



Cable-SLM Software Option

**For T-BERD[®]/MTS-2000, -4000 V2, -5800,
SmartOTDR and OneAdvisor-800/-1000
Platforms**

User Manual

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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 [VIAVI's Standards and Policies](#) web page.

EU WEEE and Battery Directives

This product, and the batteries used to power the product, should not be disposed of as unsorted municipal waste and should be collected separately and disposed of according to your national regulations.

VIAVI has established a take-back processes in compliance with the EU Waste Electrical and Electronic Equipment (WEEE) Directive, 2012/19/EU, and the EU Battery Directive, 2006/66/EC.

Instructions for returning waste equipment and batteries to JDSU can be found in the WEEE section of [VIAVI's Standards and Policies](#) web page.

If you have questions concerning disposal of your equipment or batteries, contact VIAVI's WEEE Program Management team at WEEE.EMEA@VIAVISolutions.com.

EU REACH

Article 33 of EU REACH regulation (EC) No 1907/2006 requires article suppliers to provide information if a listed Substances of Very High Concern (SVHC) is present in an article above a certain threshold.

For information on the presence of REACH SVHCs in VIAVI products, see the Hazardous Substance Control section of VIAVI's Standards and Policies web page.

EU CE Marking Directives (LV, EMC, RoHS, RE)

This product conforms with all applicable CE marking directives. Please see EU Declaration of Conformity for details.



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About This Guide

The VIAVI equipments provide handheld, modular platforms designed for the construction, validation and maintenance of fiber networks.

The topics discussed in this chapter are as follows:

- [“Purpose and scope” on page x](#)
- [“Assumptions” on page x](#)
- [“Technical assistance” on page x](#)
- [“Recycling Information” on page x](#)
- [“Conventions” on page x](#)

Purpose and scope

The purpose of this guide is to help you successfully use the equipment features and capabilities. This guide includes task-based instructions that describe how to configure, use, and troubleshoot the equipment with OTDR module.

Assumptions

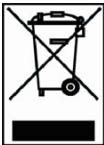
We are assuming that you have basic computer and mouse/track ball experience and are familiar with basic telecommunication and fiber optic concepts and terminology.

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>.

Recycling Information

VIAVI recommends that customers dispose of their instruments and peripherals in an environmentally sound manner. Potential methods include reuse of parts or whole products and recycling of products components, and/or materials.



Waste Electrical and electronic Equipment (WEEE) Directive

In the European Union, this label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

Conventions

This guide uses naming conventions and symbols, as described in the following tables.

Table 1 Typographical conventions

Description	Example
User interface actions appear in this typeface .	On the Status bar, click Start .
Buttons or switches that you press on a unit appear in this TYPEFACE .	Press the ON switch
Code and output messages appear in this <code>typeface</code> .	All results okay
Text you must type exactly as shown appears in this <code>typeface</code> .	Type: a:\set.exe in the dialog box
Variables appear in this <i>typeface</i> .	Type the new <i>hostname</i> .
Book references appear in this <i>typeface</i> .	Refer to <i>Newton's Telecom Dictionary</i>
A vertical bar means "or": only one option can appear in a single command.	platform [a b e]
Square brackets [] indicate an optional argument.	login [platform name]
Slanted brackets < > group required arguments.	<password>

Table 2 Keyboard and menu conventions

Description	Example
A plus sign + indicates simultaneous keystrokes.	Press Ctrl+s
A comma indicates consecutive key strokes.	Press Alt+f,s
A slanted bracket indicates choosing a submenu from menu.	On the menu bar, click Start > Program Files .

Table 3 Symbol conventions



This symbol represents a general hazard.



This symbol represents a risk of electrical shock.



NOTE

This symbol represents a Note indicating related information or tip.



This symbol, located on the equipment or its packaging indicates that the equipment must not be disposed of in a land-fill site or as municipal waste, and should be disposed of according to your national regulations.

Table 4 Safety definitions



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Cable-SLM Principle and Configurations

This chapter describes the principle of the Cable-SLM option, the configuration of the OTDR acquisitions and the Project creation.

The topics discussed in this chapter are as follow:

- [“Principle of Cable-SLM” on page 2](#)
- [“Configuring an OTDR acquisition or a Bidirectional IL-ORL-OTDR acquisition” on page 3](#)
- [“Creating a new project” on page 3](#)
- [“Loading an existing project” on page 4](#)



Check the module's availability with Cable-SLM.

