TELEDYNE LECROY
Everywhereyoulook™

PCIe® External Cable 3.0 to PCIe Slot Adapter User Manual and *Quick Start Guide*

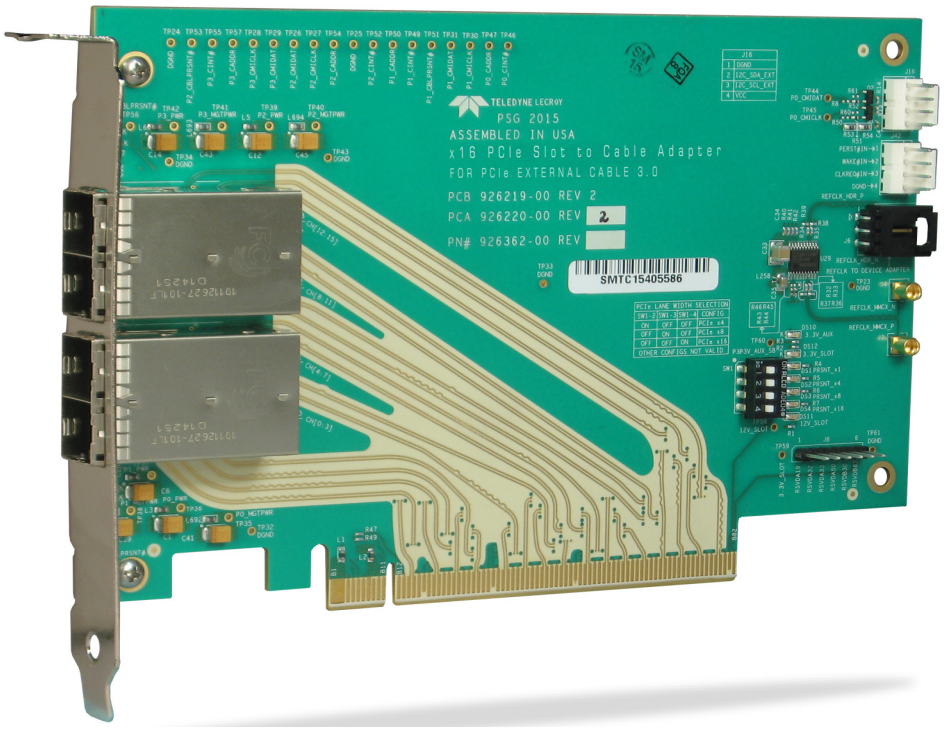
Before Starting

Use this document for quick installation and setup. If you experience problems or need more information, contact Teledyne LeCroy customer support or check the Teledyne LeCroy web site https://teledynelecroy.com/sw/pciexpress

1 Introduction

Teledyne LeCroy's PCIe External Cable 3.0 to x16 PCIe Slot Adapter provides developers with multiple test capabilities to speed development of new PCIe External Cable 3.0 designs. It supports data rates of 2.5 GT/s, 5.0 GT/s and 8.0 GT/s. Several test points and headers provide easy access to check status of bus signals.

The PCIe External Cable 3.0 to x16 PCIe Slot Adapter card works with the PCIe External Cable 3.0 class cable (or set of cables) up to 0.5 meter in length as defined in the PCI Express® External Cabling Specification Revision 3.0. The PCIe External Cable 3.0 is a new PCIe cable based on the current Mini-SAS HD cable design.



PCIe External Cable 3.0 to PCIe Slot Adapter

2 Components

The adapter package includes the following components:

- PCIe External Cable 3.0 to PCIe Slot Adapter
- Differential Clock cable
- User Manual and Quick Start Guide (this document)

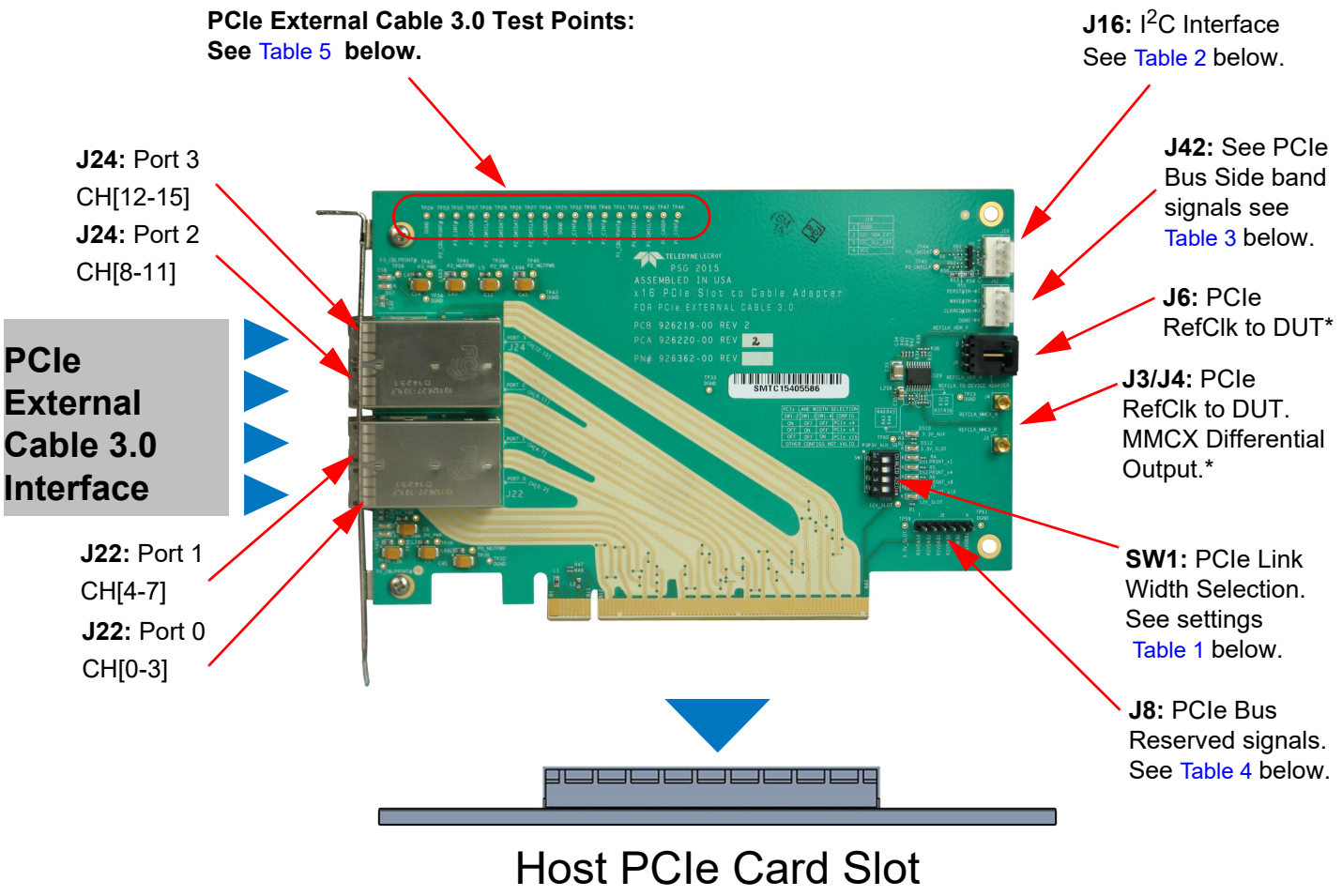
Inspect the received shipping container for any damage. Unpack the container and account for each of the system components listed on the accompanying packing list. Visually inspect each component for absence of damage.

