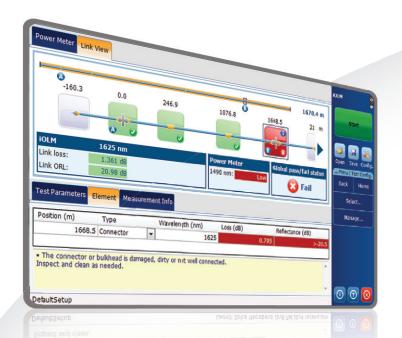
Intelligent Optical Link Mapper (iOLM)

OTDR-BASED APPLICATION MAKING EXPERT-LEVEL FIBER TESTING ACCESSIBLE TO ANYONE



Available on:

- > MAX-700B OTDR Series
- > FTB-700 OTDR Series
- > FTB-7000E OTDR Series





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.

The iOLM is 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, iOLM locates and identifies faults with maximum resolution—all at the push of a single button.

KEY FEATURES

Self-setting unit dynamically adapting to any fiber link

Intelligent multi-acquisitions at multiple wavelengths in a single icon-based link-view

Comprehensive fault diagnosis and guidance

Consolidated bidirectional link-view (patent-pending)

OTDR trace file generation (.sor)

TIA/IEC automated pass/fail thresholds for enterprise/data center (optional)

Test two fibers at once with loopback testing mode (optional)

KEY NETWORK APPLICATIONS

Point-to-point access

FTTx Last-Mile

LAN/WAN, enterprise and data center certification

FTTx/PON MDU

Fronthaul (FTTA, DAS and small cells) and backhaul

Passive Optical LAN (POL)

Metro core and long-haul

CWDM

Cable certification (IL/ORL measurement)

PLATFORM COMPATIBILITY



Handheld OTDR MaxTester 700B Series



Frontline Platform FTB-1



Compact Platform FTB-200



Platform FTB-2/FTB-2 Pro



Platform FTB-500



GO BEYOND OTDR TESTING

Innovation is front and center at EXFO, and the Intelligent Optical Link Mapper (iOLM) is a prime example of a game-changing solution. The iOLM lets you take advantage of the full power of your OTDR, bringing automation to a new level—and enabling even the untrained technician to become a test expert in no time.

The iOLM integrates all our expertise into a simple, easy-to-use software that will take your OTDR testing capabilities further than they've ever been. And since EXFO designs and optimizes each OTDR model so that it offers the best possible performance for its specific application, your solution will fit to your reality.

IOLM—REMOVING COMPLEXITY FROM THE OTDR

OTDR COMES WITH ITS LOAD OF CHALLENGES...









AS AN ANSWER TO THESE CHALLENGES, EXFO DEVELOPPED A BETTER WAY TO TEST FIBER OPTICS:



HOW DOES IT WORK?

Dynamic multipulse acquisition



Intelligent trace analysis

Based on the

Based on the multiple acquisitions and with the help of advanced algorithms, iOLM is able to detect more events with maximum resolution.

Combine all results in a single link view

Results are visually displayed in an icon-based fiber-link view to quickly assess each event's pass/fail status per standard selected, eliminating any risk of misinterpretation.

Comprehensive diagnosis

Delivers an analysis of failed events and suggests solutions, guiding the technicians in fixing the fault quickly and successfully.



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

3 WAYS TO BENEFIT FROM THE IOLM

1 |

OTDR combo (Oi code)
Run iOLM and

Run iOLM and OTDR applications on one unit

Upgrade

Add iOLM software option, even while in the field

3

iOLM only

Order a unit with the iOLM application only



THREE EASY STEPS TO A PERFECT FIT

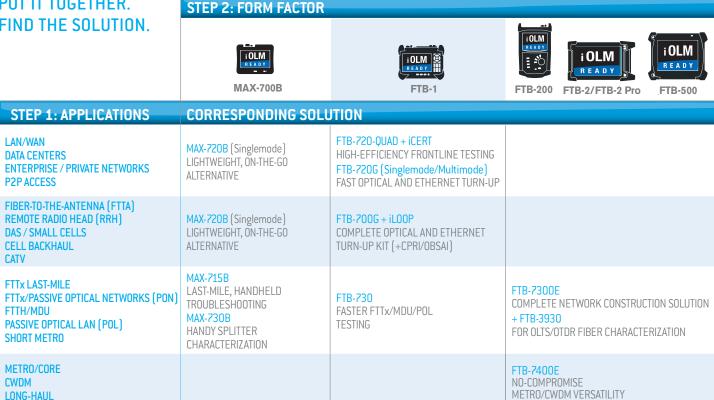
STEP 1: Choose your network application

True OTDR performance goes far beyond simple product specifications. It's about optimizing your network services, based on application-specific parameters.

