

## QUICK CARD

### FiberComplete PRO Side-by-Side Referencing

This quick card describes how to perform a **Side-by-Side Reference** between T-BERD/MTS 4000 V2 Optical Test Platforms and **FiberComplete** OTDR modules, prior to running **FiberComplete PRO** applications for Bi-Directional Fiber Testing. Referencing is recommended at the start of each day of testing and whenever launch cables are changed. If the launch cable and OTDR port are in pristine conditions, are clean, and have passed inspection, a new reference is not required.

- ▶ Two (2) T-BERD/MTS 4000 V2 Optical Test Platforms equipped with the following:
  - Fiber Optics Software Release V23.1.2 or greater
  - FiberComplete OTDR Module (model E4126B-FCOMP, E4136B-FCOMP, or E4138FB65-FCOMP)
  - FiberComplete Termination Kit, including optical couplers and non-reflecting terminations
- ▶ Fiber optic cleaning and inspection tools
- ▶ Two (2) Launch Cable (minimum 20-meter Fiber optic patch cable with connectors matching the OTDR port and Fiber Under Test)



Figure 1: Equipment Requirements

- ▶ Use the VIAVI P5000i or FiberChek Probe microscope to inspect both sides of every connection being used (OTDR Port, Launch Cable, bulkhead connectors, patch cables, etc.)
- ▶ Focus 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

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### CONNECT LAUNCH CABLE TO OTDR

All fibers and connectors must be inspected and clean prior to connection, as described on page 1.

1. Inspect the FiberComplete OTDR port on top of each T-BERD/MTS, using appropriate inspection tips:
  - ▶ FBPT-SC tip for SC-PC ports
  - ▶ FBPT-SC-APC tip for SC-APC ports
  - ▶ FBPT-LC tip for LC ports
2. Inspect the fiber end faces of the Launch Cables.
3. Connect the Launch Cables to the OTDR ports.



Figure 3: OTDR Port Inspection

### LAUNCH FIBERCOMPLETE

1. Press the Power buttons to start each test platform.
2. Tap the Home icon on the right of each screen.
3. Tap the **FCOMP**, **FCOMP-PRO**, or **FiberComplete** icons to launch FiberComplete:

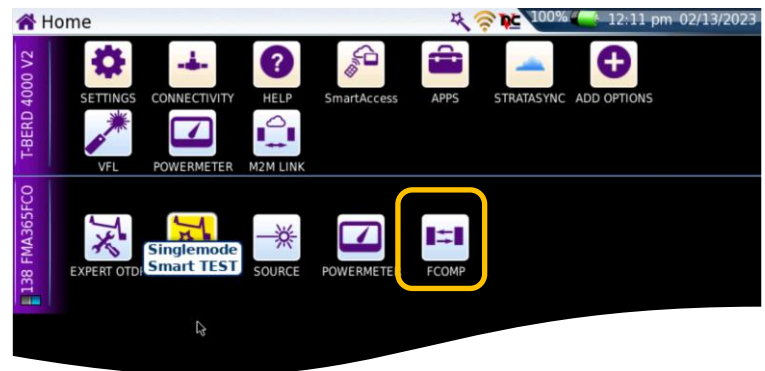
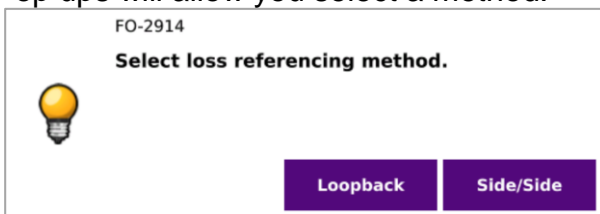


Figure 4: Launch FiberComplete

4. The T-BERD/MTS platform will launch FiberComplete.

### PERFORM SIDE-BY-SIDE REFERENCE

1. Tap the **References** soft keys to display current reference values on each T-BERD/MTS.
2. Tap the **START REF** soft keys.
3. Pop ups will allow you select a method:



4. Select **Side/Side** to perform a side-by-side reference.



Figure 5: FiberComplete Results Screen



Figure 6: START REF

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### PERFORM SIDE-BY-SIDE REFERENCE (CONTINUED)

- A pop up will prompt you to connect to the mainframe power meter:

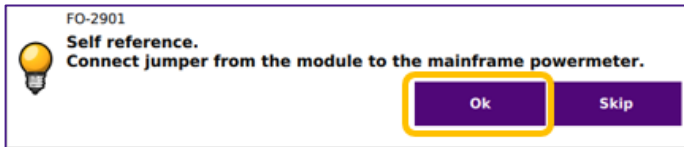
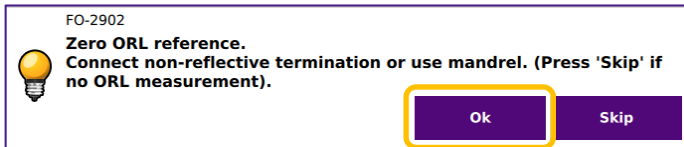


Figure 7: Self Reference Connection

- Connect the Launch Cable to the Power Meter port on each T-BERD/MTS platform as shown in [Figure 7](#).

