Brochure

FTTH-Smart Link Mapper (FTTH-SLM)

Application for SmartOTDR and T-BERD/MTS OTDR Platform

Empower FTTH/PON technicians to become instant OTDR fiber test experts.

Deploy a Reliable Network for Quality Services

Demand for bandwidth-intensive services by end-users continues to grow rapidly. To meet current and future demand for services, such as 4K/8K video streaming, shared content in the cloud and video calls, service providers, municipalities or even private enterprise are deploying fiber optic infrastructure to the consumer's house or user's desk. OTDR testing of that fiber is vital to provide confidence that the physical network will deliver fast and reliable services with minimal first-time install failures.

OTDR Testing Made Simple

Installers and contractors who are traditionally skilled in copper or coax network installation must now qualify or troubleshoot fiber installations using an OTDR. This can be a challenging step, as an OTDR is often considered complex to configure and measurement results difficult to interpret. The FTTH-SLM is a field-installable software application that removes the complexity from OTDR testing and supports technicians of any level of experience.

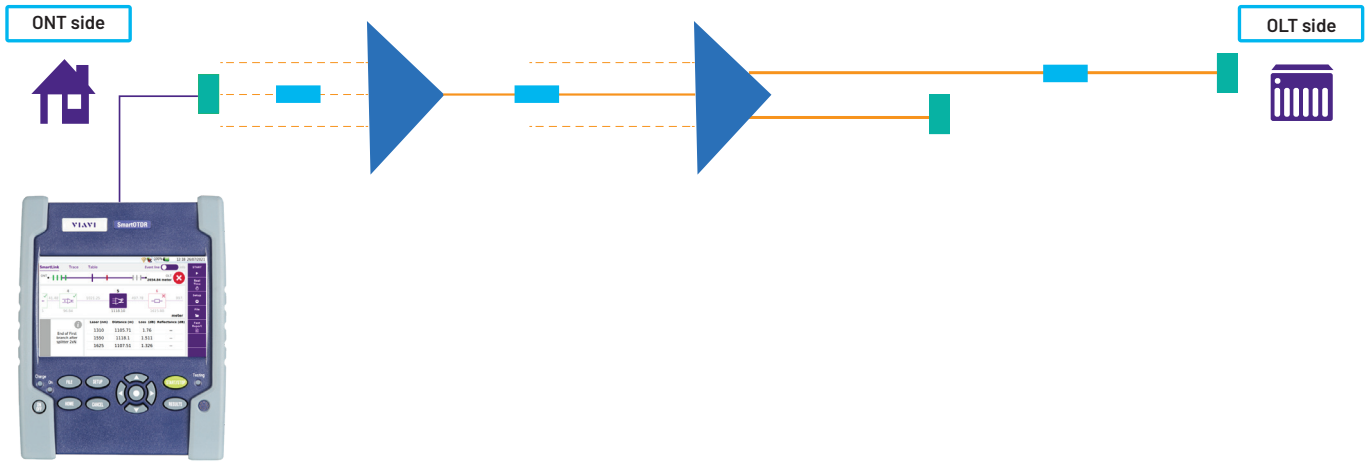
Benefits

- Provides confidence in fiber network performance
  - Proves construction quality for acceptance
  - Troubleshoots and locates breaks and issues
- Empowers field technicians to become instant OTDR experts
  - Automatically discovers and configures for any network topology
  - Schematic map view of the results identifies all passive network elements
  - Immediate indication and diagnosis of problems
- Enhances field productivity
  - Completes test process twice as fast and more reliably than any standard OTDR
  - Certifies work to international standards with on-board .pdf reports generation

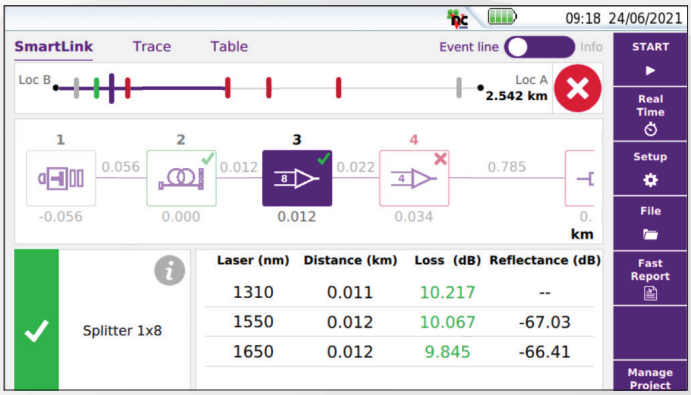
Applications

- Installation, commissioning and maintenance of any FTTH network
- Traditional PON, XGS-PON, NG-PON2, Passive Optical LAN (POL)

