

QUICK CARD

Ethernet RFC 6349 TrueSpeed Test - Remote Unit

RFC-6349 specifies a methodology for measuring end-to-end TCP throughput between a local (near-end) TCP Client and a remote (far-end) TCP Server. This Quick Card describes how to configure the T-BERD 5800 as the remote TCP Server.

EQUIPMENT REQUIREMENTS

- T-BERD/MTS 5800 equipped with the following:
 - BERT software release V30.1.0 or greater
 - C510M1GE test option for 10 Megabit to 1 Gigabit Ethernet
 - C510GELAN test option for 10 Gigabit Ethernet
 - C5100GE test option for 100 Gigabit Ethernet
 - C5LSLAYER4 test option for 1 Gigabit Truespeed
 - C510GLAYER4 test option for 10 Gigabit Truespeed
 - C5100GLAYER4 test option for 100 Gigabit Truespeed
- Optical Transceiver supporting the line rate to be tested
- Cables to match the optical transceiver and the line under test
- Fiber optic inspection microscope (P5000i or FiberChek Probe)
- Fiber optic cleaning supplies



Figure 1: Equipment Requirements

CONNECT TO LINE UNDER TEST

► For Optical Interfaces:

1. Use the VIAVI P5000i or FiberChek Probe microscope to inspect both sides of every connection being used (SFP, attenuators, patch cables, bulkheads). Clean and repeat until it passes.
2. Insert desired Optical Transceiver into the Port 1 SFP or QSFP slot on the top of the T-BERD.
3. If necessary, insert optical attenuators into the SFP TX and/or RX ports.
4. Connect the SFP to the port under test using a jumper cable compatible with the line under test.



Figure 2: Inspect Before You Connect

► For Copper 10/100/1000BASE-T interfaces:

Connect the 10/100/1000 RJ-45 jack to the port under test using CAT 5E or better cable.

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LAUNCH TEST

1. Press the Power button  to turn on the test set.
2. Using the **Select Test** menu, **Quick Launch** menu, or **Job Manager**, launch an **Ethernet**, **RFC 6349 TrueSpeed**, **Terminate** test on Port 1 for the desired physical interface. For example:

Ethernet ▶ 10/100/1000 ▶ RFC 6349 TrueSpeed ▶ IPv4 ▶ P1 Terminate

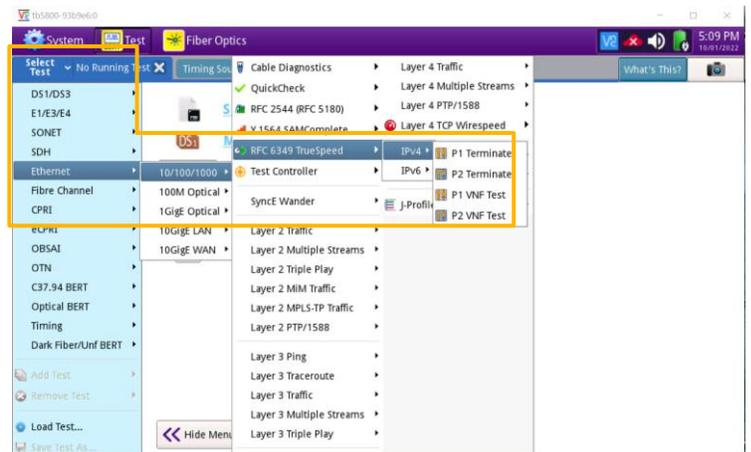


Figure 3: Launch Test

3. Tap the  button next to “**Start a new configuration (reset to defaults)**” option.

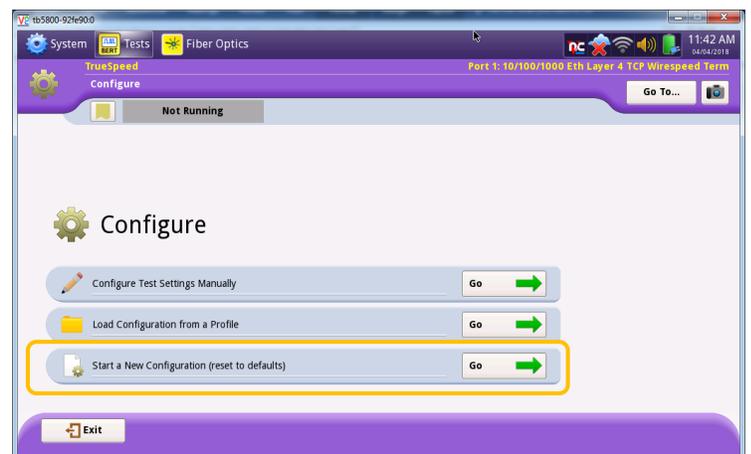


Figure 4: Configure

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CONFIGURE TEST

1. Select “**I am installing or turning-up a new circuit**” and tap the  button to advance to the **Symmetry** screen.

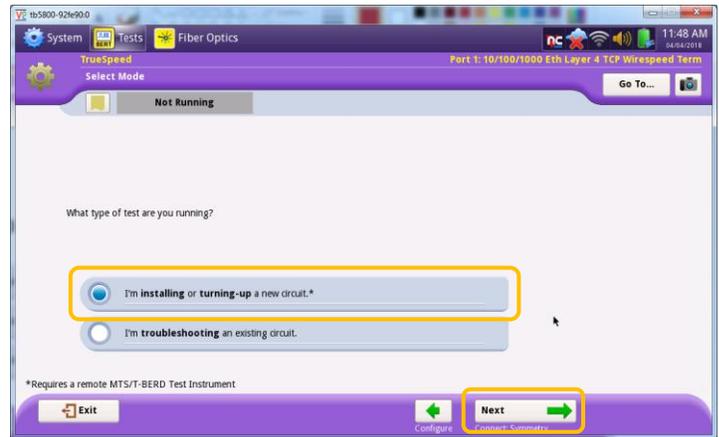
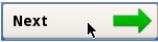


Figure 5: Select Mode

2. Select **My downstream and upstream throughputs are the same** option and tap the  button to advance to the **Connect to Remote Instrument** screen.

