VIAVI Solutions

Brochure

VIAVI

OTDR Solutions to improve fiber technician efficiency in the field, leading to operational excellence

VIAVI Solutions offers unprecedented OTDR capabilities that cover all network testing configurations and requirements for technicians at any skill level.

Behind the technical specifications of an OTDR, the features which make the most use of equipment performance must be close at hand. These features are the key to optimizing field technician's efficiency, to speed up the overall test process while delivering accurate and repeatable measurements with confidence.

An intuitive user interface drives efficiency improving quality of work and reducing the amount of training and support. Advanced and intelligent functions detect and perform precision measurements on passive optical elements to provide superior link characterization that guarantees a solid network foundation. Test Process Automation (TPA) automates the tedious and complex tasks from entering job information to reporting and results management.

Benefits

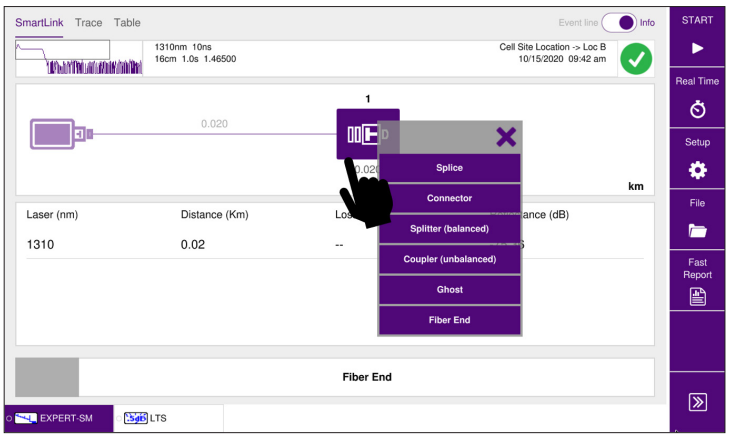
- Easy to use for minimal learning/ training time
- Assisted test/workflow to simplify complex testing tasks
- One data set, 3x results views (SmartLink Mapper, Trace & Table) to match user profile and preference without application switching
- Fast, error free testing avoiding customer services disruption
- Submit reports faster with VIAVI workflow suite (TPA) and simplify the administrative work

Applications

- Network Build and Maintenance for
  - Enterprise/LAN
  - Data center interconnection (DCI)
  - Access: FTTx, FTTH, Passive Optional Networks (PON)
  - CATV HFC, DAA, R-PHY
  - Wireless/FTTA/5G x-haul
  - Metro (WAN)
  - Core/Long haul

Ease of use for minimal learning time and greater control

First OTDR with intuitive smart device control and ergonomic user interface. Fast and responsive, it puts control at your fingertips. The multi-touch, swipe, pinch zoom, scroll and long press gestures allow for greater instrument control and results manipulation.

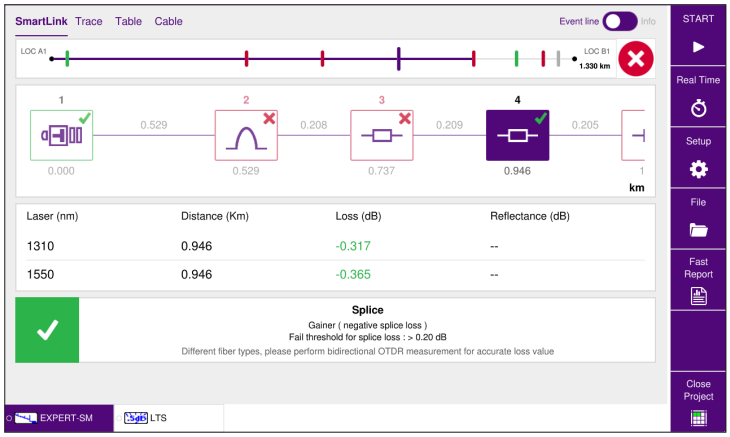


See information the way you want to

It's your preference on how to review results, whatever works best for you with SmartLink, Trace, and Table views all in one place. Instant switching, no retest, with data correlated across the views providing seamless analysis to make your life easier.

