VIAVI

INX™ 760 Probe Microscope

User Guide

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Contents

About this guide

This guide provides information about using the INX™ 760 Probe Microscope.

The following updates are available in this revision:

- Added the following sections:
    - "Importing job files"
    - "Exporting saved test results"
    - "Updating the INX 760 microscope software locally"
- Updated the following sections:
    - "INX 760 microscope Home screen menus and tools"
    - "INX 760 microscope System settings"
    - "Mounting a fiber connector"
    - "Pass/Fail test results for MPO and duplex fiber connectors"
    - "INX 760 Files"

Scan the following QR code to access the latest revision of this document and the INX 760 firmware online.

Safety instructions

⚠	**CAUTION** Turn off the equipment, and disconnect all cables connected to it before moving the equipment or performing maintenance procedures. **ATTENTION** Éteignez l'équipement et débranchez tous les câbles qui y sont connectés avant de déplacer l'équipement ou d'effectuer des procédures de maintenance.

⚠	**WARNING** • To prevent potential fire or shock hazard, do not expose the equipment to any source of excessive moisture. • Do not perform any operating or maintenance procedure that is not described in the user documentation. If the equipment is used in a manner not specified by VIAVI, the protection provided by the equipment might be impaired. • Do not attempt to service this product yourself, as opening or removing covers might expose you to dangerous high-voltage points and other hazards. Refer all servicing to qualified VIAVI service personnel. • Do not operate any equipment with its covers or panels removed. **AVERTISSEMENT** • Pour éviter tout risque d'incendie ou d'électrocution, n'exposez pas l'équipement à une source d'humidité excessive. • N'effectuez aucune procédure d'exploitation ou de maintenance qui n'est pas décrite dans la documentation utilisateur. Si l'équipement est utilisé d'une manière non spécifiée par VIAVI, la protection fournie par l'équipement peut être altérée. • N'essayez pas de réparer ce produit vous-même, car l'ouverture ou le retrait des couvercles peut vous exposer à des points haute tension dangereux et à d'autres dangers. Confiez tous les travaux d'entretien au personnel de service qualifié de VIAVI. • N'utilisez aucun équipement dont les couvercles ou les panneaux ont été retirés.

Note: See also .

1 Introduction

The INX™ 760 Probe Microscope (INX 760 microscope) offers unparalleled efficiency in ensuring pristine single-fiber, duplex-fiber, or multifiber connections.

Optimized for field use and VIAVI TPA™ (Test Process Automation) enabled, the INX 760 microscope enables automation of every step of the inspection process, including test set up, tip configuration, image panning and focus, end-face analysis testing, and data storage. Operators can either use the INX 760 microscope autonomously or connect it to local devices, such as smartphones, tablets, or PCs, via USB or wireless connections (see "Specifications and regulatory compliance" on page 1-2), with the VIAVI Mobile Tech app serving as the bridge between the microscope and the cloud.

Figure 1-1: INX 760 Probe Microscope

This section covers the following information:

- "Specifications and regulatory compliance" on page 1-2
- "Technical Assistance Center and Knowledge Base" on page 1-3

Specifications and regulatory compliance

1-2

Table 1-1: INX 760 microscope specifications

Parameter	Specification
Display	320 x 240-pixel (2.4") IPS color backlit touch screen
Status indicators	• LED ring • Speaker
Power supply	5V/2.1A USB AC adapter
Battery	Li-ion 18.15 Wh (field replaceable)
Charging modes	• USB2.0 in 500mA and 1.5A modes • USB-C Power Delivery (PD), 500mA, 1.5A, and 3A modes
USB port	1x USB-C
Wireless connectivity	Singleband 2.4 GHz • Bluetooth® 5.2 BLE • Wi-Fi 802.11b/g/n
Mounting point	¼" diameter, 20 threads per inch (¼"-20) socket
Operating temperature	0 to 40°C (32 to 104°F)
Operating humidity	0 to 90% non-condensing
Storage temperature	-20 to 60°C (-4 to 140°F)
Dimensions (L x W x H)	• Without inspection tip: 253 x 191 x 60 mm (9.9 x 7.5 x 2.4 in) • With LC inspection tip: 275 x 191 x 60 mm (10.8 x 7.5 x 2.4 in)
Weight (without inspection tip)	0.665 kg (1.5 lb)
Inspection tips	Simplex, Duplex, Multifiber Stainless steel with threaded mounting nut; integrated auto-identification technology; tether point (lanyard sold separately)

Regulatory compliance

To access regulatory compliance information on the INX 760 microscope, select **Main Menu** > **System Info** > **Regulatory Info**. For more information, see "Navigating the Home screen" on page 3-2 and "Managing system settings" on page 3-14.

Technical Assistance Center and Knowledge Base

To find the Technical Assistance Center phone number and email in your region for the INX 760 Probe Microscope, or to search the VIAVI Solutions Knowledge Base, visit the VIAVI Solutions Technical & Product Support site at support.viavisolutions.com.

2 Getting started

This section covers the following information:

INX 760 Probe Microscope features

Power Button

Inspection Tip Collar

Objective Lens

Touchscreen

Action Wheel

Inspection Tip

LED Ring

Action Trigger

Accessory Mount

Charging LED

Speaker

Battery Cover

USB-C Port and Port Lock

Lanyard Attachment
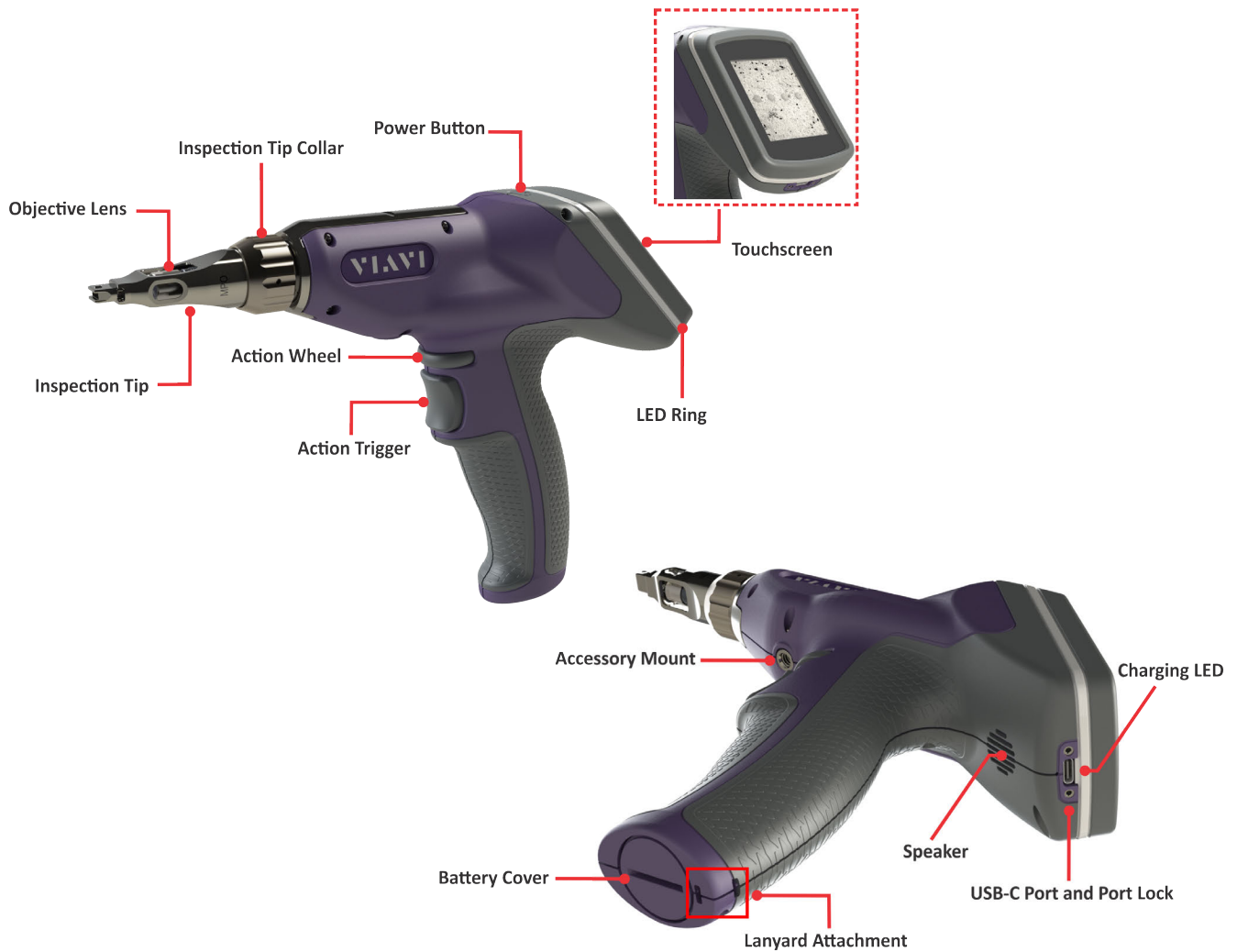
LED states

State	LED Ring	Charging LED
Off	• Microscope powered OFF • Microscope powered ON, no test in progress	• Microscope powered OFF • Battery charger not connected
Orange	—	Battery charging, microscope powered OFF
Blue	—	Microscope powered ON
Purple (circulating)	Test in progress	—
Red	Test failed	—
Green	Test passed	Battery fully charged

Action wheel

Depending on the type of fiber connector installed on the inspection tip, the Action wheel enables you to either manually focus the Live image of a fiber connector displayed on the **Home** screen or pan across it.

