

Brochure

VIAVI

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 HD 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 skill level.

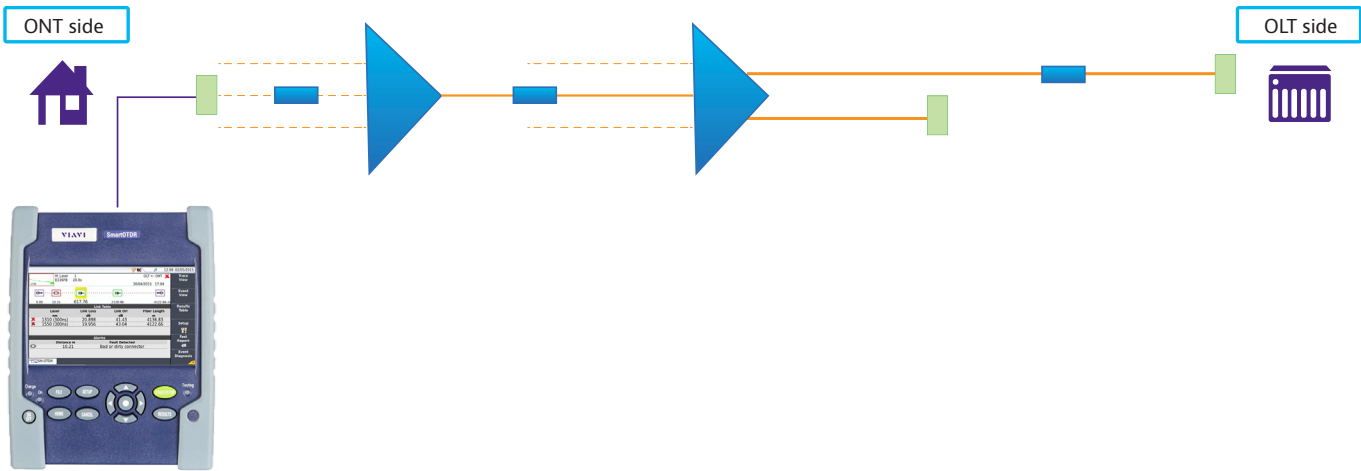
Benefits

- 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

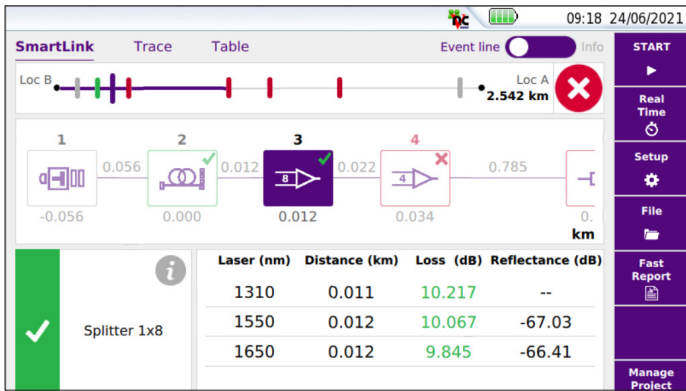
Applications

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

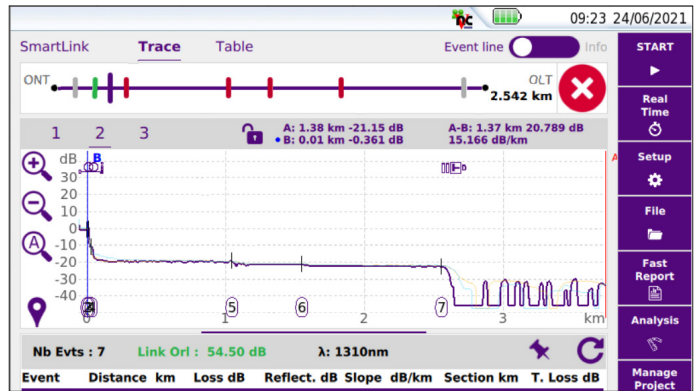
More than a traditional OTDR



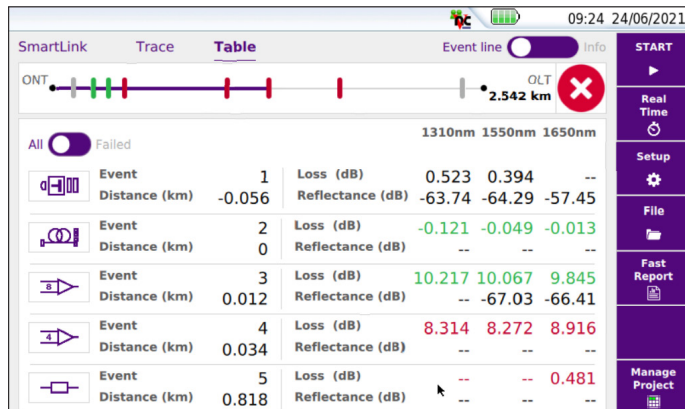
To be able to measure each segment of a PON network, testing from the ONT (customer) back to the OLT (central office), a traditional OTDR would require multiple manual tests (acquisitions) using different parameters for each. FTTH-SLM dynamically adjusts the testing parameters and automatically performs 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











