



P5000i Digital Analysis Probe

Getting Started Guide

ZP-PKG-0574, Rev 501



P5000i Digital Analysis Probe

Getting Started Guide

Notice

Every effort was made to ensure that the information in this manual was accurate at the time of printing. However, information is subject to change without notice, and VIAVI reserves the right to provide an addendum to this manual with information not available at the time that this manual was created.

Copyright

Copyright 2021 VIAVI Solutions Inc. All rights reserved. VIAVI, FiberChek Sidewinder, FiberChekPRO, and FiberChekMOBILE are trademarks or registered trademarks of VIAVI in the United States and/or other countries. All other trademarks and registered trademarks are the property of their respective owners. No part of this guide may be reproduced or transmitted, electronically or otherwise, without written permission of the publisher.

Patented as described at www.viavisolutions.com/patents.

Terms and Conditions

Specifications, terms, and conditions are subject to change without notice. The provision of hardware, services, and/or software are subject to VIAVI standard terms and conditions, available at www.viavisolutions.com/terms.

Warranty

VIAVI warrants this equipment to be free of defects in material and workmanship for one (1) calendar year from the date of purchase. Any mishandling or unauthorized repairs will void this warranty. For additional warranty terms and conditions, see <https://www.viavisolutions.com/warranty>.



About this guide

This guide provides information about the P5000i Digital Analysis Probe. For more resources, including how-to videos, go to:

<https://www.viavisolutions.com/inspect>



Table of Contents

About this guideiii

Table of Contentsv

Chapter 1	P5000i Digital Analysis Probe	1
	P5000i Digital Analysis Probe overview	2
	Controls	2
	Specifications	3
	Technical Assistance Center and Knowledge Base	3
Chapter 2	Getting started	5
	Overview	6
	Compatible platforms.	6
	Profiles.	6
	Optical Settings	6
	Operating the P5000i on VIAVI test platforms	7
Chapter 3	FiberChekPRO Software	9
	FiberChekPRO software overview	10
	Installation	10
	Using FiberChekPRO with P5000i Digital Analysis Microscope	10
	FiberChekPRO controls	11
	Live View controls	11
	Test View controls	12
Chapter 4	FiberChekMOBILE	15
	FiberChekMOBILE overview	16
	Installation	16
	Using FiberChekMOBILE with P5000i Digital Analysis Microscope	16
	FiberChekMOBILE controls	17
	Live View controls	17
	Test View controls	18

P5000i Digital Analysis Probe

This section describes the Digital Analysis Probe. The topics discussed in this chapter are as follows:

- [“P5000i Digital Analysis Probe overview” on page 2](#)
- [“Controls” on page 2](#)
- [“Specifications” on page 3](#)
- [“Technical Assistance Center and Knowledge Base” on page 3](#)

P5000i Digital Analysis Probe overview

The P5000i Digital Analysis Probe is a portable handheld microscope used to inspect and certify both the bulkhead (female) and patch cord (male) sides of fiber connectors as well as other optical devices, such as transceivers. The probe is specially designed to fit and operate comfortably and easily in-hand, allowing the user to inspect hard-to-reach connectors that are installed on the back side of patch panels or inside hardware devices. The P5000i automatically inspects and analyzes the fiber end faces, detects scratches and defects, and provides instant Pass/Fail results. This eliminates subjectivity and time-consuming guesswork from the inspection process. The P5000i can deliver these results to a PC/Laptop and VIAVI test platforms.

Controls

Figure 1 shows the P5000i probe and controls.

Figure 1 P5000i Probe controls

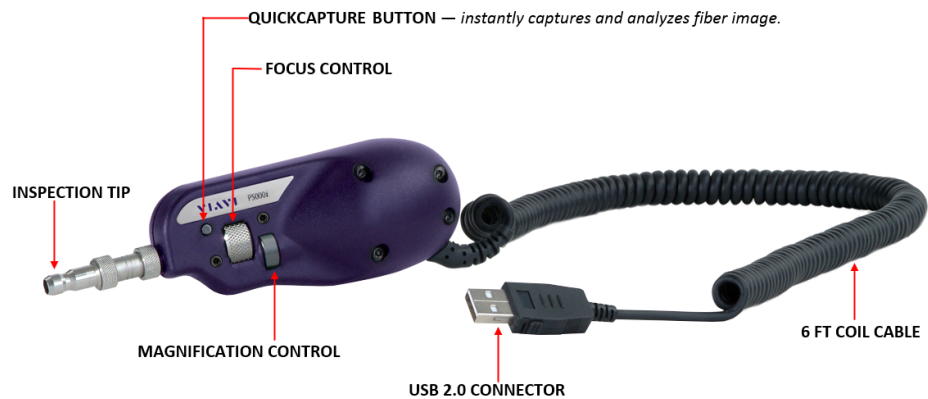


Table 1 describes the controls.

