

SmartOTDR GETTING STARTED MANUAL

SAFETY INFORMATION

Laser safety

The provisions contained in two standards define the safety procedures to be observed both by users and by manufacturers when utilizing laser products:

- EN 60825-1: 2001 - Safety of laser products – Part 1: Classification of products, requirements and user guidelines.
- FDA 21 CFR § 1040.10 - Performance standards for light-emitting products - Laser products.

Due to the range of possible wavelengths, power values and injection characteristics of a laser beam, the risks inherent in its usage vary. The laser classes form groups representing different safety thresholds.

- VFL option: Laser Class 2.

Due to the reduced dimensions of the optical modules, it is not possible to attach the required warning labels to them. In line with the provisions of Article 5.1 of the EN 60825-1 standard, the laser class identification labels are shown below:

Ref. standard	EN 60825-1, Edition 1.2, 2001-08	FDA21CFR§1040.10
Class 2	LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT	CAUTION LASER RADIATION - DO NOT STARE INTO BEAM CLASS II LASER PRODUCT

The user must take the necessary precautions concerning the optical outputs of the instrument and follow the manufacturer's instructions.

AC/DC power supply safety

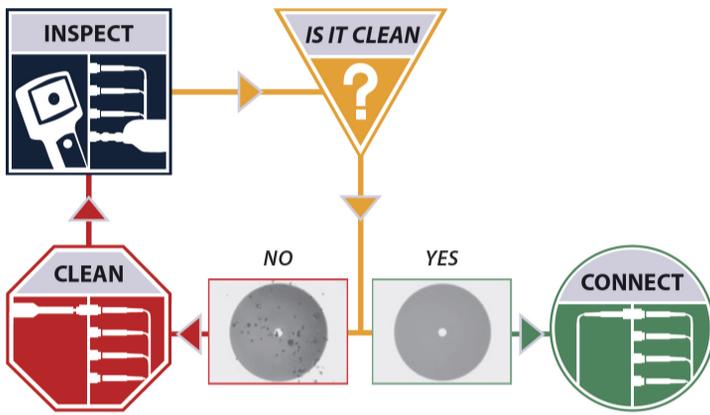
Always use the proper adaptable plug to connect the power supply to an electrical outlet. Viavi is not responsible for direct or indirect damage including damage to persons or property if the power supply is not use correctly. For assistance using one of the Viavi supplied adapters (your specific regional adapter may not be available) please refer to the user manual.

INSPECT BEFORE YOU CONNECT

Before connecting a fiber into a test module, inspect and clean the module bulkhead and the fiber jumper connectors.

- 1 Use a video inspection scope (such as P5000i) to verify the connector quality. Follow this simple "INSPECT BEFORE YOU CONNECT" process
- 2 Use appropriate cleaning material (e.g. IBC™ cleaner, cotton swab, dust air sprays, etc...) and re-inspect to confirm.
- 3 Carefully align the connector and test port prior to mating both

Never force the connector ferrule or insert it with an angle into the test port adapter. Mechanical stress may permanently damage the ceramic sleeve of the adapter or the end face of the connector.



USING A MICROSCOPE WITH THE SmartOTDR

- 1 Connect the Microscope to the SmartOTDR USB port.



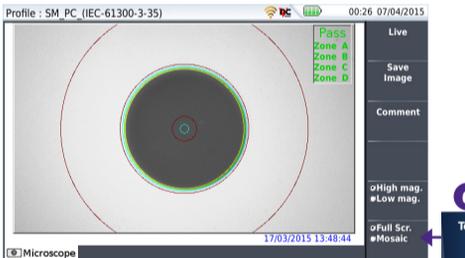
- 2 On the Home page, select the Microscope icon.



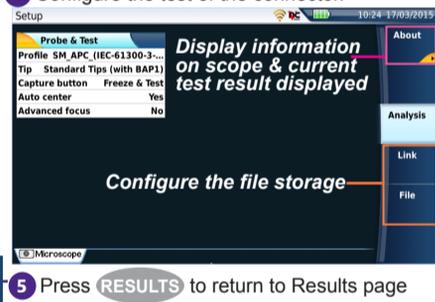
- 3 Use Focus control button on Microscope to adjust focus.



- 7 A summary of test results is displayed. Zones: A - Core / B - Cladding / C - Epoxy / D - Ferrule



- 4 Configure the test of the connector.



- 5 Press RESULTS to return to Results page

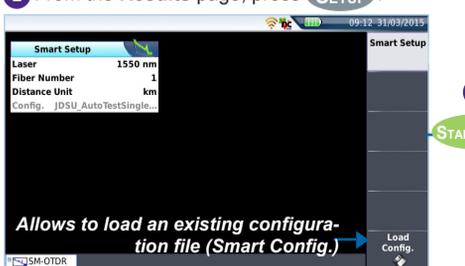
SmartOTDR OVERVIEW



- | | | |
|----------------------------|----------------------------------|--|
| 1 5" HVT Capacitive Screen | 8 On/Off | 15 Slave Mini USB port |
| 2 Charge indicator | 9 Home page | 16 VFL connector |
| 3 On indicator | 10 Cancel (switch off functions) | 17 USB ports (2) |
| 4 File menu | 11 Direction & validation keys | 18 OTDR port / continuous light source / power meter |
| 5 Setup menu | 12 Results page | 19 OTDR live port (in-service test) |
| 6 Start/Stop | 13 Buzzer | 20 WIFI or Bluetooth options |
| 7 Testing indicator | 14 AC/DC Input | |