STEP 2: Choose your form factor

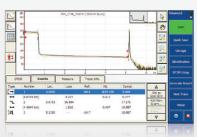
- > MaxTester 700B Series: Compact, dedicated, tablet-inspired, handheld OTDRs designed to perform singlemode tasks under tight budget constraints
- > FTB-1: Compact, modular handheld platform for multitest applications and advanced frontline troubleshooting
- > FTB-200: Modular handheld platform providing more flexibility for repetitive daily tasks
- > FTB-2/FTB-2 Pro: The most compact multitechnology platform for the supertech
- > FTB-500: Full-sized modular platform for advanced multi-application testing

PUT IT TOGETHER. FIND THE SOLUTION.



STEP 3: Choose your technology

Go traditional, go bleeding-edge, or combine the best of both worlds in a single unit:



and/or

> Time-proven OTDR technology with advanced modes, trace analysis and editing



> Groundbreaking iOLM and Link-Aware™ technology, with its multipulse approach, visual link depiction and per-event diagnosis



UNIQUE FEATURES

REVOLUTIONIZING SINGLE-ENDED FIBER DEPLOYMENTS



LINK-AWARE™ TECHNOLOGY

Let it optimize the test run | With one click, the unit automatically performs link recognition, sets the optimal parameters and launches multiple acquisitions and multiple analyses—at multiple wavelengths—consolidating the results obtained for every link section and every network element. Get accurate information right away on each link element and export it to a single report.



SELF-SETTING UNIT

Let it be the expert | Powered by Link-Aware technology, the iOLM self-manages the setting of all test parameters—ready-to-use intelligence that dramatically shortens the learning curve. Minimize training, avoid test misconfiguration, and facilitate your technicians' transition from copper to fiber.



OPTICAL LINK VIEW

Let it crunch the data | Leaving behind complex OTDR traces, the simplified link mapper provides a straightforward view of the fiber under test, with clear icons and pass/fail verdicts. Get actual results: end-to-end visual assessment of your link, complete with event characterization and fiber status.



PROMPT DIAGNOSIS

Let it show you the way | Loaded with countless algorithms and a database of potential network failures, the iOLM guides you through your network's problem-solving process. Say goodbye to trace misinterpretation, and ensure that all your technicians—not just your most experienced ones—can efficiently fix network issues right on the spot.



OTDR TRACE FILE GENERATION

Fits in your existing procedures | The iOLM can generate a universal and enhanced Bellcore format (.sor) OTDR trace to comply with your existing reporting and post-processing requirements. This OTDR trace integrates all the additional information gathered by the iOLM, providing more complete results.



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

Let it combine the results | Recommended to ensure true splice characterization, bidirectional analysis combines results from both directions to provide an average loss for each event. Using bidirectional analysis with the iOLM ensures you benefit from maximum resolution on both directions (multiple pulse widths at multiple wavelengths) as well as a consolidated view.

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



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



ADDITIONAL FEATURES

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. Either run the OTDR application (Oi option) or the real-time mode (RT option) to measure field-splicing or to check the link before launching an iOLM acquisition.



2XN SPLITTER CHARACTERIZATION

The iOLM is the only solution on the market to characterize 2xN splitter with a clear pass/fail verdict for multi-input or redundancy networks. It identifies 2xN splitters as well as both their input branches allowing users to accurately document the network with one test (compared to three tests when using traditional methods).



iOLM EXPERT MODE (iEX)

iEX is a software option specifically designed for the fiber test expert or the manager who requires more flexibility in documenting the trace files for reporting purposes. Because flexibility also means that you can create your own elements to better match your network plans, this option allows you to add extra events, delete events or re-analyze the trace.





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). This software option is available on FTB-720 model along with the iOLM/Oi applications.

Having pre-defined cable standards built-in in the application ensure to stay up to date with the test requirements of the different standard bodies, with no risk of error during testing.





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 2 individual links, thus eliminating the need for post-processing. iLOOP automatically generates individual iOLM, OTDR (.sor) files and PDF reports for all your fibers directly from the field so you can 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 completed, iLOOP applies pass/fail assessments and to generates a report for each single fiber.

