

Quick Card

FiberChek Sidewinder™ MPO Fiber Probe Microscope

Ribbon Fiber Inspection

This quick card describes how to use the FiberChek Sidewinder Fiber Inspection Probe Microscope to inspect a Ribbon MPO fiber end face.

Equipment Requirements:

- FiberChek Sidewinder Probe Fiber Inspection Microscope
- MPO Inspection Tip matching the fiber under test
- MPO Mating Adapter (Key-up to Key-down Coupler)
- MPO Fiber optic cleaning tools

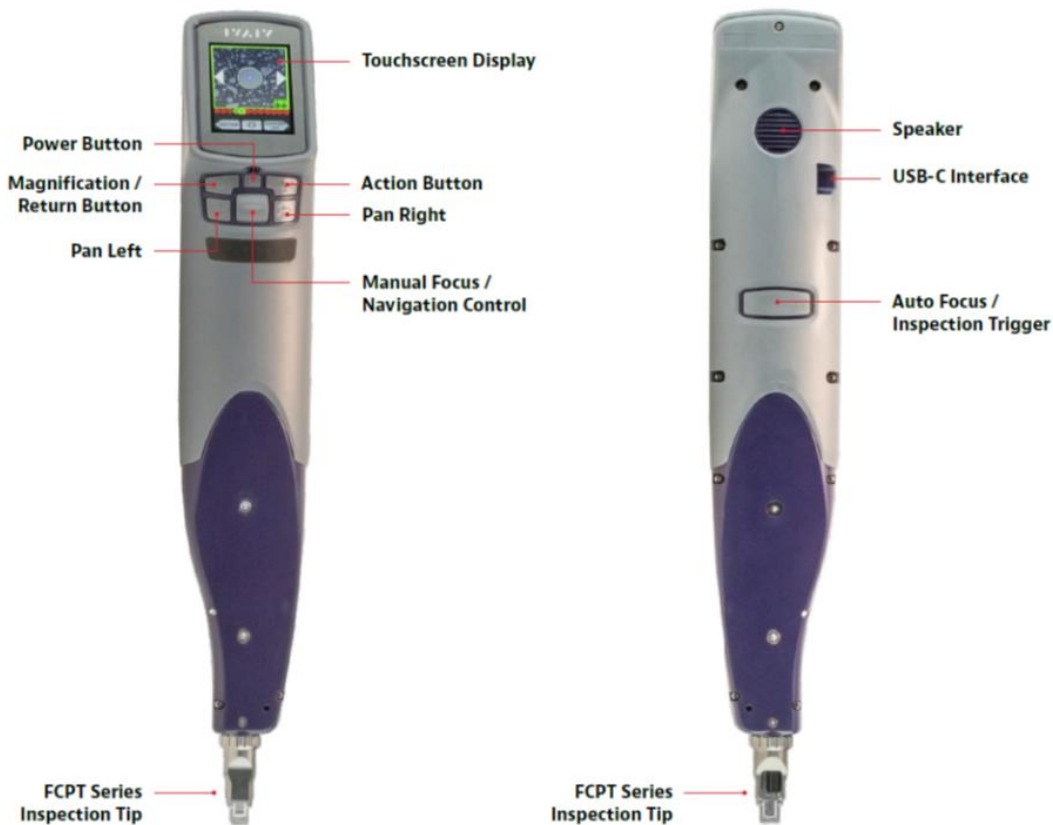


Figure 1: FiberChek Sidewinder Fiber Inspection Probe Microscope



Figure 2: MPO Tip, Multimode
(VIAVI Part# FCPT-MTP)



Figure 3: MPO APC Tip, Single Mode
(VIAVI Part# FCPT-MTPA)




Figure 4: MPO Coupler

The following information is required to complete the test:

- Type of MPO Fiber (Multimode or Single Mode)
- Number of fibers in the MPO Connector (12 x 1, 12 x 2)

Set up the FiberChek Sidewinder Microscope for PASS/FAIL analysis:

1. Press the Power Button  to turn on the FiberChek Sidewinder.
2. From the **Live Inspection View**, tap the Touchscreen Display to enter the Settings Menu.
3. Select **CONNECTOR SETUP** using the **Manual Focus/Navigation Control**, then press the **Action Button**.
4. Choose the desired inspection profile using the **Manual Focus/Navigation Control** and press the **Action Button**.

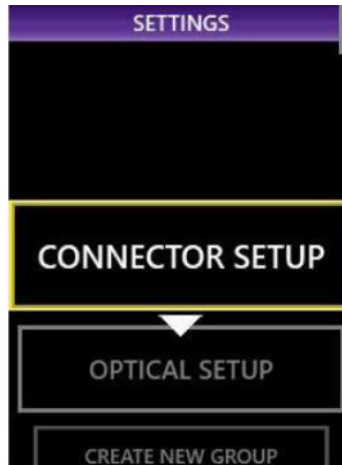


Figure 5: Settings Menu

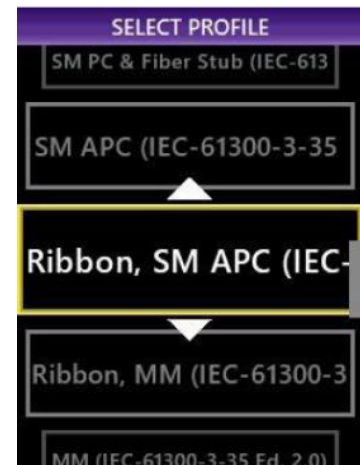


Figure 6: Select Profile

5. Select the MTP connector configuration (number of fibers x number of rows), then press the **Action Button**.
6. Press the **Action Button** again to **SELECT TIP**.
7. Select the appropriate tip setting, then press the **Action Button**.
8. Return to the **Live Inspection** view by pressing the **Autofocus/Inspection Trigger**.