- Tap **OK** to perform the **Self Reference**.

- A pop up will prompt you to connect a non-reflective termination:



- Disconnect the launch cables from the Power Meter ports.

- Connect optical couplers and non-reflective terminators to each launch cable according to your connector type. An SC/UPC coupler and termination is displayed in [Figure 8](#).

- Tap **OK** to perform the **Zero ORL Reference**.

- A pop up will prompt you to connect jumper from 1st to 2nd module:



Figure 8: Zero ORL Reference Connection

- Disconnect the launch cables from the non-reflective terminations.

- Connect the launch cables from each T-BERD/MTS platform using an optical coupler.

Note:

“Two-Cable References” are commonly used for Telecom applications. “One-Cable” or “Three-Cable” references may be used in Enterprise and FTTA applications for increased accuracy on short spans.



Figure 9: “Two-cable” Side-by-Side Reference

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### PERFORM SIDE-BY-SIDE REFERENCE (CONTINUED)

15. Tap **OK** on one of the T-BERD/MTS platforms to perform the **Loss Reference**.
16. Once complete, the other T-BERD/MTS platform will display the Reference values. Tap the **References** soft key to exit the Reference screen on this unit.

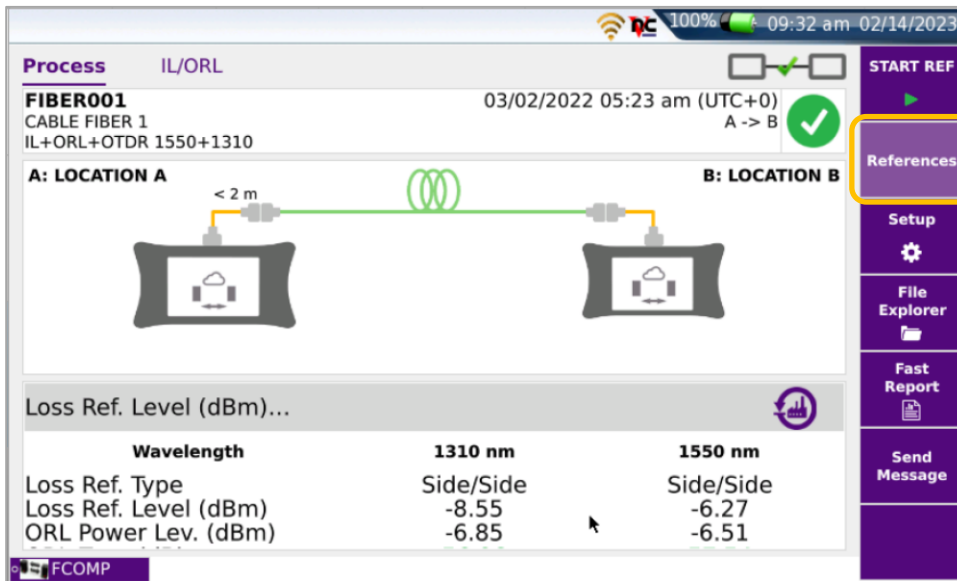


Figure 10: Reference values

17. Disconnect the launch cables from the coupler but leave the launch cables connected to the FiberComplete OTDR ports. You are now ready to setup and perform bidirectional measurement using the FiberComplete application.

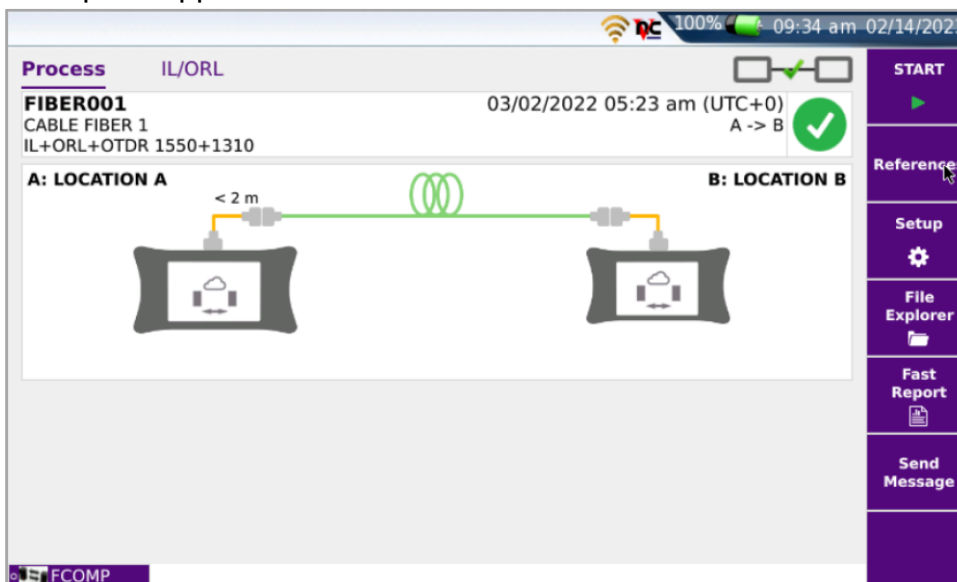


Figure 11: FiberComplete