

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	<div style="border: 1px solid black; padding: 5px; text-align: center;"> LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT </div>	<div style="border: 1px solid black; padding: 5px;"> <div style="background-color: black; color: white; text-align: center; padding: 2px;">CAUTION</div> <div style="text-align: center;">  LASER RADIATION - DO NOT STARE INTO BEAM CLASS II LASER PRODUCT </div> </div>

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

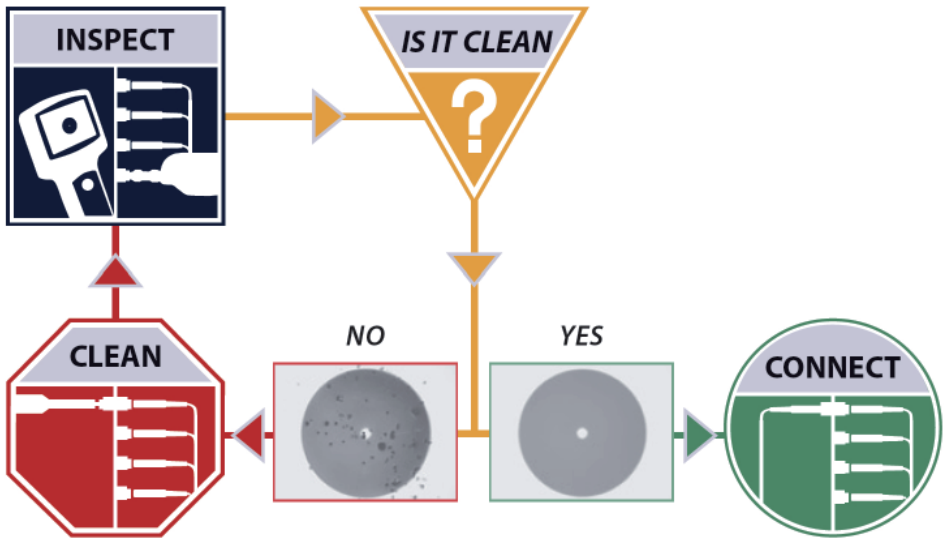


Always use the proper adaptable plug to connect the power supply to an electrical outlet. Viavi is not responsible for direct or indirect damage including damage to persons or property if the power supply is not use correctly. For assistance using one of the Viavi supplied adapters (your specific regional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



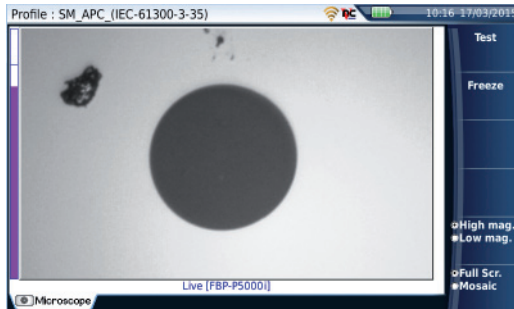
Never force the connector ferrule or insert it with an angle into the test port adapter. Mechanical stress may permanently damage the ceramic sleeve of the adapter or the end face of the connector.

USING A MICROSCOPE WITH THE SmartOTDR

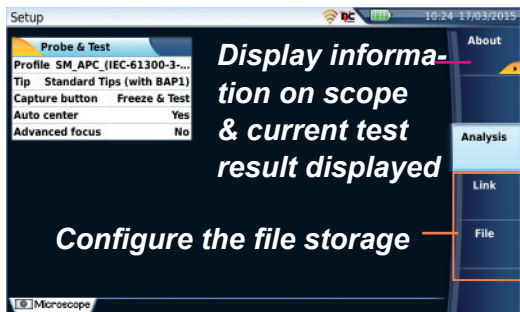
- 1 Connect the Microscope to the SmartOTDR USB port.
- 2 On the **Home** page, select the **Microscope** icon



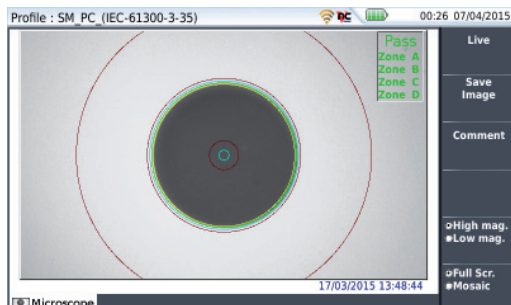
- 3 Use Focus control button on Microscope to adjust focus



- 4 Press **SETUP** and configure the test of the connector.



- 5 Press **RESULTS** to return to Results page, and press **Test** to launch the test of the connector.



A summary of test results is displayed.

Zones: A - Core / B - Cladding / C - Epoxy / D - Ferrule.