Fiber connector type	Rotate the Action wheel to...
Simplex or Duplex	Manually focus the Live image of the fiber end face
MPO	Manually pan across the Live image of the fiber end face

Action trigger

The Action trigger operates via either short press or long press (i.e., press and hold).

Do the following...	To...
Short press the Action trigger	• Start a Pass/Fail test while Auto-test system setting is set to On AutoFocus (see "Managing system settings" on page 3-14) • Autofocus the fiber image displayed in Live view • Return to the **Home** screen from any other screen
Long press the Action trigger	Start a Pass/Fail test

Powering the INX 760 microscope ON or OFF

2-4

Powering the INX 760 ON

Step 1   Press and hold the Power button for two (2) seconds.

Step 2   Note the following sequence:

- The touchscreen lights, and the start-up screen appears after a few seconds.

- The charging LED lights blue.

- The objective lens of the microscope might move to automatically adjust its position.

- The **Home** screen appears on the touchscreen after the initialization process is completed.

  The following image shows the **Home** screen that displays when an inspection tip is installed on the microscope, but no fiber is connected to the tip.
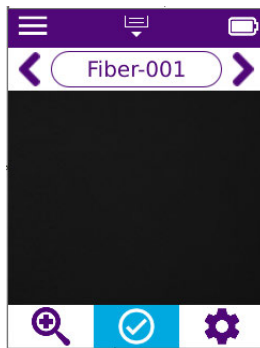
  While an inspection tip is installed on the device, the fiber illumination LED emits a blue light from the end of the objective lens.

  Note: To protect the objective lens from dust and debris, always place the safety cap on the inspection tip when the INX 760 microscope is not in use. For information, see, "Installing a fiber inspection tip" on page 2-6.

— End —

Powering the INX 760 microscope OFF

2-5

• Press and hold the Power button until the touchscreen turns off.

The fiber illumination LED and the charging LED turn off after a few seconds.

Note: You can set an automatic power OFF setting for the microscope. See "Managing system settings" on page 3-14.

— End —

Installing a fiber inspection tip

Step 1   Remove the inspection tip installed on the INX 760 microscope:

    i.   Holding the microscope securely, rotate the inspection tip collar to fully loosen it.

    ii.   Carefully pull the tip away from the microscope, ensuring that the tip does not come into contact with the objective lens.
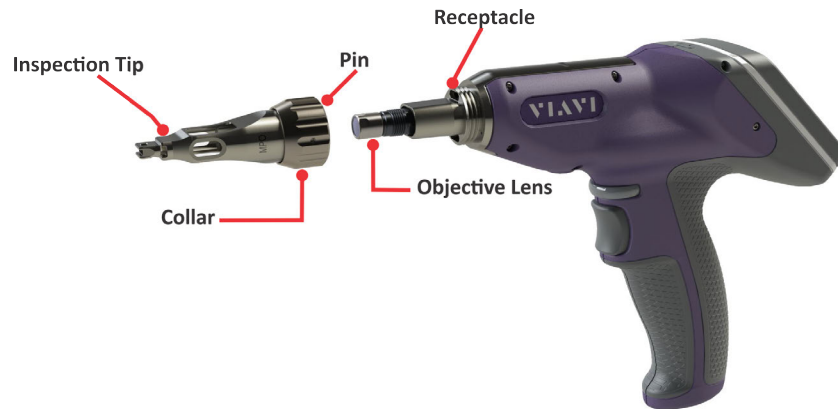
    iii. Install the safety cap at the back of the inspection tip, place the tip in a dust-proof container, and store it in an accessible location.
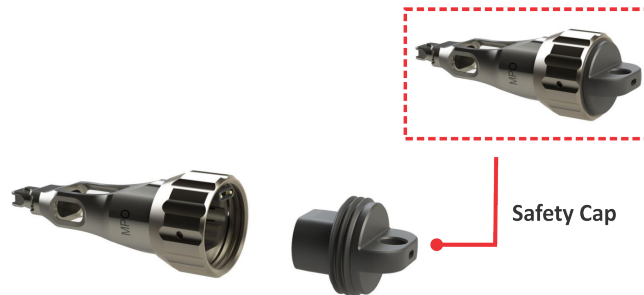
Step 2   If the microscope is powered on, note the following:

- The fiber illumination LED turns off.

- The **Home** screen indicates that no tip is attached to the microscope, and the Tool tray is disabled.

Step 3   Install the required inspection tip:

   i.   If present, carefully loosen and remove the inspection tip cap cover from back of the tip, and place it in a dust-free container.

   ii.   Align the pin at the rear of the inspection tip with the receptacle on the microscope.

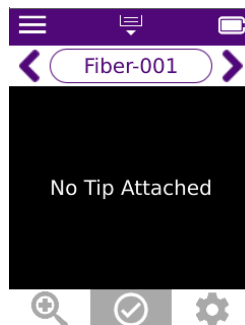   iii. Carefully position the inspection tip onto the microscope, ensuring that the tip does not come into contact with the objective lens, and that the pin is inserted in the receptacle.

   iv.   Thread the collar of the tip, and rotate it to secure it to the microscope. Do not overtighten the collar.

   Important: Ensure that the collar is properly threaded and secured to the microscope.

Step 4   If the microscope is powered on, note the following:

   ▪   The objective lens might move to adjust to the correct position for the newly installed tip.

   Note: You can confirm that the microscope has detected the type of tip installed by accessing Test Configuration settings. For information, see "Navigating the Home screen" on page 3-2.

   ▪   The fiber illumination LED emits a blue light from the end of the objective lens.

   Note: Place the dust cover onto the inspection tip to keep the objective lens free of dust and debris while the microscope is not in use.

— End —

Mounting a fiber connector

Step 1   Power ON the INX 760 microscope, and, if required, short press the Action trigger to return to the **Home** screen.

Step 2   Ensure that the fiber inspection tip required for the Pass/Fail application is installed on the microscope.

Step 3   Thoroughly clean the fiber connector, and mount it onto the inspection tip.

For a bulkhead connector, ensure that the connector is correctly aligned with the key on the inspection tip.

A Live view of the fiber end face appears on the **Home** screen.

> **Note:** If **Auto-focus On Insert** is enabled, the microscope will automatically adjust the focus quality of Live view.

Step 4   Use the any of the available tools for viewing the fiber end face on the **Home** screen, and refer to the focus meter if shown (see "Navigating the Home screen" on page 3-2) to ensure that the focus quality of Live view is suitable for inspection:

- Action trigger: Short press to automatically adjust the focus quality of Live view.
- Action wheel: Rotate to manually adjust the focus quality of Live view with simplex and duplex tips.
- Magnification High/Low: See "Navigating the Home screen" on page 3-2.
- Panning: See "Navigating the Home screen" on page 3-2.

— End —

Charging the INX 760 microscope battery   2-9

Step 1   Connect the USB connector of a suitable charger to the USB-C port on the microscope.

Step 2   Connect the charger to an appropriate power source.

> **Note:** See "LED states" on page 2-2 for more information.

Step 3   When the battery is charged, disconnect the charger from the power source and then from the microscope.

Step 4   Store the charger in an accessible location.

— End —

Replacing the INX 760 microscope battery

Important: Use only the VIAVI-supplied battery (FPP-INX7-BATTERY).

Step 1   Power OFF the microscope (see).

Step 2   Holding the microscope securely, remove the battery cover.

Step 3   Carefully slide the battery far enough out of the receptacle to disconnect the battery cable connector from the jack, and then fully remove the battery from the receptacle.
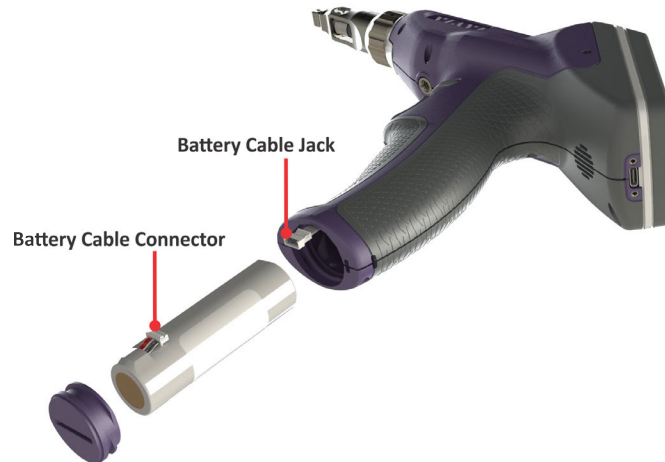
Important: Dispose of the used battery according to local requirements.

Step 4   Carefully insert the replacement battery into the receptacle, and connect the battery cable to the jack.

The microscope automatically powers ON.

Step 5   Replace and secure the battery cover. Do not overtighten the cover.