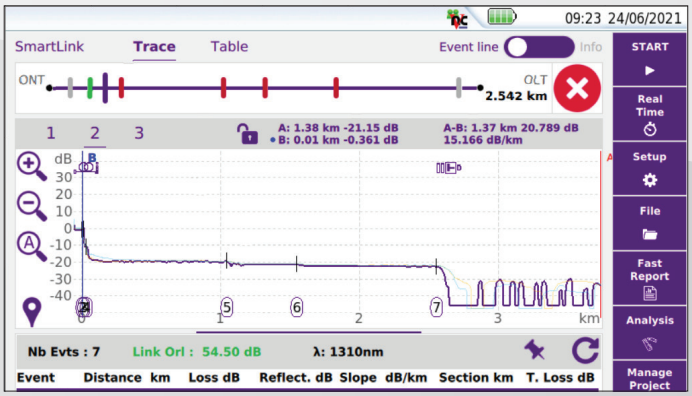
More Than a Traditional OTDR



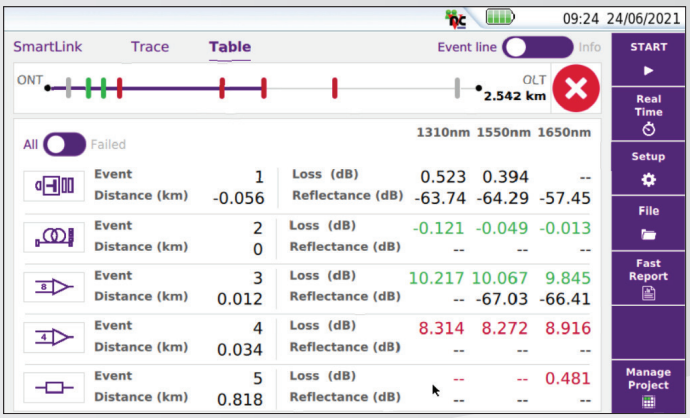
To be able to measure each segment of a PON network, testing from the ONT (customer) back to the OLT (central office), a traditional OTDR would require multiple manual tests (acquisitions) using different parameters for each. FTTH-SLM dynamically adjusts the testing parameters and automatically performs multiple acquisitions to achieve the optimum test results. All the information gathered is displayed as a single icon map view (Smart Link Mapper or SLM) and a combined OTDR trace.



FTTH SmartLink Mapper View



OTDR Trace View



Events Table View

Tailored for FTTH Applications

DISCOVER mode is a fully automatic mode designed for simplification and ease of use. It automatically sets the optimum acquisition parameters to detect and identify all the network elements (splices, connectors) and splitter types (e.g. 1x8, 1x32, cascaded, 1x128, etc.).

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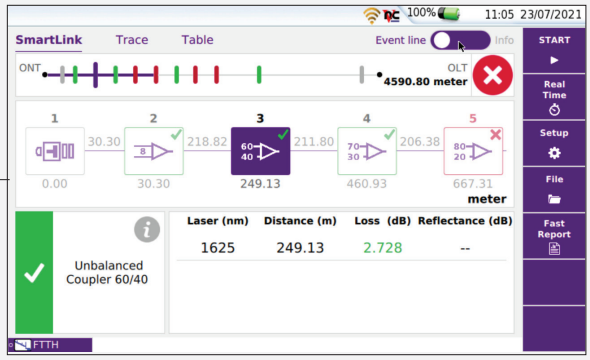
See the complete **cascaded** network which includes **UNBALANCED** or **TAPERED** optical splitters. These elements are automatically detected and identified with their respective ratio, and their loss value compared to the setup thresholds.



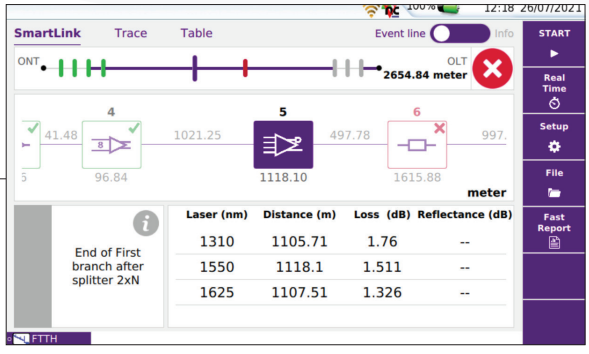
In case of closely spaced splitters, FTTH-SLM can identify a **cluster** of splitters, as dictated in the PON configuration settings, thus applies the correct pass/fail criteria.

IEEE/ITU-T PON standards thresholds are pre-loaded to avoid time consuming manual entry of pass/fail criteria. Pass/fail events are immediately highlighted and reports generated to international standards.

The **link description** can be set with the **OLT Id**, **ONT Id**, **Feeder Id**, and **Distribution Id** information. The stored results are then linked to the customer and network equipment's information.