SmartOTDR OVERVIEW



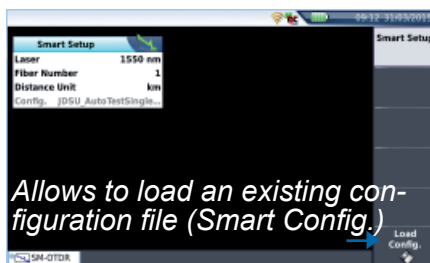
- | | |
|---|---|
| 1 5" HVT Capacitive Screen | 11 Direction & validation keys |
| 2 Charge indicator | 12 Results page |
| 3 On indicator | 13 Buzzer |
| 4 File menu | 14 AC/DC Input |
| 5 Setup menu | 15 Slave Mini USB port |
| 6 Start/Stop | 16 VFL connector |
| 7 Testing indicator | 17 USB ports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

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**.



Allows to load an existing configuration file (Smart Config.)

3 Press **START/STOP** to launch the test of the connector.

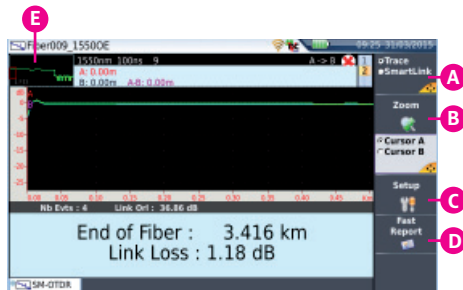


Step1: connector check

Step2: acquisition in progress

3 At the end of test, the results trace displays.

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



Launch a real time acquisition pressing the Start/Stop button for more than 2 seconds.

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

1 On the **Home** page, select **ExpertOTDR** icon



2 From the **Results** page, press **SETUP**.

3 Configure the OTDR parameters.

Acquisition

- Laser: 1310 nm
- Acquisition: Manual
- Range: 5km
- Pulse: 300ns(30m)
- Resolution: Auto 2.5m
- Time: 01:00
- OptiPulses: Auto
- Otdr Connector Test: Yes & Co...

Launch Cable

- Launch Cable End: No
- Receive Cable Start: No
- Include Link Start Connector: No
- Include Link End Connector: No

Alarms

- Threshold: G.697/G.98x PON
- Splice Loss: > 0.30 dB
- Connector Loss: > 0.50 dB
- Reflectance: > -35 dB
- Splitter Alarm: No
- Link Loss Max.: < 25 dB

Link

- Fiber Id: Fiber 7
- Fiber Number: Increment
- Cable Id: A->B
- Location A: LOC A
- Location B: LOC B
- Technician Id:
- Job Id:
- Comment:

File

- File Configuration: disk/
- Dir:
- File Naming: OTDR Trace and re...
- File Content: One Trace
- Save Mode: File + pdf
- Auto store: Yes

Alarms

- Threshold: G.697/G.98x PON
- Splice Loss: > 0.30 dB
- Connector Loss: > 0.50 dB
- Reflectance: > -35 dB
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Link

- Fiber Id: Fiber 7
- Fiber Number: Increment
- Cable Id: A->B
- Location A: LOC A
- Location B: LOC B
- Technician Id:
- Job Id:
- Comment:

Analysis

- Parameters
- Section Attenuation: None
- Index Of Refraction:
- Scatter Coefficient:
- Distance Unit: meter
- Results On Trace: Graphics
- Measurement
- Otdr Connector Meas: No
- Number of Splitters: 1
- Detection:

4 Select one parameter and press **Save Config.** to save the current configuration.

Save Config.

File Configuration

Dir: disk/

File Naming: OTDR Trace and re...

File Content: One Trace

Save Mode: File + pdf

Auto store: Yes

5 Press **Enter** to validate.

6 Press **FILE** to access the configuration file.

Summary of configuration parameters into the file

Config1 SM OTDR

- Config1 SM OTDR to efg
- Laser: L310_1550
- Acq. Mode: PPOT
- Acq. Time: 10
- Fiber Num: 7
- Auto Store: YES

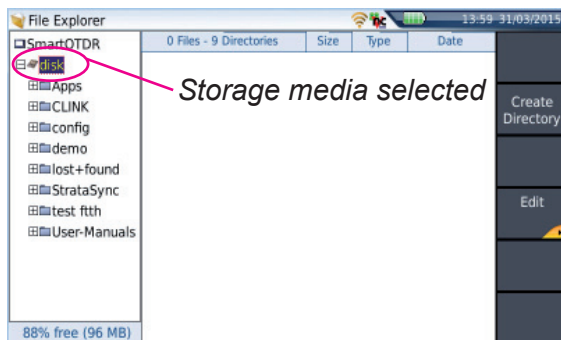
File List

File Name	Date
Config1 SM OTDR	01/04/15 14:12
JDSU_Through1x32_PON.SM-O...	28/01/15 11:05
JDSU_AutoTestMultimode.MM...	28/01/15 11:05
JDSU_AutoTestSinglemode.SM...	28/01/15 11:05
JDSU_LongReach_160km.SM...	28/01/15 11:05
JDSU_ShortReach_20km.SM-O...	28/01/15 11:05
JDSU_VeryShortReach_1km.S...	28/01/15 11:05
JDSU_Through1x64_PON.SM-O...	28/01/15 11:05

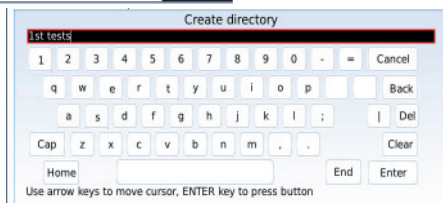
To perform acquisitions in Expert OTDR, see chapter “Launching a reflectometry test and displaying results” in Module User Manual.

