OneExpert ONX-580

OTDR Testing with the ONX-580 and SmartOTDR SL

This quick card describes how to use the OneExpert ONX-580 and SmartOTDR SL to perform OTDR Testing on fiber. Before connecting to any fiber, you need to inspect the Smart OTDR SL fiber port and fiber under test with the P5000i or FiberChek Probe Digital Inspection Scope to make sure the fiber end faces are clean. If they are not clean, you will need to clean and reinspect them until both fibers pass.

Equipment Requirements:
- ONX-580 or ONX-580P Firmware version 10.2.24 or greater
- SmartOTDR SL firmware version 21.0.02 or greater
- Fiber Optic inspection and cleaning tools
- Optional 20m SC APC Singlemode fiber launch cable to connect the SmartOTDR SL
  - o You may need a hybrid fiber connector that is SC APC on one side and whatever connector that matches the fiber under test on the other side such as an SC APC to AC UPC
- Optical Coupler to connect launch cable to the fiber under test

Syncing the ONX-580 to the SmartOTDR SL
- Power on the ONX-580 and Smart OTDR SL.
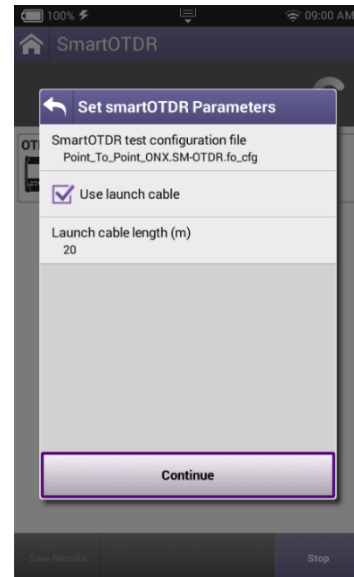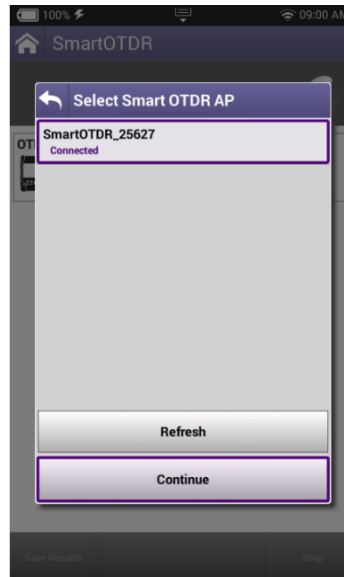- Click on the **My Tests** tab on the ONX-580.

- Touch the icon to launch the SmartOTDR test.
- You will see a Set Fiber Parameter pop up where you can add Cable Id, Test Location A, Fiber Id, Starting Fiber # and Contractor Id. Make your selections and press **Continue.**
- The next Pop Up will show whether you are connected to the Smart OTDR SL.
- If successful, you will see

  SmartOTDR_25627
  Connected

  with the SmartOTDR SL serial #.
- If the connection is unsuccessful press Refresh at the bottom of the pop up.
- Make sure you have a successful connection before continuing.