Principle of Cable-SLM

Description

Cable-SLM Software option allows to associate a project to a full cable commissioning/ acceptance test.

It facilitates all high fiber count cable test process through:

- Custom configuration including pass/fail criteria,
- Dedicated results view,
- Summary report

Features and Benefits

- Improve operational efficiency:
 - Immediate project status with real time view displaying each fiber measurement results,
 - Convenient Label ID management option
 - Automatic Cable summary report directly generated on the instrument,
 - Unique project directory management for all results and reports.
- Perform immediate corrective actions:
 - Reliable identification of failed fibers with real time view displaying each fiber visual pass/fail status,
 - Fast and Error free re-test process with auto save results and report process.

Targeted use cases

High fiber count construction acceptance projects

Compatibility

Compatible with all tests performed with VIAVI OTDR 4100 series modules A, B, C, QUAD and Bidirectional IL,ORL and OTDR FiberComplete modules

Configuring an OTDR acquisition or a Bidirectional IL-ORL-OTDR acquisition

Please refer to the OTDR or FiberComplete user manual dedicated section for Acquisition set up.

Creating a new project


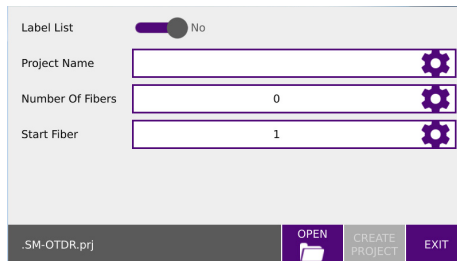
- 1 To create a project, tap the **Manage Project** soft key  at the bottom right of the screen.
A new project information set up menu is displayed.

Figure 1 Project information setup menu






Label List No

Project Name

Number Of Fibers

Start Fiber

.SM-OTDR.prj   



NOTE

Number of fibers is limited to 10 000.

- If the fibers do not have labels (default), just fill the project name, number of fibers to be tested and the start fiber number in the edition keypad opened.



Label List No

Project Name

Number Of Fibers

Start Fiber

- If a Label list should be used for fiber identification, set “Label list” to **Yes** and browse by clicking on the **Selected Label List** section.

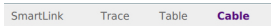
Label List: Yes
Selected Label List:
Project Name: test
Panel structure: Simplex Fiber

Label List: Yes
Selected Label List:
Project Name: test
Panel structure: Multifiber Connectors
Fiber Count: MPO (12/12)

A .csv label list example is stored in the Project directory.

- 2 Once filled, press **Create Project**.

A new **Cable** tab pops up on the instrument, displaying the Project with fiber number or labels.



If a project with a similar name already exists, a pop-up message “modifying file not allowed” will be displayed.

Project directory management with results and reports saving

When a project is created, a project sub folder is automatically created in “Disk/Project” under the app directory « EXPERT_OTDR > OTDR_SM or OTDR_MM » or « FCOMP/FCOMP-PRO ».



CAUTION

Once a project is created, the parameters cannot be modified except those from “Acquisition”.

Loading an existing project

To open or load an existing project:


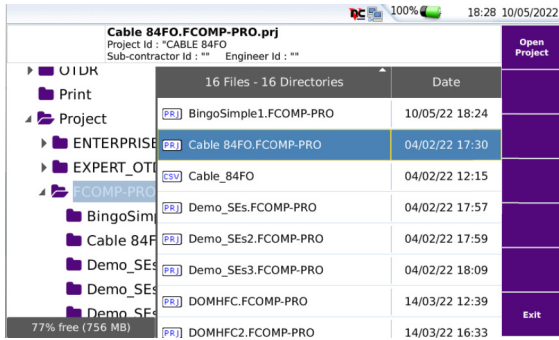
- 1 Press the **Manage Project** soft key  on the Results screen.
- 2 Select **OPEN**.
- 3 In the file explorer section, select the project file to be used (.prj) in *Project /...* directory.
- 4 Select **Load** and **Open project**.

Figure 2 Loading a project



Creating a custom Label list through.csv files

Custom label list can be implemented in any project by loading a .csv file on the device.

The .csv file should be saved with CSV (DOS) selection.

