

Quick Card

P5000i Fiber Microscope Fiber Inspection with FiberChekPRO™

This quick card describes how to use the P5000i Fiber Inspection Microscope and VIAVI FiberChekPRO software to inspect a simplex fiber endface.

Equipment Requirements:

- P5000i Probe Fiber Inspection Microscope
- Personal Computer (PC) or Laptop
- FiberChekPRO software with 2.3 version or greater (download at <http://fcpro.updatemyunit.net/>)
- Bulkhead and Patch Cable Tips matching the Fiber Under Test
- Fiber optic cleaning tools



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, etc.)
- Type of Inspection Tips (See Figure 2):
 - Standard Patch Cable Tip (FBPT-U12M, FBPT-U25M, FBPT-U25MA, etc.)
 - Standard Bulkhead tip (FBPT-SC, FBPT-SC-APC, FBPT-LC, etc.)
 - Long Reach Bulkhead tip (FBPT-LC-L, FBPT-SC-L, etc.)
 - Angled Bulkhead Tip (FBPT-LC-A6S, FBPT-SC-A6, etc.)

INSPECTION TIP	APPLICATION
FBPT-SC	
FBPT-U25M	
FBPT-SC-APC	
FBPT-U25MA	
FBPT-LC	
FBPT-U12M	

Figure 2: Common “Standard” Inspection Tips

Set up the P5000i Microscope:

1. Connect the P5000i **USB Connector** to a **USB port** on the laptop.
2. Connect the appropriate patch cable or bulkhead **Inspection Tip** to the P5000i Fiber Inspection Microscope by loosening and tightening the **Retaining Nut** on the P5000i Fiber Probe Barrel Assembly.



Figure 3: P5000i Microscope

Note: Some tips connect directly to the probe, without a barrel assembly. Consult the *VIAVI Tips & Adapters Selection Guide* for more information.

Set up FiberChekPRO software:

1. Press the  **FiberChek PRO** icon from the Windows Start menu on your PC or laptop to launch FiberChekPRO.
2. Using the drop-down menus at the top of the screen, select the **OPTICAL SETTING** and **PROFILE** that match the tip and fiber under test:
 - **OPTICAL SETTINGS (Tips):**
 - **Standard Tips (with BAP1)** for Standard Patch Cable Inspection Tips (i.e. FBPT-U12M, FBPT-U25M, FBPT-U25MA) and Standard Bulkhead Inspection Tips (i.e. FBPT-LC, FBPT-SC, FBPT-SC-APC)
 - **Simplex Long Reach (-L) Tips** for Long Reach Inspection Tips (i.e. FBPT-LC-L, FBPT-SC-L)
 - **PROFILES:**
 - **SM UPC (IEC-61300-3-35 Ed. 2.0)** for Single Mode Fiber Ultra Polished Connectors
 - **SM APC (IEC-61300-3-35 Ed. 2.0)** for Single Mode Fiber Angled Polished Connectors
 - **SM PC & Fiber Stub (IEC-61300-3-35 Ed. 2.0)** for Single Mode Fiber Polished Connector
 - **MM (IEC-61300-3-35 Ed. 2.0)** for Multimode Fiber

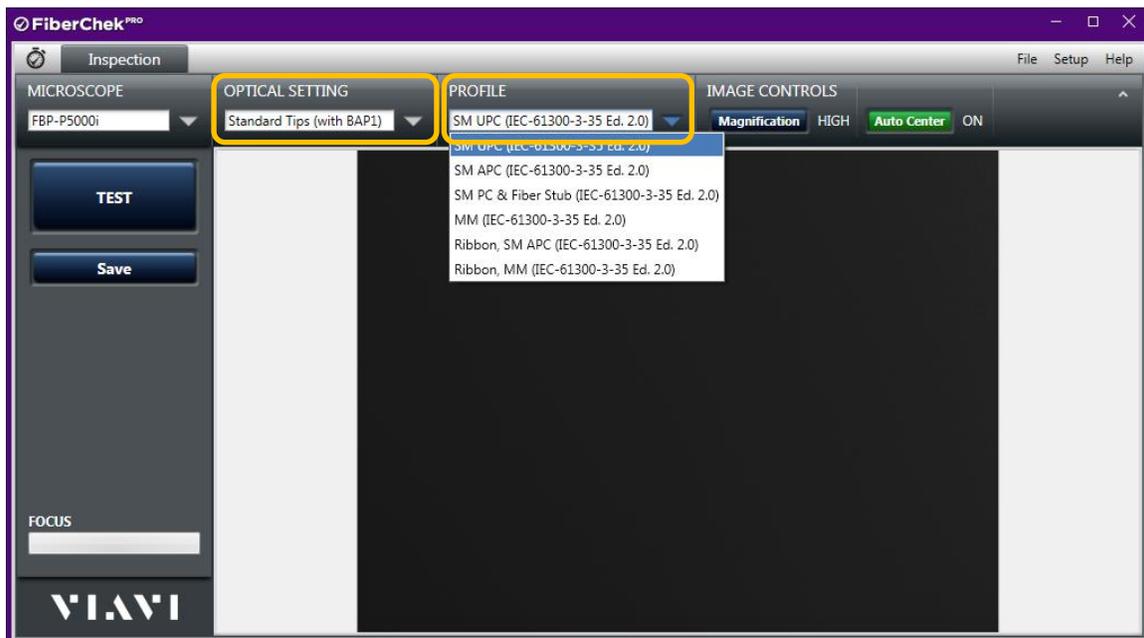


Figure 4: Optical Settings and Profiles

Run Pass/Fail Analysis:

