

QUICK CARD

DWDM Optical Channel Checker

This quick card describes how to connect to a fiber under test, configure DWDM Optical Channel Checker (OCC) test setups, run tests, and analyze results with a T-BERD/MTS-2000 equipped with an OCC-4056C module.

 **Note: The OCC module is used to monitor wavelengths on a live network. Care should be exercised when unplugging fibers from the network as the fibers may be carrying traffic.**

- ▶ T-BERD/MTS-2000 equipped with the following:
- ▶ Fiber Optics Software Release V21.0 or greater
- ▶ OCC-4056C DWDM OCC Module
- ▶ Fiber optic cleaning and inspection tools
- ▶ Fiber optic patch cable (Launch Cable)
- ▶ Optical Coupler to connect patch cable to Fiber Under Test



Figure 1: Equipment Requirements

- ▶ Use the VIAVI P5000i or FiberChek Probe microscope to inspect both sides of every connection being used (OCC Port, 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.

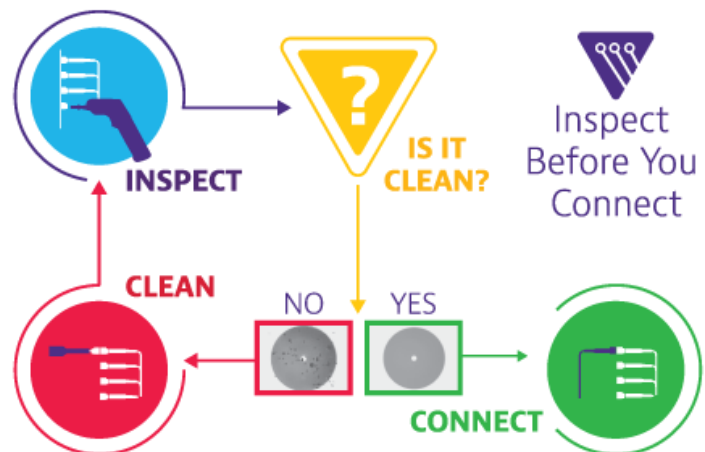


Figure 2: Inspect Before You Connect

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CONNECT TO FIBER UNDER TEST (FUT)

All fibers and connectors should be cleaned and inspected prior to connection, as described on page 1. The Nano OSA is typically connected to the FUT via a Monitor Port or splitter/tap to not disrupt service. The Nano OSA can also be directly connected to the common port or common fiber via a coupler during turn up or maintenance:

1. Inspect the OCC port on top of the test set.
2. If connecting to the Common Cable, connect the Common Cable to an optical coupler with the same connector type and inspect the fiber end face in the coupler.
3. If connecting to the Monitor Port or Common Port on the Mux, inspect the Mux Port.
4. Inspect the fiber end face of the Patch Cable and connect the cable to the OCC port.
5. Inspect the other fiber end face of the Patch Cable and Connect the Launch Cable to the coupler or Mux port.



