

SierraNet™ 100GbE L1 Link Negotiation Adapter Quick Start

If you experience problems or need more information, see the *Net Protocol Suite User Manual* or the Teledyne LeCroy web site: <https://teledynelecroy.com/sw/netprotocolsuite/>.

**SierraNet™ 100GbE Layer-1
Link Negotiation Adapter**
IEEE 802.3ck 100Gb Ethernet Protocol PAM4
Adaptive Test Module for M648 Platforms



1 Introduction

The SierraNet 100GbE L1 Link Negotiation Adapter module and license enables the SierraNet M648 Ethernet Protocol Analyzers to capture and analyze the link negotiation characteristics of new IEEE 802.3ck 100GbE DUTs. These Modules Extend the investment of the SierraNet M648 PAM4 GbE testing platform and offer Teledyne LeCroy's best in class signal probing solution.

The SierraNet 100GbE L1 Link Negotiation Adapters are designed to support the protocol observation requirements of physical layer engineering teams. The SierraNet 100GbE L1 Link Negotiation Adapter supports examination of a single link of 100Gb Ethernet. The module ships with the required License Key enabled and is operated via the Net Protocol Suite™ software application.

The SierraNet 100GbE L1 Link Negotiation Adapter supplies engineers 100% recording capabilities for the Ethernet Auto-Negotiation and Link Training sequences, with accurate and precise decoding enabled in the Net Protocol Suite™ software application.

The SierraNet 100GbE L1 Link Negotiation Adapter connects to the link under test via a remote probe (QSFP-DD based), then to the M648 via a pair of SFP-56 cables. The adapter connection is made to the SierraNet M648 via the Analog Pass-Through SFP ports.

As is the case with existing SierraNet platforms, when used with the SierraNet 100GbE L1 Link Negotiation Adapter, they may be connected via the CrossSync™ application to other Teledyne LeCroy protocol tools to observe traffic across multiple connections to understand how traffic, stimulus, or errors propagate across bridges or adapters.

The Net Protocol Suite™ software application provides the most advanced triggering and filtering state machines available. Up to 24 states, with four transitions per state, and multiple trigger, filter, and timer conditions per capture project are standard features. Advanced triggering enables state specific filtering to eliminate the capture of unwanted traffic, providing users intuitive and easy navigation to the information and events of importance.

2 Key Features

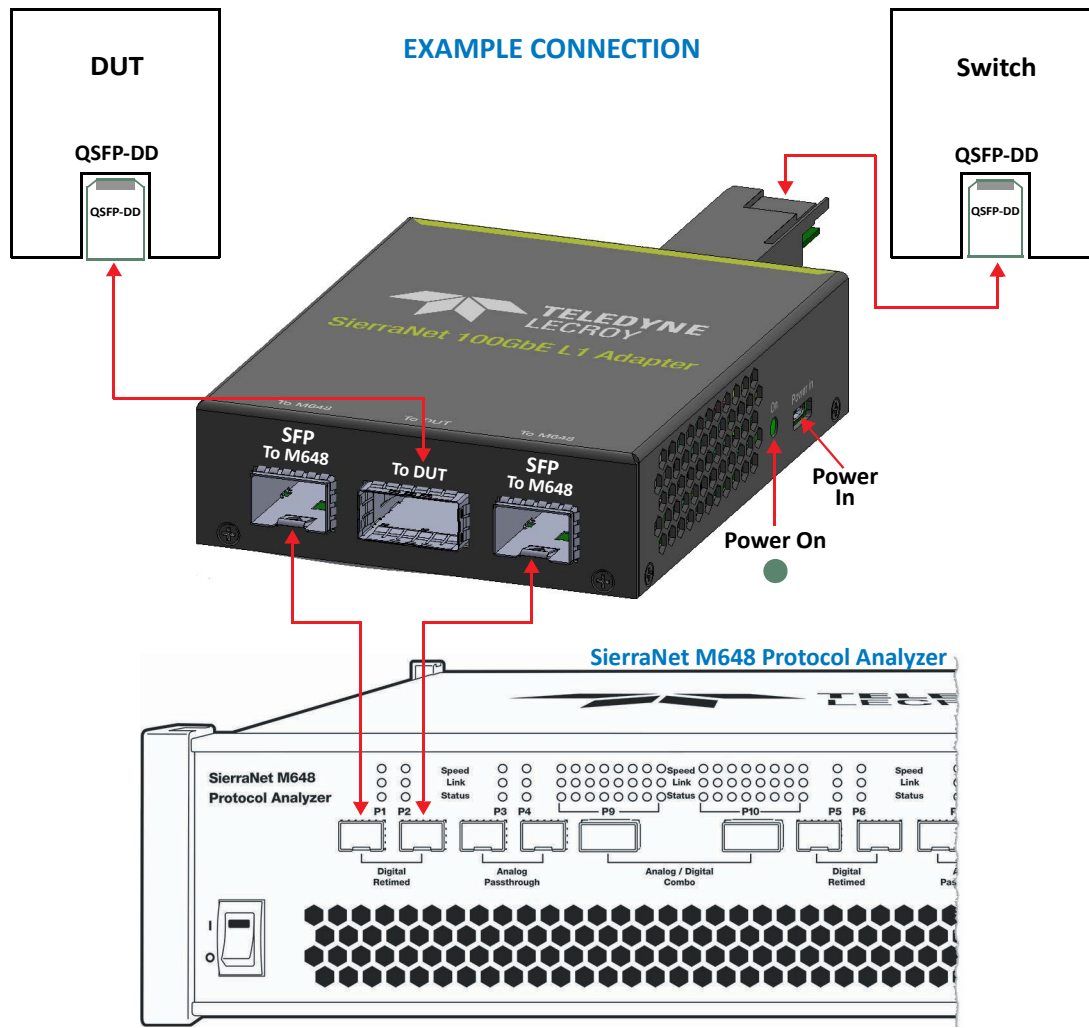
The L1 Adapter includes the following features:

- ◆ Self-Contained, Modular unit with USB-C power adapter.
- ◆ Integrated QSFP-DD probe and pass-through connection.
- ◆ Single Lane, 100GbE IEEE802.3ck Auto-Negotiation and Link Training Capture.
- ◆ Two 100G adapters may be used for simultaneous use (100GbE x 2-links).
- ◆ Optical or copper cable connections are supported.
- ◆ SFP56 connection back to SierraNet M648 platform.
- ◆ Operational License included with adapter.
- ◆ Requires SierraNet M648 with PAM4 Ethernet analysis license.

3 Connecting the Adapter

1. Plug the back end of the Adapter in the QSFP-DD cage into the HBA, Switch, or DUT.
2. Using a 100G-rated cable, connect the front QSFP-DD to the other DUT. This completes the pass-through path that allows the link to be established.
3. Connect the SFP56 cable between the SFP port on the Adapter and the P1 port on the SierraNet M648.
4. Connect another SFP56 cable between the other SFP port on the Adapter and the P2 port on the SierraNet M648. These are the tapping ports that enable the SierraNet M648 to capture and display the SN/LT signals.
5. Connect the USB-C cable to the **Power In** connector on the side of the Adapter. Ensure the **On** LED lights green to indicate the Adapter is powered up.

4 SierraNet 100GbE L1 Link Negotiation Adapter Connections



Teledyne LeCroy Customer Support

Online Download

Periodically check the Teledyne LeCroy Protocol Solutions web site for software updates and other support related to this product.

Web: teledynelecroy.com/sw/netprotocolsuite/
Email: psgsupport@teledyne.com
Support: teledynelecroy.com/support/contact



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Changes

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