

QUICK CARD

Ethernet Y.1564 SAMComplete Layer 2 Multiple Streams Service Acceptance Test

This quick card describes how to configure and run a Y.1564 SAMComplete Layer 2 Multiple Streams Test for Metro Ethernet service activation. The quick card documents a procedure to set up the OneAdvisor on a 1GigE Optical Interface, but the same workflow may be applied to other data rates.





EQUIPMENT REQUIREMENTS

- OneAdvisor 800 equipped with the following:
 - RAXxMA-O Radio Analysis Module, SPA06MA-O Spectrum Analyzer Module, TM400GB-QQ 400G Module, or TM400GB-QO 400G Module.
 - Transport software release V5.1.0 or greater
 - CA10M1GE or ONA-SP-10M1GE 1-Gigabit Ethernet option
- Optical Transceiver supporting the Ethernet data rate to be tested (SFP, SFP+, SFP28, QSFP28, QSFP-DD, etc.)
- Cables to match the optical transceiver and the line under test
- Fiber optic inspection microscope (P5000i, FiberChek Probe, or INX-760)
- Fiber optic cleaning supplies



Figure 1: Equipment Requirements

LAUNCH TEST

1. Press the Power button  on the ONA-800 base top panel to turn on the OneAdvisor.
2. Tap  to display the Home Screen.
3. Tap  to display the Tests menu.
4. Tap **Radio Analysis Transport >** or **400G Transport >** to show the Transport test application.
5. Tap the **Transport** icon. 
6. If the **Select Test** menu is not displayed, tap **>> All Tests** in the lower left screen corner.
7. Using the **Select Test** menu or favorite test list, launch the Ethernet Y.1564 SAMComplete Layer 2 Traffic test for the desired data rate and port (P1 or P2). For example:
Ethernet ▶ 1GigE Optical ▶ Y.1564 SAMComplete ▶ L2 Multiple Streams ▶ P1 Terminate or
Ethernet ▶ 1GigE Optical ▶ Y.1564 SAMComplete ▶ L2 Multiple Streams ▶ Terminate.
8. Tap the **Go →** button next to **“Start a New Configuration (reset to defaults)”**