Figure 3: OCC Port Inspection

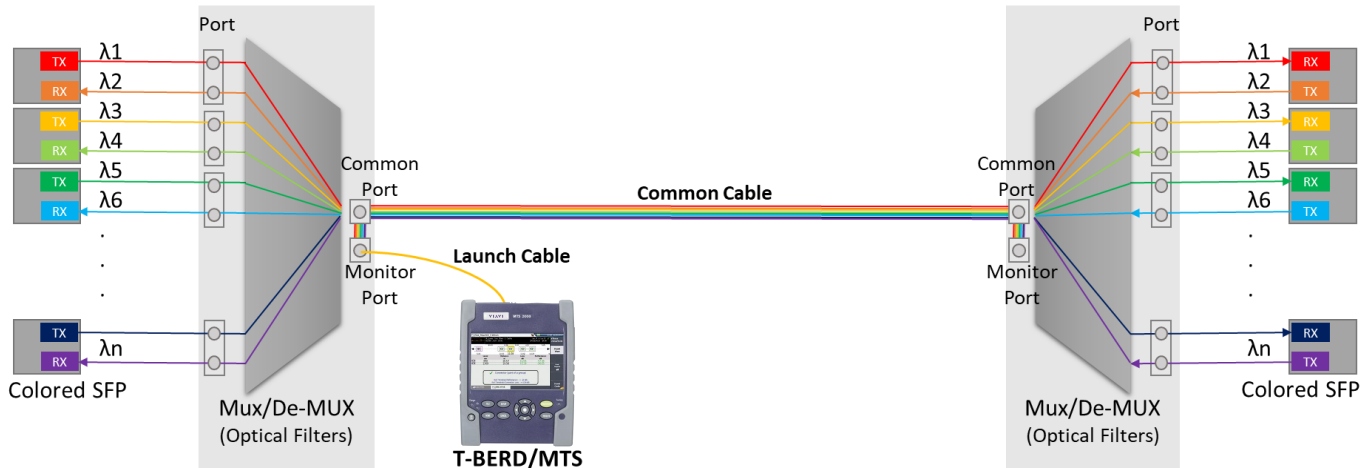


Figure 4: Connecting to Monitor Port

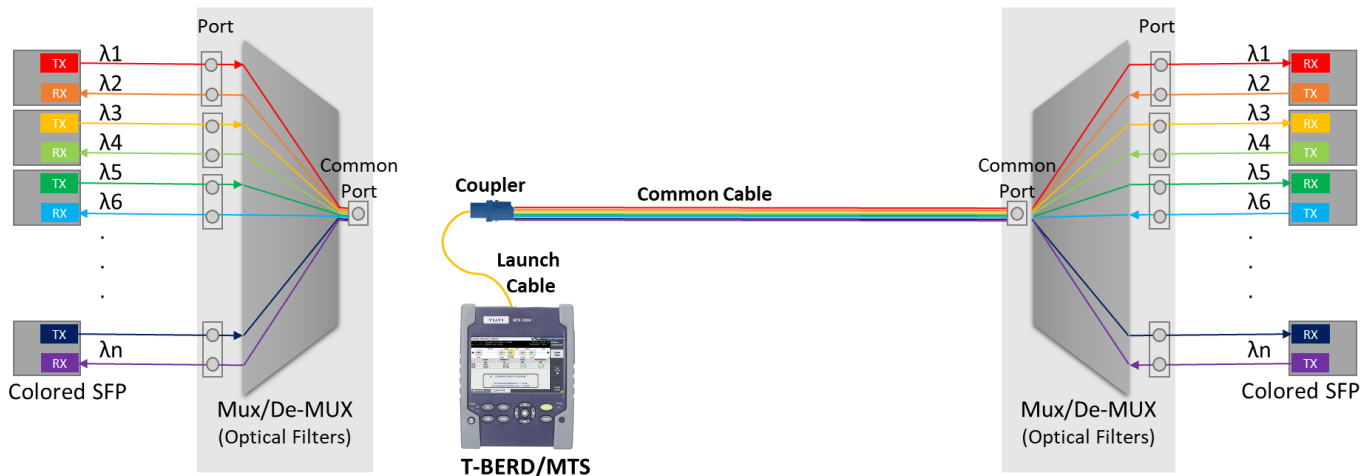


Figure 5: Connecting to Common Cable

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LAUNCH TEST

1. Press the **ON/OFF** button  to start the test set.
2. Press the Home button  to display the Home view with the **OCC-4056c** icon.
3. Tap the **OCC-4056C** icon  until it is yellow and highlighted.

