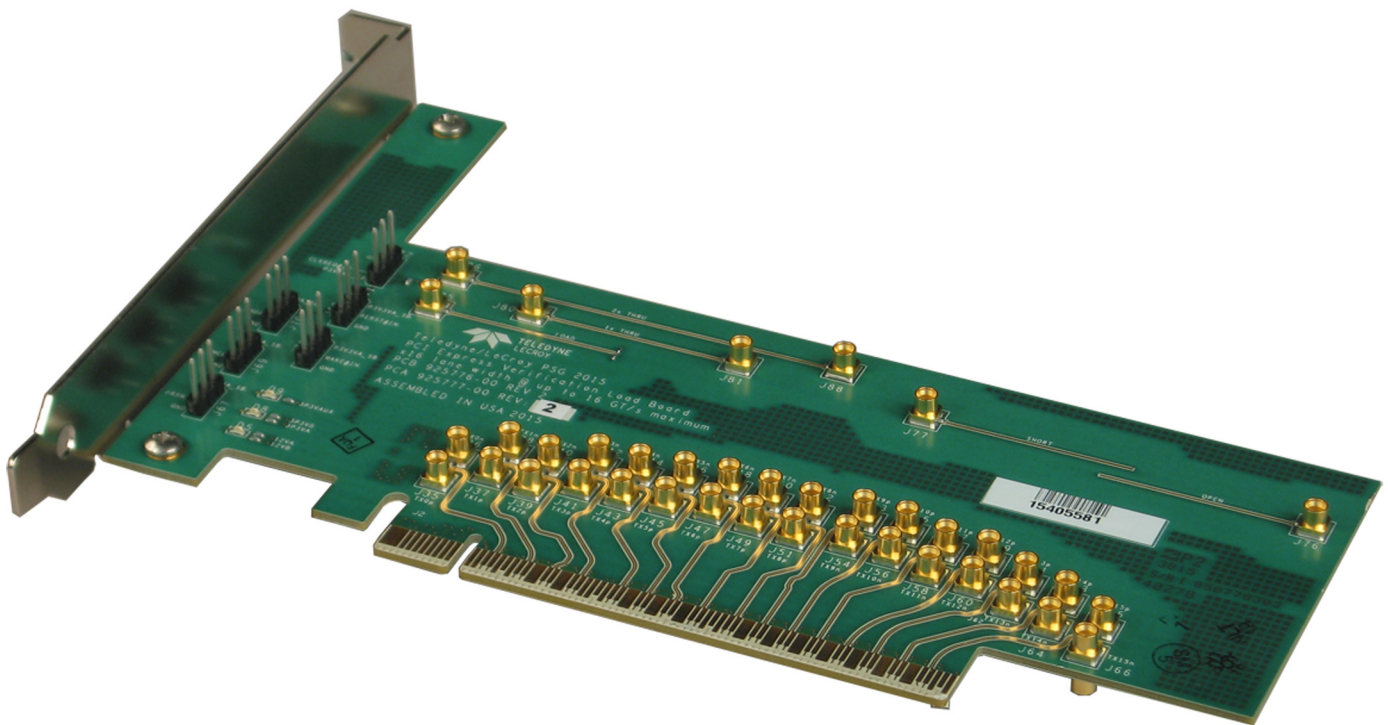**PCI Express Gen4
Verification Load Board**

User Manual and *Quick Start Guide*

1 Introduction

The PCIe Gen4 Verification Load Board is an electrical test fixture that will provide early developers of the PCI Express 4.0 specification a load board for testing motherboards and system boards that use the CEM connector form factor. The load board supports up to x16 lanes and speeds up to 16.0 GT/s data rates. The Verification Load Board can be used to evaluate new designs against the PCIe 4.0 electrical standard.

PCIe Gen4 Verification Load Board

2 Components

The package includes the following components:

- PCIe Gen4 Verification Load Board
- User Manual and Quick Start Guide (this document)

3 Unpacking the Verification Load Board

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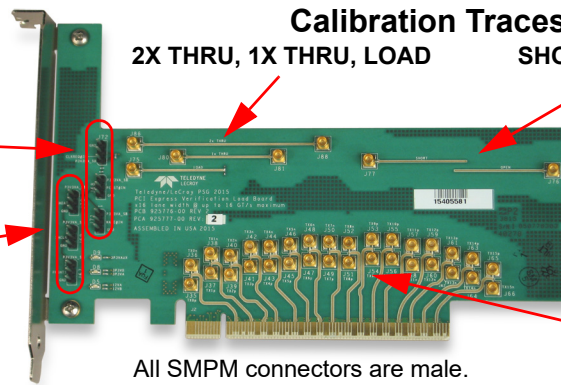
In the event of damage, notify the shipper and Teledyne LeCroy. Retain all shipping materials for shipper's inspection.

4 Verification Load Board - Front View

Jumpers for Signals:

CLKREQ#
PERST#
WAKE#

SMDATA
SMCLK
PRSNT1

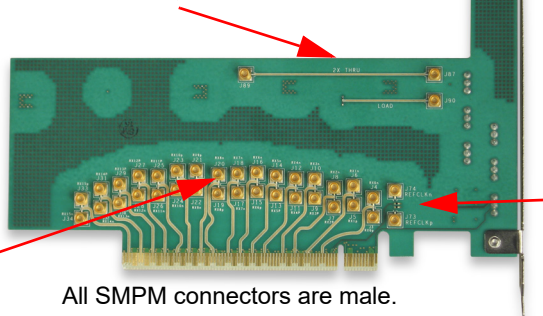**Calibration Traces**

2X THRU, 1X THRU, LOAD

SHORT, OPEN

SMPM Male Connectors*
PCIe Tx [0:15] +/- Signals

All SMPM connectors are male.

Verification Load Board - Rear View

Calibration Traces
2X THRU, LOAD

REFCLK# (-)
REFCLK# (+)

SMPM Male Connectors*
PCIe Rx [15:0] +/- Signals

All SMPM connectors are male.

* Assembly Notes:

- Depending on configuration, some of the SMPM male connectors may not be installed.
- Exercise care when connecting or disconnecting cables to the SMPM male connectors. Also you need to make sure the weight of the cable is not being fully supported by the connector.

5 Insertion Loss

Speed (Gbps)	Insertion Loss (dB)	Speed (Gbps)	Insertion Loss (dB)
2.5	0.21	8.0	0.35
5.0	0.30	16.0	0.60

6 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/tm/software/PCIe
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.