FTB-720C Access OTDR

OPTIMIZED FOR SINGLEMODE ACCESS NETWORK TESTING

iOLM READY

EXFO Connect
Compatible

FROST & SULLIVAN
2014 BEST PRACTICES AWARD
GLOBAL
PORTABLE FIBER OPTIC TEST EQUIPMENT
MARKET LEADERSHIP AWARD

The ideal construction OTDR for everyday field testing in any singlemode access network.

KEY FEATURES

Dynamic range of up to 36 dB

Event dead zone as low as 0.8 meters

Singlemode wavelengths

Live fiber testing at 1625 nm

iOLM-ready for one-touch multiple acquisitions, with clear go/no-go results presented in a straightforward visual format

APPLICATIONS

Access network testing

Fronthaul/backhaul (FTTA, FTTT, remote radio heads, DAS and small cells)

Central office (CO) certification

FTTx last-mile certification and troubleshooting

Private networks and data centers (singlemode)

COMPLEMENTARY PRODUCTS

Platform
FTB-1 Pro

Fiber Inspection Probe
FIP-400B

Soft Pulse Suppressor Bag
SPSB

EXFO

LOADED WITH FEATURES TO BOOST YOUR EFFICIENCY

REAL-TIME AVERAGING

Activates the OTDR laser in continuous shooting mode, the trace refreshes in real time and allows to monitor the fiber for a sudden change. Perfect for a quick overview of the fiber under test.

AUTOMODE

Used as a discovery mode, this feature automatically adjusts the distance range and the pulse width in function of the link under test. It is recommended to adjust the parameters to perform additional measurements to locate other events.

ZOOM TOOLS

Zoom and center to facilitate the analysis of your fibers. Draw a window around the area of interest and center in the screen quicker.

SET PARAMETERS ON THE FLY

Dynamically change OTDR settings for the ongoing acquisition without stopping or returning to submenus.

MACROBEND FINDER

This built-in feature enables the unit to automatically locate and identify macrobends, no need to spend further time analyzing the traces.

BIDIRECTIONAL ANALYSIS (VIA FastReporter 2 DATA POST-PROCESSING SOFTWARE)

Recommended to ensure true splice characterization, bidirectional analysis combines results from both directions to provide an average loss for each event. For a more complete event characterization, use iOLM and benefit from maximum resolution on both directions (multiple pulse widths at multiple wavelengths) as well as a consolidated view.

LOOPBACK TESTING MODE (iLOOP) [a]

The iLOOP feature allows your iOLM unit to double its testing efficiency by reducing testing time by 50% compared to a traditional unidirectional test method. This intelligent application relies on the loopback single-ended measurement method to characterize two fibers at once. The application splits the results into two individual links, thus eliminating the need for post-processing. iLOOP automatically generates individual iOLM and OTDR (.sor) files, in addition to PDF reports for all your fibers directly from the field, enabling you to close your job immediately and move to the next fiber pair faster.

This option is particularly efficient for applications such as fiber-to-the-antenna (FTTA), distributed antenna systems (DAS) and data centers, where iLOOP allows you to simultaneously test Rx/Tx fibers with a simple loop jumper between the two fibers. Once the measurement is complete, iLOOP applies pass/fail assessments and generates a report for each individual fiber.

Note

a. Loopback Testing mode is offered in the iOLM Pro.

EXFO

LOOKING FOR ICON-BASED MAPPING?

Linear View (Included on All EXFO OTDRs)

Available on our OTDRs since 2006, the linear view simplifies the reading of an OTDR trace by displaying icons in a linear way for each wavelength. This view converts the graph data points obtained from a traditional single pulse trace into reflective or non-reflective icons. With applied pass/fail thresholds, it becomes easier to pinpoint faults on your link.

This improved version of linear view provides the flexibility to display both the OTDR graph and its linear view without having to toggle to analyze your fiber link.