— End —

3 INX 760 microscope settings

This section covers the following information:

Navigating the Home screen

Note: Short press the Action trigger on the INX 760 microscope to return to the **Home** screen from any other screen.
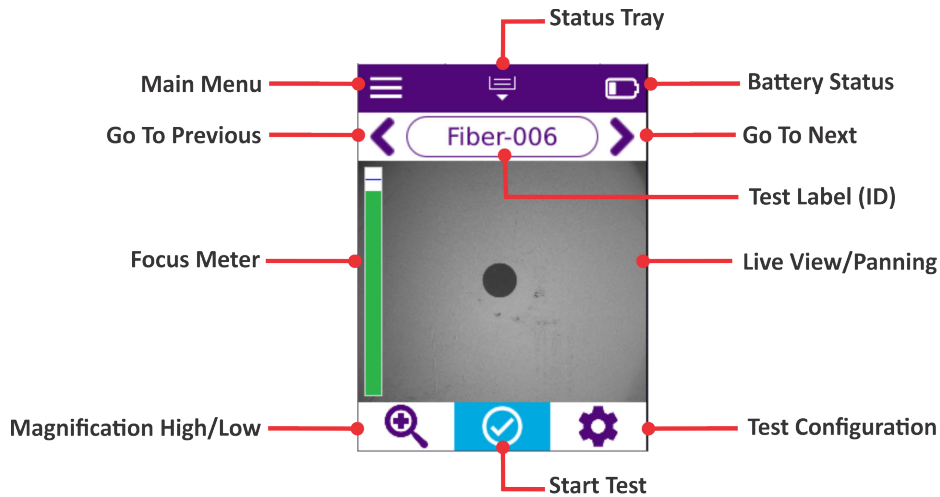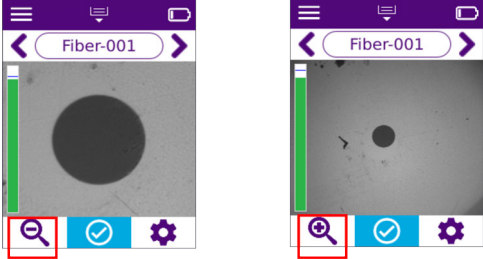
Figure 3-1: INX 760 Home screen

Table 3-1: INX 760 microscope Home screen menus and tools

Tool/Menu	Description
Main Menu options	**Job Manager** Organize and access Pass/Fail data saved the to microscope. See "Creating and managing jobs on the INX 760 microscope" on page 3-5.
	Test Configuration Access test configuration settings, such type of inspection tip, optical setting for tip, and analysis profile options. See "Managing test configuration settings" on page 3-12.
	Inspection Settings See "Managing inspection settings" on page 3-13.
	System Settings Access system settings for the microscope, such as wireless connectivity, automatic power OFF options, and read-only system information. See "Managing system settings" on page 3-14.
	Help Access a QR code that provides access to the following functions: • Scan the code to access to the latest versions of INX-760 documentation. • Tap the code to generate diagnostic files (*.diag) for troubleshooting microscope issues. The generated files are available on the VIAVI Mobile Tech app. For information, see, "INX 760 Files" on page 5-8.

Table 3-1: INX 760 microscope Home screen menus and tools (continued)

Tool/Menu	Description
Status Tray	Swipe down to access the following information and tools: • Speaker: Set the speaker ON/OFF status. • Job Name: Name of the current job to which saved test results are added. • Create New Job: Select to access the **Create New Job** screen of the Job Manager. See "Creating and managing jobs on the INX 760 microscope" on page 3-5 for more information. **Notes:** • You can also set the speaker ON/OFF status via the **Inspection Settings** screen. For information, see "Managing inspection settings" on page 3-13. • Swipe up to close the menu.
Battery Status	Battery status indicator **Note:** See "Managing system settings" on page 3-14 for information about accessing additional battery status information.
Go To Previous/Go To Next	Select to scroll to a test ID for the current job.
Focus Meter	Color meter that indicates whether the quality of the live fiber image is suitable for inspection. Green indicates that the focus quality is suitable for inspection; red, that the focus quality is not suitable. **Note:** By default, the focus meter is hidden. For information about showing/hiding the focus meter, see "Managing inspection settings" on page 3-13.
Live View/Panning	Live view of the fiber end face mounted on the fiber inspection tip. Tap to display the Panning tools, and then select a tool to pan to the left or right across the fiber end face. **Notes:** • Panning tools are available only while a duplex or MPO fiber connector is mounted on the inspection tip. • Tap Live view to hide the Panning tools and return to the **Home** screen.

Table 3-1: INX 760 microscope Home screen menus and tools (continued)

Tool/Menu	Description
Magnification High/Low	Select to increase/decrease magnification of the live fiber image. **Note:** Magnification tools are available only while a simplex or duplex fiber connector is mounted on the inspection tip.
Start Test	See .
Test Configuration	Quick access to Test Configuration settings also available via the Main Menu. See .

Creating and managing jobs on the INX 760 microscope

The **Job Manager** tool enables you to manage Pass/Fail data that is saved to the current (active) job on the INX 760 microscope, facilitating access to data when required. You can create and add multiple jobs to the **Job Manager**; however, only one job can be active on the microscope at any time.

Each job created with the **Job Manager** tool on the INX 760 microscope has a unique ID that is comprised of a base name and a three-digit number (for example, Job-001). Saved data is automatically added to the current job and assigned a unique test label (ID) associated with the job. The test ID is also comprised of a base name and a three-digit number (for example, Fiber-001).

Note: If the **Auto-increment** inspection setting is set to **On Save**, the test ID will automatically increment to the next available number when another set of data is saved to the same job. For more information, see "Managing inspection settings" on page 3-13.

Use the **Job Manager** tool for any of the following tasks:

- "Creating a job" on page 3-6
- "Changing the current job" on page 3-8
- "Setting the base name and number for a new job" on page 3-9
- "Deleting a job" on page 3-11

You can also add jobs to the **Job Manager** by importing job files that were exported from StrataSync™ to a USB-C thumb drive (see"Importing job files" on page 3-7). You can use and manage these jobs on the microscope as you would jobs created on the microscope.

Notes:
- For information about accessing Pass/Fail test results saved to a job, see "Accessing saved Pass/Fail data" on page 4-6.
- Jobs created with the VIAVI Mobile Tech app or deployed to the app from StrataSync can be downloaded to the INX 760 microscope (see "Using the VIAVI Mobile Tech app" on page 5-1). You can use and manage these jobs on the microscope as you would jobs created on the microscope.

Creating a job

The INX 760 microscope enables you to quickly create a job that uses the same base name as the last job created. To ensure that the job ID is unique, the number of the ID is automatically incremented to the next available.

Note: Although you can use the same base name for multiple job IDs, the number assigned to it cannot be reused. Therefore, the job ID number automatically increments to the next available number when you begin creating a job that reuses a base name. For information about creating a job with a new base name, see "Setting the base name and number for a new job" on page 3-9.

Step 1.   Select **Job Manager** on the **Main Menu**, and then select **Create New Job**.
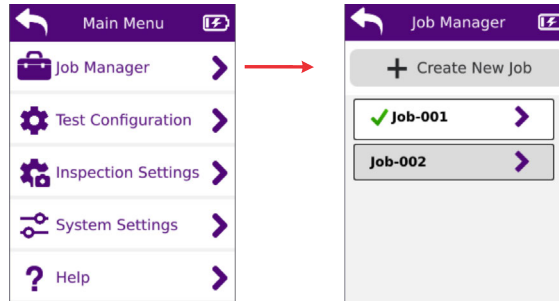
The **Job Manager** contains a list of jobs available on the microscope. The current job appears at the top of the list with a check mark beside the job ID.

Step 2.   Select **Create New Job**.

Step 3.   On the **Create Job** screen, select **Create** to create a job using the **Job Name** and **Test Label Scheme** provided by the microscope.

The new job is added to the **Job Manager** and automatically set as the current job.

Step 4.   Short press the Action trigger to return to the **Home** screen.

Note: You can also access the **Create Job** screen by selecting **Start New Job** on the **Status Tray** on the **Home** screen.

— End —

Importing job files

Job files created in StrataSync and then exported to a USB-C thumb drive can be imported to the INX 760 microscope. You can use and manage these jobs on the microscope as you would jobs created on the microscope.

Notes:
- The thumb drive must be formatted as either exFAT, FAT16, or FAT32.
- The import operation will automatically import all job files available on the thumb drive.

Step 1.   Ensure that the required job files are available on the thumb drive.

| Name	Date modified	Type	Size
Job-128.job.json	4/11/2024 2:51 PM	JSON File	3 KB
Job-520.job.json	4/11/2024 2:51 PM	JSON File	3 KB

Step 2.   Connect the thumb drive to the microscope.

The **USB** screen appears. When job files are available on the thumb drive, the **Job Import** option is available.
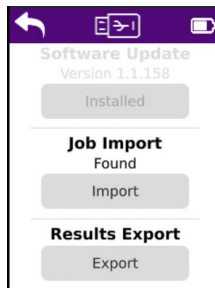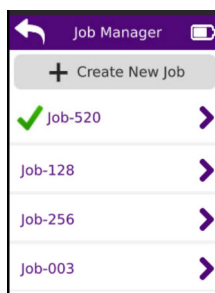

Step 3.   Select **Import**.

Available job files are imported to the microscope and added to the **Job Manager**.
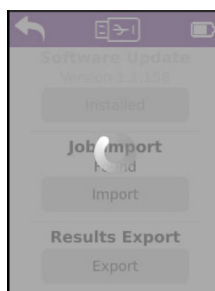
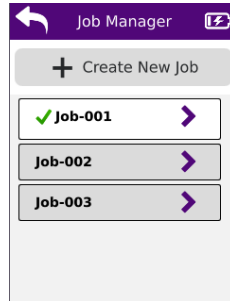Step 4.   Access the **Job Manager** to confirm that the imported job files are available.