Do not put « : » , « / » , « . » in the filename, use « _ »

Cable-SLM Test and Results

This chapter describes how to launch tests from the Cable-SLM project and the results displayed.

The topics discussed in this chapter are as follows:

- [“Starting the test through the project view: “Cable””](#) on page 8
- [“Results of project cable”](#) on page 10
- [“Files and Project storage”](#) on page 12

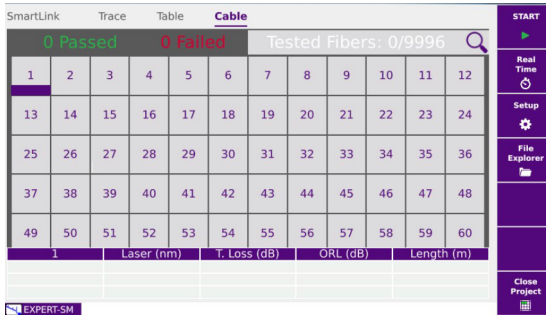
Starting the test through the project view: "Cable"



Inspect & clean all fiber connections prior to connecting fiber under test to the OTDR port.

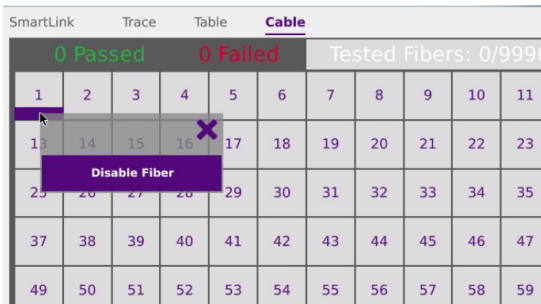
Once a project has been created or loaded, a new Cable view is displayed.

Figure 3 Cable view



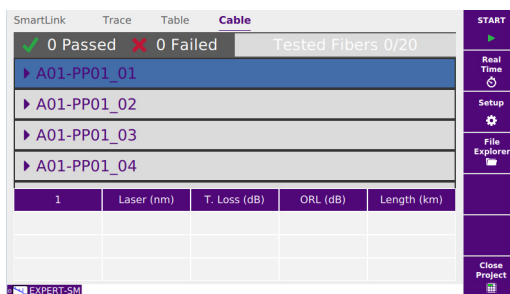
- 1 A customizing menu can be displayed by making a long press on any fiber case.

Figure 4 Disable a fiber

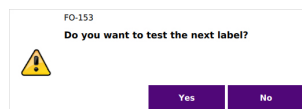


- 2 Disable a selected fiber (= Disable fiber).
Disabled cases turn dark grey.
If needed, make a long press again and select "Enable fiber" to reverse the action.
- 3 Click on any fiber to be tested first (underlined in purple) and press **START** key to launch the test.
The test starts from the fiber / label case underlined in purple.
With Multifiber connectors, one label per row identifies one connector with «n» fibers.

Figure 5 Multifiber connectors



- 4 Once all acquisitions have been performed on the selected fiber, a pop up message is displayed.



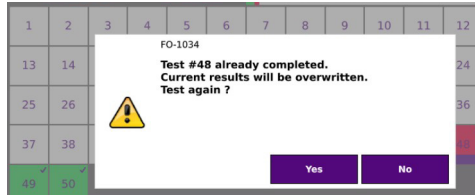
Click **Yes** to test the next fiber/ label. Prior pressing **Yes**, disconnect the launch/receive cables from the already tested fiber and connect them to the next fiber to be tested

Click **No** to return to the project table.

Redo a test onto a fiber already tested

- 1 Click on one fiber already tested.
A pop up message is displayed.

Figure 6 Redo test



Click **Yes** to confirm the redo test, the previous results and files will be overwritten.

Click **No** to cancel the redo test

Results file storage

The results files are automatically stored into the project directory and according to defined filenaming convention.

All measurement files and reports will be automatically saved in this dedicated directory as well as the summary .pdf cable report. (see [“Files and Project storage” on page 12](#)).

The project files are visible in the file explorer only when the project is closed.