In the event of damage, notify the shipper and Teledyne LeCroy. Retain all shipping materials for shipper's inspection.

3 Connections

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PCIe External Cable 3.0 to PCIe Slot Adapter: Interconnection Overview



*** Notes:** For J6 and J3/J4: PCIe Reference Clock is not forwarded through the PCIe External Cable 3.0.
Other sideband signals from slot connector such as PERST#, WAKE#, CLKREQ# are not forwarded through the external cable interface. Outputs are provided in the adapter for debug purposes.

Access to I²C Bus

The I²C bus is connected from the PCIe Bus card slot to the PCIe External Cable 3.0 to PCIe Slot Adapter connector J22: Port 0 and J16.

J16 provides access to I²C/SMBus signals from the PCIe slot for other I²C analysis equipment. See Table 2 below, for the I²C connections on J16.

4 Switch Configuration: SW1

Table 1: PCIe Link Width Configurations

SW1-1	SW1-2	SW1-3	SW1-4	PCIe Bus Link Width
ON	OFF	OFF	OFF	x1
OFF	ON	OFF	OFF	x4 (default setting)
OFF	OFF	ON	OFF	x8
OFF	OFF	OFF	ON	x16

Note 1: This switch sets the PRNST# bus pins so the card can be appropriately identified by the root complex.

Note 2: Other switch configurations not valid.

Note 3: Factory settings for all SW1 are: SW1-1 OFF, SW1-2 ON, SW1-3 OFF, SW1-4 OFF.

5 Connector Signals

Connector signals are provided primarily as test points but they can be driven for debug purposes as long as the supplied signals meet the PCIe electrical specification.

Table 2: J16 Connections

PIN	DESCRIPTION
1	DGND
2	I2C_SDA_EXT
3	I2C_SCL_EXT
4	VCC (+3.3V to +5.0V)

Note: VCC required only if I^2C signals are not pulled up on the I^2C analysis equipment.

Table 3: J42 Connections

PIN	DESCRIPTION
1	PERST# OUT
2	WAKE# OUT
3	CLKREQ# OUT
4	DGND

Table 4: J8 Connections

PIN	DESCRIPTION
1	RSVDA19
2	RSVDA32
3	RSVDA33
4	RSVDA50
5	RSVDB30
6	RSVDB82

6 Test Points

Table 5: PCIe External Cable 3.0 to PCIe Slot Adapter Test Points and Functions

Test Point Number	Function
TP24	DGND
TP53	P2_CBLPRSNT#
TP55	P3_CINT#
TP57	P3_CADDR
TP28	P3_CMICLK
TP29	P3_CMIDAT
TP26	P2_CMIDAT
TP27	P2_CMICLK
TP54	P2_CADDR
TP25	DGND
TP52	P2_CINT#
TP50	P1_CADDR
TP49	P1_CINT#
TP51	P1_CBLPRSNT#
TP31	P1_CMIDAT
TP30	P1_CMICLK
TP47	P0_CADDR
TP46	P0_CINT#

7 Environmental Conditions

- Temperature: Operating 32° F to 122° F (0° C to 50° C)
- Temperature: Non-Operating 14° F to 176° F (-10° C to 80° C)
- Humidity: Operating 10% to 90% RH (non-condensing)

Teledyne LeCroy Customer Support

Online Download

Periodically check the Teledyne LeCroy Protocol Solutions Group web site for software updates and other support related to this product. Software updates are available to users with a current Maintenance Agreement.

Web: teledynelecroy.com/sw/pciexpress
E-mail: psgsupport@teledyne.com
Support: teledynelecroy.com/support/contact

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Changes

Product specifications are subject to change without notice. Teledyne LeCroy reserves the right to revise the information in this document without notice or penalty.

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