

Quick Card

T-BERD[®]/MTS-5800 Modular Test Set 4100-Series OTDR Module Optical Light Source

This procedure describes how to use an E4100-series OTDR module as an Optical Light Source (OLS). If optioned, the OTDR module can operate as an OLS or Optical Power Meter, but not at the same time. Light Source is a standard feature on most new OTDR modules, while Power Meter is an option

Equipment Requirements:

- T-BERD/MTS-5800 equipped with the following:
 - Fiber Optics Software Release V21.0 or greater
 - E4100 Series OTDR Module
 - E410TDRLS Light Source option
- Fiber optic cleaning and inspection tools
- Reference Cable (patch cord) with connectors matching the OTDR port and Fiber Under Test
- Optical Coupler to connect Reference Cable to Fiber Under Test



Figure 1: Equipment Requirements

The following information is required to complete the test:

- Type of Fiber (Multimode or Single Mode)
- Type of Connectors (SC UPC, SC APC, LC UPC, etc.)
- Wavelength(s) to be tested (850nm, 1300nm, 1310nm, 1550nm, etc.)

Fiber Inspection Guidelines:

- Use the VIAVI P5000i or FiberChek Probe microscope to inspect both sides of every connection being used (OTDR Port, Reference Cable, bulkhead connectors, patch cords, etc.)
- Focus the fiber on the screen. If dirty, clean the end-face.
- If it appears clean, run inspection test.
- If it fails, clean the fiber and re-run inspection test. Repeat until it passes.

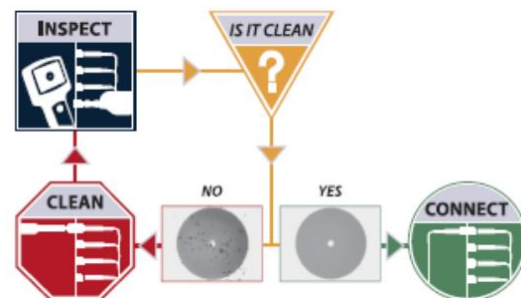


Figure 2: Inspect Before You Connect (IBYC)

Connect Reference Cable to OTDR port:

1. Inspect the OTDR port on top of the test set.
2. Inspect the fiber end face of Reference Cable.
3. Connect Reference Cable to the OTDR port.



Figure 3: OTDR Port Inspection

Connect to Fiber Under Test (FUT):

The Reference Cable may be connected to the FUT via an optical patch panel (OPP) or an optical coupler:

1. If the interface to the FUT is a patch cord, connect the patch cord to an optical coupler with the same connector type.
2. Inspect the FUT connected to the coupler or OPP.
3. Inspect the other fiber end face of the Reference Cable.
4. Connect the Reference Cable to the coupler or OPP.

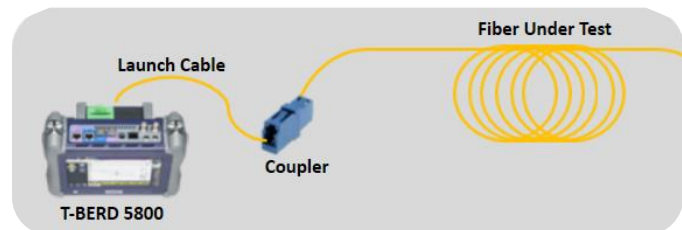


Figure 4: Connecting the Reference Cable to the FUT with a coupler

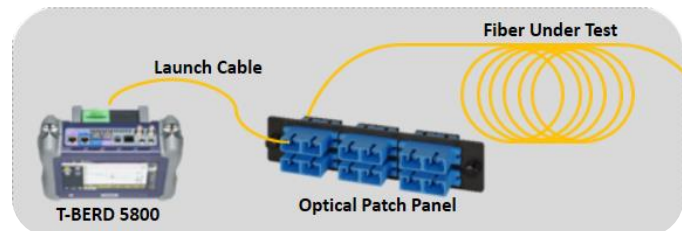







Figure 5: Connecting the Reference Cable to an OPP

Launch the Optical Light Source:

1. Press the Power button  to turn on the T-BERD/MTS-5800.
2. Tap the **Fiber Optics** icon  in the Status Bar at the top of the T-BERD/MTS-5800.
3. Tap the purple > on the left screen side  to display the Fiber Optics Home screen.
4. Tap the **SOURCE** icon until it is yellow and highlighted:

-  for Single Mode fiber
-  for Multimode fiber

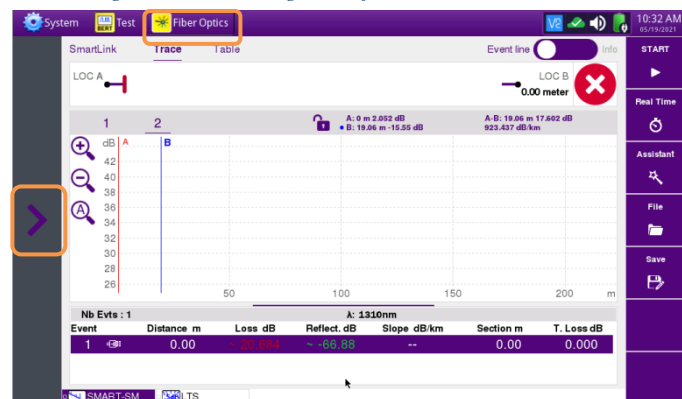


Figure 6: Fiber Optics screen

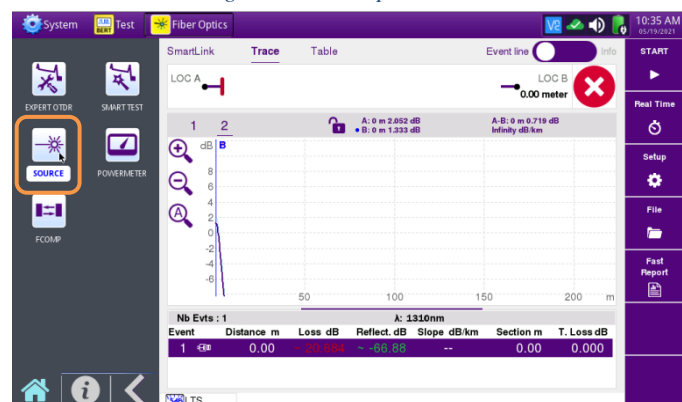



Figure 7: Fiber Optics Home Screen

Operate the Optical Light Source:

Note: The same user interface is used to operate the OTDR module as an Optical Light Source or a Power Meter. The top part of the display is used to control the light source, while the bottom portion is for the Power Meter option.

1. Tap the **Mode** drop down in the **Source on Module** section and select CW for a Continuous Wavelength.
2. Tap the **Wavelength** drop down in the **Source on Module** section and select the wavelength you wish to source.
3. Tap the **Laser START** button to enable the light source. The laser warning symbol  will be displayed.
4. When testing is complete, tap the **Laser STOP** button to disable the light source.
5. Repeat Step 1 through 4 for all wavelengths to be tested.

Note: Do not disconnect the Reference Cable from the OTDR port or power off the T-BERD/MTS-5800 until all testing is complete.

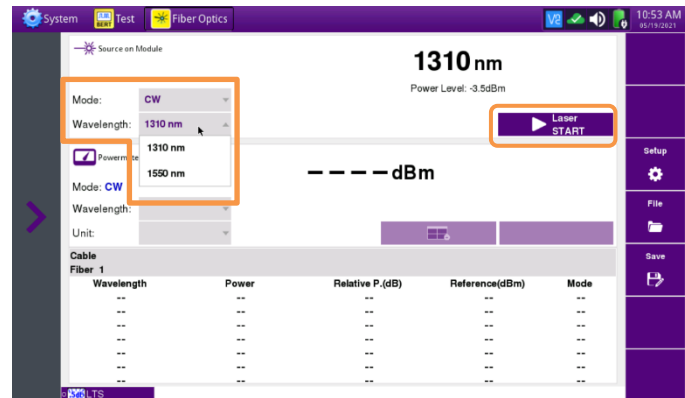


Figure 8: Source and Powermeter Screen

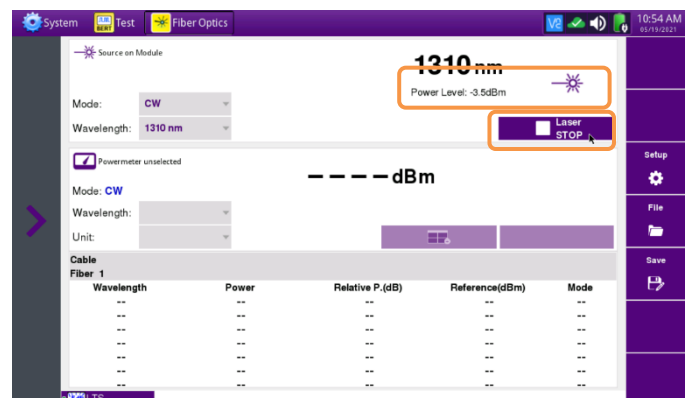


Figure 9: Laser started