

# FTB Lite 735D connected metro/PON FTTx/MDU OTDR

OPTIMIZED FOR METRO CORE AND FTTx/MDU FIBER DEPLOYMENTS AND TROUBLESHOOTING

- High-resolution dedicated OTDR with **always-on connectivity** and optimized usability to carry out any metro network testing and splitter characterization in the most efficient, compliant and secure way.

BUILT IN  
**EXchange**

**3**  
3-year warranty

**iOLM**  
READY

**NOW WITH ALWAYS-ON  
LTE CONNECTIVITY**



## KEY FEATURES

- Free 36-month basic data plan provided for real-time visibility
- Bluetooth®, WiFi, 2G/3G/4G LTE, GNSS
- 8-inch (203-mm) color touchscreen for use in bright sunlight environments or any environment where you conduct tests
- Up to 10-hour battery autonomy
- Live fiber testing
- Dynamic range up to 42 dB for up to 144 km point-to-point (P2P)
- Event dead zone (EDZ) / Attenuation dead zone (ADZ): 0.5/2.0 m in SM and MM, PON dead zone 25 m
- FTTx in-service testing at 1650 nm with optional in-line GPON/XGS-PON power meter
- Single port for in-service troubleshooting with in-line 1490/1550 nm PON power meter (optional)
- iOLM-ready: one-touch multiple acquisitions, with clear go/no-go results presented in a straightforward visual format
- 3-year warranty

## APPLICATIONS

- FTTx/MDU test challenges within PON networks
- Metro/core network testing (P2P)
- Manufacturing automation

## RELATED PRODUCTS AND ACCESSORIES



Fiber inspection scope  
FIP-500



Soft pulse suppressor bag  
SPSB

**FastReporter**

Data post-processing software  
FastReporter



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## HOW CONFIDENT ARE YOU ABOUT YOUR TEST PROCEDURES BEING FOLLOWED?

The FTB Lite 700 Series builds upon EXFO's innovation in OTDR testing with a secure, rugged Connected First™ platform.

### Did you know?

Technicians set wrong thresholds **40%** of the time and may re-test the same fiber **15%** of the time.

EXFO's FTB Lite 700 Series features always-on connectivity, designed to solve issues, such as lack of compliance and expertise, inefficient processes, and delays in getting the latest updates.

**Always-on connectivity** provides:

1. **Streamlined compliance and automated validation:** Automated job tracking and real-time reporting confirm adherence to methods of procedure (MoP) ensure compliance with testing standards while reducing errors and administration time.
2. **Enhanced collaboration and efficiency:** Real-time data sharing, automated uploads, and cloud-based reporting enable seamless teamwork, faster decision-making, and accelerated project timelines.
3. **Valuable insights:** Automated access to comprehensive live data to perform analytics and extract insights, enabling informed decision-making and planning.

The FTB Lite 700 Series has direct access to EXFO Exchange workspaces at all times. Onboarding has never been easier with pre-configured access and single sign-on directly from the platform, meaning no more phone pairing.

These advantages, paired with EXFO's reliable, accurate and durable OTDRs, lead to:

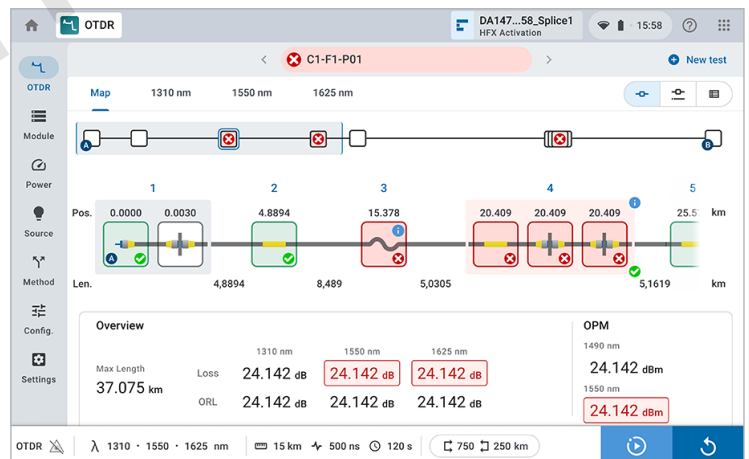
- Faster deployment of jobs to users in the field to ensure compliance and increase the ratio of first-time-right results.
- Faster access to results by managers or supervisors; leading to contractors getting paid quicker.
- Regular unit updates from the field to get latest software.
- Simple and intuitive user interface to minimize training.
- Real-time visibility over unit utilization to ensure equipment is dispatched and used efficiently.