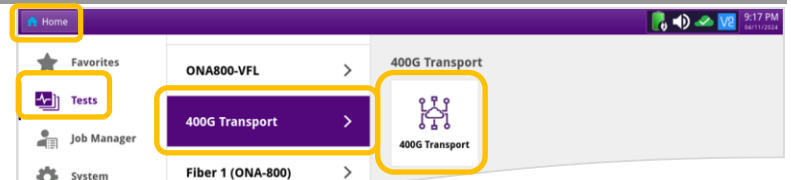


Figure 2: Transport Launch screen

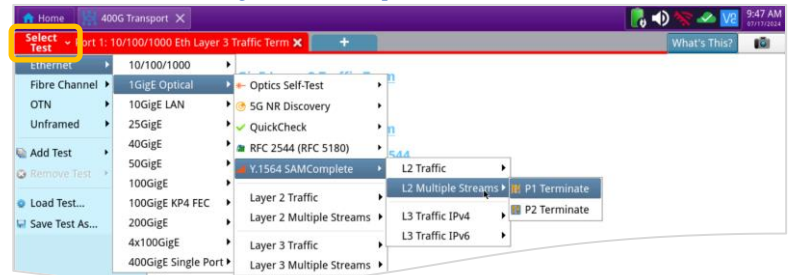


Figure 3: Select Test

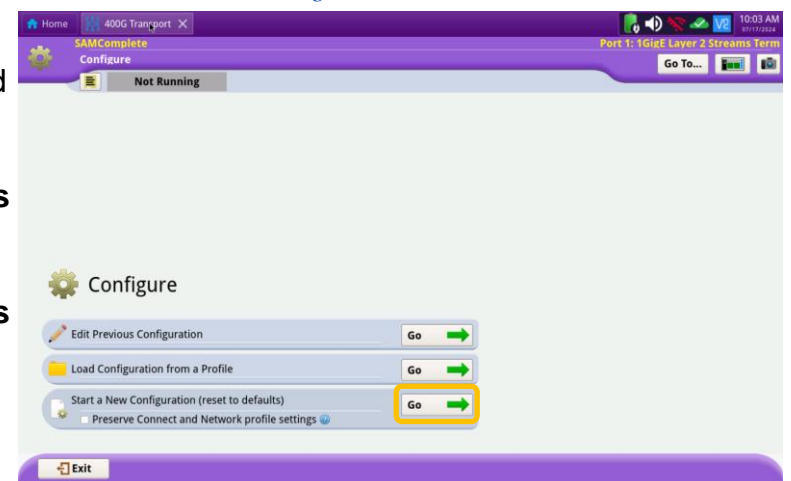


Figure 4: Configure

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CONFIGURE TEST

- ▶ The following Information is needed to configure the test:
 - Number of Streams to generate
 - VLAN ID(s), 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 twice 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 Ethertypes for each stream, tap [DA MAC, Frame Size settings and EtherType](#), enter desired values, and tap the ← **Back** button.
 3. Tap the **Next** → to display the **Network Tagging** screen.
 - ▶ If you are not testing a VLAN, set **Encapsulation to None**.
 - ▶ If you are testing a single VLAN, tap the **No** radio button 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**.



Figure 5: Work Order

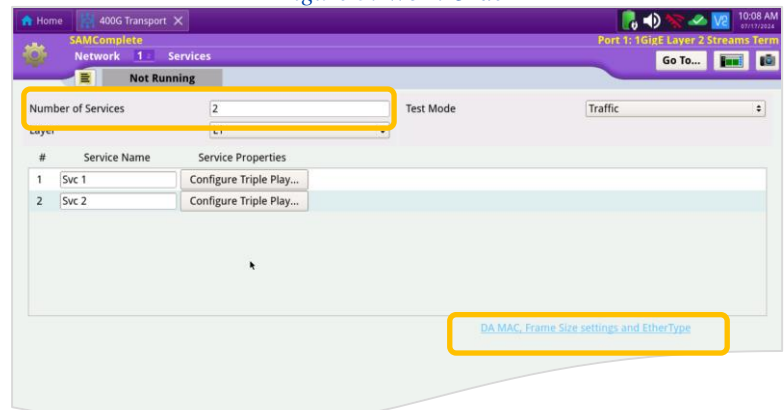


Figure 6: Network Services

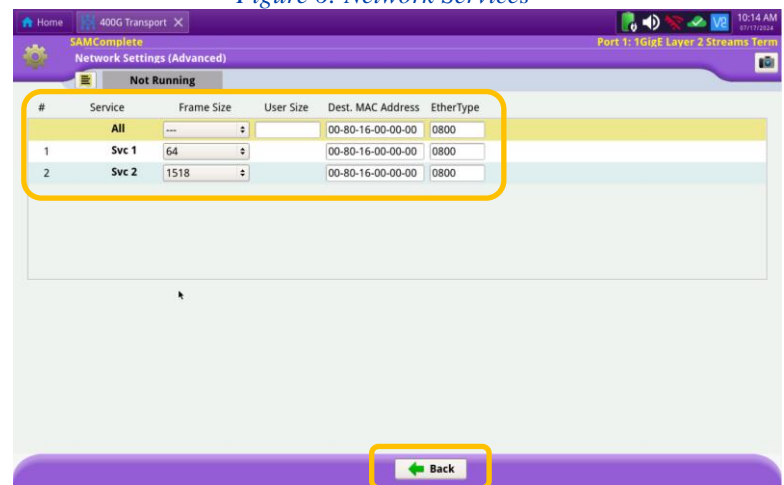


Figure 7: Network Settings (Advanced)

