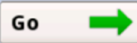## QUICK CARD

Ethernet RFC 2544 Layer 2 Traffic

This quick card describes how to set up the **OneAdvisor 800 400G Module** or **OneAdvisor 1000 400G Module** to run an **RFC 2544 Layer 2 Traffic Test** for Metro Ethernet service activation.

- OneAdvisor 800 or OneAdvisor 1000 equipped with the following:
    - 400G Transport Module
    - Transport software release V4.0.0 or greater
    - Software option for data rate to be tested:
        - ✓ CA10M1GE test option for 10/100/1000M Copper or 1 Gigabit Optical Ethernet
        - ✓ CA10GELAN test option for 10 Gigabit Ethernet
        - ✓ CA25GE test option for 25 Gigabit Ethernet
        - ✓ CA40GE test option for 40 Gigabit Ethernet
        - ✓ CA50GE test option for 50 Gigabit Ethernet
        - ✓ CA100GE test option for 100 Gigabit Ethernet
        - ✓ CA200GE test option for 200 Gigabit Ethernet
        - ✓ CA400GE test option for 400 Gigabit Ethernet
- Optical Transceiver supporting the Ethernet data rate to be tested (SFP, QSFP, or OSFP)
- 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 OneAdvisor.

2. Press the 400G Module **Test** icon [400G Module] at the top of the screen.

3. Using the **Select Test** menu, Quick Launch menu, or Job Manager, launch the Ethernet Layer 2 Traffic test for the desired data rate on the desired port (P1 or P2). For example: **Ethernet ►400GigE Optical ►RFC 2544 ►Layer 2 Traffic ►P2 Terminate.**

4. Tap the [Go →] button next to "**Start a New Configuration (reset to defaults)**"
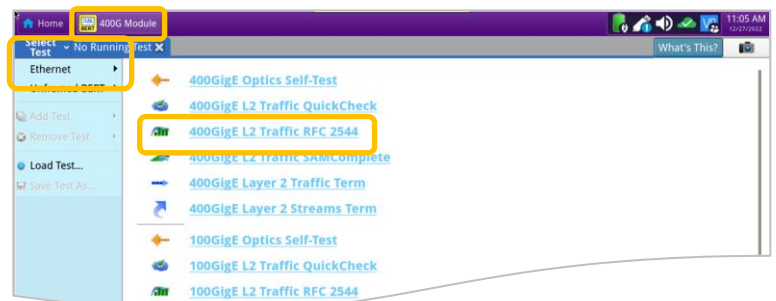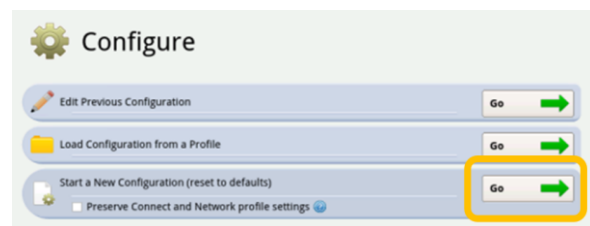

Figure 2: Launch Test

Figure 3: Start a New Configuration

QUICK CARD

CONFIGURE TEST

► The following Information is needed to configure the test:

- VLAN ID, if VLAN tagging is used.
- Maximum Transmission Unit (MTU), if Jumbo Frames are used.
- Committed Information Rate (CIR)
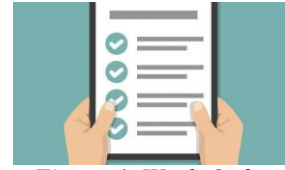- Pass/Fail Threshold for Throughput, Frame Loss, Latency and Jitter