— End —
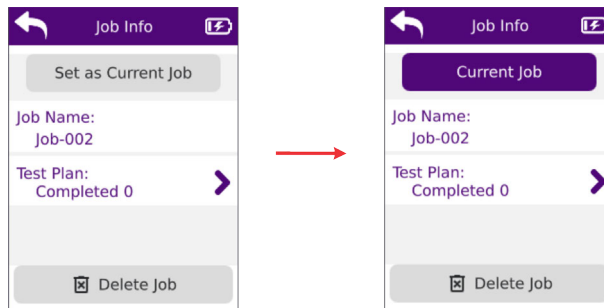

Changing the current job

Step 1.   Select **Job Manager** on the **Main Menu**.

On the **Job Manager** screen, the ID of the current job is indicated by a check mark and appears at the top of the list.

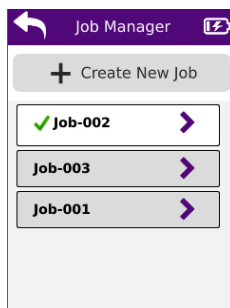Step 2.   Select a job ID in the list, and then select **Select as Current Job** on the **Job Info** screen.

The **Select as Current Job** label changes to **Current Job**.

Step 3.   Select **Back** to return to the **Job Manager** screen.

The selected job ID appears at the top of the list with a check mark beside it.
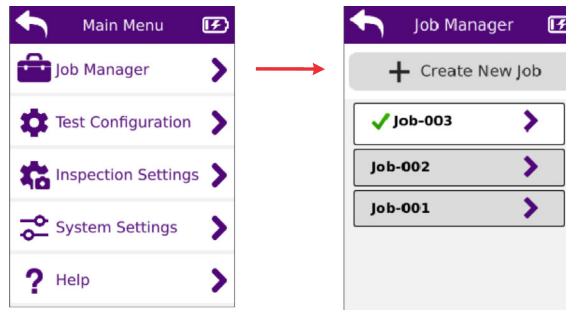

Step 4.   Short press the Action trigger to return to the **Home** screen.

— End —

Setting the base name and number for a new job   3-9

Step 1. Select **Job Manager** on the **Main Menu**, and then select **Create New Job**.

Step 2. On the **Create Job** screen, select one of the following options:

- ▪ **Job Name**
- ▪ **Test Label Scheme**
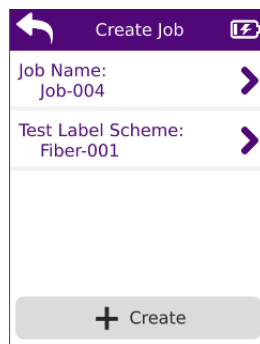
Step 3. On the **Edit** page for the option, do any of the following:

- ▪ Select **Base Name**, enable an option in the list of base names, and then select **Back**.

- ▪ Set the **Number** for the option by selecting **-** or **+** to scroll to an unused number.
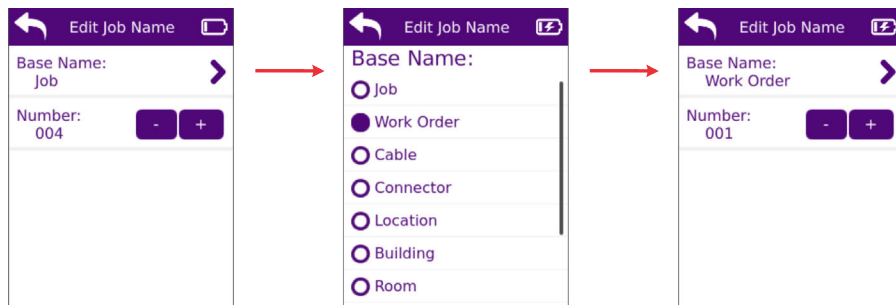
Note: The message `Job already exists!` appears when you scroll to a number that is already in use.

Step 4. Select **Back** to return to the **Create Job** screen, and repeat Step 2 and Step 3 for the other option if required.

Step 5. Select **Create** to create the job.

The job is added to the **Job Manager** and is automatically set as the current job (as indicated by the check mark beside the job ID).
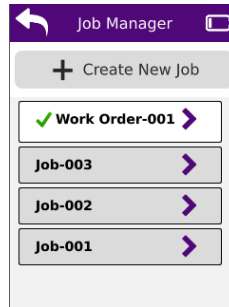
Step 6. Short press the Action trigger to return to the **Home** screen.

— End —

Deleting a job

Important: Deleting a job removes all the data it contains from the INX 760 microscope. Before deleting a job, ensure that all required data has been downloaded to the VIAVI Mobile Tech app. For information, see "Using the VIAVI Mobile Tech app" on page 5-1.

Step 1.   Select **Job Manager** on the **Main Menu**.

Step 2.   On the **Job Manager** screen, select a job ID in the list.
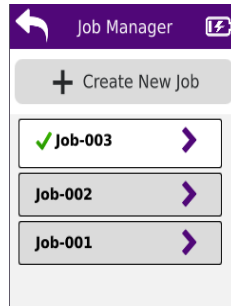
Step 3.   On the **Job Info** screen, select **Delete Job**.
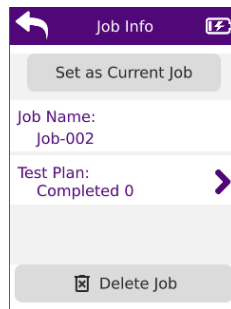
Step 4.   Click **OK** to confirm the deletion and return to the **Job Manager** screen.

Step 5.   Short press the Action trigger to return to the **Home** screen.

— End —

Managing test configuration settings
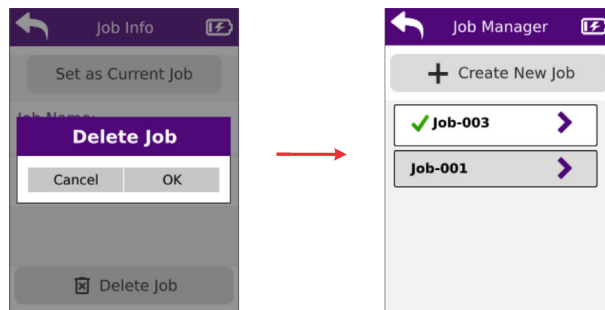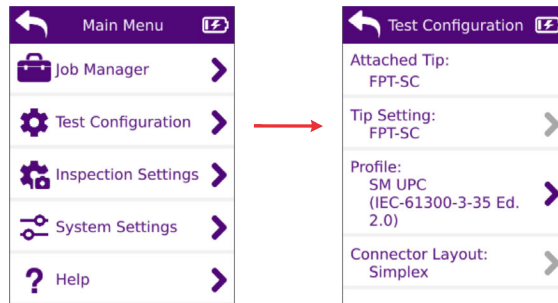
- Select **Test Configuration** on the **Main Menu**.

Table 3-2: Test Configuration settings

Settings	Description
Attached Tip	Type of fiber inspection tip installed on the INX 760 microscope.
Tip Setting	Optical setting for the Pass/Fail test of the fiber connector mounted on the inspection tip. The optical setting defines lighting and sizing calibration applied during inspection. **Note:** Read-only when only a single setting is available.
Profile	Access preconfigured analysis profiles available on the INX 760 microscope. Profiles define the Pass/Fail thresholds for the fiber type mounted on the inspection tip. Each preconfigured profile matches the PASS/FAIL criteria of an IEC visual inspection standard; for example, IEC 61300-3-35. **Note:** A profile specifies the fiber type, analysis sensitivity, the zones of interest within the fiber (typically starting with the fiber core and radiating out from there) and the criteria for failure within those zones.
Connector Layout	Fiber type mounted on inspection tip: • Simplex • *Type* Duplex (Where *Type* refers to the fiber type; for example LC) • MPO *N* (where *N* refers to the number of fibers in the cable) **Note:** Read-only when only single setting is available.

Managing inspection settings

- Select **Inspection Settings** on the **Main Menu**.
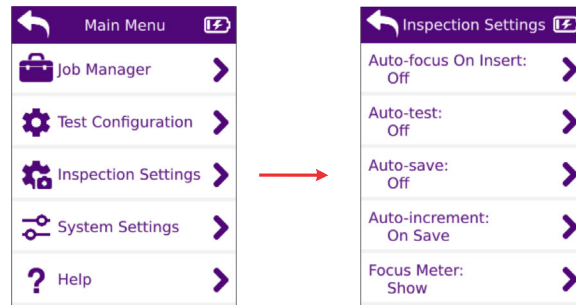
Table 3-3: Inspection settings

Settings	Description
Auto-focus On Insert	Automatically focus Live view when a fiber is mounted onto the fiber inspection tip. • Off • On (Default)
Auto-test	Automatically start a test when autofocus is performed. • Off • On Autofocus (Default)
Auto-save	Automatically save data when a Pass/Fail test is completed. • Off (Default) • If Pass • Always
Auto-increment	Automatically increment the test label (ID) to the next available number on save. • Off • On Save (Default) **Note:** The Test ID label that appears on the **Home** screen shows the test ID to which test results will be assigned when saved either automatically or manually. To avoid overwriting test results already assigned to a test ID in the current job, enable the On Save option.
Focus Meter	Focus meter status. • Hide (Default) • Show

