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QUICK CARD

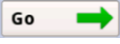### Ethernet Y.1564 Layer 2 Multiple Stream Test

This quick card describes how to configure and run a Y.1564 Layer 2 Multiple Stream Traffic Test for Metro Ethernet service activation.

- T-BERD 5800 equipped with the following:
  - BERT software release V30.1.0 or greater
  - C5COS for multiple steam traffic generation
  - C510M1GE test option for 10/100/1000 Megabit and 1 Gigabit Ethernet
  - C510GELAN test option for 10 Gigabit Ethernet
  - C525GE test option for 25 Gigabit Ethernet
  - C540GE test option for 40 Gigabit Ethernet
  - C550GE test option for 50 Gigabit Ethernet
  - C5100GE test option for 100 Gigabit Ethernet
- Optical Transceiver supporting the speed to be tested (SFP or QSFP)
- 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

LAUNCH TEST

1. Press the Power button to turn on the T-BERD.

2. Press the **Test** icon **Tests** at the top of the screen to display the **Launch Screen**.

3. Using the **Select Test** menu, Quick Launch menu, or Job Manager, launch the Ethernet Y.1564 SAMComplete Multiple Streams test on Port 1 for the desired rate. For Example: **Ethernet ► 1GigE Optical ► Y.1564 SAMComplete ► L2 Multiple Streams ► P1 Terminate.**

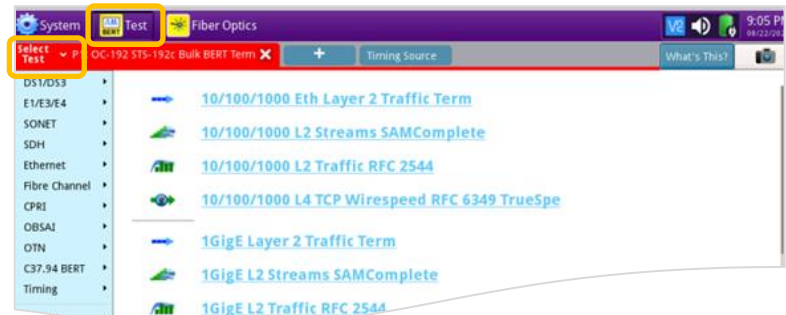4. Tap the **Go →** button next to "**Start a New Configuration (reset to defaults)**"
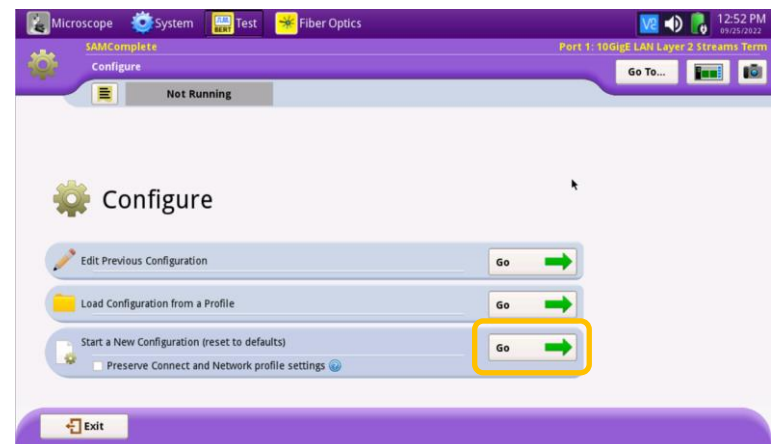
Figure 2: Launch Screen

Figure 3: Y.1564 SAMComplete test

T-BERD/MTS 5800 Portable Network Tester

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CONFIGURE TEST

► The following Information is needed to configure the test:

- Number of Streams to generate
- VLAN ID, if VLAN tagging is used
- Frame Size for each stream
- Committed Information Rate (CIR) for each stream
- Pass/Fail Threshold for Frame Loss Ratio, Delay and Delay Variation (Jitter)

Figure 4: Work Order

1. Tap the **Next** button 3 times to display the **Network Services** screen. Set Number of Services to the number of streams you wish to generate.

