VIAVI
VIAVI Solutions

Brochure

VIAVI
Fiber Link and Network Characterization Solution
The Power of One performing the work of many

The Fiber Link and Network Characterization Solution provides a comprehensive suite of point-to-point physical layer optical tests (including components).

The OneAdvisor 800 platform provides the ideal, true all-in-one fiber link and network characterization solution that meets the new high speed and broadband deployments challenges. It is the only field test platforms capable of housing all test functions necessary for fiber link and network characterization. It offers a complete, versatile, and high performance solution to rapidly deploy 200/400G (and beyond) with flawless first-time activation by comprehensively validating all aspects of a fiber (IL, ORL, OTDR, CD, PMD, AP).

Minimize your repair/outage times through streamlined fault finding to avoid 'finger pointing' by segmenting fiber vs service faults.

It enables any technician to perform fiber characterization services efficiently, with a user interface that integrates touch gesture controls meaning minimal training is required. Save money with a scalable and flexible solution for multiple applications (long haul, metro, mobile backhaul, PON feeder, metro DCI) and multiple test scenarios (construction, pre-activation and troubleshooting). Guarantee the health and quality of a fiber link or network in order to deliver perfect 100G/400G performance from day 1 through accurate baselining and reliability of measurements.

Benefits
- Complete suite of test functions for detailed link and network characterization
- Most compact and fastest solution on the market
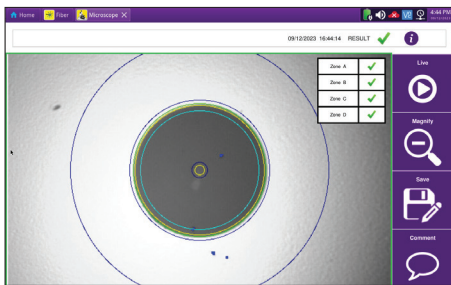- Reduces fiber manipulation, limiting risk of errors

Applications
- Metro, long haul, and ultra long haul characterization
- Network characterization including amplifiers, compensators, and in-line ROADMs
- Configurable according to your test needs with metro range up to ultra long range capabilities
- Ready for any test scenarios: Terrestrial, submarine, and aerial network
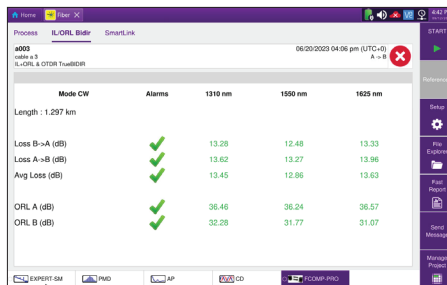
Fiber Link Characterization

Fiber link characterization is the process of testing optical fibers to ensure that they are suitable for high speed transmission (From 10 to 400G DWDM).
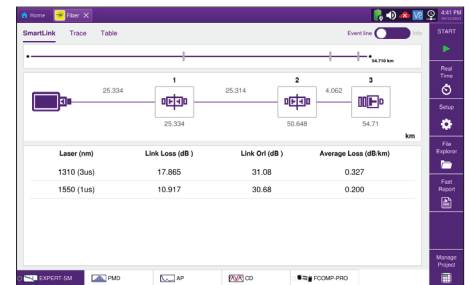
- It measures the fiber performance and the quality of any interconnections per ITU-T G 650.3

- The suite of tests mostly depends on the user's methods and procedures test process could be uni-directional or bi-directional

- VIAVI OneAdvisor 800 provides all required tests into a single platform – Connector Inspection, IL, ORL, OTDR, PMD, CD, AP

Optical Network Characterization

Network characterization provides baseline measurements before turning up the transmission system.