Managing system settings

- Select **System Settings** on the **Main Menu**.
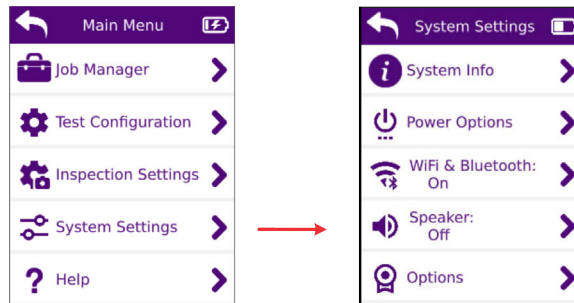
Table 3-4: INX 760 microscope System settings

Settings	Description
System Info	System Time: View or set system data and time
	Software Version: Software version installed on microscope
	Serial Number: Microscope serial number
	Battery Info: • Status: Charging or Discharging • Level: Battery charge percent • Voltage: Voltage output
	Network Info: • IP Address • WiFi Network Name • Bluetooth Address • MAC Address
	Regulatory Info: Regulatory compliance information. Tap to scroll through the available information.
	Open Source Licenses: List of OSS licenses
Power Options	Set power options for Auto Off, Auto Sleep, and Auto Screen Dim settings: • No • 1 min • 5 min (Default) • 10 min • 30 min

Table 3-4: INX 760 microscope System settings (continued)

Settings	Description
WiFi & Bluetooth	Wireless connectivity status: • Off (Default) • On
Speaker	Speaker status: • Off • On (Default; sound emitted when Pass/Fail test passes or fails.)
Options	Status of available options for the INX 760 microscope: • Command and Control REST API: Upgradeable • Multifiber: Enabled/Disabled • Bluetooth & WiFi: Upgradeable • SmartAccess Anywhere: Enabled/Disabled • Simplex: Enabled/Disabled
Factory Reset	Perform a factory reset, which deletes all user data and settings available on the INX 760 microscope. **Important:** Ensure that all required data saved to the INX 760 microscope is uploaded to the Mobile Tech App before performing a factory reset. For information, see "Using the VIAVI Mobile Tech app" on page 5-1.

Updating the INX 760 microscope software locally

You can update the INX 760 microscope software locally by downloading the required software file from inx700.updatemyunit.net to a USB-C thumb drive and then connecting the thumb drive to the microscope.

Notes:
- The software file is a compressed file (*.zip). Do not extract the file.
- The thumb drive must be formatted as either exFAT, FAT16, or FAT32.
- For information about updating the firmware via the VIAVI Mobile Tech app, see "Upgrading INX 760 microscope firmware remotely" on page 5-10.

Step 1.   Ensure that the required software file is available on the thumb drive.

Step 2.   Connect the thumb drive to the microscope.

The **USB** screen appears. When a software file is available on the thumb drive, the **Software Update** option (and the version number of the firmware) is available.
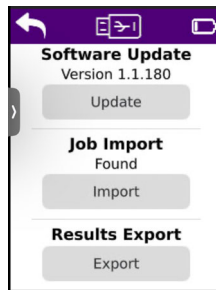
Step 3.   Select **Update**.

The software update initiates.
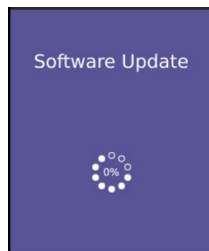
When the update is completed, a message appears to indicate that the operation was successful.
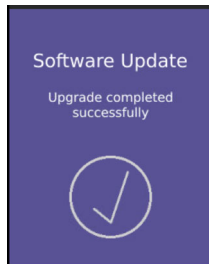
The microscope automatically powers OFF and then powers ON.

Step 4.   Access to the **Systems Info** settings to confirm the software version (see "Managing system settings" on page 3-14).

— End —

4 Pass/Fail tests and managing results

This section covers the following information:

- "Requirements for a Pass/Fail test" on page 4-2
- "Starting a Pass/Fail test" on page 4-3
- "Working with Pass/Fail test results" on page 4-4

Requirements for a Pass/Fail test

Pass/Fail tests inspect fiber connectors against preconfigured pass criteria for the active analysis profile. For information about profiles, see "Managing test configuration settings" on page 3-12.

Note: A Pass or Fail result applies to the entire connector. This means that if only one fiber in the array of a duplex or MPO connector fails to meet the preconfigured pass criteria, the test will return a Fail result for the entire connector. To achieve a Pass result, every fiber in the array must meet the pass criteria.

Table 4-1: Before you begin a Pass/Fail test

Ensure that...	See...
The correct fiber inspection tip for the test is properly installed on the INX 760 microscope.	"Installing a fiber inspection tip" on page 2-6
The required fiber adapter is installed on the inspection tip and a clean fiber connector is mounted on the adapter.	"Mounting a fiber connector" on page 2-8
The analysis profile and tip settings are suitable for the Pass/Fail test.	"Managing test configuration settings" on page 3-12
The live image of the fiber end face is suitable for testing.	• "Mounting a fiber connector" on page 2-8 • "Navigating the Home screen" on page 3-2
The required inspection settings are enabled.	"Managing inspection settings" on page 3-13
The job where test results must be saved is set as the current job.	• "Navigating the Home screen" on page 3-2 • "Creating and managing jobs on the INX 760 microscope" on page 3-5

Starting a Pass/Fail test

Step 1. Review "Requirements for a Pass/Fail test" on page 4-2.

Step 2. Select **Start Test** on the Home screen, or long press the Action trigger.

The purple circulating LED lights while the test is performed. When the test is completed, the pass or fail message is briefly displayed, followed by the Inspected view of the fiber end face.
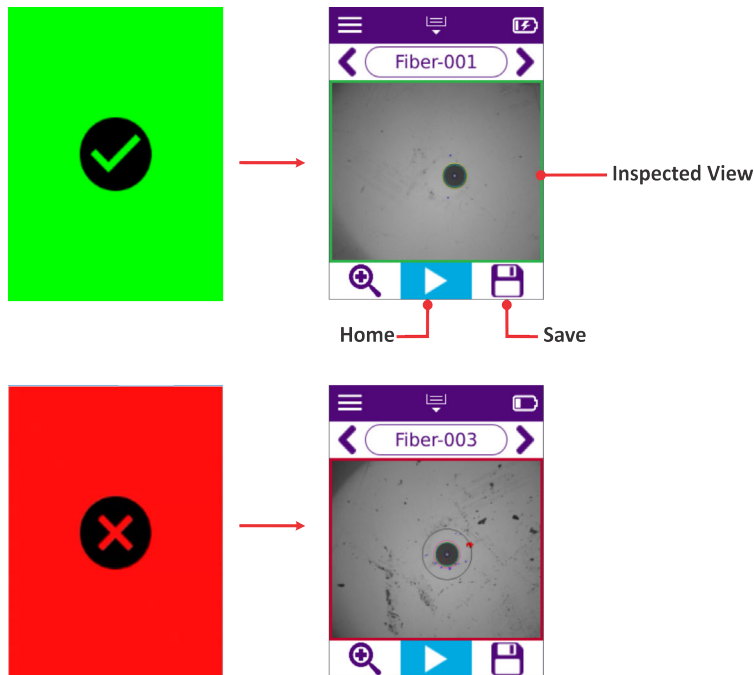
Note: If the **Auto-save** inspection setting is set to **If Pass** or **Always**, the test results are automatically saved to the current job, based on the enabled setting. The **Save** tool becomes unavailable after results are saved.

Step 3. Do any of the following:

- Use the **Magnification High/Low** tool to increase or decrease magnification of the fiber end face.

- Access analysis tools for the test result. See "Working with Pass/Fail test results" on page 4-4.

- Select **Save** (if required) to save the test results for later analysis.

- Select **Go To Previous** or **Go To Next** to scroll to the test ID for another tested fiber connector.

Note: If there are no test results assigned to the next test ID scrolled to, the **Home** screen automatically displays.

- Select **Home** to return to the **Home** screen.

— End —

Working with Pass/Fail test results

You can access test data and available analysis tools immediately after a Pass/Fail test for any type of fiber connector.

Note: If the test results are saved, they can be recalled at a later time for analysis. See "Accessing saved Pass/Fail data" on page 4-6.

*   Tap Inspected view to access analysis tools.

Show/Hide Overlays — Show Test Info
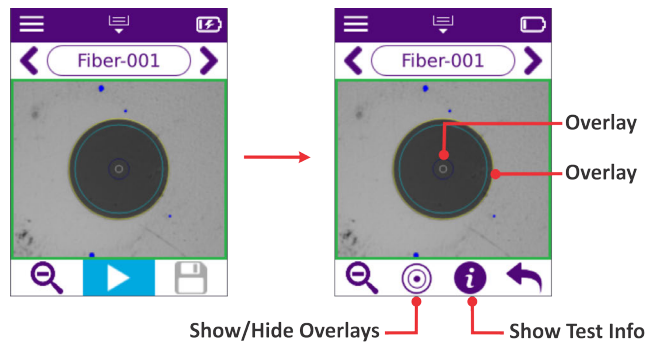
Overlays

Overlays on the captured image denote the fiber core diameter and the zones on the fiber end face as specified in the analysis profile used for the Pass/Fail test.

Overlays are displayed by default in Inspected view; however, you can show or hide them as needed by selecting **Show/Hide Overlays**.