Take the headache out of trace anaylsis

Let SmartLink Mapper (SLM) perform the analysis and provide diagnosis for you, with guidance on how to fix faulty elements. Quickly identifies and labels all elements represented in a simple link map with enhanced event description plus clear pass/fail information. Easy toggle between SmartLink and Trace views with direct correlation of a selected event.

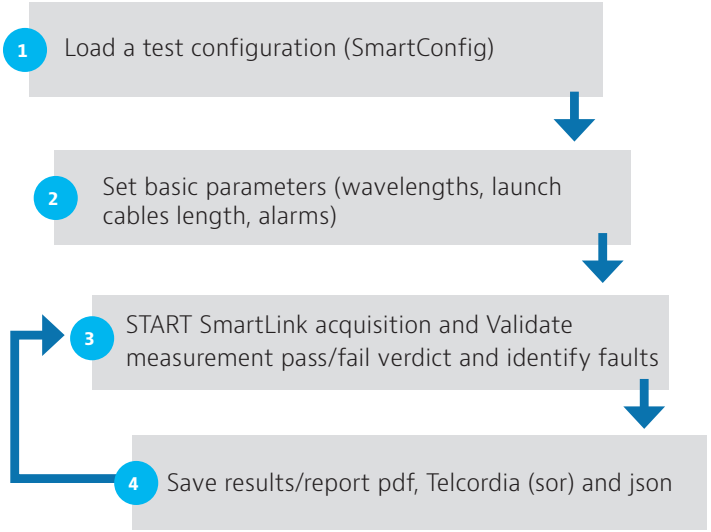


Dedicated SLM Software Applications

- High Fiber-count/bulk fiber testing: Cable-SLM
- Mobility/5G: FTTA-SLM
- FTTH/PON: FTTH-SLM
- Data Center/Enterprise: Enterprise-SLM

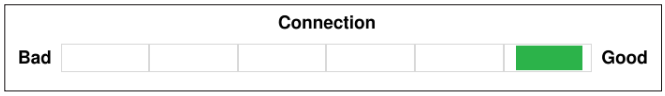
No setup, guided and repeatable test

An OTDR that anyone can use. SmartTEST OTDR is the assistant that eliminates all complex OTDR configuration parameters and guides the field technician through initial setup, testing, result review and reporting.



Test with confidence

With every test an OTDR Test port health check ensures good launch conditions to achieve high measurement accuracy. Permanent live traffic detection avoids any potential damage to transmission equipment and poor measurement results.