Although this linear view simplifies the OTDR reading of a single pulse width's trace, the user will still need to set the OTDR parameters. In addition, multiple traces must often be performed in order to fully characterize the fiber links. See the section below to learn how the iOLM can perform this automatically and with more accurate results.
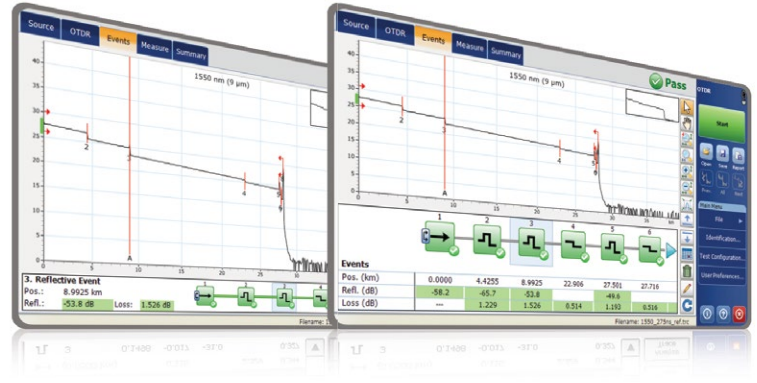
REMOVING COMPLEXITY FROM THE OTDR

OTDR TESTING COMES WITH ITS LOAD OF CHALLENGES...

WRONG OTDR TRACES

COUNTLESS TRACES TO ANALYZE

REPEATING THE SAME JOB TWICE

COMPLEX INSTRUMENT TRAINING/SUPPORT

i OLM | intelligent Optical Link Mapper

In response to these challenges, EXFO developed a better way to test fiber optics: The iOLM is an OTDR-based application designed to simplify OTDR testing by eliminating the need to configure parameters, and/or analyze and interpret multiple complex OTDR traces. Its advanced algorithms dynamically define the testing parameters, as well as the number of acquisitions that best fit the network under test. By correlating multipulse widths on multiple wavelengths, the iOLM locates and identifies faults with maximum resolution—all at the push of a single button.

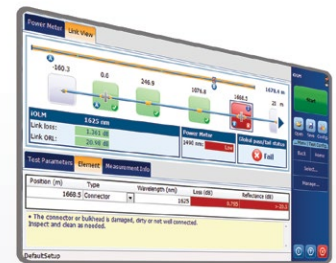### HOW DOES IT WORK?

Dynamic multipulse acquisition → Intelligent trace analysis → Combines all results into a single link view → Comprehensive diagnosis →

Turning traditional OTDR testing into clear, automated, first-time-right results for technicians of any skill level.

Patent protection applies to the intelligent Optical Link Mapper, including its proprietary measurement software. EXFO's Universal Interface is protected by US patent 6,612,750.

Three ways to benefit from the iOLM:	**OTDR Combo (Oi Code)** Run iOLM and OTDR applications on one unit	**Upgrade** Add the iOLM software option, even while in the field	**iOLM Only** Order a unit with the iOLM application only
Three iOLM feature value packs:	**iOLM Standard** › Dynamic multipulse acquisition › Intelligent trace analysis › Map view › Diagnosis › SOR trace generation	**iOLM Advanced** › All the features of iOLM Standard › Real-time acquisition › Link edition › 2:N splitter	**iOLM Pro** › All the features of iOLM Advanced › iOLM Loopback (iLOOP)

Note: Some features of iOLM Advanced and iOLM Pro may be unavailable for some models. Refer to the price list for details.

EXFO

AUTOMATE ASSET MANAGEMENT. PUSH TEST DATA IN THE CLOUD. GET CONNECTED.

EXFO|Connect

EXFO Connect pushes and stores test equipment and test data content automatically in the cloud, allowing you to streamline test operation from build-out to maintenance.

ADDITIONAL SOFTWARE TEST CAPABILITIES ON THE FTB-1 PLATFORM

EXpert TEST TOOLS

IP
IPTV
VoIP

EXpert Test Tools is a series of software applications leveraged through the FTB ecosystem platforms and designed to enhance and simplify FTTH/FTTx service deployments:

EXpert VoIP: Generate voice-over-IP call to validate performance during service turn-up and troubleshooting. This tool boasts a highly configurable test interface to maximize control over test parameters yet maintains an intuitive user interface, allowing fast and easy test set up and completion.