Figure 5: Network Services

2. If you want different Frame Sizes, Destination MAC Addresses, or Ethertype for each stream, tap DA MAC, Frame Size setting and Ethertype, enter desired values, and tap **Back**.
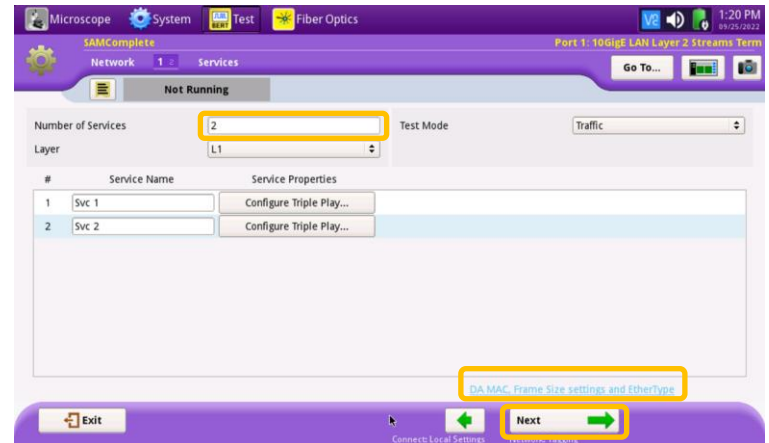
3. Tap **Next** to display the **Network Tagging** screen.
    - ► If you are testing a single VLAN, set **Encapsulation** to **VLAN** and enter the **VLAN ID.**
    - ► If you are testing multiple VLANs, tap the **Yes** radio button and enter the **VLAN ID**s and **Pri**orities.
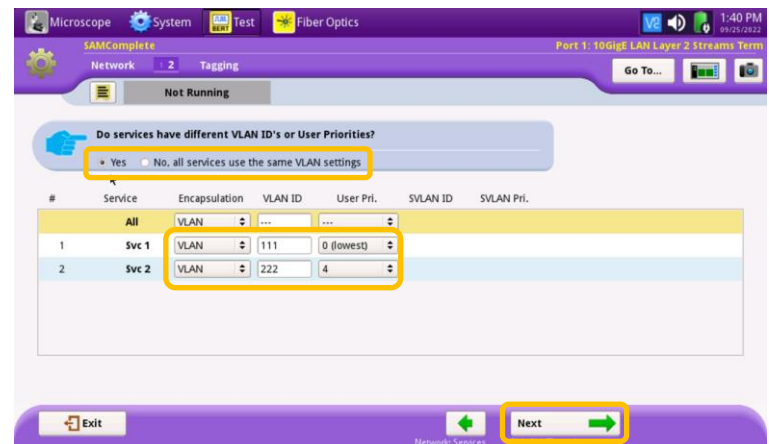

Figure 6: Network Tagging

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4. Tap [Next] to display the **SLA Throughput** screen.
    - ► Enter the **CIR** allocated to each stream of traffic or service.
    - ► Under **EIR**, enter the additional bandwidth available when only one stream of traffic is being generated.
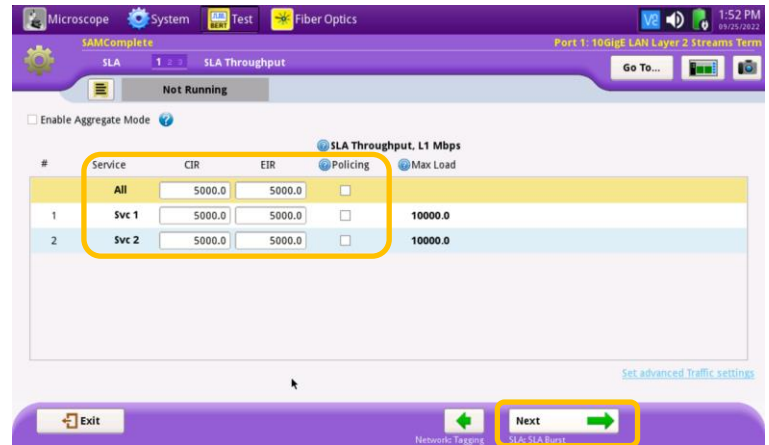   - ► If the streams are not Policed individually, uncheck all **Policing** checkboxes.

Figure 7: SLA Throughput

5. Tap the [Next] button twice to display the **SLA Performance** screen.
    - ► Enter the Frame Loss Ratio, Frame Delay, and Delay Variation pass/fail criteria for all services.
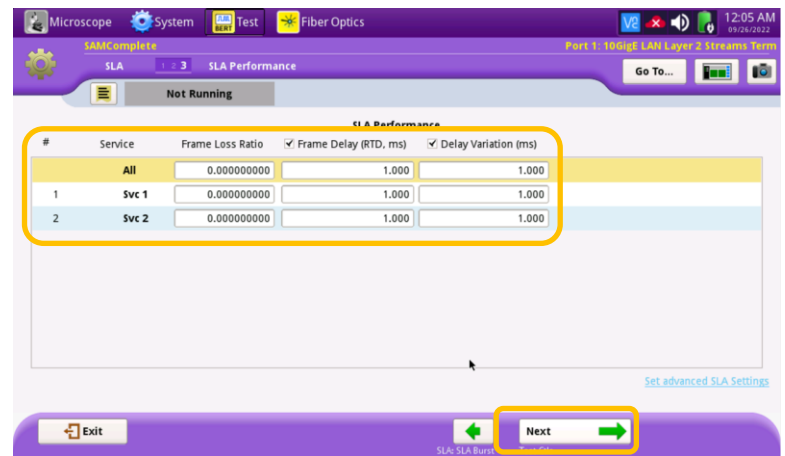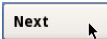
Figure 8: SLA Performance