Connect to Fiber Under Test (FUT):
1. Inspect and, if necessary, clean the optical OTDR port on top of the SmartOTDR SL until it passes.
2. Inspect and, if necessary, clean the end faces on both sides of the Launch cable (if used) as well as the Fiber under Test (FUT) until they pass.
3. Connect the Launch cable (if used) to the SmartOTDR SL OTDR port.
4. If a launch cable was used, connect the opposite end of the Launch Cable to the optical coupler and then connect the FUT to the other side of the optical coupler.
5. If no launch cable is used, connect the FUT to the SmartOTDR SL OTDR port.
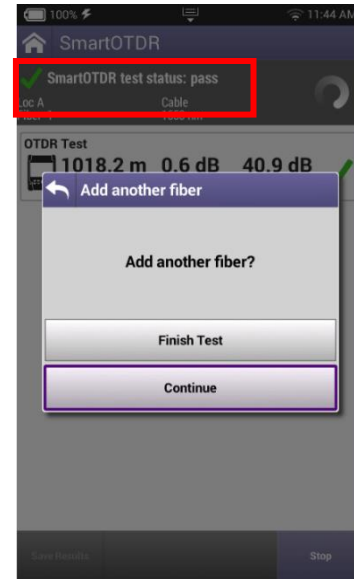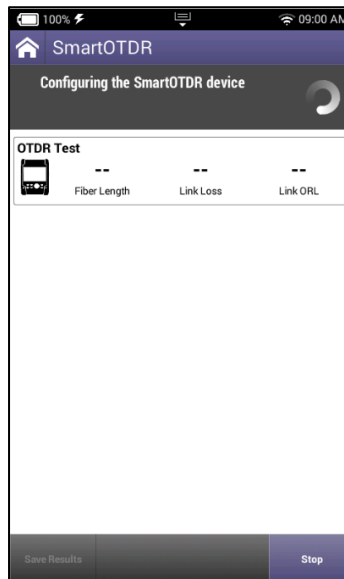
Performing an OTDR Test

1. Press **Continue.**

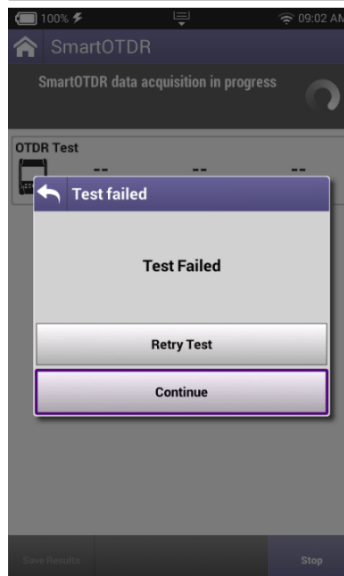2. If using a Launch cable, place a check mark in Use launch cable and enter the launch cable length.

3. Press **Continue.**
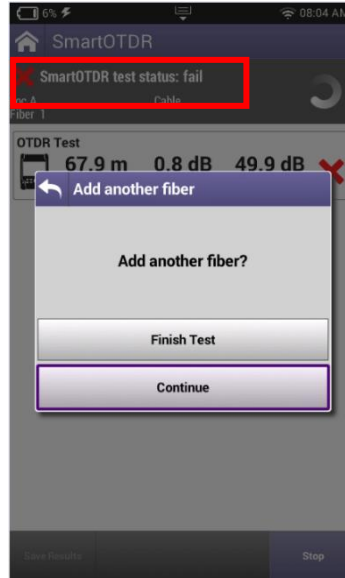
4. If the FUT passes you will see
   SmartOTDR test status: pass

5. If the FUT fails, you will see **Test Failed.** You can do a couple of things right here. You can **Retry Test** to confirm the FUT failed or press **Continue.** For this quick card we are going to **Continue.**

6. If testing more than one fiber, you can now **Add another fiber?** to test and press **Continue** or **Finish Test** to see your results. We are going to **Finish Test** to view results.

Reviewing OTDR Test Results

- Results will be displayed as **Pass** ✔ or **Fail** ✖ .

- You can view the full SLM OTDR results by selecting the OTDR Test box.

- The expanded **OTDR Test** uses smart icons surrounded by **RED**, **Green** and **Purple** boxes. **RED** events **Fail**, **Green** events **Pass,** and **Purple** events have no Pass/Fail thresholds.

- Common Smart Icons:

[icon]	**First Connector** should have a **Purple** box
[icon]	**Link**, usually the end of the Launch Cable. Could have either **RED** or **Green** box
[icon]	**Connector**, could have either **RED**, **Green** or P**urple** box
[icon]	**Splice**, could have either **RED** or **Green** box
[icon]	**Fiber End** should have a **Purple** box