How to perform loopback measurement based on EXFO platforms and test methodology

	iOL	OTDR	
Test Methodology	Unidirectional	Bidirectional	Unidirectional and bidirectional
MAX-700B	iL00P	FR2: PC	FR2: PC
FTB-1/2	iL00P	FR2: PC/FTB	FR2: PC/FTB
FTB-200v2	FR2: PC	FR2: PC	FR2: PC
FTB-500	iLOOP (to come)	FR2: PC	FR2: PC

iLOOP = Loopback measurement achieved immediately in the field via iOLM iLOOP option.
FR2:PC/FTB = Loopback measurement achieved via post-processing in FastReporter2
software using a PC at the office or in the field using the FTB platform.
FR2:PC = Loopback measurement achieved via post-processing in FastReporter?

A-B	* :
A	- :
В	∹: ==>

Using the loopback test method and iLOOP option on your iOLM enables you to test two fibers at once. View only the A link, B link, or the complete A-B link including the loop.



RECOMMENDATIONS

Angled-polished Connectors (APC) on a Singlemode Port

Like any OTDR, the iOLM will be affected by strong reflections at the unit's port. To ensure low reflections and maintain measurement accuracy, the iOLM singlemode port must be used with APC connectors. Another advantage of using APC connectors is their ability to handle harsher conditions without becoming highly reflective while maintaining the unit's performance.

In the case of UPC connectors, they are prone to be highly reflective if contaminated, worn or damaged. This will affect the singlemode measurement and will lead to premature connector replacement. Although testing a UPC network does not require a UPC unit, using an APC/UPC test jumper or a launch fiber (SPSB) ensures compatibility.

Test Method

EXFO recommends using a 150-meter launch cable (SPSB) to exclude the loss of the iOLM's connector or to allow UPC network testing. It will also extend the instrument's connector life by reducing the number of matings—ultimately improving the cost of ownership.



TROUBLESHOOTING OF HIGH-SPEED MULTIMODE NETWORKS WITH ENCIRCLED FLUX



Whether it's for an expanding enterprise-class business or a large-volume data center, new high-speed data networks built with multimode fibers are running under tighter tolerances than ever before. In case 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 different unit 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.

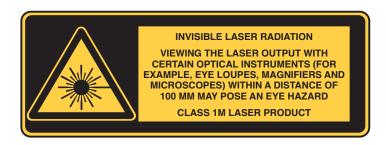
The use of an external EF-compliant device* such as the SPSB-EF-C30 will ensure a fast and easy way to fix faulty networks.

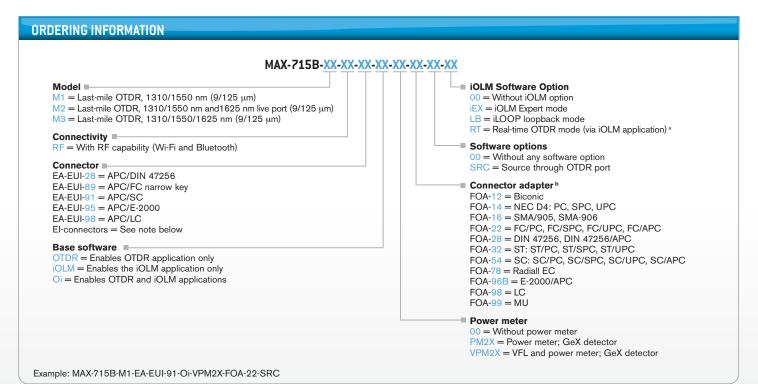
*For more detailed information about EF compliance, please read the Encircled Flux test solution specification sheet.



GENERAL SPECIFICATIONS						
Model		MAX-715B/720B/730B	FTB-720 and FTB-730	FTB-7300E and FTB-7400E		
Size (H x W x D))	200 mm x 155 mm x 68 mm (7 ⁷ / ₈ in x 6 ¹ / ₈ in x 2 ³ / ₄ in)	130 mm x 36 mm x 252 mm (5 ¹ / ₈ in x 1 ⁷ / ₁₆ in x 9 ¹⁵ / ₁₆ in)	97 mm x 25 mm x 260 mm (3 ¹³ / ₁₆ in x 1 in x 10 ½ in)		
Weight		1.29 kg (2.8 lb)	0.65 kg (1.4 lb) With FTB-1: 2.2 kg (4.8 lb)	0.55 kg (1.2 lb) With FTB-1: 2.2 kg (4.8 lb)		
Temperature	Operating Storage	–10 °C to 50 °C (14 °F to 122 °F) –40 °C to 70 °C (–40 °F to 158 °F)	0 °C to 50 °C (32 °F to 122 °F) -40 °C to 70 °C (-40 °F to 158 °F)	0 °C to 50 °C (32 °F to 122 °F) -40 °C to 70 °C (-40 °F to 158 °F)		
Relative humid	ity	0 % to 95 % noncondensing	0 % to 95 % non-condensing	0 % to 95 % non-condensing		

