

## Quick Card

# P5000i Fiber Microscope

## Fiber Inspection on the T-BERD®/MTS-2000 Test Set

This quick card describes how to use the VIAVI P5000i Fiber Inspection Microscope to inspect a simplex fiber end face.

### Equipment Requirements:

- T-BERD/MTS-2000 or SmartOTDR with Fiber Optics Software Release V16.22 or greater
- P5000i Probe Fiber Inspection Microscope
- Bulkhead and Patch Cord Tips matching the Fiber Under Test.
- Fiber optic cleaning tools
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### 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.)
- Type of Inspection Tips (See Figure 1):
  - Standard Patch Cord 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 1: Commonly Used "Standard" Inspection Tips



Figure 2: P5000i Microscope



Figure 3: T-BERD/MTS-2000 Top View

### Setting Up Pass/Fail Analysis:

1. Connect the P5000i **USB Connector** to a **USB port** on the top of the test set.
2. Connect the appropriate patch cord or bulkhead **Inspection Tip** to the P5000i Fiber Inspection Microscope by loosening and tightening the **Retaining Nut** on the P5000i Fiber Probe Barrel Assembly. Note: Some tips connect directly to the probe, without a barrel assembly. Consult the *VIAVI Tips & Adapters Selection Guide* for more information.



3. Press the **Power Button** to turn on the test set and display the Home screen.



Figure 4: Home Screen



4. Tap the **Fiber Microscope** icon until it is selected and yellow.



5. Press the **Setup** button.

6. **Analysis** Tap the **Analysis** soft key and select the desired **Profile** and **Tip**.
- 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
    - **MM (IEC-61300-3-35 Ed. 2.0)** for Multimode Fiber
  - Tips:
    - **Standard Tips (with BAP1)** for Standard Patch Cord 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)
    - For other types of inspection tips, connect the P5000i to FiberChekPRO™ on a PC and move the appropriate tip setting onto the probe microscope. For more information, consult the FiberChekPRO user manual. To download FiberChekPRO to your PC, visit <http://fcpro.updatemyunit.net/>.

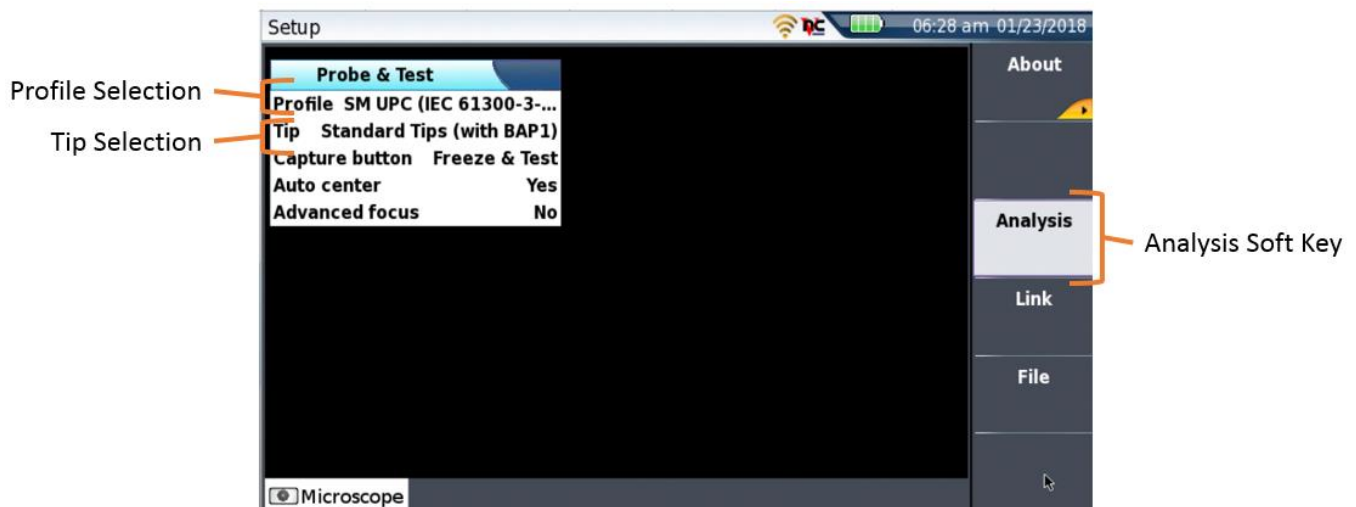



Figure 5: Analysis Setup Screen

7.  Press the **Results Button** to display the **Live Inspection View**. The P5000i is ready to perform **PASS/FAIL** Analysis.

### Running Pass/Fail Analysis:






1. Insert the **Bulkhead Inspection Tip** into the bulkhead or insert the Patch Cord ferrule into the **Patch Cord Inspection tip** on the P5000i Microscope Probe.
2.  Adjust the **Focus Control wheel** of the P5000i microscope to focus the optical fiber. The left vertical bar on the screen indicates the level of focus adjustment. The higher the level, the better the focus. The screen will display a line in the focus bar where the optimal focus lies for that image. Focus the image until the bar is as close to the line as possible.



Figure 6: Live Inspection View

3. There are 3 ways to run the fiber inspection test:
  -  Press the **Start / Stop** button on the T-BERD/MTS-2000.
  -  Press the button on the microscope.
  - Press the **TEST** Soft Key on the touch screen.
4.  If the test **fails**, clean the fiber end face and **repeat steps 1 through 3**.
5.  If the **test passes**, you are ready to **Connect**.

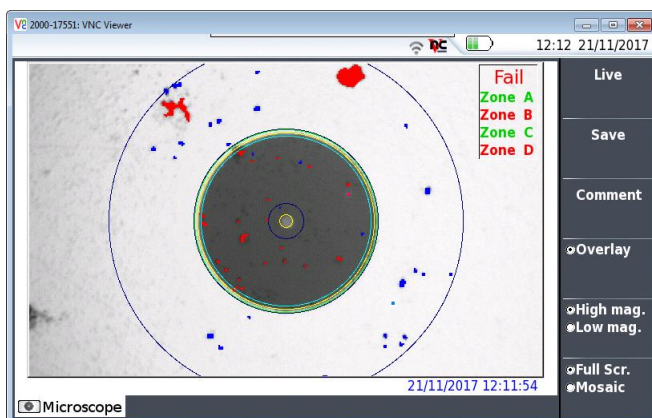


Figure 7: Failed Test

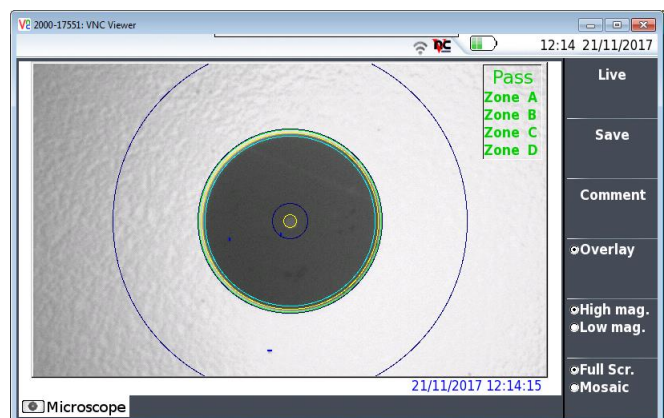


Figure 8: Passing Test

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