

FTTH-intelligent Optical Link Mapper (FTTH-iOLM)

MULTIPULSE OTDR-BASED APPLICATION MAKING EXPERT-LEVEL FTTH TESTING ACCESSIBLE TO ALL

Ensure first-time-right and accurate characterization of FTTH network topologies. Powered by intelligent algorithms, FTTH-iOLM automates multipulse OTDR acquisitions on live fibers to dynamically locate and identify all network components and faults with maximal resolution—at the push of a single button. It also fine-tunes acquisition parameters and runs multiple measurements to deliver the best results, presenting them in a single icon-based view and a consolidated OTDR trace.

KEY FEATURES

Intelligent multipulse acquisitions for live fiber testing with optimized configurations for FTTH links.

Automated ONT detection and splitter connection validation.

Comprehensive fault diagnosis and guidance.

SFP-safe mode.

KEY APPLICATIONS

1. Maintenance of any FTTH network.

2. Traditional PON, XGS-PON, NG-PON2 and Passive Optical LAN (POL).

3. Last-mile FTTH characterization.

COMPATIBLE TEST UNIT

AXS-130 compact
OTDR SM7 and SM8



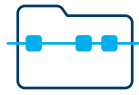
EXFO

Unique features for smooth FTTH rollouts



Self-setting unit

Be the expert. The FTTH-iOLM automatically manages all test parameters, removing the risk of configuration errors and minimizing required training.



Single iOLM file per link

Simplify reporting. Despite performing multiple intelligent acquisitions, iOLM consolidates everything into a single, easy-to-manage file: what you see on the unit is exactly what you can process on your PC.



Intelligent diagnostics

Let it guide you. The FTTH-iOLM provides step-by-step fault interpretation and guided troubleshooting for faster problem resolution.

With FTTH-iOLM, you still benefit from:



OTDR trace file generation

Stay compatible. The FTTH-iOLM automatically produces enhanced Bellcore-format (.sor) trace files that integrate all acquisition data, ensuring complete documentation and compliance with existing workflows.



Icon-based view

See the big picture. A simplified, icon-based link view combining multiple pulses, displaying every network element with clear pass/fail verdicts.

Designed for FTTH applications

1. Full link characterization (ONT towards OLT)

Performs complete end-to-end analysis of the FTTH link, including one or more splitters. Measures total loss, reflectance, and all event locations—from the customer premises to the central office—for accurate certification and acceptance.

2. SFP-safe troubleshooting

Purpose-built for P2P troubleshooting scenarios where an SFP transceiver may be connected on the far end. EXFO's patented SFP-Safe Mode technology prevents damage by controlling test pulse levels—ensuring safe, worry-free troubleshooting.

3. PON last mile towards ONT (splitter towards ONT)

Ideal for technicians testing from a cabinet or distribution point. Automatically detects if the ONT is connected and isolates drop fiber issues.

4. PON last mile towards OLT (ONT towards splitter)

Enables fast validation of the drop segment between the ONT and splitter. Perfect troubleshooting the last mile section of the FTTH network and splitter connectivity validation without interrupting live services.

EMPOWER FTTH/PON TECHNICIANS FOR FLAWLESS INSTALLATIONS

Reliable fiber networks for superior service quality

As demand for ultra-high-bandwidth services continues to accelerate, service providers, municipalities, and private enterprises are extending fiber connectivity directly to homes and offices. Applications such as 4K/8K streaming, cloud collaboration, and real-time video conferencing rely on networks that are both fast and dependable.

To ensure long-term reliability and minimize costly rework, validating the integrity of each link with an OTDR is critical.

Simplified link characterization for every technician

Field teams accustomed to working with copper or coax networks now face the challenge of testing and qualifying optical links. OTDR configuration and result interpretation can be intimidating for newcomers.

The FTTH-iOLM application eliminates this complexity by automating setup and analysis—transforming any technician, regardless of experience level, into a confident fiber expert.

Benefits

No training required

Automates test setup and thresholds, minimizing human error and removing the need for extensive training.

Expert testing for everyone

Makes advanced OTDR analysis accessible to technicians of any skill level through guided, icon-based results.

Unmatched accuracy

Delivers more precise and consistent results than any conventional test application.

First-time-right installations

Prevents rework and costly truck rolls with clear diagnostics and instant fault detection.

Documented link events

Ensures every fault, reflection, and loss point is found and documented—every time.

Proven network reliability

Validates build quality and certifies results to international standards.

Beyond traditional OTDR testing

When testing an FTTH or PON network—from the customer ONT back to the OLT—traditional OTDRs typically require multiple manual acquisitions and parameter adjustments.

The FTTH-iOLM automates this process through dynamic multipulse live fiber acquisitions, automatically optimizing test parameters for each segment. All results are consolidated into a single, icon-based link view and an accompanying OTDR trace for intuitive analysis.

FTTH-iOLM^a and iOLM comparison chart

	FTTH-iOLM (AXS-130)	iOLM (FTB LITE)	iOLM STANDARD (MAX AND FTB)
Dynamic multipulse acquisition	•	•	•
Multi-wavelength acquisitions		•	•
Intelligent traces analysis	•	•	•
Single link view and event table	•	•	•
Intelligent diagnostics	•	•	•
Default OTDR trace display	•	•	
SOR trace generation	•	•	•
Single iOLM file per link for easy reporting	•	•	•
Unbalanced/tapered PON characterization and troubleshooting			•
Automated mode, self-adjusting based on the link under test		•	•
Optimode: Short-link close events		•	•
Optimode: Fast short link		•	•
Optimode: Fast medium range		•	•
Optimode: SFP safe troubleshooting	•	•	
Optimode: PON last-mile certification	•	•	• ^b
FTTH full link characterization	•		• ^b
Dark fiber testing		•	•

Upgrade to intelligent testing

Every technician deserves expert-level confidence in the field. Upgrading your AXS-130^a with **FTTH-iOLM** transforms it into a fully automated, intelligent testing tool—eliminating guesswork, reducing errors, and ensuring first-time-right installations on every job.



a. Available for AXS-130-SM7 and AXS-130-SM8 models at 1650-nm wavelength.

b. Requires iOLM Advanced (iAdv) software option.