FTB-7200D LAN/WAN Access OTDR

OPTIMIZED FOR MULTIMODE AND SINGLEMODE ACCESS NETWORK TESTING

EXFO Connect Compatible

40G

EF READY

FROST & SULLIVAN 2015 BEST PRACTICES AWARD

GLOBAL PORTABLE FIBER OPTIC TEST EQUIPMENT MARKET LEADERSHIP AWARD

Please note that this model has been discontinued. For more information, visit EXFO.com

Housed in a full-size portable platform, this OTDR maximizes the operational efficiency of fiber installers when testing multimode and singlemode fibers.

KEY FEATURES

Dynamic range of up to 36 dB

Event dead zone as low as 1 meter

Combined singlemode/multimode wavelengths

Integrated tool: combines a visual fault locator, inspection probe, broadband power meter and a CW source mode

EF-Ready: use with external launch mode conditioner for EF-compliant, multimode results

EXFO Connect-compatible: automated asset management; data goes through the cloud and into a dynamic database

APPLICATIONS

Access network testing

LAN/WAN characterization

COMPLEMENTARY PRODUCTS AND OPTIONS

Platform
FTB-500

Fiber Inspection Probe
FIP-400B

FastReporter 2
EFFICIENT POST-PROCESSING SOFTWARE

Data Post-Processing Software
FastReporter 2

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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.

DATA CENTER CABLE CERTIFICATION (iCERT[a])

iCERT option turns the iOLM into an intelligent tier-2 certifier with automated pass/fail thresholds for SM/MM cables, helping fiber installers to certify or troubleshoot any enterprise or datacenter network according to the recognized international standards (including TIA-568, ISO 11801).

Note

This software option is only available if you select the iOLM or Oi application.

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TROUBLESHOOTING HIGH-SPEED MULTIMODE NETWORKS WITH ENCIRCLED FLUX

EF READY

Whether for expanding enterprise-class businesses or large-volume data centers, new high-speed data networks built with multimode fibers are running under tighter tolerances than ever before. In the event of failure, intelligent and accurate test tools are needed to quickly find and fix the fault.

Multimode fibers are the trickiest links to test, because the test results are highly dependent on each device's output conditions. Troubleshooting with a unit other than the construction unit may mislead the technician or result in the inability to find the fault, creating longer network downtimes.

For multimode fibers, EXFO recommends using an external launch mode conditioner that is Encircled Flux (EF)-compliant. The EF standard (as recommended in TIA-568 via TIA-526-14-B and IEC 61280-4-1 Ed. 2.0) is a way of controlling the source launch conditions so that tier-2 troubleshooting can be performed with maximum accuracy and consistency.

*EF launch fiber
(SPSB-EF-C30)*

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.

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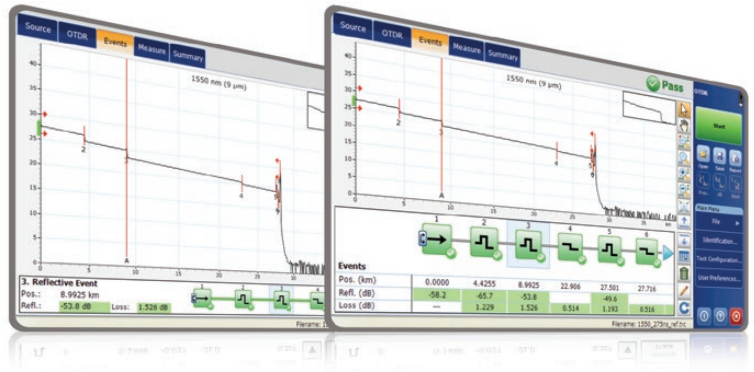
iOLM—REMOVING THE COMPLEXITY FROM OTDR TESTING

OTDR TESTING COMES WITH ITS LOAD OF CHALLENGES...

WRONG OTDR TRACES

COUNTLESS TRACES TO ANALYZE

REPEATING THE SAME JOB TWICE

COMPLEX INSTRUMENT TRAINING/SUPPORT

iOLM | 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 → All results combined 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

COMBO

Run both iOLM and OTDR applications (Oi code)

UPGRADE

Add the iOLM software option to your iOLM-ready unit, even while in the field

iOLM ONLY

Order a unit with the iOLM application only

iOLM FEATURES VALUE PACK

In addition to the standard iOLM feature set, you can select added-value features as part of the **Advanced** or **Pro** packages. Please refer to the intelligent Optical Link Mapper (iOLM) specification sheet for the complete and most recent description of these value packs.

SOFTWARE APPLICATIONS

FastReporter 2
EFFICIENT POST-PROCESSING SOFTWARE

ONE SOFTWARE DOES IT ALL

This powerful reporting software is the perfect complement to your OTDR. It allows creating and customizing reports to fully address your needs.
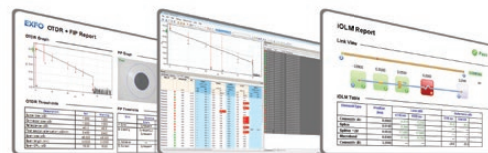
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FIBER CONNECTOR INSPECTION AND CERTIFICATION—THE ESSENTIAL FIRST STEP BEFORE ANY OTDR TESTING

Taking the time to properly inspect a fiber-optic connector using an EXFO fiber inspection probe can prevent a host of issues from arising further down the line, thus saving you time, money and trouble. Moreover, using a fully automated solution with autofocus capabilities will turn this critical inspection phase into a fast and hassle-free one-step process.

