FTB-7500E—Metro/Long-Haul OTDR

LONG-DISTANCE FIBER CHARACTERIZATION AND FIBER UPGRADES

40G

EXFO Connect Compatible

FROST & SULLIVAN
2014 BEST PRACTICES AWARD
GLOBAL
PORTABLE FIBER OPTIC TEST EQUIPMENT
MARKET LEADERSHIP AWARD
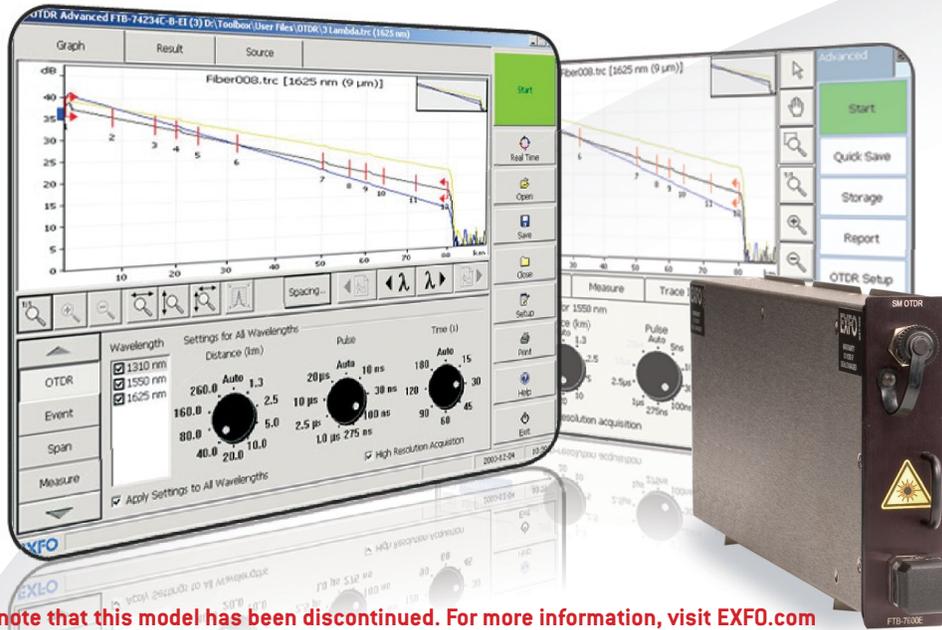
Please note that this model has been discontinued. For more information, visit EXFO.com

High dynamic range combined with high resolution for truly accurate fiber characterization

KEY FEATURES

Dynamic range of up to 45 dB

Up to 256 000 sampling points

Event dead zone of 0.8 m and attenuation dead zone of 4 m

Industry-leading linearity of ± 0.03 dB/dB

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

APPLICATIONS

Metro network testing

Long-haul network testing

PLATFORM COMPATIBILITY

Platform
FTB-2/FTB-2 Pro

Platform
FTB-200

Platform
FTB-500

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LOADED WITH FEATURES TO BOOST YOUR EFFICIENCY [a]

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.

Note

a. Some features may not be available in FTB-500 platform.

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LOOKING FOR ICON-BASED MAPPING?

Linear View (Included on All EXFO OTDRs) [a]

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.
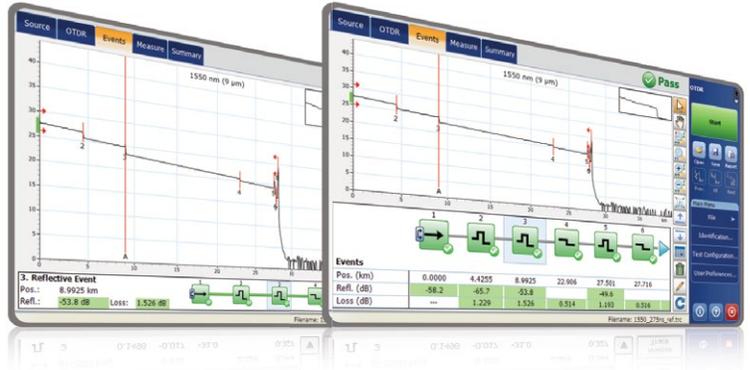
SOFTWARE APPLICATIONS

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.