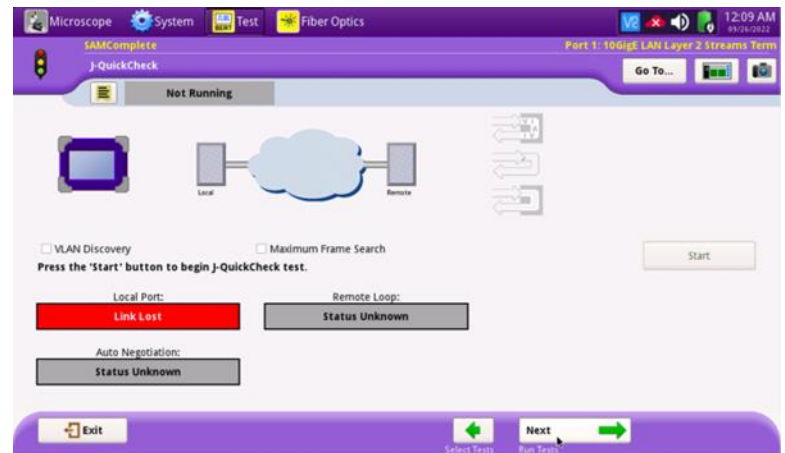6. Tap the [Next] button 5 times to display the **J-QuickCheck** screen.

Figure 9: J-QuickCheck

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CONNECT TO LINE UNDER TEST AND LOOP BACK DEVICE

► **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)
   - Focus the fiber on the screen.
   - If it appears dirty, clean the fiber end-face and re-inspect.
   - If it appears clean, run the inspection test.
   - If it fails, clean the fiber and re-run inspection test. 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.
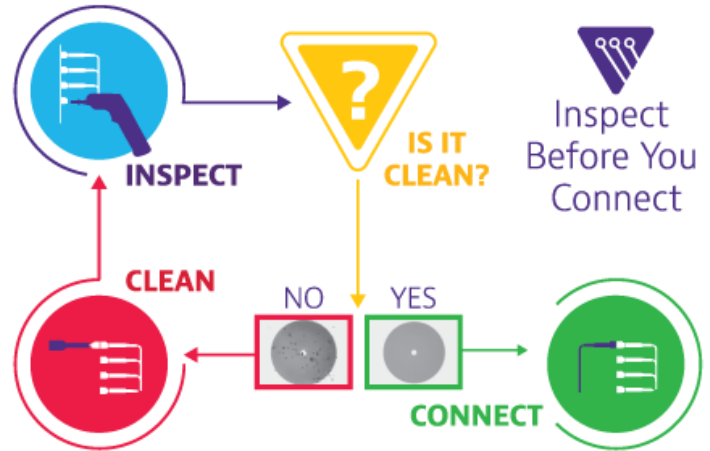4. Connect the SFP to the port under test using a jumper cable compatible with the line under test.

► **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.