Table 1 P5000i controls

Control	Description
QuickCapture button	Instantly captures and analyzes the fiber image.
Focus Control	Allows you to manually focus the live fiber end face image on the display.
Magnification control	Allows you to switch between LOW and HIGH magnifications of the fiber end face image.

Specifications

Table 2 lists the P5000i specifications.

Table 2 P5000i specifications

Parameter	Specification
LOW-Mag Field-of-View	– Horizontal: 740 μm – Vertical: 550 μm
High-Mag Field-of-View	– Horizontal: 370 μm – Vertical: 275 μm
Live Image	640 x 480; 8 fps
Focus Control	Adjustable, in-probe
Camera Sensor	2560 x 1920, 1/2.5-in (1.02 cm) CMOS
Resolution	< 1 μm
Light Source	Blue LED, 100,000+ hour life
Lighting Technique	Coaxial
Dimensions	140 x 46 x 44 mm (5.5 x 1.8 x 1.7 in)
Weight	110 g (3.9 oz)
Connector/Power Source	USB 2.0
Coil Cable Length	183 cm (6 ft)
Certification	CE

Technical Assistance Center and Knowledge Base

To find the Technical Assistance Center phone number and email in your region for the P5000i product or to search the VIAVI Solutions Knowledge Base, visit the VIAVI Solutions Technical & Product Support site at support.viavisolutions.com.

Getting started

This chapter describes how to get started with the P5000i probe. The following topics are discussed:

- [“Overview” on page 6](#)
- [“Compatible platforms” on page 6](#)
- [“Profiles” on page 6](#)
- [“Optical Settings” on page 6](#)
- [“Operating the P5000i on VIAVI test platforms” on page 7](#)

Overview

The P5000i probe works with VIAVI solutions that users rely on daily for essential testing. This means that users can guarantee connector compliance to industry standards with a fast, repeatable analysis that integrates into their existing test procedures. It connects with VIAVI test solutions and mobile devices via a USB connection.

Compatible platforms

Other platforms the P5000i connects to include, but are not limited to, are shown in [Figure 2](#).

Figure 2 Compatible platforms



Profiles

VIAVI platforms capable of using the P5000i come pre-loaded with profiles matching the requirements in IEC-61300-3-35. You can create new profiles using FiberChekPRO software and export them to the compatible VIAVI platform. See the *FiberChekPRO User Manual* for more information about creating and editing profiles.

Optical Settings

Optical Settings configure the P5000i for optimal performance with a given tip. You can select the best optical settings for the type of inspection tip that is attached to the probe. The P5000i comes preconfigured with a selection of default optical settings. Additional

settings can be added to the P5000i using FiberChekPRO. See the *FiberChekPRO User Manual* for more information about creating and editing optical settings.

Operating the P5000i on VIAVI test platforms

Each VIAVI test platform has its own user interface. See [Chapter 3 “FiberChekPRO Software”](#) for information about using the P5000i with FiberChekPRO. For information about operating the P5000i on a specific test platform, see the user documentation for that test platform.

FiberChekPRO Software

This section describes how to install and use the FiberChekPRO software. The following topics are discussed:

- [“FiberChekPRO software overview” on page 10](#)
- [“Installation” on page 10](#)
- [“Using FiberChekPRO with P5000i Digital Analysis Microscope” on page 10](#)
- [“FiberChekPRO controls” on page 11](#)

FiberChekPRO software overview

FiberChekPRO is a Windows-PC software application used to determine the acceptability of optical fiber end faces through automated inspection and analysis. Used in conjunction with the P5000i microscope, FiberChekPRO will identify and characterize defects and contamination, and then provide a PASS or FAIL result according to IEC 61300-3-35 standards or customer-defined specifications.

- FiberChekPRO software, download instructions, and user guide are available for download from <https://fcpro.updatemyunit.net/>
- Install the software before connecting the P5000i microscope to the PC.
- Connect the microscope to the PC using the USB 2.0 cable.

The following sections provide a brief description of the FiberChekPRO software. For more detailed information, see the *FiberChekPRO User Manual*.

Installation

The following procedures describe how to install the FiberChekPRO software.