## LOOKING FOR ICON-BASED MAPPING?

### Optical Link Mapper (OLM) included in all AXS and FTB Lite OTDRs

Interprets OTDR traces automatically and provides an icon-based view of the elements on the link.

- Automatic analysis of multiple wavelengths with a consolidated link view display.
- Synced with events and placed below the linear view to view all events on the link.
- Display of end-to-end link length, loss and ORL according to the pass/fail settings.
- Automatic parameter settings and clear go/no-go results.
- Prompt guidance on what and where the network issues are.



**MULTIPLE  
WAVELENGTHS**



**CLEAR CONSOLIDATED  
LINK DISPLAY**



**.SOR  
FITS YOUR  
PROCESSES**



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## OPTICAL ADD-ONS (OPTIONAL)

### Optical power meter (OPM)

EXFO's high-level power meter (GeX) can measure up to 27 dBm. This is essential for hybrid fiber-coaxial (HFC) networks or high-power signals. If used with an auto-lambda/auto-switching compatible light source, the power meter automatically synchronizes on the same wavelength, thus avoiding any risk of mismatched measurement.

### Visual fault locator (VFL)

The plug-and-play VFL easily identifies breaks, bends, faulty connectors and splices, in addition to other causes of signal loss. This basic, yet essential troubleshooting tool should be part of every field technician's toolbox. The VFL visually locates and detects faults over distances of up to 7 km by creating a bright-red glow at the exact location of the fault. High-power VFL is also available as an option to test distances up to 12 km.



## SHARE TEST RESULTS. BOOST COMPLIANCE. UNLOCK INSIGHTS.

### Cloud-hosted solution for sharing test results and ensuring compliance.

Paired with EXFO's leading test instruments, EXFO Exchange drives an entire ecosystem while integrating seamlessly with existing operation processes.



## FastReporter

### Advanced FastReporter capabilities included with EXFO Exchange.

FastReporter is a consolidated data management and postprocessing solution designed to improve results quality as well as auditing and reporting productivity. When logging in to your EXFO Exchange account on your PC, you will have access to all advanced capabilities for FastReporter, including:

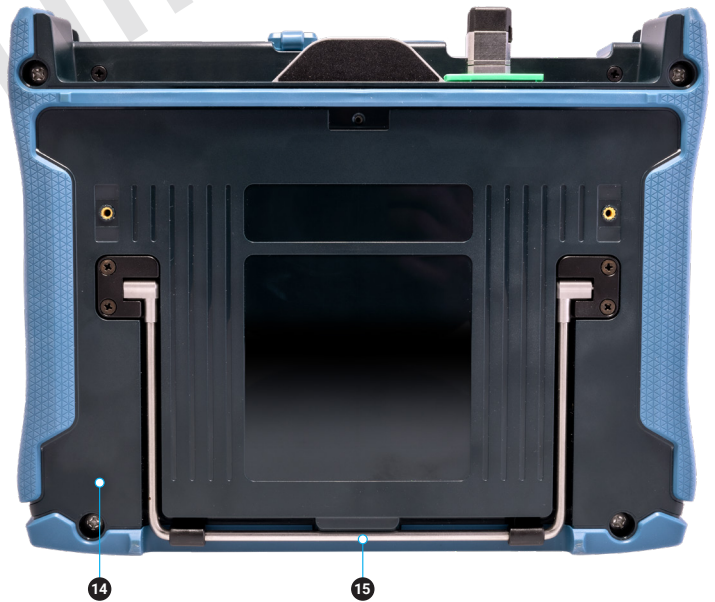
- Results viewer
- Advanced reporting formats (Excel, PDF, custom)
- Advanced editing
- Automated validation and results correction

Get  
started >



## PRODUCT OVERVIEW

- ① Singlemode OTDR port
- ② Testing LED indicator
- ③ VFL
- ④ Power meter
- ⑤ 10/100/1000 Mbit/s Ethernet port
- ⑥ Two USB 3.0 ports
- ⑦ Charger/battery LED
- ⑧ USB-C PD port
- ⑨ Mount for hand/shoulder strap
- ⑩ Power on/off/stand by button
- ⑪ Power on/off LED status indicator
- ⑫ Speaker
- ⑬ 8-inch (203-mm) color touchscreen
- ⑭ Built-in LTE/WiFi/Bluetooth radios
- ⑮ Kickstand





