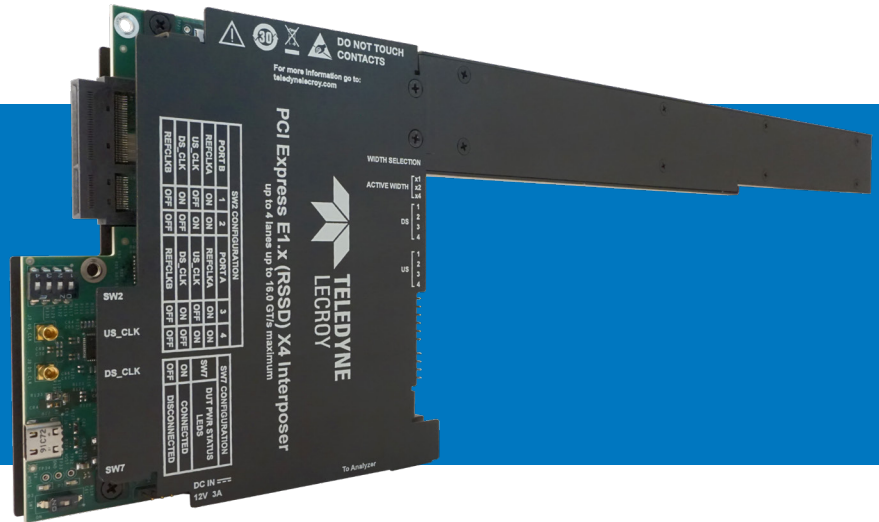


PCI Express® 4.0 x4 EDSFF Interposer



Key Features

- Quick and simple set-up
- Allows Capturing and decoding of all PCIe traffic between host and device
- Decodes PCIe host interfaces such as NVMe, SOP/PQI, AHCI/PCIe in addition to native PCIe protocols
- Supports: SFF-TA-1002 multi-lane card edge connector; SFF-TA-1006: Enterprise and Datacenter 1U short SSD form factor; SFF-TA-1007: Enterprise and Datacenter 1U long SSD form factor
- Supports E1.S or E1.L type devices:
 - EDSFF 1U short/narrow form factor
 - EDSFF 1U short/wide form factor
 - 1U long version form factor as defined in the SFF-TA-1007
- Supports data rates of 2.5 GT/s, 5.0 GT/s, 8.0 GT/s and 16.0 GT/s
- Supports SRIS Clocking
- Supports CLKREQ# for testing low power L1 Substates
- Supports SMBus
- Environmental:
 - Operating: 0° to 55°C (32° to 131°F)
 - Non-Operating: -20° to 80°C (-4° to 176° F)
 - Humidity: 10% to 90% RH (non-condensing)
- Dimensions:
 - 451.86 mm x 127 mm (17.79" x 5")

Teledyne LeCroy's PCIe® 4.0 x4 EDSFF Interposers provide quick and simple means for protocol analysis of Enterprise and Datacenter Small Form Factor (EDSFF) interposer card, previously known as the Ruler SSD (RSSD) form factor, for analysis of E1.S and E1.L type Solid-State Drives (SSDs) and devices that support the PCI Express® (PCIe) 4.0 specification.

The EDSFF Interposer Card works in combination with the PCIe 4.0 Summit Protocol Analyzers to monitor, capture, and record PCIe traffic between a host backplane and EDSFF devices for protocol analysis. This interposer supports PCIe host interfaces including the NVM Express (NVMe) protocol at data rates from 2.5 GT/s up to 16.0 GT/s and link widths of up to x4.

Now with the MultiPort option on the Gen4 analyzers it is possible to monitor and analyze multiple PCIe links. This means that multiple EDSFF Interposers can be used with a single Summit T4 protocol analyzer to do multilink protocol analysis. This provides a lower cost debugging solution for more complicated configurations.