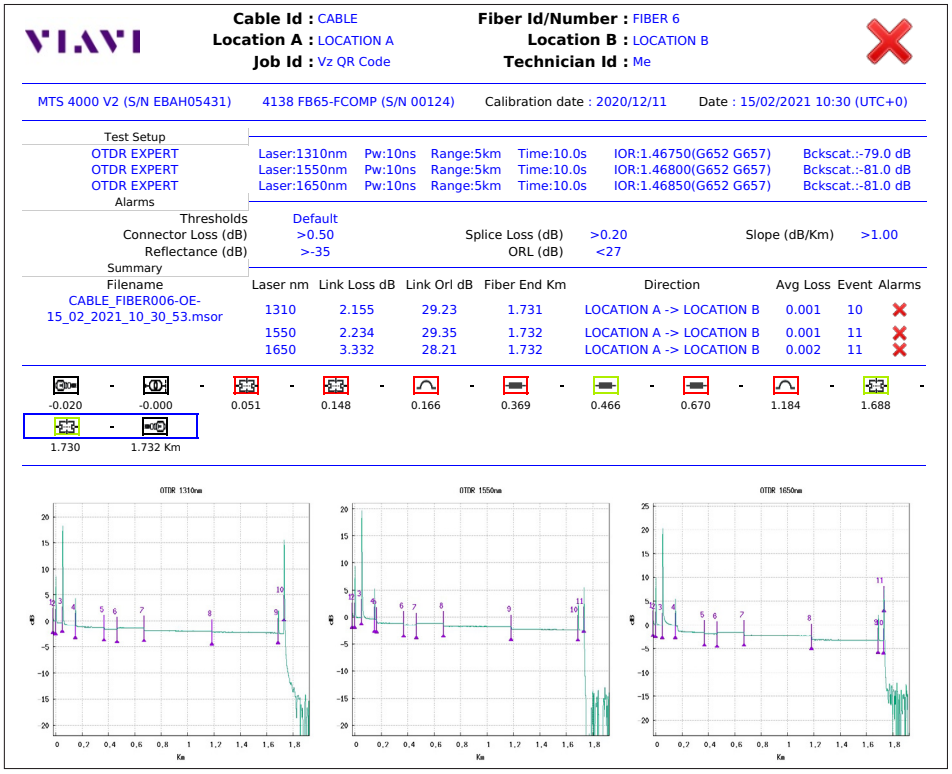


One tool for the network lifecycle

A single port approach combining 3 wavelengths, including a 1625 or 1650 nm filtered wavelength, delivers a single tool for construction, maintenance and live network troubleshooting. No need to move test ports in the presence of live traffic, simply switch to in-service/filtered wavelengths for seamless change between construction and troubleshooting tasks. It also certifies a fiber is ready for future C or L-band (xWDM) operation.

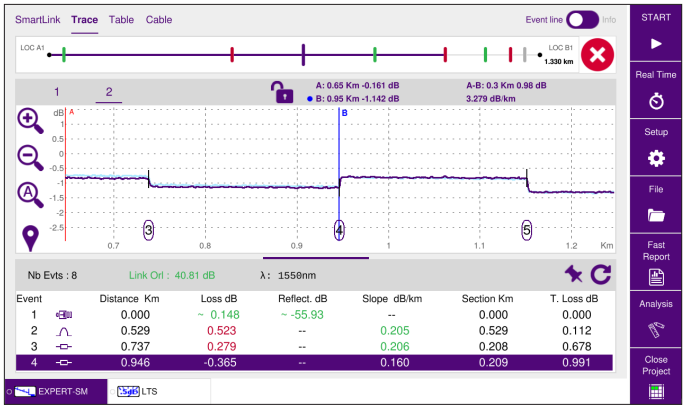
Let the OTDR manage your test data and reporting

A customizable file naming structure allows detailed link descriptions and designations to be included in result filenames for more organized file storage while autosave takes care of incrementing fiber numbers and saving of result files to avoid file naming errors. On-board report generation eliminates manual post processing work required to prepare results for submission. Change results for all wavelengths tested into a single report cuts the volume of test reports in half and reduces the file management burden.



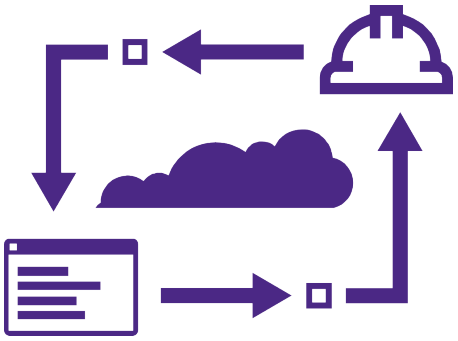
Greater depth of analysis, more control

Expert OTDR is designed for construction crews who require in depth analysis and greater control over test settings for various types of fiber links and network scenarios.