To install FiberChekPRO on a PC or laptop

- 1 Locate the setup file in the location you downloaded it to and double-click it.
- 2 Click **Next**. The License Agreement screen appears.
- 3 Accept the license agreement and press **Next**.
- 4 Specify the location FiberChekPRO will be installed to and click **Next**. VIAVI strongly recommends accepting the default location.
The Select Components screen appears.
- 5 Check all the components that you want to install and click **Next**. VIAVI strongly recommends installing all components.
The Additional Tasks screen appears.
- 6 Select/check the options for the FiberChekPRO icon/shortcut and click **Next**.
The Ready To Install screen appears.
- 7 Click **Install**.
The FiberChekPRO software is installed.

Using FiberChekPRO with P5000i Digital Analysis Microscope

Perform the following steps to start using FiberChekPRO with the P5000i Digital Analysis Microscope.

- 1 **Open/Launch FiberChekPRO**
Locate and run the FiberChekPRO application.

2 Install Inspection Tip on Probe

Select the appropriate inspection tip that corresponds to the connector type and side being inspected and attach it to the probe.

3 Select Profile

From the preconfigured **PROFILE** settings drop-down list, select the appropriate pass/fail analysis profile for the connector type to be inspected.

4 Select Optical Setting

From the preconfigured **OPTICAL SETTING** drop-down list, select the appropriate optical setting for the tip connected to the probe

5 Inspect

Mate the probe to the connector under test by either inserting the probe with tip into a bulkhead adapter or inserting a patch cord into the tip.

6 Focus the Fiber End Face Image On Screen

Adjust the focus of the fiber end face image on the computer screen by turning the **Focus Control** on the microscope.

7 Test

Press the **QuickCapture** button on the probe or click the **Test** button from the FiberChekPRO tool bar to run the analysis.

FiberChekPRO controls

The following sections describe the FiberChekPRO controls.

Live View controls

Figure 3 shows the Live View.

Figure 3 Live View

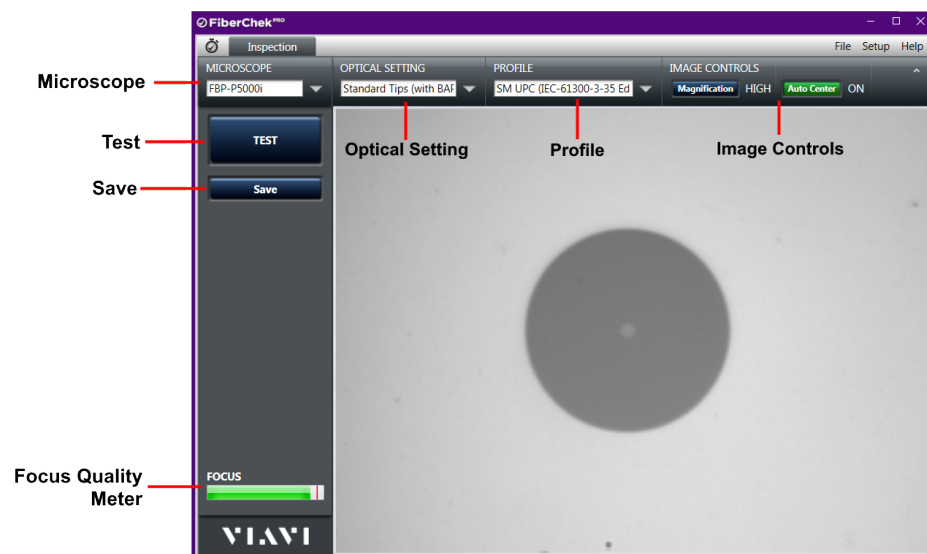


Table 3 describes the controls.

Table 3 Live View controls

Control	Description
Microscope	Allows you to select the specific microscope you want to have active for displaying on the screen. If multiple microscopes are connected, each one will appear in a drop down list.
Optical Settings	Allows you to select the best optical settings for the type of inspection tip that is attached to the probe. You can select from several preconfigured optical settings or create your own.
Profile	Allows you to select from various PROFILES that contain the analysis parameters by which PASS/FAIL criteria are determined. You can select from several preconfigured profiles or create your own.
Image Controls	Provides specific controls for fine tuning the image. In LIVE view, you can select between viewing at LOW or HIGH magnification.
Focus Quality Meter	A visual gauge that aids in finding the optimal focus point. Optical focus level is reached when the bar is closest to the red line.
Test	Initiates the automated PASS/FAIL test process.
Save	Allows you to capture and save the image as it appears on the screen.

Test View controls

Figure 4 shows the Test View.