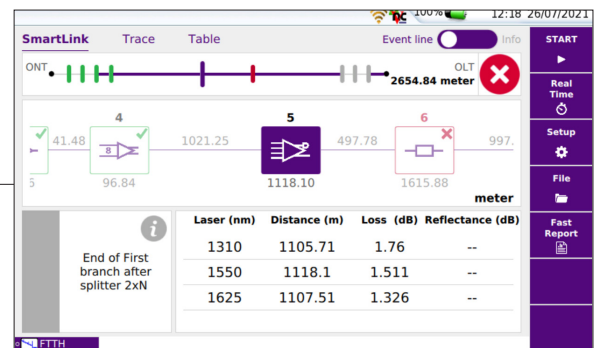
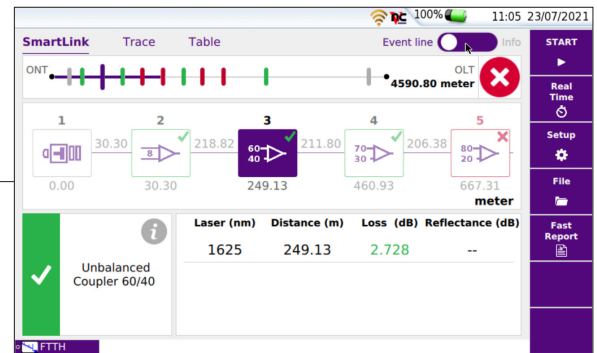
OTDR Trace View



Events Table View

Tailored for FTTH applications

| | |
|---|---|
|  | <p>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.).</p> |
|  | <p>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.</p> |
|  | <p>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.</p> |
|  | <p>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.</p> |
|  | <p>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.</p> |
|  | <p>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.</p> |
|  | <p>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.</p> |
|  | <p>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.</p> |



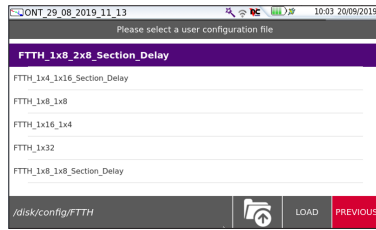
Two FTTH-SLM offerings: flexibility to choose the license best for both network and budget

- 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.

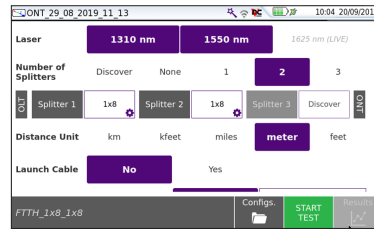
| Features | FTTH-SLM BASE | FTTH-SLM PREMIUM |
|--|---------------|------------------|
| Event Diagnosis | ✓ | ✓ |
| Fault Analysis | ✓ | ✓ |
| Trace View | ✓ | ✓ |
| Single Trace generation | ✓ | ✓ |
| Real-time Acquisition | ✓ | ✓ |
| 2xN splitter characterization | ✓ | ✓ |
| Auto multi-pulses measurement | ✓ | ✓ |
| PON splitter detection & identification | ✓ | ✓ |
| Closely spaced cascaded splitters (<100m) | | ✓ |
| 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)

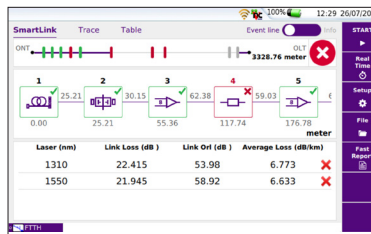
When new to FTTH/PON fiber testing, setting up the unit and browsing through the different menus and windows can be complex. To help you focus on your main objective, which is getting the measurement done right the first time, VIAVI has developed an assistant that will guide you through simplified menus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



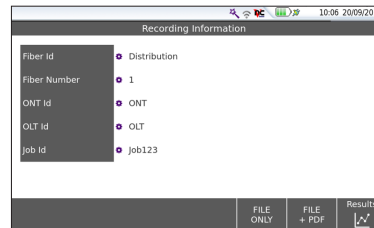
1 Load the desired PON splitter configuration to be tested



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-2000/4000/5800 Compact modular platforms | |  T-BERD/MTS- 6000AV2 Advanced modular network test platform |
|---|---|-------|---|-------|---|
| | 100A | 100B | 4100B | 4100C | EVO 8100 C |
| Max splitter ratio | 1x32 | 1x128 | 1x128 | 1x256 | 1x64 |
| Splitter Attenuation Dead Zone (m) @ 16 dB | 50 | 45 | 45 | 20 | 25 |
| 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 | | PREMIUM: ESMARTFTTH-6KV2 |
| License (upgrade of existing units in the field) | PREMIUM: ESMARTFTTH100UP ASSISTANT: EFTTHSLM-ASSIST-100UP | | PREMIUM: EFTTHSLM-UPG ESMARFTTH5KUPG ASSISTANT: EFTTHSLM-ASSIST-UPG | | PREMIUM: ESMARTFTTH6KV2U |
| 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 | | |



Contact Us **+1 844 GO VIAVI**
(+1 844 468 4284)

To reach the VIAVI office nearest you, visit viavisolutions.com/contact

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