Figure 7: Connector Setup

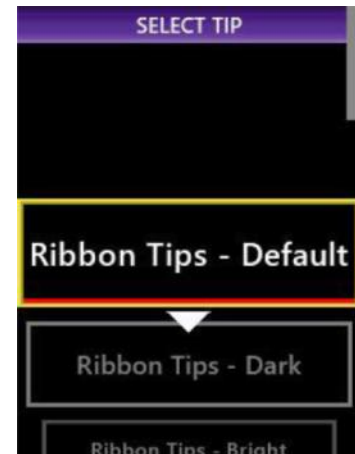


Figure 8: Select Tip

Insert FiberChek Sidewinder Microscope:

- To inspect MPO Bulkhead connectors, insert the **Inspection Tip** into the bulkhead connector.
- To inspect MPO patch cords, insert the patch cord into the **MPO Mating Adapter/Coupler** and insert the **Inspection Tip** into the other side of the **MPO Mating Adapter/Coupler**.



Figure 9: Bulkhead connector



Figure 10: Patch cord and Coupler

Run Pass/Fail Analysis:

- Ensure the Sidewinder is in the **Live Inspection** view. Press and hold the **Autofocus/Inspection Trigger** for one second and release. Hold the Sidewinder steady in the bulkhead or coupler until you hear or see the **PASS/FAIL** result.
 - The above process will automatically focus and test all fibers in the array.
 - To manually focus and test, use the **Manual Focus/Navigation Control** to adjust focus and press the **Action Button** to run the test.
 - Analysis may last 25 seconds to 1 minute depending on the type of MPO Connector under test.

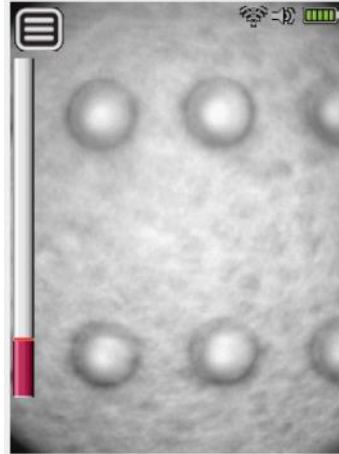


Figure 11: Live Image

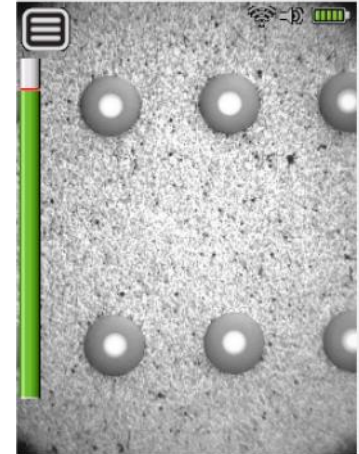


Figure 12: Live Image with Correct Focus for Testing

Review results:

- Sidewinder will briefly display the analysis result, then enter the **Analysis Result** view. If enabled, you will also hear an audio tone indicating whether the result is a **PASS** (double chime) or a **FAIL** (long buzzer).
 - A green screen with a “check” graphic indicates a **PASS** result
 - A red screen with an “X” graphic indicates a **FAIL** result.

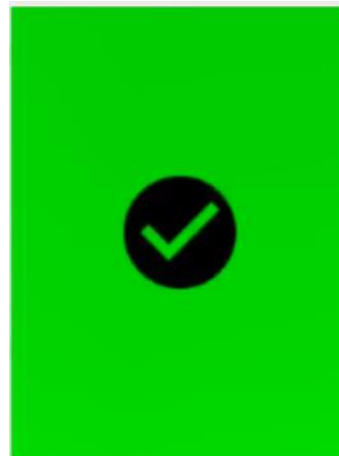


Figure 13: Pass

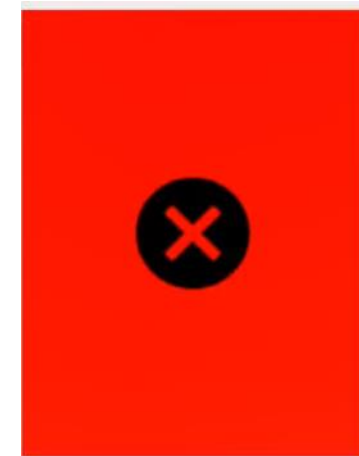


Figure 14: Fail

- The above Pass/Fail result indicates the result for the entire connector. If one or more fibers fail, the entire connector is recorded as a **FAIL**. To achieve a **PASS** result, all fibers must individually pass. The subsequent view shows results for individual fibers.