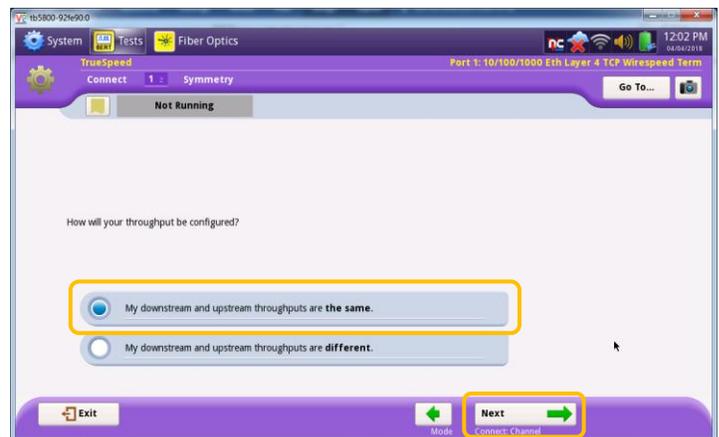


Figure 6: Symmetry

3. Use the **Local Settings** configuration section to fill in this T-BERD's **IP address**, **Subnet Mask** and **Default Gateway**. If VLAN tagging is used, set the **Encapsulation** option to **VLAN** and provide the appropriate VLAN ID. Leave the **Remote Settings** section set to defaults.

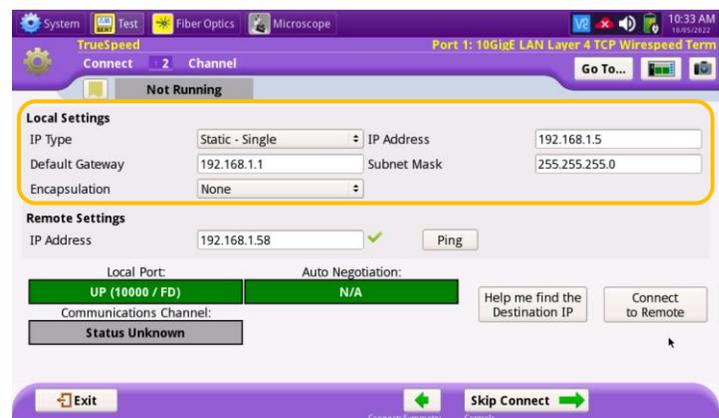


Figure 7: Local Settings

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CONFIGURE TEST - Continued

5. Tap the  button, ensure that the **Restore Setup on Exit** option is not checked and tap the  button again.

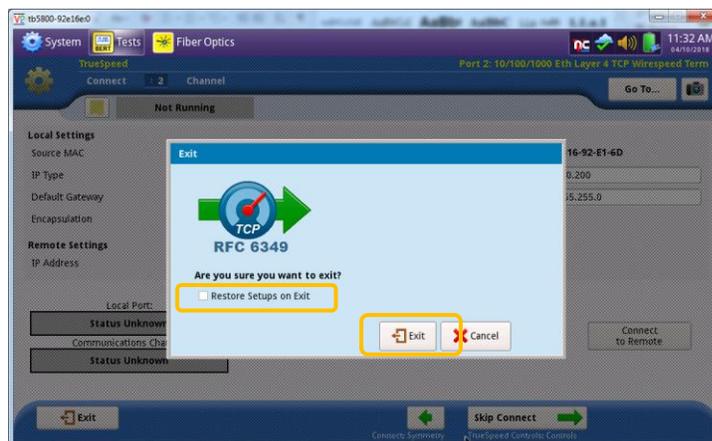


Figure 8: Exit to underlying TCP test engine

5. Check the **Sync Acquired** and **Link Active** LEDs to ensure the unit is connected to the network under test. The remote (far-end) T-BERD unit is now ready for RFC 6349 TrueSpeed test to be executed from a local (near-end) T-BERD unit.

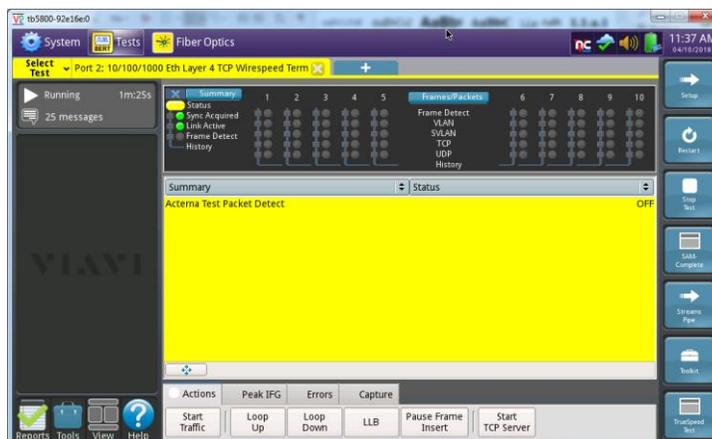


Figure 9: Ready