Figure 4 Test View

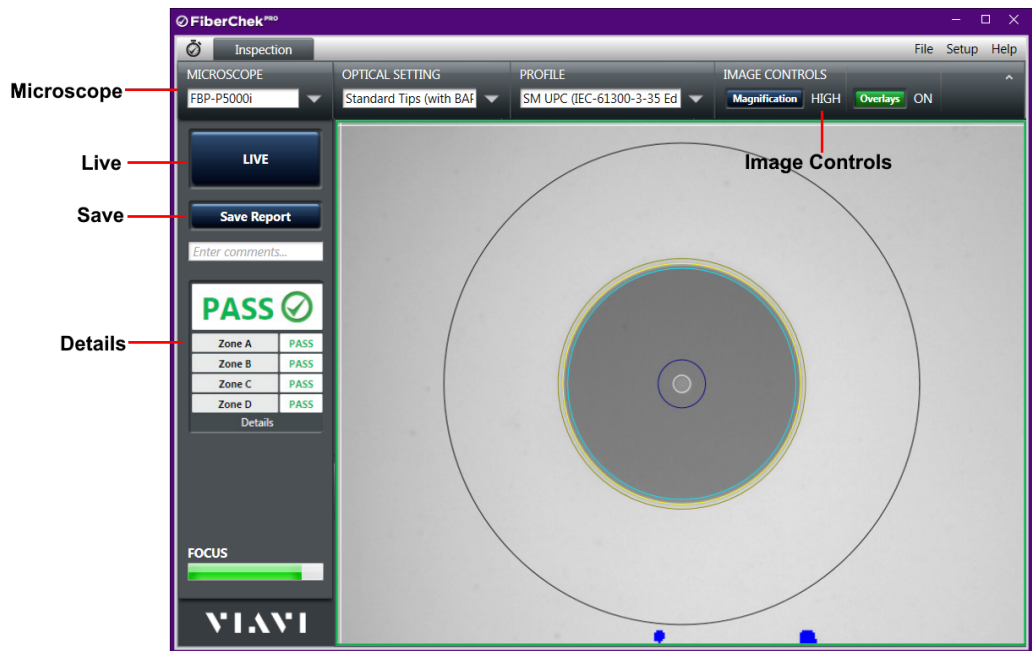


Table 4 describes the controls.

Table 4 Test View controls

Control	Description
Image Controls	Provides specific controls for fine tuning the image. In TEST view, you can: – Select between viewing at LOW or HIGH magnification – Turn the overlay details ON or OFF – Turn the Scratch View feature ON or OFF
Live	Returns you to a live image
Save Report	Generates a summary report of the tested fiber on the screen.
Details	Allows you to view more specific information on the analysis results for the tested fiber on the screen.

FiberChekMOBILE

This section describes how to install and use the FiberChekMOBILE software. The following topics are discussed:

- [“FiberChekMOBILE overview” on page 16](#)
- [“Installation” on page 16](#)
- [“Using FiberChekMOBILE with P5000i Digital Analysis Microscope” on page 16](#)
- [“FiberChekMOBILE controls” on page 17](#)

FiberChekMOBILE overview

FiberChekMOBILE is a software application that brings FiberChekPRO capabilities to Google Android and Apple iOS mobile devices. FiberChekMOBILE turns a mobile device into an essential fiber test tool.

- The FiberChekMOBILE application is available from the Google Play Store and Apple App store.
- Install the application before connecting the P5000i microscope to the mobile device.
- Connecting the microscope to an Android mobile device requires either a:
 - USB adapter cable (part # FBPP-DPAC8) and a license key (part # SW-FCM-A1)
 - WiFi adapter (part # FBPP-WIFI)
- Connecting the microscope to an Apple iOS mobile device requires:
 - WiFi adapter (part # FBPP-WIFI)

Installation

Install the FiberChekMOBILE app from the Apple App Store or Google Play Store.

Using FiberChekMOBILE with P5000i Digital Analysis Microscope

Perform the following steps to start using FiberChekMOBILE with the P5000i Digital Analysis Microscope.

- 1 Connect P5000i to WiFi adapter**
Plug the P5000i to the WiFi adapter.
- 2 Connect mobile device to WiFi adapter**
Connect the mobile device to the network of the WiFi adapter.
The network is **FBPP-WiFi-xxxxx-yyyy**, where xxxxx is the first five characters of the serial number, and yyyy is the last four characters of the serial number.
- 3 Open/Launch FiberChekMOBILE**
Locate and run the FiberChekMOBILE app.
- 4 Inspect Fiber**
Insert the probe into the bulkhead (for probe) or insert the path cord ferrule into the probe tip.
- 5 Focus the Fiber End Face Image**
Adjust the focus of the fiber end face image on the device screen by turning the **Focus Control** on the microscope.

