analyzer, provides the user a complete suite of test capability, including the ability to test products to the PCI Express 4.0 specification, analyze SMBus out of band signaling and allow recording and analysis of low power modes supported through CLKREQ# and SRIS.
Connecting the PCI Express Interposer

1. Install the Interposer into the host system PCIe connector.
2. Install the PCIe add-in card under test (DUT) into the connector on the interposer. Note that PCIe add-in cards with edge connectors smaller than the connector are inserted, the connection will negotiate to the lesser lane width.
3. Connect 12V DC using the AC adapter supplied with the interposer. Make sure that the AC adapter is turned on.
4. Connect the Summit T416 Analyzer (or other compatible Teledyne LeCroy PCIe 4.0 protocol analyzer) to the interposer using up to 4 high speed connector cables, as indicated in the diagram above. Follow cable labeling.
5. If testing SRIS, refer to the clock configuration tables in the manual to properly set the clocks.
6. Connect the analyzer to a host machine using the Ethernet or USB port on the back panel of the Summit analyzer.
7. Install the software on the host machine.
8. Power on the protocol analyzer, then power on the host system.
9. Use the Teledyne LeCroy software application to monitor, record and view PCI Express traffic in the PCIe add-in card DUT system.