1. Verify that **Local Port** status **UP** and Full Duplex (**FD**)

2. Tap the [Start] button.

3. Verify that the **Remote Loop** is recognized.

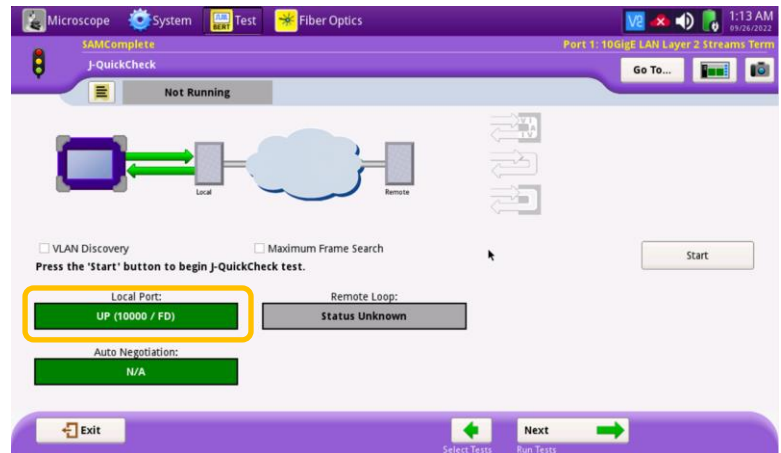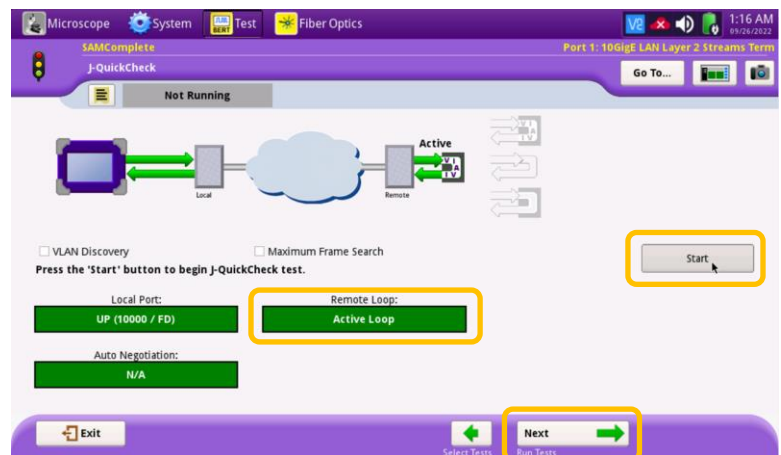4. Tap the [Next ➡] button to display the **Run Y.1564** Tests screen.

Figure 10: Inspect Before You Connect

Figure 11: Local Port status

Figure 12: Run J-QuickCheck

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RUN TEST

1. Tap the **Start** button.

2. Wait for the test to complete and verify that all tests pass or complete as indicated by a green checkmark.
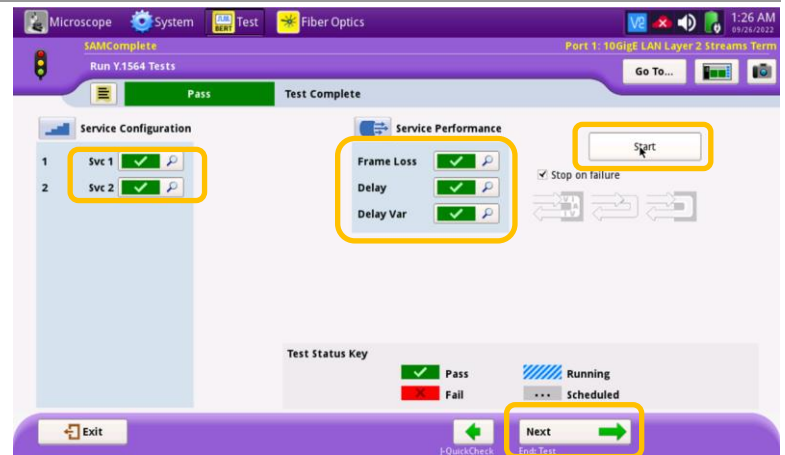

Figure 13: Run Y.1564 Tests

CREATE REPORT

1. Tap the **Next** button three times to display the **Report** screen.
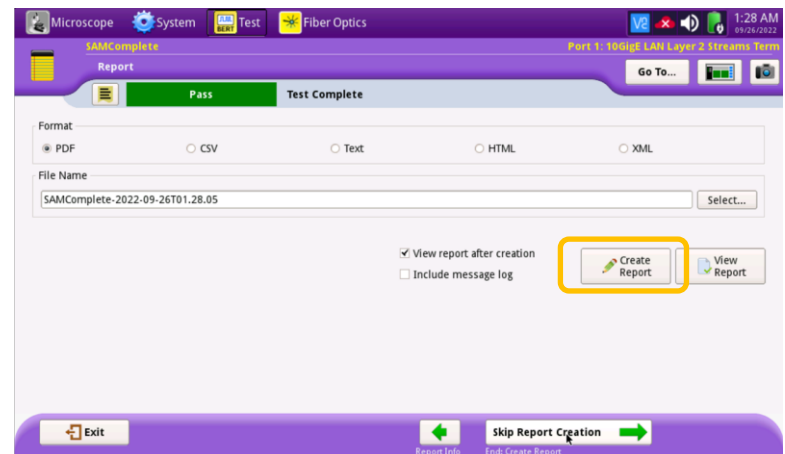
2. Tap **Create Report**.

Figure 14: Create Report

3. Tap **Exit** buttons three times to close the report and exit the Y.1564 test.

Figure 15: Exit

Contact Us

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