6 Test

Press the **QuickCapture** button on the probe or click the **Test** button from FiberChekMOBILE to run analysis.

FiberChekMOBILE controls

The following sections describe the FiberChekMOBILE controls.

Live View controls

Figure 5 shows the Live View.

Figure 5 Live View controls

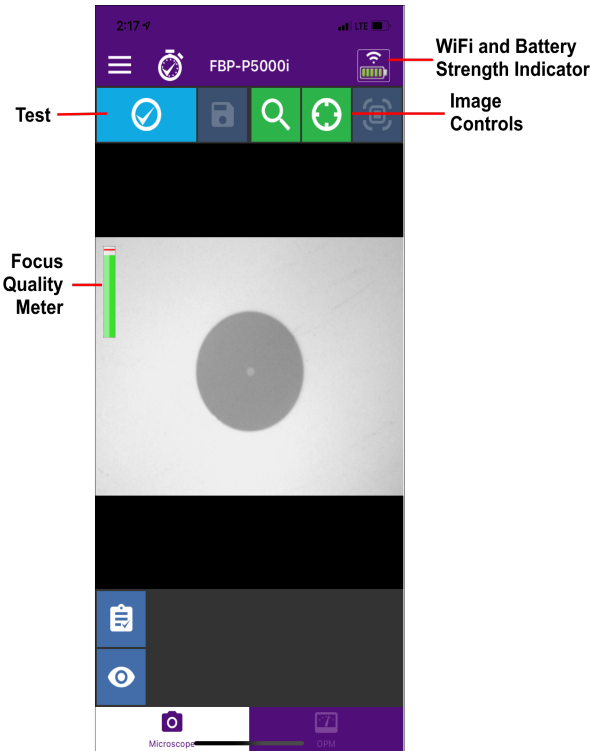


Table 5 describes the controls.

Table 5 Live View controls

Control	Description
Test	Initiates the automated PASS/FAIL test process.
WiFi and Battery Strength Indicator	Displays the current WiFi signal strength and battery power of the WiFi adapter.
Image Controls	Provides specific controls for fine tuning the image. In LIVE view, you can select between viewing at LOW or HIGH magnification.

Table 5 Live View controls

Control	Description
Focus Quality Meter	A visual gauge that aids in finding the optimal focus point. Optical focus level is reached when the bar is closest to the red line.

Test View controls

Table 6 shows the Test View.

Figure 6 Test View controls

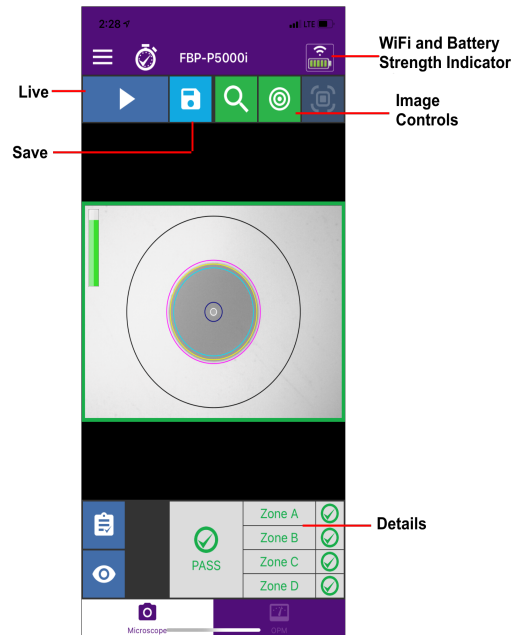


Table 6 describes the controls.

Table 6 Test View controls

Control	Description
Live	Returns you to a live image
WiFi and Battery Strength Indicator	Displays the current WiFi signal strength and battery power of the WiFi adapter.
Image Controls	Provides specific controls for fine tuning the image. In TEST view, you can: – Select between viewing at LOW or HIGH magnification – Turn the overlay details ON or OFF
Save	Generates a summary report of the tested fiber on the screen.
Details	Allows you to view more specific information on the analysis results for the tested fiber on the screen.



P5000i Digital Analysis Probe Getting Started Guide
ZP-PKG-0574 Rev 501
June 2023

VIAVI Solutions

North America: 1.844.GO VIAVI / 1.844.468.4284

All Other Regions: viavisolutions.com/contacts

Address 1445 South Spectrum Blvd., Suite 102
Chandler, AZ, 85286, USA