LASER SAFETY

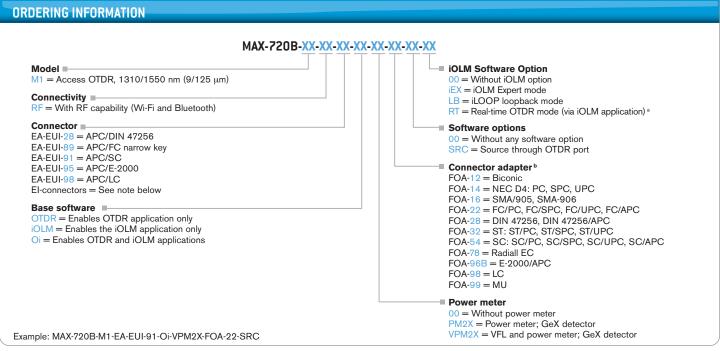




Notes

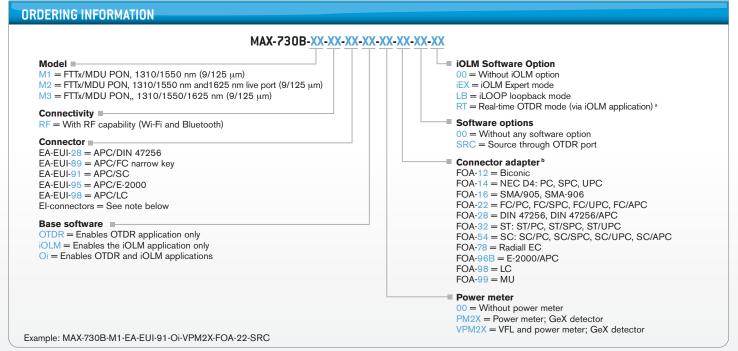
- a. Available with iOLM base software only. This feature is part of the Oi base software.
- b. If power meter is selected.





Notes

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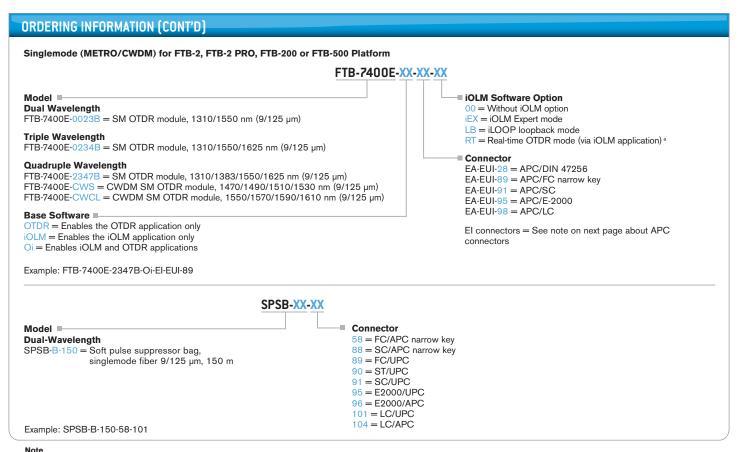