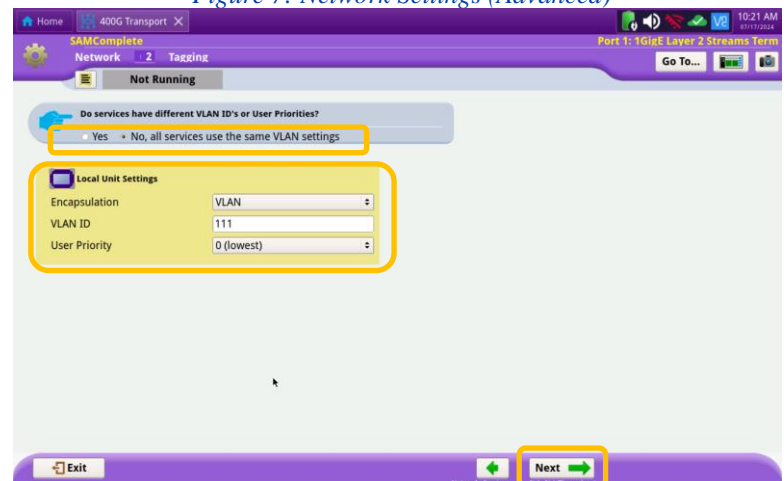


Figure 8: Network Tagging

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4. Tap the **Next** → button 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 each service.