Test Info

Step 1. Select **Show Test Info** to access details of the Pass/Fail test, including Pass/Fail results per zone. Scroll to view all the information provided.
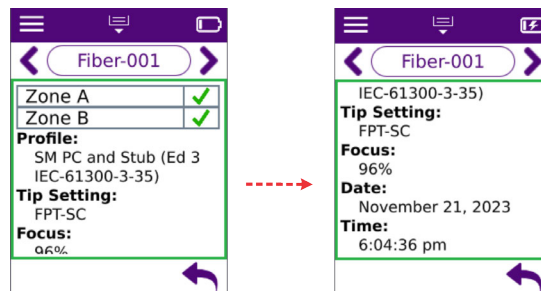
Step 2. Optionally, select **Go To Previous** or **Go To Next** to scroll to the test ID for another tested fiber connector and view its test data.

> **Note:** If there are no test results assigned to the next test ID scrolled to, the **Home** screen automatically displays.

Step 3. Select **Back** to return to return to the previous screen.

— End —

Pass/Fail test results for MPO and duplex fiber connectors

Inspected views for MPO and duplex fiber connectors provide tools for navigating captured images.

Navigating MPO fiber connector test results

Inspected view for an MPO fiber connector shows the fiber array and the Pass/Fail results for each fiber in the array. For example, the MPO fiber connector shown in Figure 4-1 contains 12 fibers, and the pass/fail array shows that all fibers met the pass criteria (green).
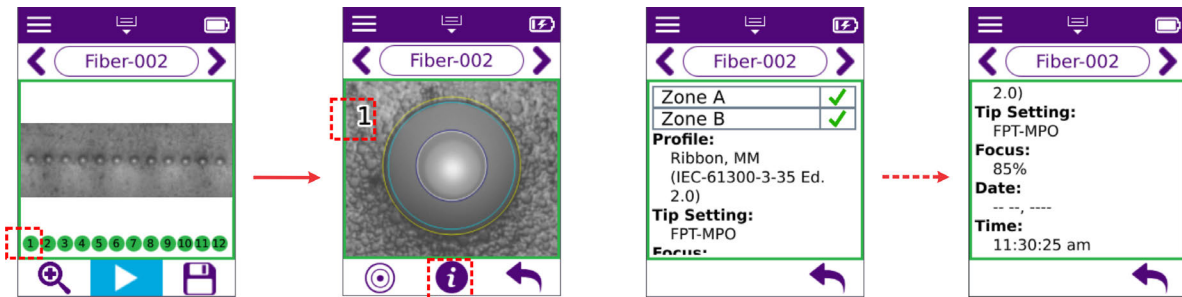
To increase the magnification of Inspected view, tap the touchscreen or use the **Increase/Decrease Magnification** tool. To access the analysis tools (**Show/Hide Overlays**, **Show Test Info**) for a fiber, select a fiber number in the pass/fail array.

Figure 4-1: MPO fiber connector - Inspected view and test data for an individual fiber

Navigating duplex fiber connector test results

Inspected view for a duplex fiber connector shows the left and right fibers and the Pass/Fail results for each fiber. For example, the left (L) and right (R) fibers in the duplex fiber connector shown in Figure 4-2 failed to meet all the pass criteria (red).

To access the analysis tools (**Show/Hide Overlays**, **Show Test Info**) for the left or right fiber, tap a fiber.

Figure 4-2: Duplex fiber connector - Inspected view and test data for individual fiber
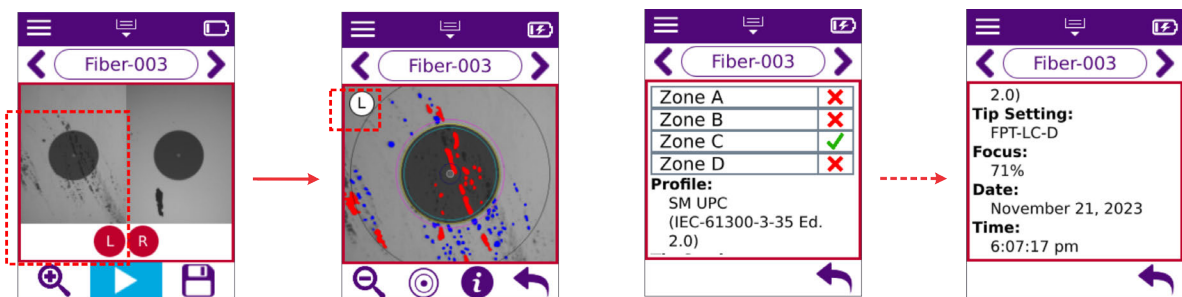
— End —

Accessing saved Pass/Fail data

Step 1. Select **Job Manager** on the **Main Menu**.

Step 2. On the **Job Manager** screen, select a job ID in list.

The **Job Info** screen appears, indicating the number of Pass/Fail tests completed and saved to the job ID.
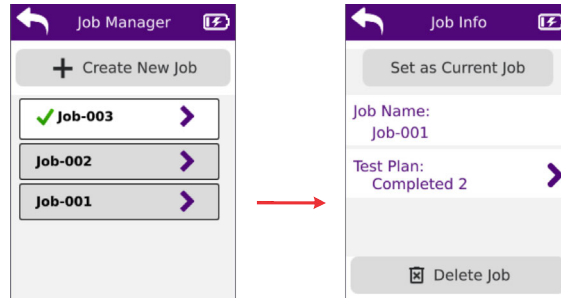
Step 3. If completed tests are available, select **Test Plan**, and then select a test ID in the list.

The Inspected view for the test appears. For more information, see "Working with Pass/Fail test results" on page 4-4.
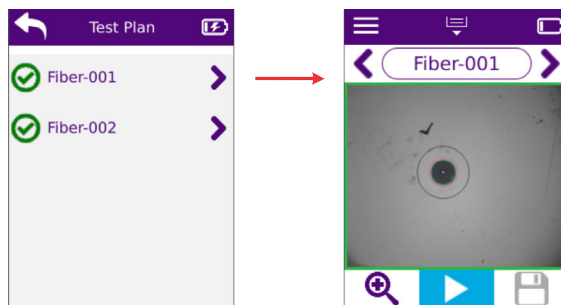
Step 4. Optionally, select **Go To Previous** or **Go To Next** to scroll to the test ID for another tested fiber connector and view its test data.

> **Note:** If there are no test results assigned to the next test ID scrolled to, the **Home** screen automatically displays.

Step 5. Short press the Action trigger to return to the **Home** screen.

— End —

Exporting saved test results

You can export saved test results to a USB-C thumb drive.

Notes:
- The thumb drive must be formatted as either exFAT, FAT16, or FAT32.
- The export operation will automatically export all test results saved to the microscope.

Step 1.   Connect the thumb drive to the microscope.

The **USB** screen appears. When saved test tests are available on the microscope, the **Results Export** option is available.
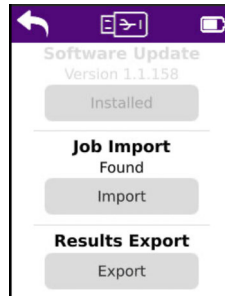
Step 2.   Select **Export**.

Saved test results are exported to the thumb drive.
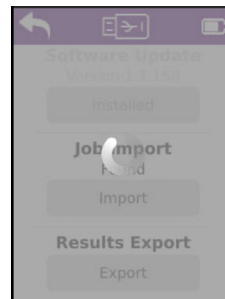
Step 3.   Disconnect the thumb drive, and then access it on a PC to confirm that the results have been exported.

The export operation automatically adds one folder for each job that contains saved test results to the root of the thumb drive. Each folder contains one file for each saved test result and a job report file.
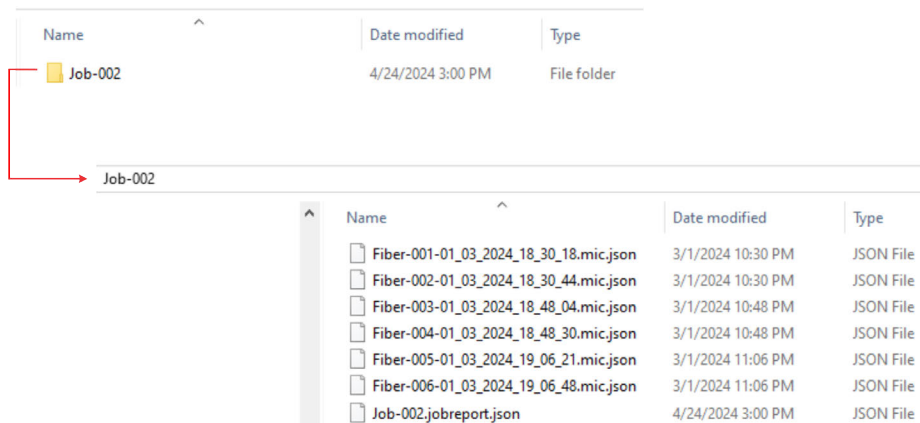
— End —

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5 Using the VIAVI Mobile Tech app

This section covers the following information:

- "Connecting the VIAVI Mobile Tech app to the INX 760 microscope" on page 5-2

- "Using the VIAVI Mobile Tech app tools" on page 5-4

- "Upgrading INX 760 microscope firmware remotely" on page 5-10

Connecting the VIAVI Mobile Tech app to the INX 760 microscope

With the VIAVI Mobile Tech app installed on a mobile device, such as a smart phone or tablet, you can connect the app directly to the INX 760 microscope via a wireless connection. There is no need to pair the microscope and the device.

