

QUICK CARD

PON Fiber Inspection with Pass/Fail Analysis

This Quick Card outlines how to use the FiberChek Probe Fiber Inspection Microscope to inspect fiber end faces commonly found in GPON and XGSPON deployments. The FiberChek Probe can be operated autonomously or can be used in conjunction with an Android or iOS device with VIAVI's FiberChekMOBILE application. The FiberChekMOBILE application is recommended when performing tests in direct sunlight or locations where the screen cannot be easily viewed.

- FiberChek Probe Fiber Inspection Microscope
- Smartphone (iPhone®) or tablet with iOS and the FiberChekMOBILE app.
(Search the Apps@Work or the App Store® to install VIAVI FiberChekMOBILE)
- Bulkhead and Patch Cord Inspection Tips matching the fiber under test
- Fiber optic cleaning tools



Figure 1: Equipment Requirements



Figure 2: FiberChek Probe, Side view and Front View

Connection Type		Tip
SC-APC	Bulkhead ²	
	Patch Cord ²	
Corning OptiTap	Bulkhead ¹	
	Patch Cord ²	
Corning OptiTap	Bulkhead ¹	
	Patch Cord ¹	
Corning PushLok	Bulkhead ¹	
	Patch Cord ²	

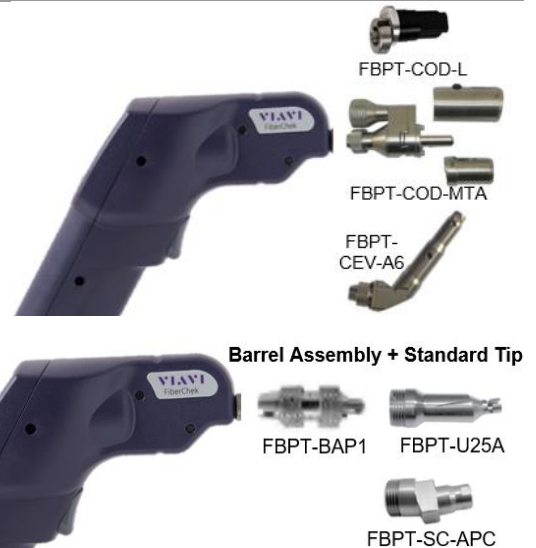
Figure 3: Inspection tips

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CONNECT TIP TO FIBERCHEK PROBE


Inspection Tips are attached to the Front of the FiberChek probe by threading the collar of the tip onto the device:

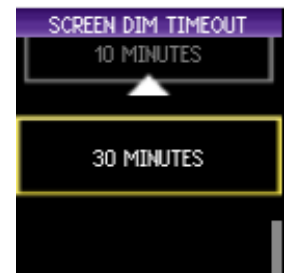
- ¹The OptiTap Bulkhead tip, OptiTip tips and PushLock Bulkhead tip **connect directly** to the probe.
- ²The remaining tips connect to the **Barrel Assembly** by loosening and tightening the **Retaining Nut**.



Press the Power Button to turn on the FiberChek Probe.

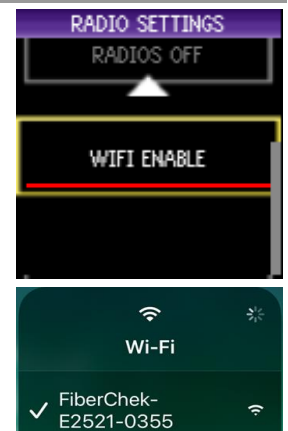
INCREASE SCREEN DIM TIMEOUT (OPTIONAL)

1. Tap the **Touchscreen Display** to enter the **Settings** menu.
2. Scroll down to **SYSTEM SETTINGS** and press the **Action Button**.
3. Scroll down to **POWER OPTIONS** and press the **Action Button**.
4. Press the **Action Button** for Battery  **SCREEN DIM**.
5. Scroll down to **30 MINUTES** press the **Action Button**.
6. Press the **Magnification/Return Button** four times or press the Trigger to return to the **Live Inspection View**.



CONNECT TO FIBERCHEKMOBILE (OPTIONAL)

1. Tap the **Touchscreen Display** to enter the **Settings** menu.
2. Scroll down to **RADIO SETTINGS** and press the **Action Button**.
3. Scroll down to **WIFI ENABLE** and press the **Action Button**.
4. Press the **Magnification/Return Button** two times or press the Trigger to return to the **Live Inspection View**.
5. Connect the iPhone to the FiberChek Probe microscope via Wi-Fi:
 - Enable Wi-Fi on the iPhone.
 - Tap **FiberChek** Wi-Fi SSID to connect.
6. Press the **FiberChekMOBILE** icon on your iPhone to launch FiberChekMOBILE and initialize Microscope.