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

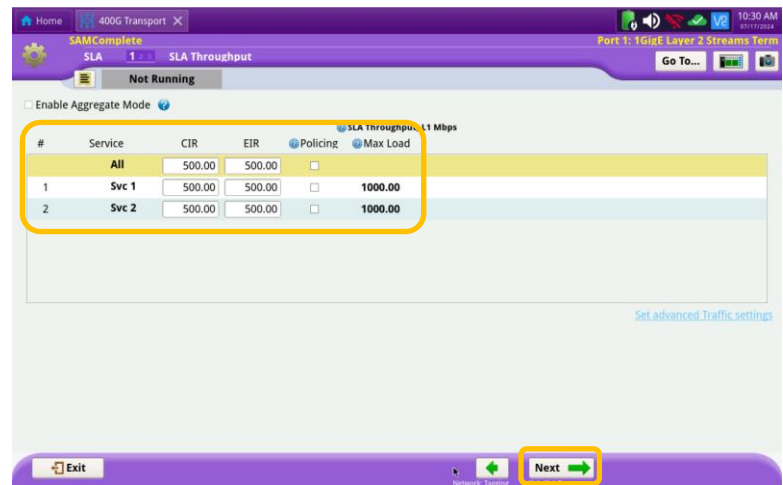


Figure 9: SLA Throughput

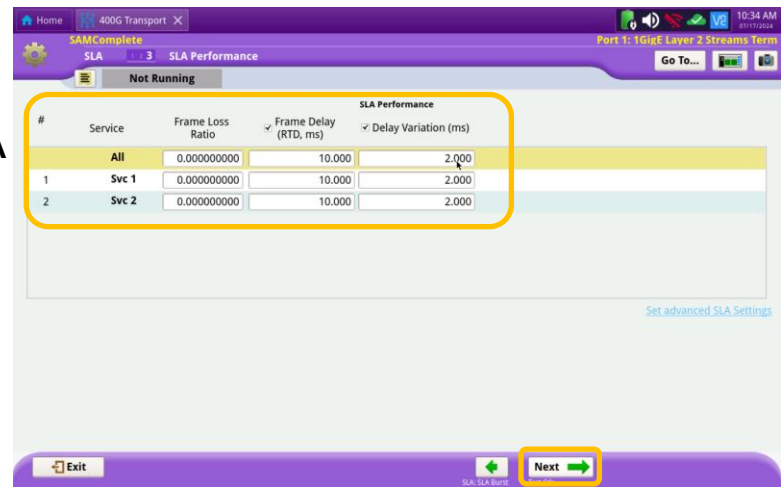


Figure 10: SLA Performance

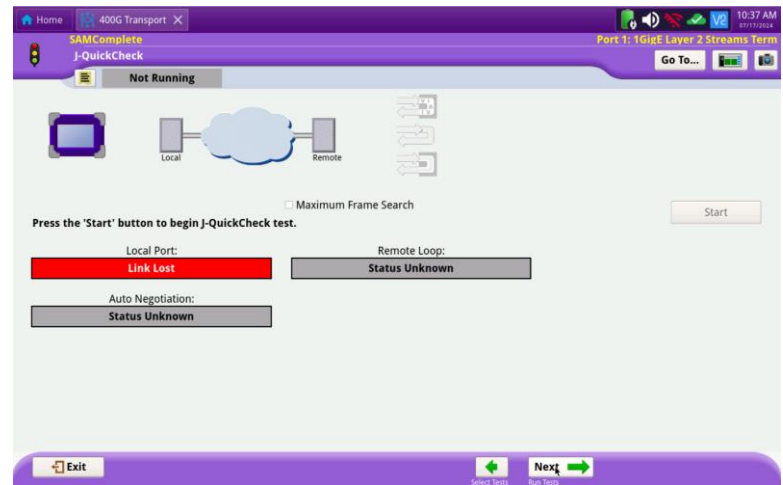


Figure 11: J-QuickCheck

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CONNECT TO LINE UNDER TEST AND LOOP BACK DEVICE

► For Optical Interfaces:

1. Use the VIAVI P5000i, FiberChek Probe or INX 760 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 OneAdvisor.
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:

1. Insert Copper SFP into the Port 1 SFP or slot on the top of the OneAdvisor.
2. Connect the copper SFP to the port under test using CAT 5E or better cable.

► Verify that **Local Port** status is **UP** and Full Duplex (**FD**)

► Tap the **Start** button.

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

► Tap the **Next** → button to display the **Run Y.1564 Tests** screen.



Figure 12: Inspect Before You Connect

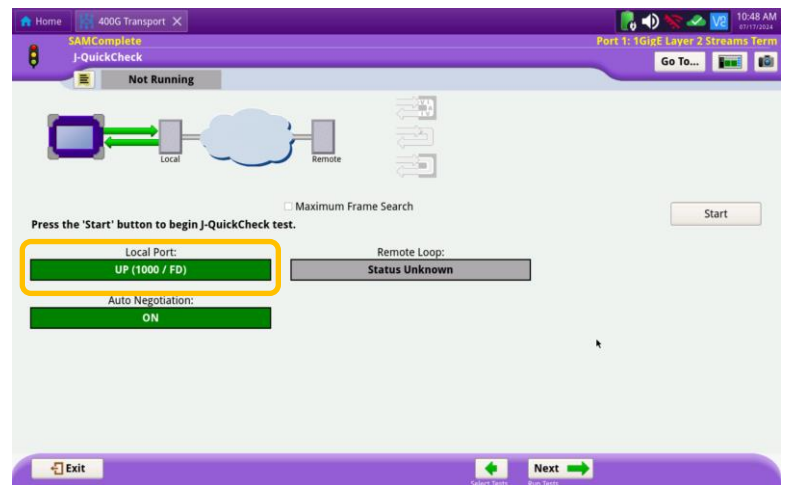


Figure 13: Local Port status

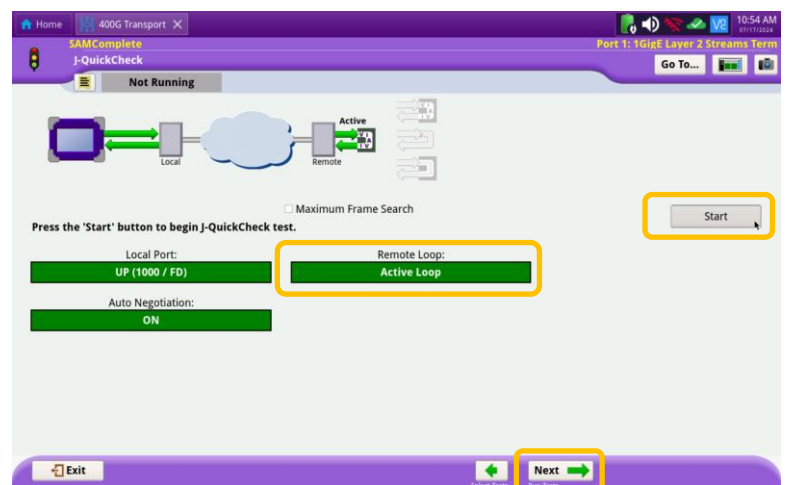


Figure 14: Run J-QuickCheck

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RUN TEST

1. Tap the **Start** button.
2. Wait for the test to complete and verify that all tests pass as indicated by green checkmarks.