CREATING A DIRECTORY TO STORE OTDR RESULTS

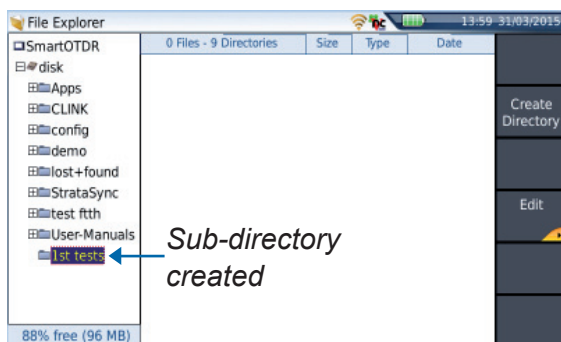
- 1 Once results are displayed, press **FILE** to display the file Explorer.
- 2 Select the location where the directory must be created.



- 3 Press **Create Directory**.
- 4 Enter a name for the new directory.
- 5 Press **Enter** to validate.



The traces acquired can be saved in the new 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.

SAVING THE OTDR RESULTS

1 In the Results screen, press **Fast Report** key.



2 Select the **Save Mode** and , if necessary, modify the Fiber / Cable / Link parameters:

File Only: save exclusively the OTDR trace(s)

File + txt: save the OTDR trace(s) & generate a txt file

File + pdf: save the OTDR trace(s) & generate a pdf file

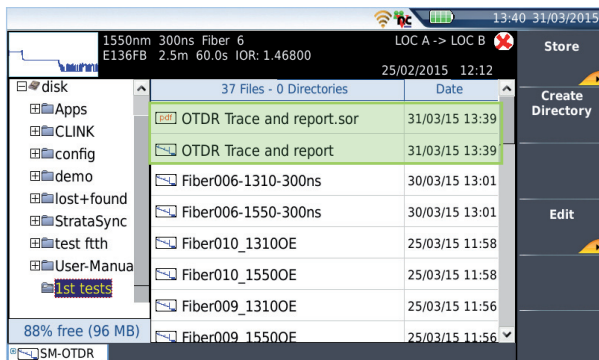
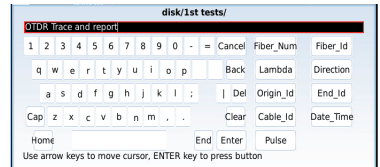
All: save the OTDR traces & generate a pdf and a txt file



3 Press **Save All**.

4 In the edition keypad, enter the filename or press **Auto Filenaming** menu key.

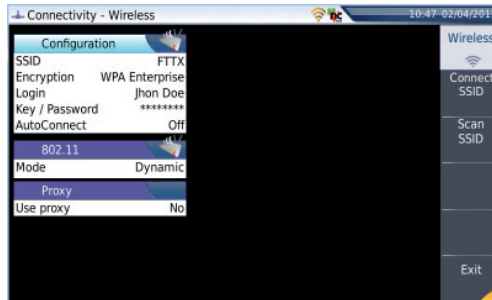
5 Press **FILE** to display the file Explorer.



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

WIFI CONNECTION


- 1 On the **Home** page, select  > .
- 2 In Setup page, press **Wireless** key and configure the WIFI connection in **Configuration** box.

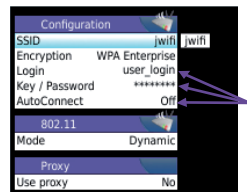


- 3 Press **Scan SSID**.
- 4 Press **Select** once the desired network to connect to is selected, via WIFI.



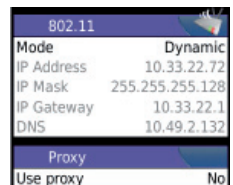
In setup page, the SSID parameter is automatically configured with the one selected.

- 5 Configure the Login, Password, and Autoconnect parameters.
- 6 Press  to connect the configured SSID.



On the upper banner, the icon WIFI “inactive”  turns active .

- 7 To work on WIFI with the Platform, configure the **802.11** parameters, and the proxy parameter if necessary.
- 8 Note the IP address of the SmartOTDR to be able to remote screen on PC or to transfer files via WIFI.



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>.