Predefined set-up configurations (SmartConfigs™) are available for fast set up of common PON scenarios. These can be easily modified with user's specific settings, and saved and shared for daily use by multiple technicians.

FTTH-SLM is the only solution on the market capable of **detecting 2xN splitter** and identifying the two input branches, thus providing the correct pass/fail verdict.



The **real-time acquisition** — accessible by holding the START/STOP button for 2s — commonly used during construction to check the loss of an optical element being spliced, optimized to characterize the splitters.

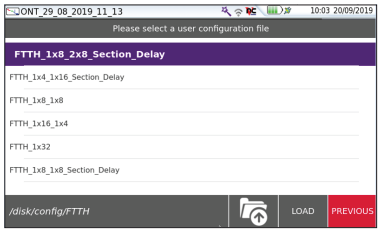
Two FTTH-SLM offerings: flexibility to choose the license best for both network and budget

- FTTH-SLM **BASE** is the lower cost entry-level software for the validation of basic FTTH infrastructure.
- FTTH-SLM **PREMIUM** is a fully featured software for the characterization of any FTTH infrastructure.

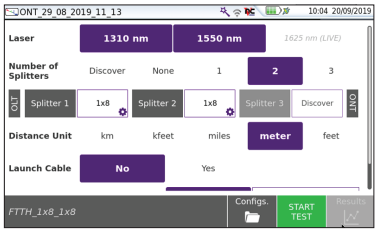
Features	FTTH-SLM BASE	FTTH-SLM PREMIUM
Event Diagnosis	✓	✓
Fault Analysis	✓	✓
Trace View	✓	✓
Single Trace Generation	✓	✓
Real-time Acquisition	✓	✓
2xN splitter Characterization	✓	✓
Auto Multi-pulses Measurement	✓	✓
PON Splitter Detection and Identification	✓	✓
Closely Spaced Cascaded Splitters (<100 m)		✓
PON Discovery Mode		✓
Unbalanced or Tapered Splitters		✓
End to End (E2E)-SLM (FCOMP) Compatibility		✓

FTTH-SLM Assistant (Add-on License to FTTH-SLM Base and FTTH-SLM Premium)

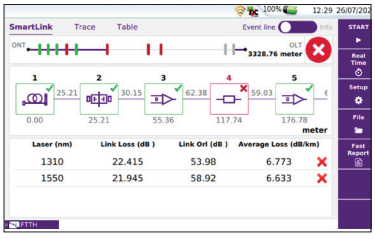
When new to FTTH/PON fiber testing, setting up the unit and browsing through the different menus and windows can be complex. To help you focus on your main objective, which is getting the measurement done right the first time, VIAVI has developed an assistant that will guide you through simplified menus and minimal steps of operations.



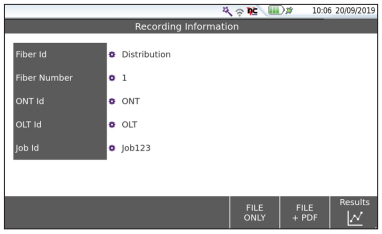
1: Load the desired PON splitter configuration to be tested



2: Intuitive setup with clear and simple parameters to set



3: Easy interpretation and analysis with SLM auto-display



4: Record test results using PON standard naming convention (as a .sor and/or .pdf)

Pick Your Ideal Solution

	SmartOTDR™ Lightweight, Handheld OTDRs		T-BERD/MTS-2000/4000 V2 and OneAdvisor 800 Modular Platforms	
	100A	100B	4100B	4100C
Max splitter ratio	1x32	1x128	1x128	1x256
Splitter Attenuation Dead Zone (m) @ 16 dB	50	45	45	20
Min. recommended launch cable length (m)	20			
Connector type	VIAVI recommends the use of APC connectors for FTTH testing.			
License (when ordered with an OTDR)	**BASE:** ESMARTFTTH-100-BASE **PREMIUM:** ESMARTFTTH-100 **ASSISTANT:** EFTTHSLM-ASSIST-100		**BASE:** EFTTHSLM-BASE **PREMIUM:** EFTTHSLM ESMARFTTH-5K **ASSISTANT:** EFTTHSLM-ASSIST	
License (upgrade of existing units in the field)	**PREMIUM:** ESMARTFTTH100UP **ASSISTANT:** EFTTHSLM-ASSIST-100UP		**PREMIUM:** EFTTHSLM-UPG ESMARFTTH5KUPG **ASSISTANT:** EFTTHSLM-ASSIST-UPG	
FTTH-SLM Assistant License (add-on to FTTH-SLM BASE and PREMIUM licenses)	**PREMIUM:** EFTTHSLM-ASSIST-100 **ASSISTANT:** FTTHSLM-ASSIST-100UP		**PREMIUM:** EFTTHSLM-ASSIST **ASSISTANT:** FTTHSLM-ASSIST-UPG	

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