The VIAVI Mobile Tech app is available for download from Google Play and the App Store.
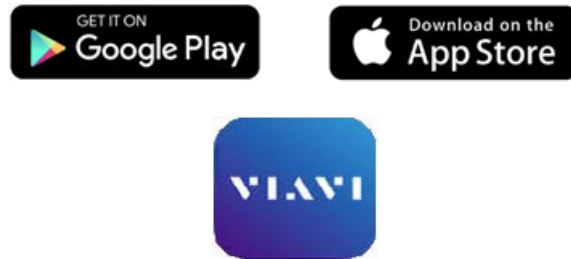
Figure 5-1: VIAVI Mobile Tech app
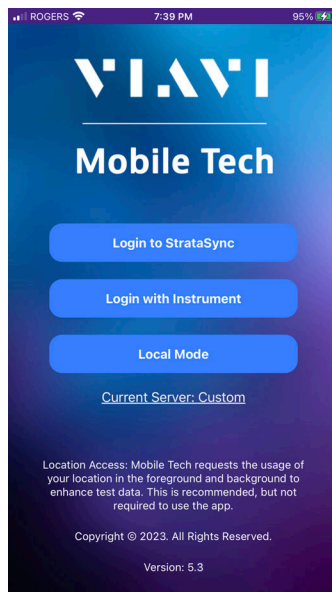
Step 1. Power ON the INX 760 microscope, and ensure that the **WiFi & Bluetooth system** setting is ON (see "Managing system settings" on page 3-14).

Step 2. Access the VIAVI Mobile Tech app on a mobile device, and then select an option.

Select...	To...
Login to StrataSync	Connect the VIAVI Mobile Tech app to StrataSync™ and to the INX 760 microscope using your StrataSync username and password. Connect via Bluetooth, and then join the INX Wi-Fi network when prompted. **Important:** Always select this option when connecting for the first time to an INX 760 microscope that has not yet been added to StrataSync as an asset. Using this option will automatically add the microscope to StrataSync and assign it to your Tech ID.
Login with Instrument	Connect the VIAVI Mobile Tech app to StrataSync and to the INX 760 microscope using your StrataSync Tech ID. Connect via Bluetooth, and then join the INX Wi-Fi network when prompted.
Local Mode	Connect the VIAVI Mobile Tech app to the INX 760 microscope with no connection to StrataSync. Connect via Bluetooth, and then join the INX Wi-Fi network when prompted.

Important: For information about working with StrataSync, refer to the StrataSync documentation. To access this documentation, contact your VIAVI representative or visit www.viavisolutions.com.

— End —

Using the VIAVI Mobile Tech app tools

Figure 5-2: VIAVI Mobile Tech app main screen

Table 5-1: VIAVI Mobile Tech app tools

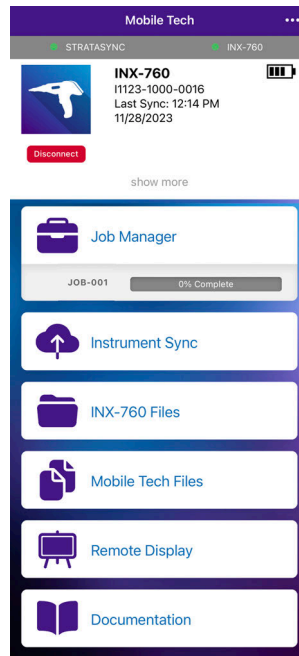| Tools	Description
...	Provides access to the following tools: • Documentation: Access available user documentation. • Product Support: Access the Technical & Product Support Customer Portal login. • Settings: Manage VIAVI Mobile Tech app settings • Upgrade Firmware: Access the **Upgrade Firmware** screen, which provides firmware information and allows you to start an upgrade when upgrade firmware is available. • Logout: Log out of the VIAVI Mobile Tech app. **Note:** You might need to re-establish a connection to the network your device typically uses at your location.
Status Bar	Indicates the connection status to StrataSync and to the INX 760 microscope: • Grey: No connection • Green: Connection established or syncing with StrataSync • Red: Connection issue
Device Information	Provides at-a-glance information about the INX 760 microscope, including serial number, and date and time the INX 760 microscope was last synchronized with StrataSync. Also, indicates when upgrade firmware is available. For information, see "Upgrading INX 760 microscope firmware remotely" on page 5-10). Select **Show More** to access additional details, including Tech ID, software version, battery level, battery temperature, and geolocation information. Select **Disconnect** to disconnect the VIAVI Mobile Tech app from the microscope.
Job Manager	See "Job Manager" on page 5-6.

Table 5-1: VIAVI Mobile Tech app tools (continued)

Tools	Description
Instrument Sync	See "Instrument Sync" on page 5-7.
INX-760 Files	See "INX 760 Files" on page 5-8.
Mobile Tech Files	See "Mobile Tech Files" on page 5-9.
Remote Display	Provides remote access to the INX 760 microscope touchscreen menus and controls. **Note:** Requires VIAVI Mobile Tech app version 5.3 or later.
Documentation	Provides access to available user documentation.

Job Manager

The **Job Manager** tool lists the jobs available on the INX 760 microscope, as well as those available on the VIAVI Mobile Tech app. You can use the tool to create jobs based on custom templates deployed from StrataSync, send any job to the INX 760 microscope, and change the current job on the microscope.

Select a job entry to view details about the job and the associated test plan, and access tools for managing the job, including exporting job-related files, creating and generating a report, and archiving or deleting the job.

Notes:
- During synchronization, jobs created using the VIAVI Mobile Tech app are uploaded to StrataSync. For information, see "Instrument Sync" on page 5-7).
- For information about working with StrataSync, refer to the StrataSync user documentation. To access this documentation, contact your VIAVI representative or visit www.viavisolutions.com.

Figure 5-3: Job Manager tool
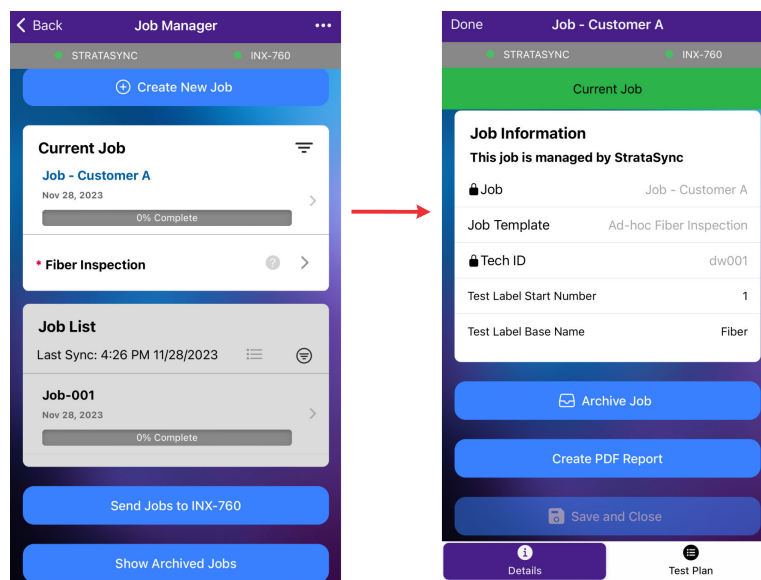
Instrument Sync

The **Instrument Sync** tool performs automatic synchronization of files while the VIAVI Mobile Tech app is connected to the INX 760 microscope and to StrataSync.

During synchronization the following operations are automatically performed:

• Job files created on StrataSync are deployed to the INX 760 microscope.

• Job files created on the VIAVI Mobile Tech app are uploaded to StrataSync.

• All saved Pass/Fail test results are uploaded to StrataSync.

To view a list of completed synchronization operations, select **Completed**.

Between automatic synchronization cycles, you can use the **Instrument Sync** tool to manually deploy or upload files if any are listed in the tool, and poll StrataSync to fetch files that might be available for deployment.

Important: Synchronization is not supported via Local Mode login.

Note: For information about working with StrataSync, refer to the StrataSync user documentation. To access this documentation, contact your VIAVI representative or visit www.viavisolutions.com.

Figure 5-4: Instrument Sync tool
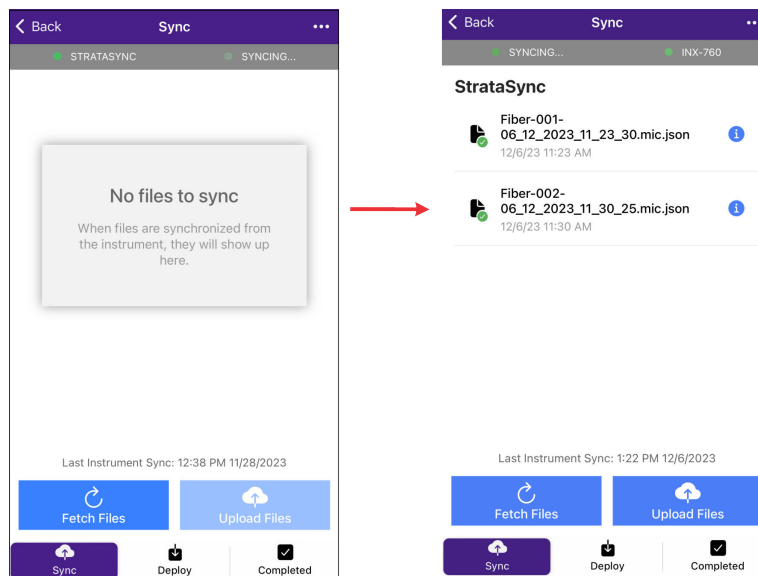
INX 760 Files

The **INX 760 Files** tool enables you to manage job files saved to the INX 760 microscope, including diagnostic files (*.diag) and log files (*.log). Job files are available in folders named for the corresponding job on the microscope, and diagnostic and log files are available in the **diagnostics** folder.