- Perform CD, PMD, and AP tests with all network elements in-line as well as through amplifiers

- Perform end-to-end measurement CD test to confirm the correct amount of compensation implemented

- Perform the end-to-end PMD measurement to verify the insertion of network elements do not add excessive PMD

- Conduct AP testing to confirm the location of optical amplifiers and verify loss characteristics over wavelength of fiber links

Contact VIAVI or your regional sales representative for specific ordering information.
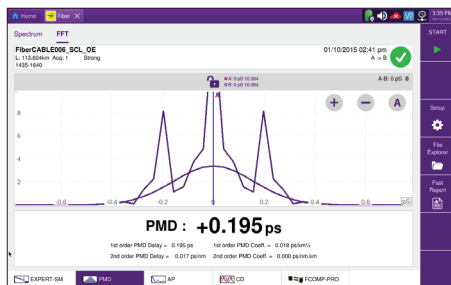

Automated fiber end face inspections to industry standards (IEC)
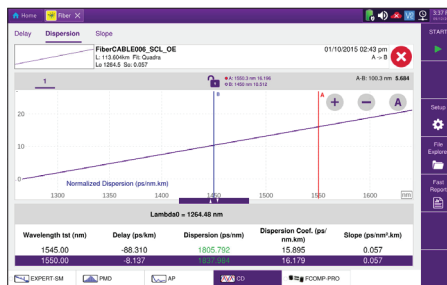

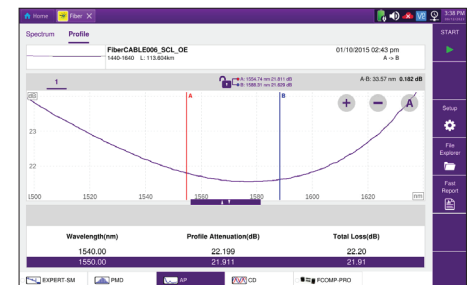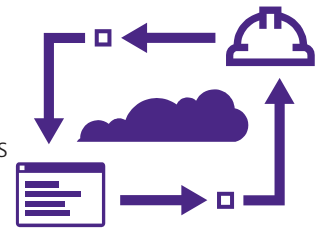Insertion Loss (IL) and Optical Return Loss (ORL)

Optical Time Domain Reflectometry (OTDR)

Polarization Mode Dispersion (PMD)

Chromatic Dispersion (CD)

Attenuation Profile (AP)

Link and Network Characterization Test Parameters and Associated Tools

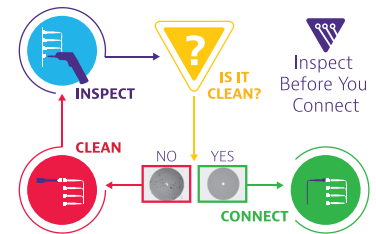| Test Parameters	Measurement Tool
Connector inspection	Video inspection scope
Insertion loss measurements	Light source/power meter
Distance measurement (fiber length)	OTDR
Connectors/splice measurements	OTDR
Reflectance measurements	OTDR
Optical return loss (ORL) measurements	ORL meter or OTDR
Polarization mode dispersion (PMD) measurements	PMD analyzer
Chromatic dispersion (CD) measurements	CD analyzer
Attenuation profile (AP) measurements	Spectral analyzer

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.

Inspect Before You Connect (IBYC)

Contamination is the number 1 reason for troubleshooting optical networks. Proactive inspection and cleaning of fiber connectors can prevent poor signal performance, equipment damage, and network downtime.

VIAVI Care Support Plans

Increase your productivity for up to 5 years with optional VIAVI Care Support Plans:

• Maximize your time with on-demand training, priority technical application support and rapid service.

• Maintain your equipment for peak performance at a low, predictable cost.

Plan availability depends on product and region. Not all plans are available for each product or in every region. To find out which VIAVI Care Support Plan options are available for this product in your region, contact your local representative or visit: viavisolutions.com/viavicareplan

Features

*5-year plans only

Plan	Objective	Technical Assistance	Factory Repair	Priority Service	Self-paced Training	5 Year Battery and Bag Coverage	Factory Calibration	Accessory Coverage	Express Loaner
BronzeCare	Technician Efficiency	Premium	✓	✓	✓				
SilverCare	Maintenance & Measurement Accuracy	Premium	✓	✓	✓	✓*	✓		
MaxCare	High Availability	Premium	✓	✓	✓	✓*	✓	✓	✓

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