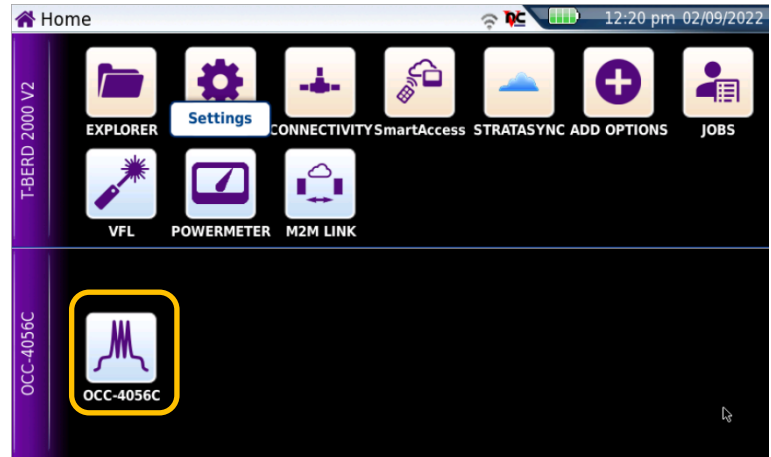



Figure 6: Home Screen

CONFIGURE TEST SETUP

1. Tap **Setup** icon. 
2. Tap **Auto-set** to auto-configure the OCC for a single sweep.

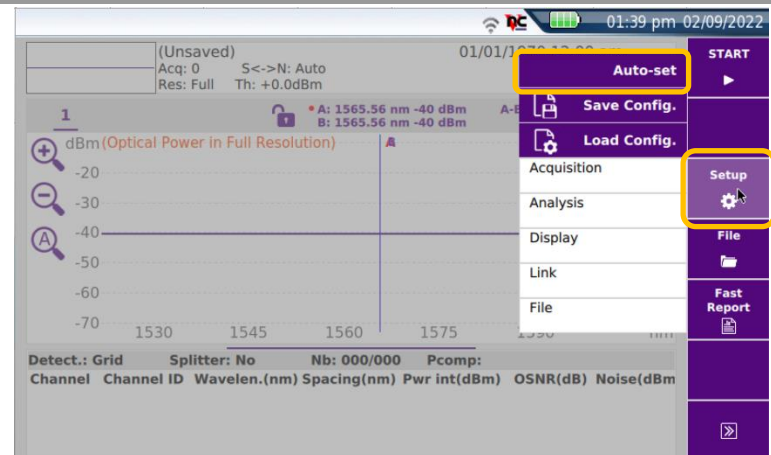


Figure 7: Setup Menu

3. If a splitter/tap is used to access the signal, Tap the **Analysis** tab and set **Splitter Value** to the splitter loss (in dB or %).

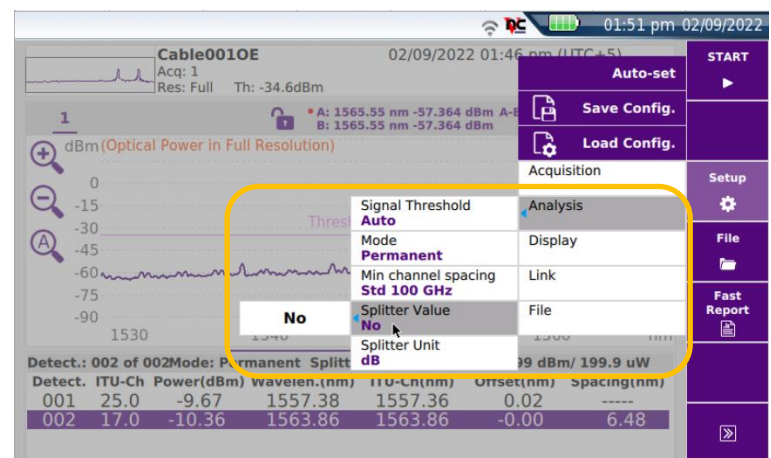


Figure 8: Analysis Settings

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RUN SWEEP TEST

3. Tap **START** icon (upper right) to run scan



4. View Results after scan completes. Use your finger or stylus to scroll up/down as needed.