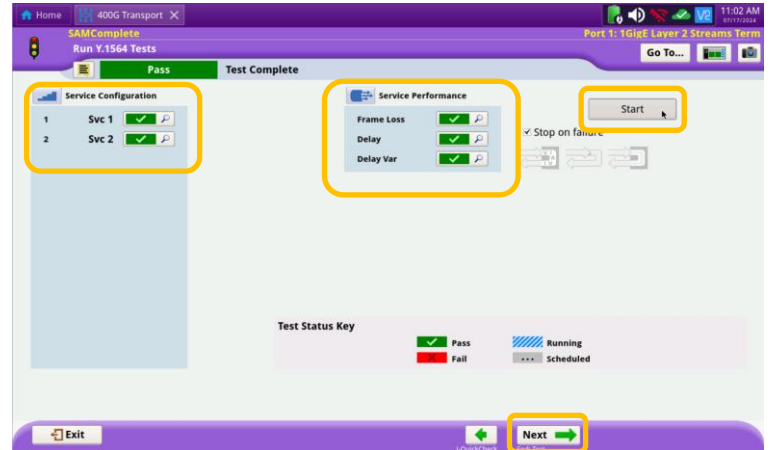


Figure 15: Run Y.1564 Tests

CREATE REPORT

1. Tap the **Next** → button three times to display the **Report** screen.
2. Tap the **Create Report**. The report will be created in the **/user/bert/reports** folder.
3. Tap the **Exit** ← buttons three times to close the report and exit the Y.1564 SAMComplete test.

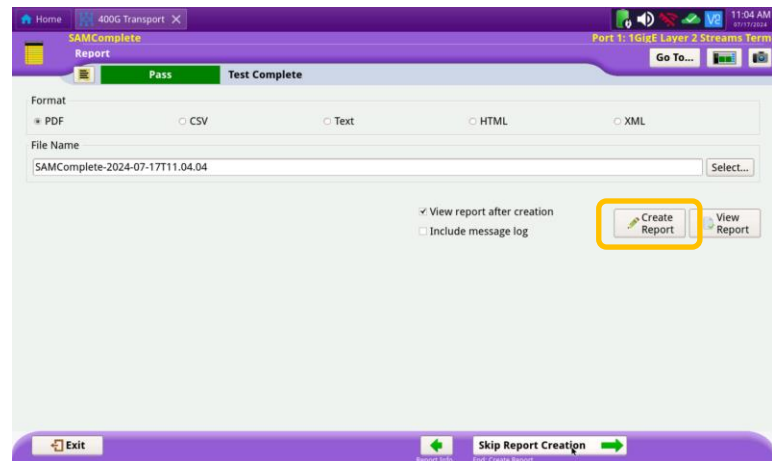


Figure 16: Create Report

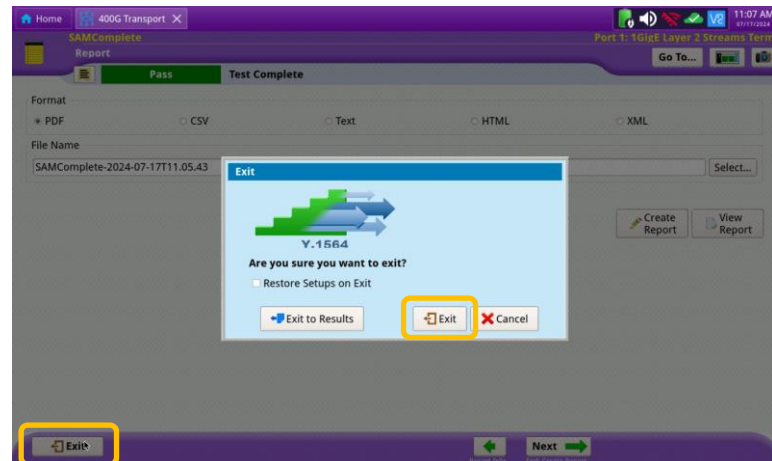


Figure 17: Exit