CONFIGURING AND PERFORMING A TEST IN Smart Test Mode

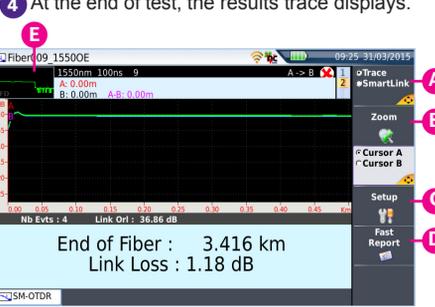
- 1 On the Home page, select Smart TEST icon
- 2 From the Results page, press SETUP



- Step1: connector check
Step2: acquisition in progress



- A Trace: select the active trace (multi-traces analysis)
- B Summary: display a summary of results for each wavelengths
- C SmartLink (optional): Icon based map view
- D Zoom and shift on trace
- E Allows to modify some acquisition parameters and load Smart Config.
- F Save in a sor file and create a txt or pdf report of the results
- G Toggle between Table of results <-> Fault Locator View



CONFIGURING A TEST / CREATING A Smart Config. IN EXPERT MODE

- On the Home page, select **ExpertOTDR**.
- From the Results page, press **SETUP**.
- Configure the OTDR parameters.
- Select one parameter and press **Save Config.** to save the current configuration.
- Press **FILE** to access the configuration file summary of configuration parameters into the file.

The screenshots show the 'Alarms' and 'Parameters' configuration screens. The 'Alarms' screen shows thresholds for Splice Loss, Connector Loss, Reflectance, and Splitter Alarm. The 'Parameters' screen shows settings for Section Attenuation, Index Of Refraction, Scatter Coefficient, Distance Unit, Results On Trace, and Measurement. The 'File Configuration' screen shows settings for Dir, File Naming, File Content, Save Mode, and Auto store. The 'Link' screen shows details for Fiber 7, including Cable Id, Direction, Location A, Location B, Technician Id, and Job Id. The 'File' screen shows a list of configuration files, including Config1.SM-OTDR.

To perform acquisitions in Expert OTDR, see chapter "Launching a reflectometry test and displaying results" in Module User Manual.

CREATING A DIRECTORY TO STORE OTDR RESULTS

- Once results are displayed, press **FILE** to display the file Explorer.
- Select the location where the directory must be created.
- Press **Create Directory**.
- Enter a name for the new directory.

The screenshots show the 'SmartOTDR' file explorer. The 'Files' folder is selected. The 'Create Directory' button is pressed. A keyboard interface appears to enter the name '1st tests'. The 'Enter' key is pressed to create the directory.

The files can be transferred, using **Edit** sub-menu:

- to USB folder if plugged
- to your remote device via Bluetooth
- to your preferred cloud storage server

To get more information on Connectivity and files transfer, refer to SmartOTDR Base Unit User Manual.

The traces acquired can be saved in the new directory.

The screenshot shows the 'File Explorer' with the '1st tests' sub-directory created under the 'Files' folder.

SAVING THE OTDR RESULTS

- In the Results screen, press **Fast Report** key.
- Select the **Save Mode** and, if necessary, modify the Fiber / Cable / Link parameters:
- Press **Fast Report**.
- In the edition keypad, enter the filename or press **Auto Filenaming** menu key.
- Press to validate.

The screenshots show the 'Fast Report' screen with a table of events. The 'Save Mode' is set to 'File Only'. The 'Fast Report' button is pressed. The 'Auto Filenaming' menu key is used to save the results to a file named 'OTDR Trace and report' in the '1st tests' directory.

Once saving is completed, the file(s) is/are displayed in the Explorer.

The screenshot shows the 'File Explorer' with the saved OTDR trace files listed in the '1st tests' directory.

WIFI CONNECTION

- On the Home page, select **Connectivity**.
- In Setup page, press **Wireless** key and configure the WIFI connection in **Configuration** box.
- Press **Connect SSID** to connect the configured SSID.
- Press **Select** once the desired network to connect to is selected, via WIFI.
- Configure the SSID parameters.
- To work on WIFI with the Platform, configure the 802.11 parameters, and the proxy parameter if necessary.
- Note the IP address of the SmartOTDR to be able to remote screen on PC or to transfer files via WIFI.

The screenshots show the 'Connectivity' screen with the 'Wireless' key selected. The 'Configuration' screen shows the 'Wireless' settings. The 'Connect SSID' button is pressed. The 'Select' button is used to choose a network. The 'Configure' button is used to set the SSID parameters.

To get information on WIFI use, refer to SmartOTDR Base Unit User Manual.

TECHNICAL ASSISTANCE

If you require technical assistance, call 1-844-GO-VIAVI. For the latest TAC information, go to <http://www.viavisolutions.com/en/services-and-support/support/technical-assistance>.