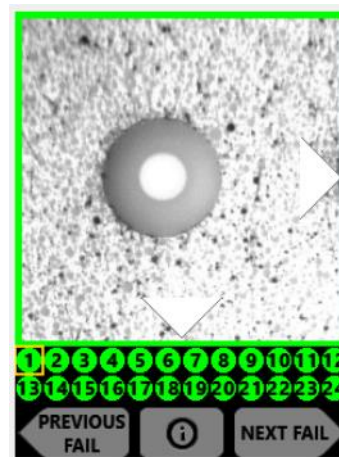


Figure 15: Passing Test (all fibers clean)

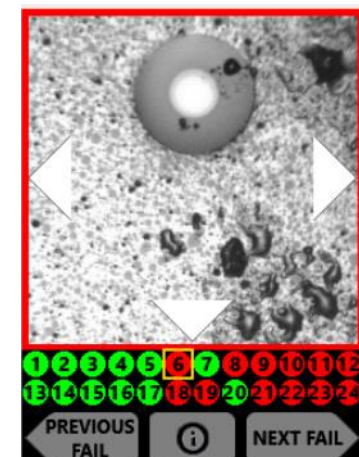


Figure 16: Failing Test (at least one dirty fiber)

3. Tap the Touchscreen Display to show or hide additional information. The modes are **No Overlay**, **Rings**, and **Rings + Table**.

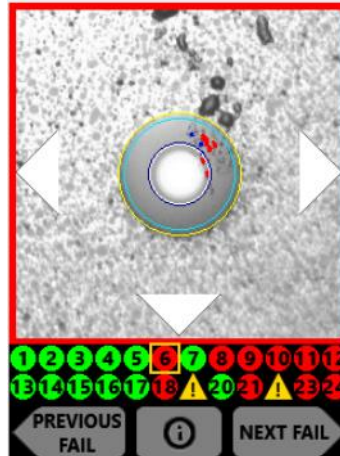


Figure 17: Rings Display

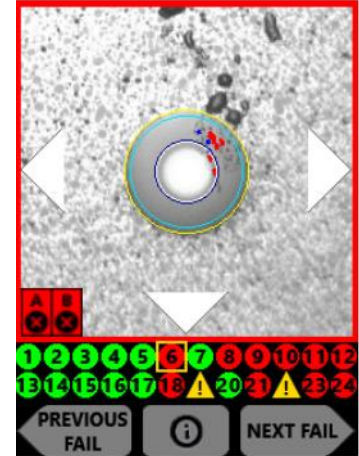


Figure 18: Rings and Table Display

4. To move to an adjacent fiber, either use the on-screen arrows or use the arrow buttons on the Sidewinder.
5. To view only fibers that failed the analysis, select **NEXT FAIL** or **PREVIOUS FAIL** from the on-screen display.

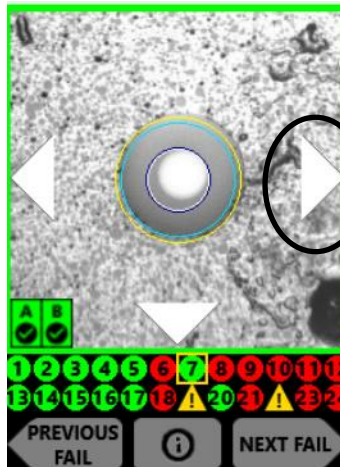


Figure 19: View Adjacent Fiber

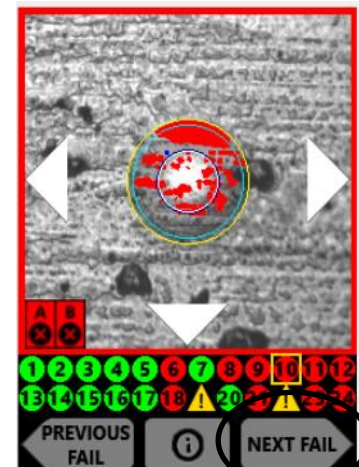


Figure 20: View Next/Previous Fail Result

6. Press the **Action Button** to save the current analysis to Sidewinder's internal storage.
7. Press the **Autofocus/Inspection Trigger** to return to the Live Inspection view. To test a new MPO connector, go back to step 1 under **Run Pass-Fail Analysis** and restart the process following all the steps above.



Figure 21: Saving Results

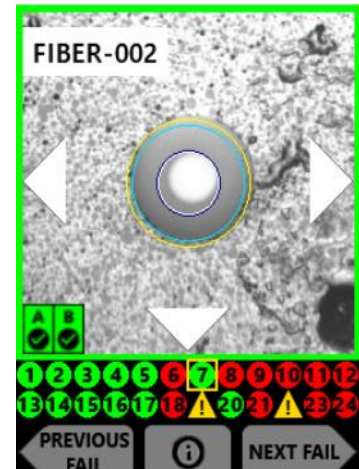


Figure 22: Saved Results