SPECIFICATIONS<sup>a</sup>

TECHNICAL SPECIFICATIONS	
Wavelength (nm) <sup>b</sup>	1310 ± 20/1550 ± 20/1625 ± 10/1650 ± 5
Live wavelength (nm)	1650 nm: bandpass 1650 nm ± 7 nm Isolation >50 dB out of 1650 nm ± 10 nm
Dynamic range (dB) <sup>c</sup>	42/42/42/42
Event dead zone (m) <sup>d</sup>	0.5
Attenuation dead zone (m) <sup>d</sup>	2.0
PON dead zone (m) <sup>e</sup>	25
Distance range (km)	0.1 to 400
Pulse width (ns)	3 to 20 000
Linearity (dB/dB)	±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) <sup>f</sup>	±(0.75 + 0.0025 % × distance + sampling resolution)
Measurement time	User-defined
Reflectance accuracy (dB) <sup>b</sup>	±2
Typical real-time refresh (Hz)	4

IN-LINE POWER CHECKER <sup>b, g, h</sup>	
Power range (dBm)	−60 to 23
Power uncertainty (dB) <sup>i, j</sup>	±0.5
Calibrated wavelengths (nm)	1310, 1490, 1550, 1625, 1650
Selectable wavelengths (nm)	1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1577, 1590, 1610, 1625, 1650
Tone detection	270 Hz, 330 Hz, 1 kHz, 2 kHz

TECHNICAL SPECIFICATIONS (in-line PON power meter with OPM2 in option) <sup>b, h</sup>	
Power range (dBm)	−60 to 23
PON power meter (nm)	Two channels: 1490/1550 and 1490/1577
Power uncertainty (dB) <sup>i, j</sup>	±0.5
Calibrated wavelengths (nm)	1310, 1490, 1550, 1625, 1650
Selectable wavelengths (nm)	1310, 1490, 1550, 1577, 1625, 1650, 1490/1550, 1490/1577

SOURCE	
Output power (dBm) <sup>k</sup>	0
Modulation	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz

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 at −55 dB, using a 3-ns pulse. Attenuation dead zone at 1310 nm is 2.5 m (typical) with reflectance below −45 dB.

e. Non-reflective FUT, non-reflective splitter, 13-dB loss, 50-ns pulse, typical value at 1550 nm.

f. Does not include uncertainty due to fiber index.

g. Not available when OPM2 is selected.

h. Specifications valid when OTDR not in operation or in idle mode.

i. At calibrated wavelengths.

j. Requires a good entry connector's health.

k. Typical output power is given at 1550 nm.



## GENERAL SPECIFICATIONS

Display	8-inch (203 mm), 1280×800, color touchscreen (viewable in sunlight)
Interfaces	USB-A ports (2) USB-C port with power delivery RJ45 LAN 10/100/1000 Mbit/s
RF comms <sup>a, b</sup>	Bluetooth, WiFi, 2G/3G/4G LTE, GNSS (GPS/GALILEO/QZSS)
Storage	>20,000 OTDR SOR traces
Battery	Rechargeable LiFePO4 battery, up to 10 hours <sup>c</sup> of operation as per Telcordia (Bellcore) GR-196-CORE
Power supply	Input: AC/DC adapter, 100 to 240 V AC, 50 to 60 Hz, 1.5 A max. Output: 5 to 20 V DC, 3.0 A max., 45 W max., USB-C power delivery standard supported
Weight (including battery and module)	2.4 kg (5.3 lb)
Size (H × W × D)	198 mm × 249 mm × 71 mm (7.8 in × 9.8 in × 2.8 in)
Temperature	Operating: -10 °C to 50 °C (14 °F to 122 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F)
Relative humidity	0 % to 95 % non-condensing

BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional) <sup>d</sup>

Calibrated wavelengths (nm)	850, 1300, 1310, 1342, 1358, 1490, 1550, 1577, 1625, 1650
Selectable wavelengths (nm)	850, 1300, 1310, 1342, 1358, 1490, 1550, 1577, 1625, 1650
Power range (dBm) <sup>e</sup>	27 to -50
Uncertainty (%) <sup>f</sup>	±5 %
Display resolution (dB)	0.01 = max to -40 dBm 0.1 = -40 dBm to -50 dBm
Tone detection (Hz)	270/330/1000/2000