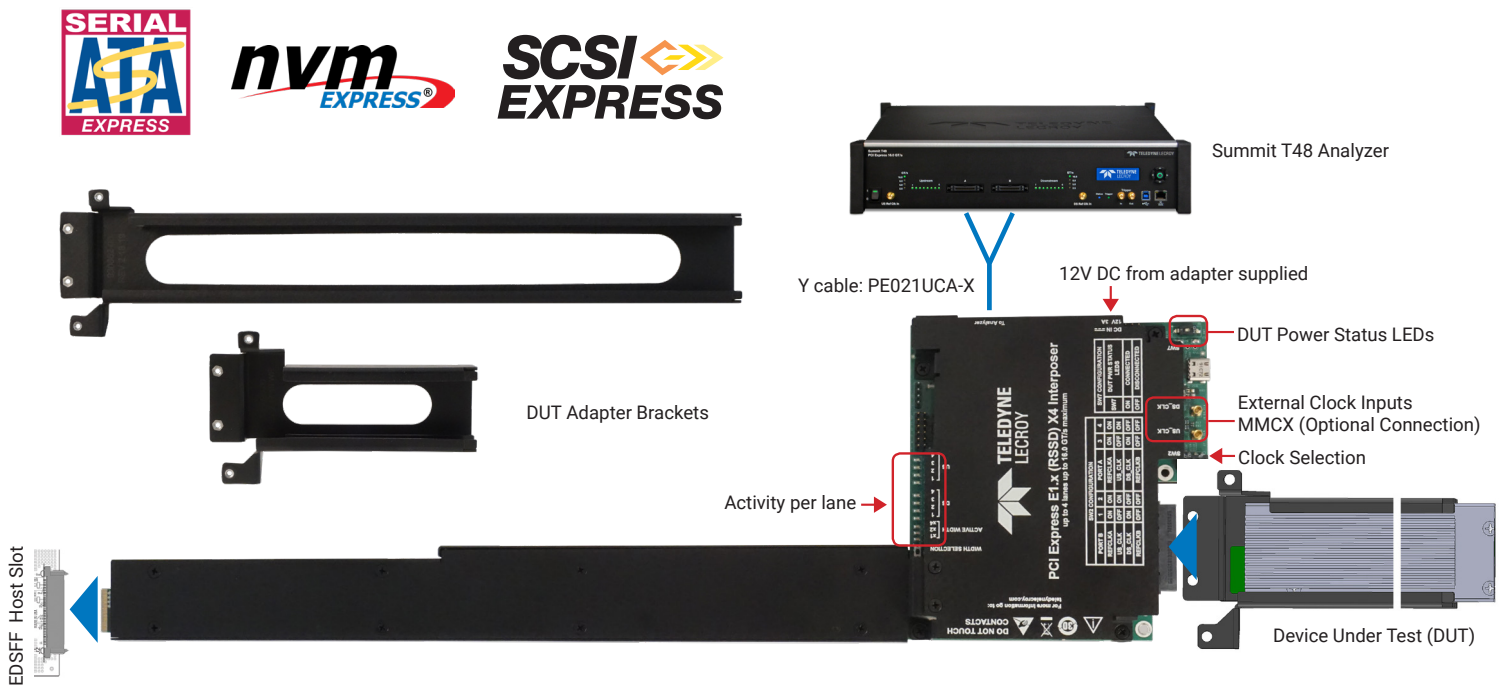
The PCIe 4.0 x4 EDSFF Interposer provides connectivity and monitoring capability for E1.S or E1.L type devices targeted at enterprise systems that use the SFF-TA-1002 multi-lane card edge connector. Four form factor types can be analyzed using this EDSFF Interposer:

Both the EDSFF 1U short/narrow and EDSFF 1U short/wide form factors as defined in SFF-TA-1006 specification as well as the two 1U long version form factors as defined in the SFF-TA-1007 specification.

The interposer taps all PCIe protocol traffic between the host and EDSFF device or SSD and records it on the Summit PCIe 4.0 protocol analyzer where protocol issues and performance metrics can be further analyzed and debugged.



PCIe 4.0x4 EDSFF Interposer Connection Overview



The optional Interposer Device Brackets can be used to help fit the interposer to a specific manufacturer's EDSFF device. Guidance is provided and an example modification is described in the Quick Start Guide provided with the interposer.

Connecting the PCIe 4.0 x4 EDSFF Interposer (refer to Quick Start Guide for more details)

Note: The sequence of operations shown here is for "hot plug" operations where the host system powering the the SFF-TA-1002 host slot remains powered on. For test applications where this is not required, assemble the components as indicated (including plugging the interposer into the host slot), then power on all components (interposer, analyzers, and host machine for PCIe Protocol Analysis software) before powering on the EDSFF host slot.

1. Set the SW2 DIP switch to the desired positions to set the clock selection for Port A and Port B according to the table above.
2. Install the RSSD device under test (DUT) into the bracket on the interposer as shown.
3. Connect the Summit T48 Analyzer (or other compatible Teledyne LeCroy analyzer) to the interposer using the analyzer Y cable (PE021UCA-X).
4. Connect the analyzer to a host computer system using the USB port on the front panel of the Summit analyzer.
5. If not already done, install the PCIe Protocol Analysis software on the host machine.
6. Connect 12V DC using the AC adapter supplied with the interposer. (Make sure that the AC adapter is powered on).
7. Power on the analyzer.
8. Launch the PCIe Protocol Analysis application, setup the appropriate recording options and start a recording. For more information see the Summit T4 PCI Express Multi-Lane Protocol Analyzer User Manual, Gen4 x4 EDSFF Interposer Configurations.
9. Install the Interposer into the host system connector.
10. Power on the host machine.
11. Use the PCIe Protocol Analysis application to monitor, record and view PCI Express traffic passing through the Gen4 x4 EDSFF Interposer.

System Compatibility

Summit T48	✓
Summit T416	✓
Summit T54	✓

Ordering Information

Product Description

PCI Express G4x4 EDSFF Interposer
Summit T48 MultiPort Analysis Option
Summit T416 MultiPort Analysis Option

Product Code

PE200UIA-X
PE259SUA-A
PE258SUA-A



Local sales offices are located throughout the world.
Visit our website to find the most convenient location.
1-800-5-LeCroy • teledynelecroy.com



TELEDYNE LECROY
Everywhereyoulook™