1. Insert the **Bulkhead Inspection Tip** into the bulkhead or insert the Patch Cable ferrule into the **Patch Cable Inspection Tip** on the P5000i Microscope Probe.
2. Adjust the **Focus Control Wheel** of the P5000i microscope to focus the fiber endface. The left horizontal bar on the screen indicates the level of focus adjustment. The higher the level, the better the focus. The red line indicates optimal focus for that fiber. Focus the image until the focus bar is as close to the line as possible.

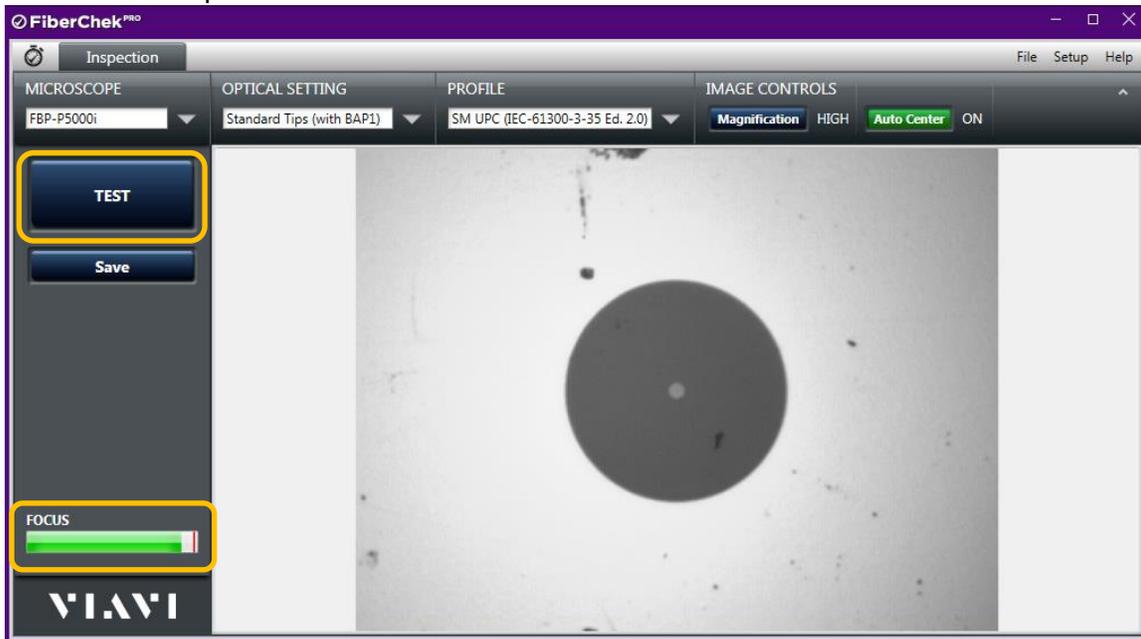


Figure 5: Live Inspection View

3. Press the test button on the microscope or click on the **TEST** button in the left column of FiberChekPRO to run the fiber inspection test.

4. **FAIL**  If the test **fails**, clean the fiber endface and **repeat steps 1 through 3**.
5. **PASS**  If the **test passes**, you are ready to **Connect**.

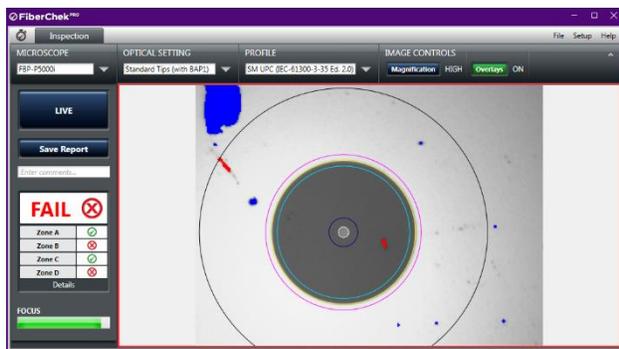


Figure 6: Failed Test

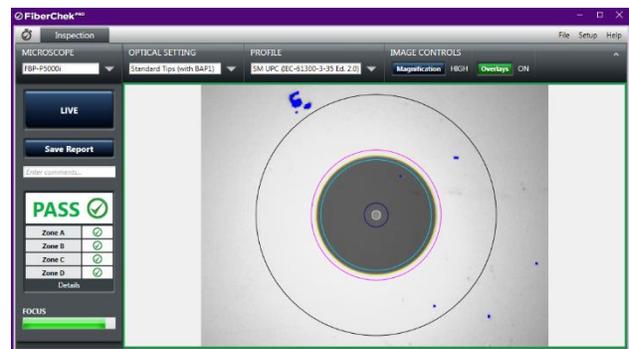


Figure 5: Passing Test

Note: Both the patch cable and bulkhead should **pass inspection before connection**.