DID YOU KNOW THAT THE CONNECTOR OF YOUR OTDR/iOLM IS ALSO CRITICAL?

The presence of a dirty connector at an OTDR port or launch cable can negatively impact your test results, and even cause permanent damage during mating. Therefore, it is critical to regularly inspect these connectors to ensure that they are free of any contamination. Making inspection the first step of your OTDR best practices will maximize the performances of your OTDR and your efficiency.

Connector Max 2

FIVE MODELS TO FIT YOUR BUDGET

FEATURES	USB WIRED		
	Basic **FIP-410B**	Semi-Automated **FIP-420B**	Fully-Automated **FIP-430B**
Three magnification levels	✓	✓	✓
Image capture	✓	✓	✓
Five-megapixel CMOS capturing device	✓	✓	✓
Automatic fiber image-centering function	X	✓	✓
Automatic focus adjustment	X	X	✓
Onboard pass/fail analysis	X	✓	✓
Pass/fail LED indicator	X	✓	✓
Wi-Fi Connectivity	X	X	X

For additional information, please refer to the FIP-400B USB or FIP-400B wireless specification sheets.

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.
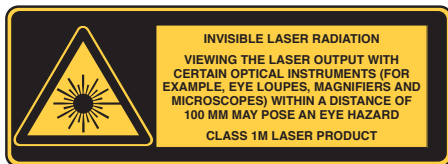
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SPECIFICATIONS [a]

TECHNICAL SPECIFICATIONS	
Wavelength (nm) [b]	850 ± 20, 1300 ± 20, 1310 ± 20, 1550 ± 20
Dynamic range (dB) [c, d]	27, 26, 36, 34
Event dead zone (m) [e]	1
Attenuation dead zone (m) [e]	Multimode: 3 Singlemode: 4.5
Distance range (km)	Multimode: 0.1 to 40 Singlemode: 1.25 to 260
Pulse width (ns)	Multimode: 5 to 1000 Singlemode: 5 to 20 000
Launch conditions [f]	Encircled Flux (EF) compliant [g]
Linearity (dB/dB) [b]	±0.03
Loss threshold (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	Multimode: 0.04 to 2.5 Singlemode: 0.04 to 5
Sampling points	Up to 128 000
Distance uncertainty (m) [h]	±(0.75 + 0.0025 % x distance + sampling resolution)
Measurement time	User-defined (maximum: 60 minutes)
Typical real-time refresh (Hz)	3
Stable source output power (dBm) [i]	−1.5 (1300 nm), −7 (1550 nm)

Notes

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

b. Typical.

c. Typical dynamic range with longest pulse and 3-minute averaging at SNR = 1.

d. Multimode dynamic range is specified for 62.5 µm fiber; a 3-dB reduction is seen when testing 50 µm fiber.

e. Typical dead zone for multimode reflectance below −35 dB and singlemode reflectance below −45 dB, using a 5-ns pulse.

f. Multimode port output fiber is 62.5/125 µm, controlled launch conditions allow 50 µm and 62.5 µm multimode fiber testing.

g. For 50/125 µm fiber at 850 nm, compliant to TIA-526-14-B and IEC 61280-4-1 Ed. 2.0 using an external EF conditioner (SPSB-EF-C-30). Typically compliant for 50/125 µm fiber at 1300 nm.

h. Does not include uncertainty due to fiber index.

i. Typical output power is given at 1300 nm for multimode output and 1550 nm for singlemode output.

LASER SAFETY

INVISIBLE LASER RADIATION

VIEWING THE LASER OUTPUT WITH CERTAIN OPTICAL INSTRUMENTS (FOR EXAMPLE, EYE LOUPES, MAGNIFIERS AND MICROSCOPES) WITHIN A DISTANCE OF 100 MM MAY POSE AN EYE HAZARD

CLASS 1M LASER PRODUCT

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ORDERING INFORMATION

FTB-7200D-XX-XX-XX-XX

Model
FTB-7200D-12CD-23B = Four-wavelength MM/SM OTDR module, 850/1300 nm
(50/125 µm and 62.5/125 µm) and 1310/1550 nm (9/125 µm)
FTB-7200D-12CD = Dual-wavelength MM OTDR module, 850/1300 nm
(50/125 µm and 62.5/125 µm)
FTB-7200D-023B = Dual-wavelength SM OTDR module, 1310/1550 nm (9/125 µm)

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 section below

OTDR Software Option
00 = Without software option
AD = Macrobend finder and linear view

Multimode Connector
EI-EUI-28 = UPC/DIN 47256
EI-EUI-89 = UPC/FC narrow key
EI-EUI-90 = UPC/ST
EI-EUI-91 = UPC/SC
EI-EUI-95 = UPC/E-2000
EI-EUI-98 = UPC/LC

Example: FTB-7200D-12CD-23B-EI-EUI-89-EA-EUI-95-AD

EI CONNECTORS

APC

To maximize the performance of your OTDR, EXFO recommends using APC connectors on singlemode port. 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 with the iOLM application.

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

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For the most recent version of this spec sheet, please go to the EXFO website at **www.EXFO.com/specs**.

In case of discrepancy, the Web version takes precedence over any printed literature.

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