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 stream 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

LAUNCH TEST

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

2. Press the Test icon 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 button next to “Start a New Configuration (reset to defaults)”
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)

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.

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 Next.

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 IDs and Priorities.
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.

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.

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

CREATE REPORT

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

2. Tap Create Report.

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

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