Note

a. Linear view representation depends on the OTDR version installed on the platform.

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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.

Connect·r Max2

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	✓	✓

For additional information, please refer to the FIP-400B USB specification sheet.

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

EXFO | C·nnect

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

## TECHNICAL SPECIFICATIONS

Model [a]	FTB-7500E
Wavelengths (nm) [b]	1310 ± 20/1550 ± 20/1625 ± 10
Dynamic range at 20 μs (dB) [c]	45/45/45
Event dead zone (m) [d]	0.8
Attenuation dead zone (m) [d]	3
Distance range (km)	1.25, 2.5, 5, 10, 20, 40, 80, 160, 260, 400
Pulse width (ns)	5, 10, 30, 100, 275, 1000, 2500, 10 000, 20 000
Linearity (dB/dB) [b]	±0.03
Loss threshold (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	0.04 to 5
Sampling points	Up to 256 000
Distance uncertainty (m) [e]	±(0.75 + 0.001 % x distance + sampling resolution)
Measurement time	User-defined (minimum: 5 seconds ; maximum: 60 minutes)
Typical real-time refresh (Hz)	4
Stable source output power (dBm) [f]	−1 (7500E-0023B)

Notes

a. For complete details on all available configurations, refer to the Ordering Information section.

b. Typical.

c. Typical dynamic range with a three-minute averaging at SNR = 1. Typical dynamic range at 1550 nm for the FTB-7500E-0023B configuration is 2 dB lower.

d. Typical at 1310 nm for reflectance below −55 dB, using a 5-ns pulse. Attenuation dead zone at 1310 nm is 4 m for reflectance below −45 dB.

e. Does not include uncertainty due to fiber index.

f. Typical output power value at 1550 nm.

LASER SAFETY

IEC 60825-1:2007   21 CFR 1040.10
INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY
WITH OPTICAL INSTRUMENTS
CLASS 1M LASER PRODUCT
λ: 800-1300 nm, PW ≤ 1 μsec, Ppk ≤ 500 mW
λ: 1250-1400 nm, PW ≤ 20 μsec, Ppk ≤ 260 mW
λ: 1400-1700 nm, PW ≤ 20 μsec, Ppk ≤ 600 mW
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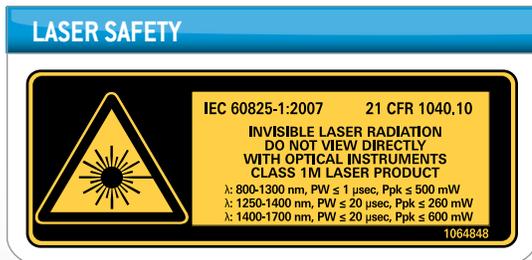
ORDERING INFORMATION

FTB-7500E-XX-XX-XX

Model
Dual-wavelength
FTB-7500E-0023B = SM OTDR module, 1310/1550 nm (9/125 µm)
FTB-7500E-0034B = SM OTDR module, 1550/1625 nm (9/125 µm)

OTDR Software Option
00 = Without software option [a]
AD = Macrobend finder and linear view [b]

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-EUI-28 = UPC/DIN 47256
EI-EUI-76 = UPC/HMS-10/AG
EI-EUI-89 = UPC/FC narrow key
EI-EUI-90 = UPC/ST
EI-EUI-91 = UPC/SC
EI-EUI-95 = UPC/E-2000

Example: FTB-7500E-0023B-EI-EUI-89-AD

Notes

a. Includes macrobend finder in FTB-2/FTB-2 Pro.

b. Included in FTB-200v2. Not available in FTB-2/FTB-2 Pro.

EI CONNECTORS

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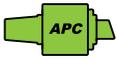
To maximize the performance of your OTDR, EXFO recommends using APC connectors. These connectors generate lower reflectance, which is a critical parameter that affects performance, particularly dead zones. APC connectors provide better performances than UPC connectors, thereby improving testing efficiency.

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**.

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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