VFL SPECIFICATIONS	VFL (optional)	HIGH-POWER VFL (optional)
Operation mode	Flashing (slow/fast) and continuous	Flashing (slow/fast) and continuous
Flashing frequency (Hz)	1 or 4	1 or 4
Wavelength (nm) (typical)	650	660
Emitter type	Laser	Laser
Power output (mW) (max.)	1	5
Distance range (km) (typical) <sup>g</sup>	7	12
Laser safety class	2	3R

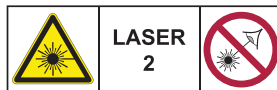
LASER SAFETY <sup>g</sup> (Complies with FDA 1040.10 and IEC 60825-1:2014-05)

Without VFL (option): IEC 60825-1:2014-05



DO NOT EXPOSE USERS OF TELESCOPIC OPTICS

With VFL (option): IEC 60825-1:2014-05



DO NOT STARE INTO BEAM

With high power VFL (option): IEC 60825-1:2014-05



AVOID DIRECT EYE EXPOSURE

**Applicability:**  
**Class 1M, 2M and 3R**

**WARNING:** Viewing the laser output with telescopic optical instruments (for example, telescopes and binoculars) may pose an eye hazard and thus the user should not direct the beam into an area where such instruments are likely to be used.

a. Free 36-month basic data plan provided.

b. Restrictions may apply depending on country/region which will prevent EXFO from providing mobile connectivity. Contact EXFO for details.

c. Battery life varies significantly based on device configuration, usage, network and feature configuration, signal strength, settings and other factors.

d. At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery operated after 30-minute warm-up.

e. Typical.

f. At calibration conditions.

g. Depends on fiber attenuation and ambient light conditions.



**ACCESSORIES (optional)**

GP-10-072	Large size soft carrying case	GP-2242	Replacement hand strap
GP-10-097	Rigid carrying case	GP-2304	Spare AC/DC adapter
GP-1008	VFL adapter (2.50 mm to 1.25 mm)	GP-2318	Replacement kickstand
GP-2155	Carry-on size backpack		
GP-2235	Spare stylus		
GP-2320	Utility glove		

**ORDERING INFORMATION****FTB-LITE-735D-XX-XX-XX-XX-XX-XX-XX-XX****Optical configuration** ■

SM1 = SM OTDR, 1310/1550 nm  
 SM3 = SM OTDR, 1310/1550/1625 nm  
 SM8 = SM OTDR, 1310/1550 and 1650 filtered,  
 on separated ports

**Base software** ■

OTDR = Enables OTDR application only  
 OIX = Enables OTDR and base iOLM features<sup>a</sup>

**SM and MM 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

**OPM option** ■

00 = Without OPM2 option  
 OPM2 = In-line PON power meter mode (dual band)<sup>c</sup>

**Inspection scope base tips** <sup>d</sup>

APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC  
 UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

**Inspection scope models**

00 = Without inspection scope  
 FIP435B = Wireless analysis digital video inspection scope<sup>e</sup>  
 Automated focus  
 Automated pass/fail analysis  
 Triple magnification  
 Autocentering

**Power meter connector adapter** <sup>f</sup>

FOA-22 = FC: FC/PC, FC/SPC, FC/UPC, FC/APC  
 FOA-32 = ST: ST/PC, ST/SPC, ST/UPC  
 FOA-54B = SC: SC/PC, SC/SPC, SC/UPC, SC/APC  
 FOA-96B = E-2000/APC  
 FOA-98 = LC  
 FOA-99 = MU

**Power meter**

00 = Without power meter or VFL  
 VFL = Visual fault locator  
 VFLHP = High power VFL  
 VPM2X = VFL and power meter; GeX detector  
 VPM2XHP = High-power VFL and power meter; GeX detector

**Connectivity**

FRF = With full RF capability (LTE, GNSS, WiFi and Bluetooth)<sup>g,h</sup>

Example: FTB-LITE-735D-SM1-OTDR-EA-EUI-89-OPM2-FRF-  
 VPM2X-FOA-22

a. Coming soon. Contact your EXFO representative for details.

b. MM connectors available in EI (UPC) only.

c. Available with SM8 model.

d. Available if inspection scope is selected.

e. For use with separate mobile smart device running ConnectorMax2 software.

f. Only available if power meter option is selected. Additional connector adapters available, contact EXFO.

g. FRF option is mandatory.

h. Not available in India and China.

**EI CONNECTORS**

To maximize the performance of your OTDR, EXFO recommends using APC connectors on SM 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.

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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](http://www.EXFO.com/contact).

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