ORDERING INFORMATION Multimode and Singlemode Access and LAN/WAN OTDR for FTB-1 Platform FTB-720-XX-XX-XX-XX Singlemode Connector iOLM Software Option Model ■ FTB-720-000-04B = OTDR with filtered 1625 nm port EA-EUI-28 = APC/DIN 47256 00 = Without iOLM option EA-EUI-89 = APC/FC narrow key FTB-720-023B-04B = OTDR 1310/1550 nm with filterediCERT = Certification for TIA/ISO with automated EA-EUI-91 = APC/SC pass/fail thresholds 1625 nm port EA-EUI-95 = APC/E-2000iEX = iOLM Expert mode FTB-720-23B = OTDR 1310/1550 nm EA-EUI-98 = APC/LC FTB-720-12CD = OTDR 850/1300 nm LB = iLOOP loopback mode El connectors = See note on next FTB-720-12CD-23B = OTDR 850/1300 nm, 1310/1550 nmRT = Real-time OTDR mode (via iOLM application) b page about APC connectors Base Software **Multimode Connector** OTDR = Enables the OTDR application only EI-EUI-28 = UPC/DIN 47256 iOLM = Enables the iOLM application only EI-EUI-76 = UPC/HMS-10/AG Oi = Enables iOLM and OTDR applications EI-EUI-89 = UPC/FC narrow key EI-EUI-90 = UPC/STEI-EUI-91 = UPC/SC EI-EUI-95 = UPC/E-2000Example: FTB-720-023B-04B-OTDR-EI-EUI-89-EA-EUI-89 EI-EUI-98 = UPC/LC Singlemode (PON FTTx/MDU) OTDR for FTB-1 Platform FTB-730-XX-XX-XX-XX Model ■ IOLM Software Option **Dual-Wavelength** 00 = Without iOLM option FTB-730-23B = SM OTDR module, 1310/1550 nm (9/125 μ m) iEX = iOLM Expert mode FTB-730-34B = SM OTDR module, 1550/1625 nm (9/125 µm) LB = iLOOP loopback mode RT = Real-time OTDR mode (via iOLM application) b Triple-Wavelength FTB-730-236B = SM OTDR module, 1310/1490/1550 nm (9/125 µm) Connector FTB-730-234B = SM OTDR module, 1310/1550/1625 nm (9/125 µm) EA-EUI-28 = APC/DIN 47256 EA-EUI-89 = APC/FC narrow key **SM Live Port** EA-EUI-91 = APC/SC FTB-730-23B-04B = SM and SM live OTDR module, 1310/1550 and EA-EUI-95 = APC/E-20001625 nm live port including in-line broadband power meter EA-EUI-98 = APC/LC FTB-730-23B-08B = SM and SM live OTDR module, 1310/1550 and 1650 nm El connectors = See note on next page about APC connectors live filtered port (9/125 µm) FTB-730-000-04B = SM live OTDR with 1625 nm live port (9/125 µm) Base Software including in-line broadband power meter OTDR = Enables the OTDR application only iOLM = Enables the iOLM application only FTB-730-000-08B = SM live OTDR with 1650 nm live filtered port (9/125 μ m) Oi = Enables iOLM and OTDR applications OPM Option c = OPM = One broadband channel included OPM2 = Dual channel 1490/1550 nm Example: FTB-730-23B-04B-OPM-iOLM-EA-EUI-89-EA-EUI-89-RT Singlemode (PON FTTx/MDU) for FTB-2, FTB-2 PRO, FTB-200 or FTB-500 Platform FTB-7300E-XX-XX Model ■ ■ iOLM Software Option **Dual Wavelength** 00 = Without iOLM option iEX = iOLM Expert mode FTB-7300E-023B = SM OTDR module, 1310/1550 nm (9/125 μ m) LB = iLOOP loopback mode FTB-7300E-034B = SM OTDR module, 1550/1625 nm (9/125 μ m) RT = Real-time OTDR mode (via iOLM application) b FTB-7300E-234B = SM OTDR module, 1310/1550/1625 nm (9/125 µm) Connector EA-EUI-28 = APC/DIN 47256 FTB-7300E-236B = SM OTDR module, 1310/1490/1550 nm (9/125 μ m) EA-EUI-89 = APC/FC narrow key SM Live Port EA-EUI-91 = APC/SC FTB-7300E-023B-04B = SM and SM live OTDR module, 1310/1550 and 1625 nm live port EA-EUI-95 = APC/E-2000FTB-7300E-023B-08B = SM and SM live OTDR module, 1310/1550 and 1650 nm live port EA-EUI-98 = APC/LC FTB-7300E-000-04B = SM live OTDR with 1625 nm live port (9/125 μ m) El connectors = See note on next page about APC connectors Base Software OTDR = Enables the OTDR application only iOLM = Enables the iOLM application only Oi = Enables iOLM and OTDR applications Example: FTB-7300E-023B-04B-Oi-EA-EUI-89

Notes

- a. Only available if FTB-720-12CD or FTB-720-12CD-23B model is selected.
- b. Available with iOLM base software only. This feature is part of the Oi base software.
- c. Available with FTB-730-000-04B and FTB-730-23B-04B only.





a. Available with iOLM base software only. This feature is part of the Oi base software.

THE BENEFITS OF APC CONNECTORS FOR OTDR/IOLM TESTING



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

For best results, APC connectors are mandatory on singlemode ports when 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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EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to www.EXFO.com/contact.

EXFO is certified ISO 9001 and attests to the quality of these products. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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