1. Tap the **Next** ➡ button to display the **L2 Network Settings** screen.

2. If you are testing a VLAN, set **Encapsulation** to **VLAN** and enter your **VLAN ID.**

3. Tap the **Next** ➡ button twice to display the **Select Tests** screen.

4. Select the **Throughput**, **Latency**, **Frame Loss**, and **Packet Jitter** tests.

5. Tap the **Next** ➡ button to display the **Utilization** screen.

6. Set **Max Bandwidth** to the Committed Information Rate (CIR).

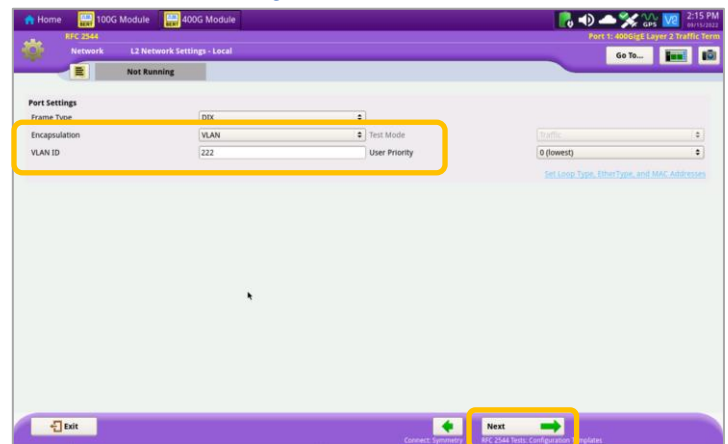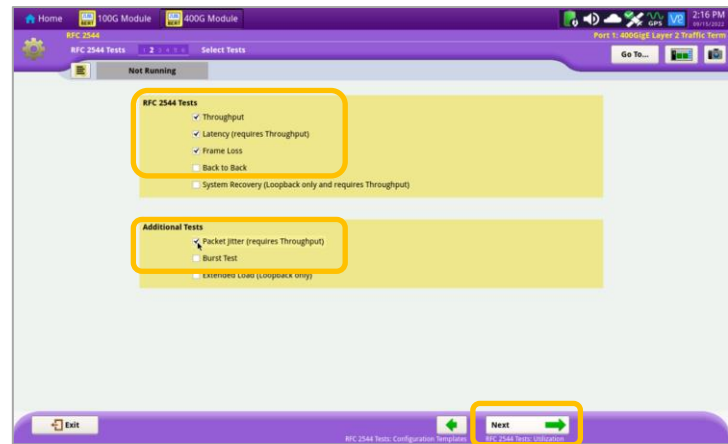7. Tap the **Next** ➡ button to display the **Frame Lengths** screen.

Figure 4: Work Order

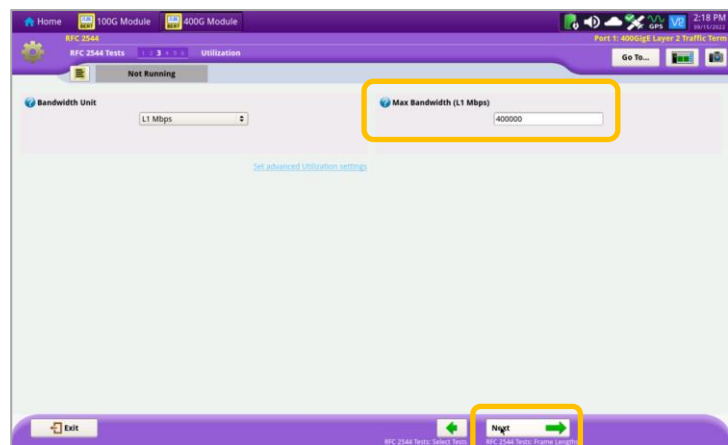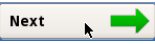
Figure 5: L2 Network Settings