You can share files to other apps available on the device. You can also download one or more files from the microscope to the VIAVI Mobile Tech app so that required jobs and Pass/Fail test data are saved to the app. For more information, see "Mobile Tech Files" on page 5-9.

Figure 5-5: INX 760 Files tool - accessing job or diagnostic files
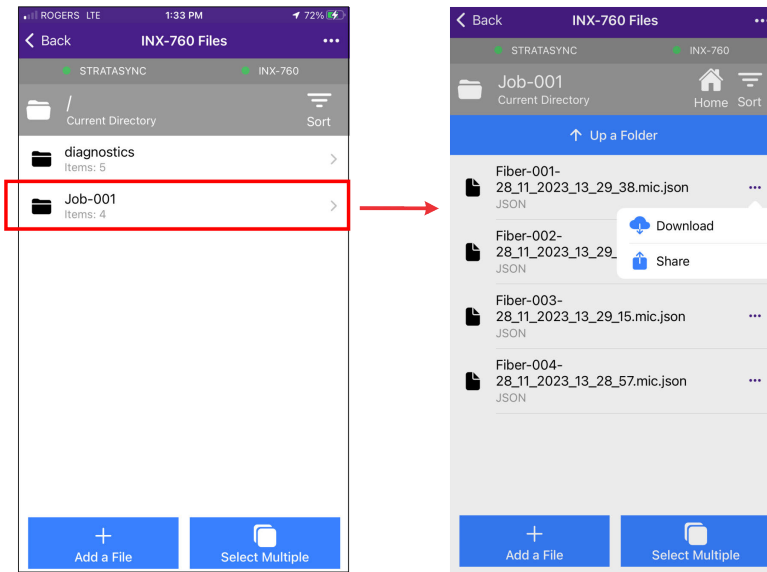
Mobile Tech Files

The **Mobile Tech Files** tool lets you manage files downloaded to the VIAVI Mobile Tech app via the **INX 760 Files** tool (see).

You can share selected files to another app available on the mobile device, deploy files to the INX 760 microscope, attach the files to another job, or delete them.

Figure 5-6: Mobile Tech Files tool
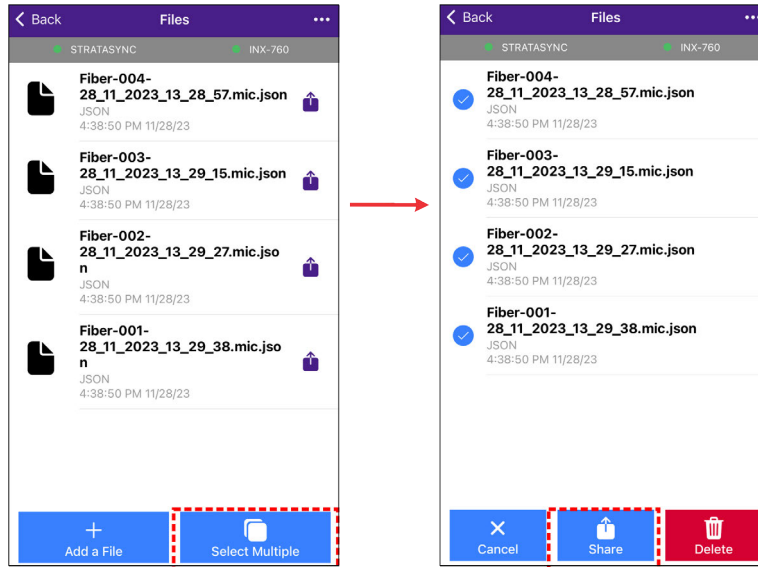
Upgrading INX 760 microscope firmware remotely

The VIAVI Mobile Tech app main screen indicates when StrataSync has deployed upgrade firmware to the INX 760 microscope. Select **Upgrade Firmware** to begin the firmware upgrade.

Note: The INX 760 microscope automatically restarts as the upgrade is completed. You can select **Show More** to view the software version number.

Figure 5-7: VIAVI Mobile Tech app - upgrade firmware available
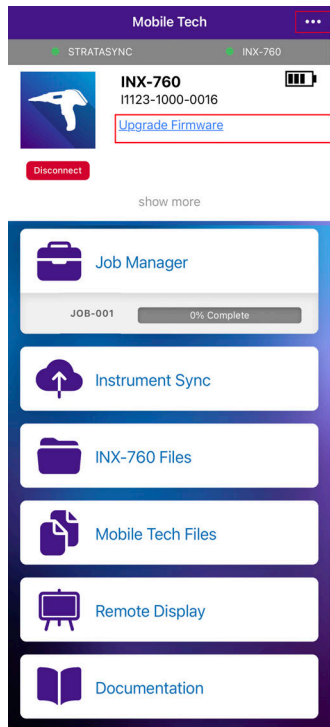
Note: Optionally, select **...** at the top of the Mobile Tech app home screen to access the **Upgrade Firmware** screen, which provides firmware information and allows you to start an upgrade when upgrade firmware is available. See "Using the VIAVI Mobile Tech app tools" on page 5-4.

Appendix A   Regulatory compliance

This section covers the following information:

California Proposition 65

California Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986, was enacted in November 1986 with the aim of protecting individuals in the state of California and the state's drinking water and environment from excessive exposure to chemicals known to the state to cause cancer, birth defects or other reproductive harm.

For the VIAVI position statement on the use of Proposition 65 chemicals in VIAVI products, see the **Hazardous Substance Control** section of the [VIAVI Policies & Standards](#) web page.

Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The authority to operate this product is conditioned by the requirements that no modifications be made to the equipment unless the changes or modifications are expressly approved by VIAVI.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This product complies with 47 CFR Part 15 through use of a modular component authorized under a grant of certification: FCC ID: WUW-LWBPLUS.

⚠	**CAUTION: RF Radiation Exposure** • This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. • This transmitter must not be collocated or operated with any other antenna or transmitter.

Innovation, Science and Economic Development Canada

This Class B digital apparatus complies with Canadian ICES-003.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.

2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Le présent appareil est conforme aux d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage,

2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This product complies with relevant ISED Canada Radio Standard Specifications (RSS) through use of the following modular component authorized under a grant of certification: IC: 9613A-LWBPLUS.

Ce produit est conforme aux spécifications des normes radioélectriques (RSS) pertinentes d'ISDE Canada grâce à l'utilisation du composant modulaire suivant autorisé en vertu de une délivrance de certification: IC: 9613A-LWBPLUS.

⚠	**CAUTION: RF Radiation Exposure** • This equipment complies with ISED Canada radiation exposure limits set forth for an uncontrolled environment. • To comply with Canadian RF exposure requirements, this device and its antenna must not be collocated or operated in conjunction with any other antenna or transmitter. **ATTENTION: Exposition aux rayonnements RF** • Cet équipement est conforme aux limites d'exposition aux rayonnements RF d'ISDE Canada établies pour un environnement non contrôlé. • Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

Product Environmental Compliance

VIAVI is committed to compliance with all applicable laws and regulations controlling the use of hazardous substances in its products, as well as the disposal of equipment (including batteries) and waste packaging. For details, see the VIAVI Policies & Standards web page or contact the VIAVI WEEE Program Management team at Global.WEEE@ViaviSolutions.com.

EU REACH

Article 33 of EU REACH regulation (EC) No 1907/2006 requires product suppliers to provide information when a substance included in the list of Substances of Very High Concern (SVHC) is present in an product above a certain threshold. For information about the presence of REACH SVHC in VIAVI products, see the **Hazardous Substance Control** section of the VIAVI Policies & Standards web page.

EU Declaration of Conformity

EU manufacturer Declaration of Conformity is shipped with the product and is also available on request.

EU Radio Equipment Directive

In accordance with Article 10.8 of the EU Radio Equipment Directive 2014/53/EU, the following table provides information on the frequency bands and the maximum RF transmit power of this product for sale in the EU.

Frequency Range (MHz)	Channels Used	Maximum Transmit Power (dBm)
2400-2483.5	1 to 13	19.98

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in Italy and France where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information, the end-user should contact the national spectrum authority in France.

Additional standards compliance

The equipment meets the following standards and requirements:

•   Installation Category (Over voltage Category) II under IEC 60664-1

•   Pollution Degree 2 Category under IEC 61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use

China RoHS materials declaration

The China RoHS materials declaration is shipped with the product and is also available on request.

Appendix B   User Guide revision history

Revision	Date	Details

001	April 2024	• Added the following sections:
		    • "Importing job files"
		    • "Exporting saved test results"
		    • "Updating the INX 760 microscope software locally"
		• Updated the following sections:
		    • "INX 760 microscope Home screen menus and tools"
		    • "INX 760 microscope System settings"
		    • "Mounting a fiber connector"
		    • "Pass/Fail test results for MPO and duplex fiber connectors"
		    • "INX 760 Files"

000	December 2023	This document is released.

VIAVI

INX™ 760 Probe Microscope
User Guide
22174569 Rev 001, Standard
April 2024
English

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