Results of project cable

Analyzing the project results in Cable view

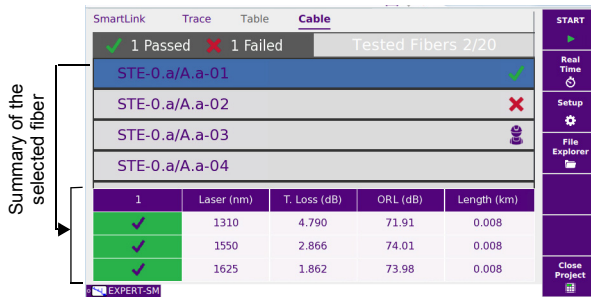
Once all fibers have been tested, the **Cable** view displays the following information.

Description

- A summary is available on the top of the list indicating the numbers of Passed / Failed / Tested fibers.

- A test status is provided for each fiber with a color coding and an icon.
 - Green + checked icon= Passed
 - Red + cross icon= Failed
 - No color = no test performed
 - Dark grey = unselected fiber
 - Caution: No alarm or Stop pressed during sequence -> no color
- For Individual fiber results visualization in **Cable** view: select the fiber in the cable tab (the selected fiber will be underlined in purple).

Figure 7 Cable project Labelling



NOTE

To easily find a fiber, press the search glass icon (top right). It displays a filter to select fiber number or label number.

Analyzing individual traces in Trace view

All traces (up to 3) are displayed.

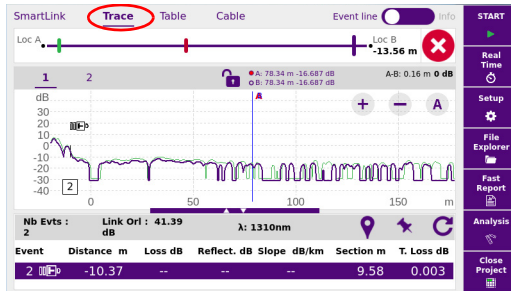
- Browse through each trace by selecting the trace number.
- Clicking on the **Smartlink** or **Table** tabs give access to the other results representation.
- Click on **Cable** to return to the project page

If a project is still opened, press **File Explorer** for a preview of the project's results.

The explorer displays:

- All the link information exclusively for the project measurement results.
- An icon representing the alarm status is displayed for each measurement result (if alarm thresholds have been defined).

Figure 8 Trace from fiber selected in project



Click on **Cable** to return to project page.

Files and Project storage

When all tests and re-do are finished:

1 Press **Close Project** key

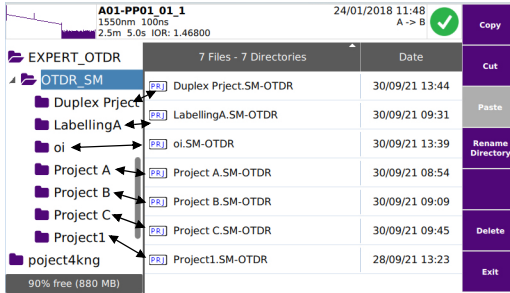
A summary .pdf cable report is automatically generated and stored in the project directory with each individual fiber results files and reports.