Figure 6: Select Tests

Figure 7: Utilization

8.   Select the 1st, 4th, and 8th Frame Lengths.

9.   If the MTU is greater than 1518 (1522 with VLAN tagging), also enter and select the frame length of the MTU.

10. Deselect (uncheck) all other frame lengths.

Figure 8: Frame Lengths

11. Tap the [Next →] button four times to display the **Test Thresholds** screen.

12. Check all boxes for which a Pass/Fail Threshold is known. Enter the Threshold for each selection.

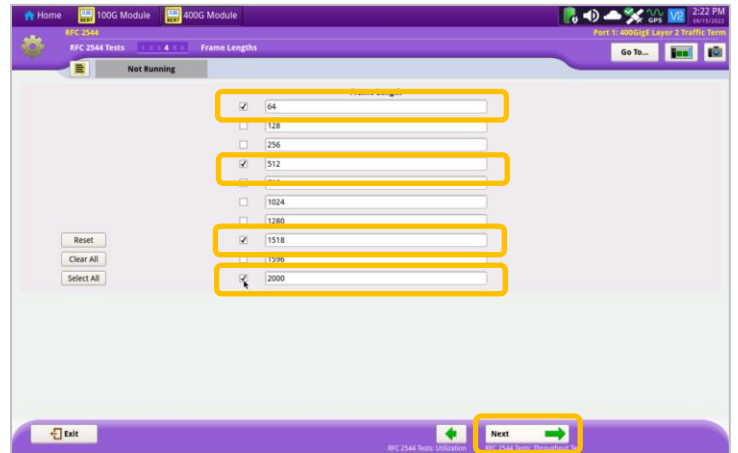13. Tap the [Next →] button 3 times to display the **Run J-QuickCheck** screen.
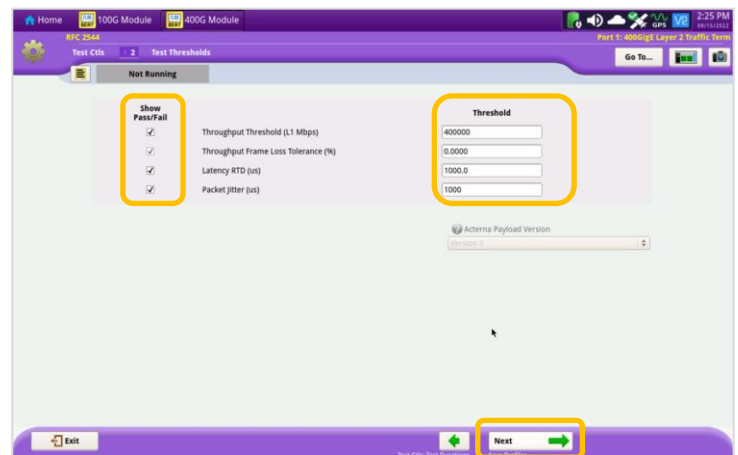

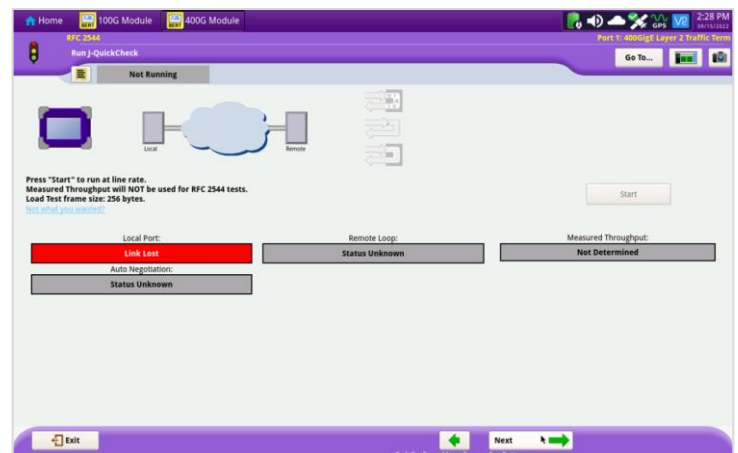*Figure 9: Test Thresholds*

Figure 10: J-QuickCheck

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QUICK CARD

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)
   o Focus the fiber on the screen.
   o If it appears dirty, clean the fiber end-face and re-inspect.
   o If it appears clean, run the inspection test.
   o 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.
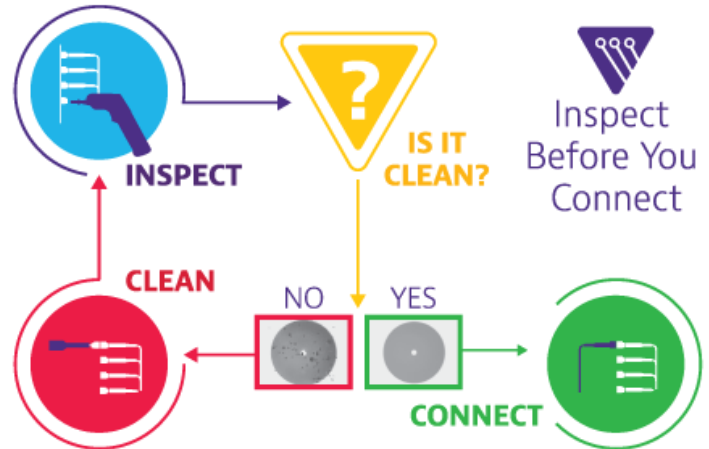
► **For Copper 10/100/1000BASE-T or 10GBASE-T interfaces**:

1. Insert Copper SFP into the Port 1 SFP or slot on the top of the OneAdvisor.

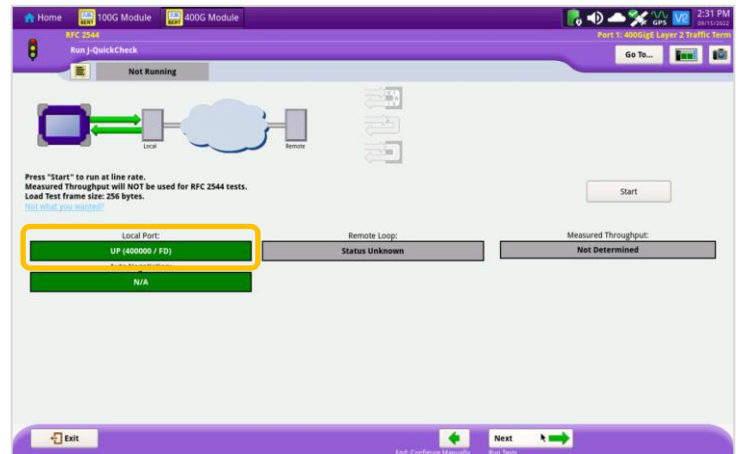2. Connect the copper SFP to the port under test using CAT 5E or better cable.

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

► Tap the Start button.

► Verify that the **Remote Loop** is recognized, and that **Measured Throughput** is greater than or equal to the Committed Information Rate.

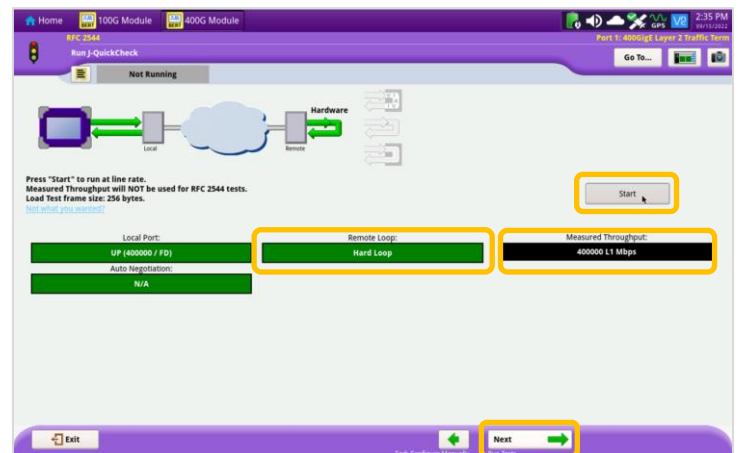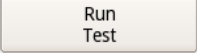► Tap the Next button to display the **Run RFC 2544** Tests screen.

Figure 11: Inspect Before You Connect

Figure 12: Local Port status

Figure 13: Run J-QuickCheck

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QUICK CARD

RUN TEST

1. Tap the [Run Test] button.

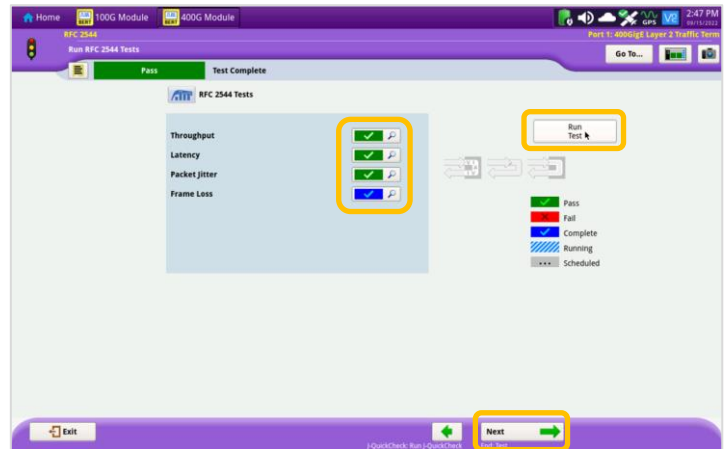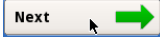2. Wait for the test to complete and verify that all tests pass or complete as indicated by a green or blue checkmark.

Figure 14: Run RFC 2544 Tests

CREATE REPORT

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

2. Tap [Create Report].

Figure 15: Create Report

3. Tap [Exit] buttons three times to close the report and exit the RFC 2544 test.

Figure 16: Exit

Contact Us

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visit viavisolutions.com/contact