	Smart Acquisition (SmartAcq) is a fully automated multi-pulse acquisition process which optimizes and maximizes the detection of all the optical network elements such as splices, connectors, MUX/DEMUX (both near and far end) for a point-to-point topology. For ease of viewing the multiple traces obtained from the different pulse width acquisitions are combined to form a single graph and table of events per wavelength. Standard with VIAVI OTDR.
	On-board ISO/IEC and TIA thresholds certify that fiber build/install is in accordance with industry standards. **Custom** pass/fail thresholds can be manually configured and saved as SmartConfig™ (.cfg) files which can be shared and reloaded at any time. Pass/fail events are immediately highlighted on test results and reports generated are based on the defined alarms criteria.
	Real-time acquisition is commonly used during construction to check the loss of an optical element being spliced or a fiber being bent and can be used to measure section loss between two cursors or even measuring the reflectance ORL of a connector.
	Automatic and custom setups, technicians can opt to setup an OTDR manually (by specifying pulse-widths, range, resolution, averaging time, etc.) or choose to be helped by the automatic settings in SmartAcq. Once the configuration is set, it can be saved and shared to multiple instruments to guarantee consistency in test parameters for all technicians ensuring measurement consistency and repeatability.
	Advanced analysis and precise measurements can be made with the use of the A and B cursors, a technician can manually calculate the loss (using the 2-point or 5-point method), reflectance, ORL and attenuation in dB/km for a specific section of fiber.
	Event location memory Once locked the event locations will remain fixed for all subsequent tests to ensure high measurement consistency and repeatability across all fibers. When deploying high fiber count cables the optical elements (or events) detected on one fiber strand will likely be at the same location on the other strands, memorizing event locations allows a user to 'pin' the position of automatically detected or added manually events.
$[TRACE]_{REF}$	**Trace comparison (reference overlay)** The ability to compare reference traces to current day measurements is key to assessing degradation of the fiber infrastructure over time to determine if maintenance is required or to confirm fault diagnosis.

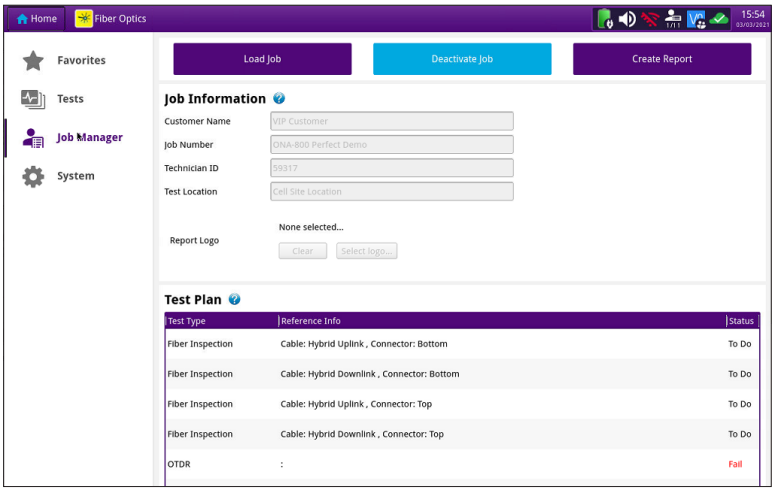
Managing your workforce, task and test data



Test Process Automation (TPA) allows your team to deliver expert-level test results and close projects on the first try, every time. TPA is a closed loop test system that optimizes workflows, eliminates manual, error prone work and automates immediate data reporting for job close out, team progress updates and network health analytics. Execute jobs efficiently to ensure high quality network builds, rapid turn-up/activation, and enhanced operational visibility.

Managing Fiber Work:

Plan and Assign Jobs with Guided Procedures and Automated Job Reports



- Allows jobs with a detailed test plan to be created, assigned, and sent to a tech's instrument via the VIAVI Mobile Tech App
- Associates tests to specific job workorder
- Sequence of individual test tasks grouped together in a single job
- Instrument UI displays step-by-step task instructions, progress, and results
- Enrich test results with workflow audit details – geolocation data, time stamp, and multimedia attachments (pictures, signature capture) through Mobile Tech App

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