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SETTING UP THE FIBERCHEK PROBE

1. Tap the **Touchscreen Display** to enter the **Settings** menu.
2. Select **PROFILE** using the **Navigation Control** and press the **Action Button**. Choose the desired profile using the **Navigation Control** and press the **Action Button**.
3. Return to the **Settings** menu by pressing the **Magnification/Return Button**.
4. Select **TIP** using the **Navigation Control** and press the **Action Button**. Choose the desired tip using the **Navigation Control**, then confirm by pressing the **Action Button**. If Tip is not shown, connect the FiberChek Probe to FiberChekPRO™ software on a PC and move the appropriate tip setting onto the microscope. For more information, consult the FiberChekPRO user manual. To download FiberChekPRO to your PC, visit <http://fcpro.updatemyunit.net/>.
5. Press the **Magnification/Return Button** twice or press the Trigger once to return to the **Live Inspection View**. The FiberChek Probe is ready to perform PASS/FAIL Analysis.



Connection Type		Profile	Tip
SC-APC	Bulkhead	SM APC (IEC-61300-3-35 Ed. 2.0)	Standard Tips (with BAP1)
	Patch Cord	SM APC (IEC-61300-3-35 Ed. 2.0)	Standard Tips (with BAP1)
Corning OptiTap	Bulkhead	SM APC (IEC-61300-3-35 Ed. 2.0)	FBPT-COD-L
	Patch Cord	SM APC (IEC-61300-3-35 Ed. 2.0)	Standard Tips (with BAP1)
Corning OptiTip	Bulkhead	Ribbon, SM APC (IEC-61300-3-35 Ed. 2.0)	Ribbon Tips
	Patch Cord	Ribbon, SM APC (IEC-61300-3-35 Ed. 2.0)	Ribbon Tips
Corning PushLok	Bulkhead	SM APC (IEC-61300-3-35 Ed. 2.0)	FBPT-CEV-A6
	Patch Cord	SM APC (IEC-61300-3-35 Ed. 2.0)	Standard Tips (with BAP1)

Figure 4: Profile and Tip settings

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INSPECT BULKHEAD

1. Insert the **Bulkhead inspection tip** into Bulkhead.

- ▶ For SC-APC and PushLok Bulkheads, align the keys on the inspection tip and the bulkhead connector.
- ▶ For OptiTap Bulkheads, align the arc and flat pin in the inspection tip to the matching insertions inside the OptiTap receptacle adapter.
- ▶ For OptiTip Patch Cord Inspection, slide the patch cord adapter onto the main tip assembly. Rotate wheel to view and test each fiber.



Figure 5: SC APC Bulkhead



Figure 6: PushLok Bulkhead



Figure 7: OptiTap Bulkhead



Figure 8: OptiTip Bulkhead

2. Tap the **Trigger** of the FiberChek microscope to auto-focus the fiber under test. Press the Trigger again and hold for 2 seconds to perform **PASS/FAIL** analysis. FiberChek will briefly display the analysis result and enter the **Analysis Result View**. A green screen with a "check" graphic indicates a **PASS** result. A red screen with an "X" graphic indicates a **FAIL** result.



3. If the test fails, clean the fiber end-face and re-run the inspection test. Repeat until it passes.

4. When the test passes the results for all zones will be shown in green.

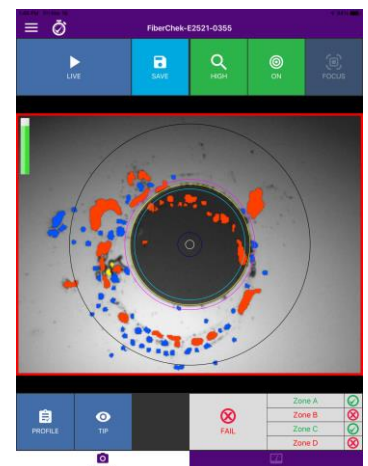
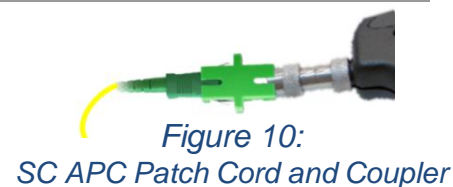


Figure 9: FiberChek Mobile

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INSPECT PATCH CORD

1. Insert the Patch Cord into the Inspection tip:
 - For **SC-APC Patch Cord** inspection through an SC-SC Optical Coupler, insert the Patch Cord into the SC APC optical coupler. The Patch Cord, coupler, and tip are all keyed and the keys must be aligned.
 - For Corning **OptiTap**, **PushLok**, and **SC-APC Patch Cord** Inspection without an Optical Coupler, insert the Patch Cord into the 2.5mm APC Patch Cord inspection tip. Rotate fiber and align the connector key to the notch on inspection tip for proper alignment.
 - For **OptiTip Patch Cord** Inspection, slide the bulkhead adapter onto the main tip assembly. Rotate wheel to view and test each fiber.



2. Tap the **Trigger** of the FiberChek microscope to auto-focus the fiber under test. Press the Trigger again and hold for 2 seconds to perform **PASS/FAIL** analysis. FiberChek will briefly display the analysis result and enter the **Analysis Result View**. A green screen with a "check" graphic indicates a **PASS** result. A red screen with an "X" graphic indicates a **FAIL** result.
3. If the test fails, clean the fiber end-face and re-run the inspection test. Repeat until it passes.
4. When the test passes the results for all zones will be shown in green. You are ready to connect the patch cord to the bulkhead.