Figure 9 PDF Report

SUMMARY REPORT										
Report name : test commentaires.pdf Report Date/Time : 13/09/2023 10:16					VIavi					
GENERAL										
Project name : test commentaires			Technician Id : karine01							
Job ID : projet no label			Cable Id : Cable Transport							
DEVICES										
	Mainframe's model	Module's model		Calibration date	Switch's model					
B :	La Reunion MTS 4000 V2 (SN EBAH0403)	4138 FB65-FCOMP (SN EMAW00474)	24/05/2023	41MPO125M (SN 114)						
A :	Madagascar MTS 4000 V2 (SN EBAH05376)	4138 FB65-FCOMP (SN EMAW00124)	25/05/2023	41MPO125M (SN 210)						
ALARMS										
Threshold IL/ORL measurement		1310(nm)		1550(nm)						
Default		>=0.0		>=0.0						
Threshold OTDR measurement		ORL (dB)		<27.0						
Default		>0.50		>0.20						
Connector Loss (dB)		Splice Loss (dB)		Reflectance (dB)						
Default		>0.50		>35						
				Slope (dB/Km)						
				>1.00						
Comment : test commentaires / A01-PP01_01										
RESULTS										
Tested Labels : 1/80			Passed : 13		Failed : 0					
Mode CW										
Label ID	Fiber #	Length (km)	Wavelength (nm)	Loss A->B (dB)	Loss B->A (dB)	Avg Loss (dB)	ORL A (dB)	ORL B (dB)	Nb Evts	Alarms
A01-PP01_01	1	0.079	1310	0.25	0.02	0.13	36.03	36.90	---	PASS
			1550	0.11	0.10	0.10	54.93	50.06	---	PASS
	2	0.079	1310	0.19	0.01	0.10	36.25	36.88	---	PASS
			1550	0.08	0.08	0.08	53.73	53.53	---	PASS
	3	0.079	1310	0.25	0.01	0.13	35.36	35.66	---	PASS
			1550	0.10	0.07	0.08	53.41	50.44	---	PASS
	4	0.079	1310	0.23	0.01	0.12	34.23	35.30	---	PASS
			1550	0.10	0.11	0.10	>55.00	51.02	---	PASS
	5	0.079	1310	0.22	0.01	0.11	35.89	36.79	---	PASS
			1550	0.10	0.09	0.09	>55.00	>55.00	---	PASS
	6	0.080	1310	0.22	0.00	0.11	35.87	37.43	---	PASS
			1550	0.09	0.07	0.08	>55.00	53.48	---	PASS
	7	0.079	1310	0.17	0.00	0.08	35.45	34.58	---	PASS
			1550	0.09	0.11	0.10	41.20	35.27	---	PASS
	8	0.079	1310	0.21	0.02	0.11	36.78	36.10	---	PASS
			1550	0.10	0.09	0.09	51.99	>55.00	---	PASS
	9	0.079	1310	0.23	0.02	0.12	34.80	36.04	---	PASS
			1550	0.07	0.07	0.07	40.97	39.81	---	PASS
	10	0.078	1310	0.18	0.00	0.09	34.21	36.95	---	PASS
			1550	0.07	0.07	0.07	>55.00	52.50	---	PASS
	11	0.079	1310	0.19	0.00	0.09	35.62	37.64	---	PASS
			1550	0.07	0.09	0.08	54.81	52.59	---	PASS
	12	0.078	1310	0.21	0.00	0.10	35.08	36.29	---	PASS
			1550	0.09	0.09	0.09	52.23	54.33	---	PASS
A01-PP01_02	1	0.028	1310	0.27	0.01	0.14	35.89	36.93	4	PASS
			1550	0.11	0.10	0.10	54.83	49.93	4	PASS
	2	0.029	1310	0.20	0.01	0.13	36.37	36.66	4	FAIL
			1550	0.08	0.06	0.07	54.06	53.12	4	FAIL
	3	0.029	1310	0.26	0.01	0.13	35.74	35.64	4	FAIL
			1550	0.09	0.09	0.09	52.23	54.33	---	PASS

Project in the Explorer

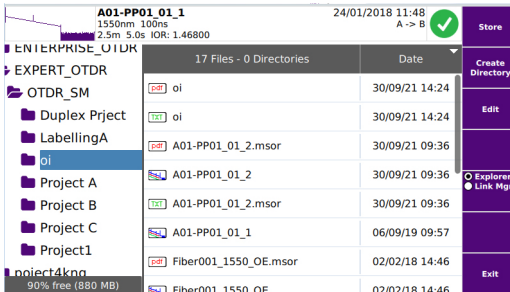
Figure 10 Project files



The project file is not visible in the explorer until the project is closed.

For each project, a subdirectory with the project Id is created, containing test OTDR files and summary results (in text and pdf format): EXPERT_OTDR > OTDR_SM or OTDR_MM > Project_Id.

Figure 11 Project directory structure with file contents

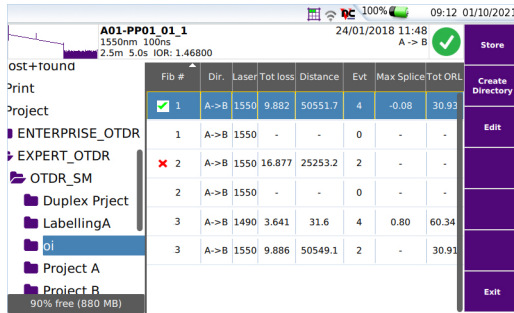


Explorer view if a project is still opened

If a project is still opened, press **File Explorer**. The explorer displays all the link information exclusively for the project measurement results.

An icon representing the alarm status is displayed for each measurement result (if alarm thresholds have been defined).

Figure 12 Project in the Explorer





700MAN204
Rev 000, 01-24
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