EXpert IP: Benefit from six commonly used IP test tools in one application, helping field technicians deal with the complex testing environments of today's networks and further preparing them to handle unexpected customer issues easily and without interruption.

EXpert IPTV: Enables quick pass/fail verification on IPTV installations during service turn-up. By emulating a set-top box and displaying a real-time video preview, video and audio quality can be determined before any other equipment is installed, further ensuring subscribers' quality of experience.(Available on FTB-1 platform only)

SPECIFICATIONS (PRELIMINARY) [a]

TECHNICAL SPECIFICATIONS	
Wavelength (nm) [b]	1310 ± 20, 1550 ± 20, 1625 ± 10 > 1590, internally filtered (live port)
Dynamic range (dB) [c]	36, 34, 34
Event dead zone (m) [d]	0.8
Attenuation dead zone (m) [d, e]	3
Distance range (km)	1.25 to 400
Pulse width (ns)	5 to 20 000
Linearity (dB/dB) [b]	±0.03
Loss threshold (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	0.04 to 10
Sampling points	Up to 256 000
Distance uncertainty (m) [f]	±(0.75 + 0.0025 % x distance + sampling resolution)
Measurement time	User-defined (60 minutes maximum)
Typical real-time refresh (Hz)	4
Stable source output power (dBm) [g]	−7 (1550 nm)

NOTES

a. All specifications valid at 23 °C ± 2 °C with an FC/APC connector, unless otherwise specified.

b. Typical.

c. Typical dynamic range with longest pulse and three-minute averaging at SNR = 1.

d. Typical for reflectance below −55 dB using a 5 ns pulse.

e. Attenuation dead zone at 1310 nm is 4 m typical for reflectance below −45 dB.

f. Does not include uncertainty due to fiber index.

g. Typical output power is given at 1550 nm for singlemode output.

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GENERAL SPECIFICATIONS

Size (H x W x D) [a]	210 mm x 254 mm x 66 mm (8 ¼ in x 10 in x 2 ⅝ in)
Weight [a]	2.4 kg (5.3 lb)
Temperature [b]	
Operating	0 °C to 50 °C (32 °F to 122 °F)
Storage	−40 °C to 70 °C (−40 °F to 158 °F)
Relative humidity	0% to 95% non-condensing

Notes

a. These specifications include the platform.

b. −20°C to 60°C (−4 °F to 140 °F) with battery and −20°C to 45°C (−4 °F to 113 °F) for long-term storage.

LASER SAFETY

**CLASS 1
LASER PRODUCT**

ORDERING INFORMATION

Singlemode access OTDR

FTB-720C-XX-XX-XX-XX

Model
FTB-720C-SM1 = 1310 nm/1550 nm
FTB-720C-SM2 [a] = 1310 nm/1550 nm and 1625 nm live port

Base Software
OTDR = Enables the OTDR application only
iOLM = Enables the iOLM application only
Oi = Enables iOLM and OTDR applications

iOLM Software Option
00 = iOLM standard
iADV = iOLM advanced
iPRO = iOLM pro

Singlemode Connector
EA-EUI-28 = APC/DIN 47256
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-95 = APC/E-2000
EA-EUI-98 = APC/LC
EI connectors = See note below about APC connectors

Example: FTB-720C-SM1-OTDR-EA-EUI-89

Notes

a. The two ports are configured with the same adapter.

THE BENEFITS OF APC CONNECTORS FOR OTDR/iOLM TESTING

To maximize the performance of your OTDR, EXFO recommends using APC connectors. These connectors generate lower reflectance, which is a critical parameter that affects performance, particularly in dead zones. APC connectors provide better performance than UPC connectors, thereby improving testing efficiency.

For best results, APC connectors are mandatory on singlemode ports using the iOLM application.

Note: UPC connectors are also available. Simply replace EA-XX by EI-XX in the ordering part number. Additional connectors available are the EI-EUI-76 (UPC/HMS-10/AG) and EI-EUI-90 (UPC/ST).

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