# FTB Lite 720D connected access OTDR

OPTIMIZED FOR MULTIMODE AND SINGLEMODE ACCESS NETWORK CONSTRUCTION AND TROUBLESHOOTING

Dedicated OTDR with always-on connectivity and optimized usability to carry out any access network testing in the most efficient, compliant and secure way.













#### **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 sunlit environments or any environment where you conduct tests

Up to 10-hour battery autonomy

Live and dark fiber characterization, troubleshooting and activation through the same OTDR port

Dynamic range of up to 36 dB in singlemode (SM) and 29 dB in multimode (MM)

Event dead zone (EDZ) / Attenuation dead zone (ADZ): 0.7/2.5 m in SM and MM, PON dead zone 35 m in SM

FTTx in-service testing at 1650 nm with optional in-line GPON/XGS-PON power meter

Swap-Out connector, replaceable whenever necessary for optimal performance over time without undue service cost and downtime

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

3-year warranty

SM and guad SM/MM versions available

#### **APPLICATIONS**

Access network construction and troubleshooting

FTTx/PON testing through splitters (up to 1×32)

FTTx service activation: GPON, EPON, XGS-PON, 10GE EPON

Central office link certification

Data center and private networks (Tier-2 certification)

LAN/WAN characterization

Fronthaul/backhaul (FTTA, FTTT, RRH, DAS and small cells)

#### RELATED PRODUCTS AND ACCESSORIES



inspection scope FIP-500



Soft pulse suppressor bag





**SPSB** 

Data post-processing software FastReporter

Swap-Out connector





# 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:

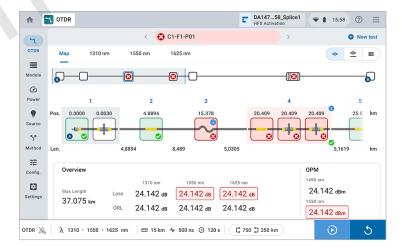
- · Faster deployment of jobs to users in the field to ensure compliance and increase the ratio of first-time-right results.
- Faster access to results by managers or supervisors; leading to contractors getting paid quicker.
- · Regular unit updates from the field to get latest software.
- · Simple and 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



FITS YOUR PROCESSES



#### SWAP-OUT CONNECTOR

The FTB Lite 720D OTDR Series comes with a patented Swap-Out connector that you can easily replace when you need to.

#### Maintain top optical performance, no downtime.

Worn connectors impact optical performance and may cause inaccuracies. Replace connectors right in the field without needing to return the unit to the manufacturer or spend money on repairs.

#### Keep your calibration plan on track.

Your calibration date remains the same, even after you swap the connector. There's no need to calibrate your unit sooner than planned.

#### Replace the connector only when necessary.

The built-in connector health checker runs a diagnosis of the optical port so you can replace worn connectors in the field when you need to.



#### **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.

#### **ENCIRCLED FLUX (EF) COMPLIANT**

For multimode fibers, the EF standard (as recommended in TIA568 via TIA52614B and IEC 6128041 Ed. 2.0) is a way of controlling source launch conditions so that Tier-2 troubleshooting can be performed with maximum accuracy and consistency. The FTB Lite 720D is compatible with an external launch mode conditioner that is EF compliant.





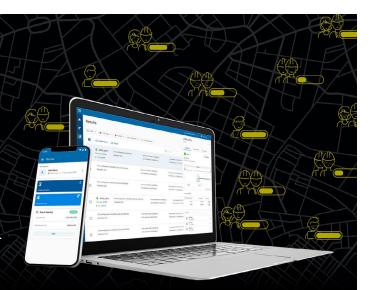




# SHARE TEST RESULTS. BOOST COMPLIANCE. UNLOCK INSIGHTS.

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







#### **PRODUCT OVERVIEW**

- 1 Singlemode OTDR port
- 2 Swap-Out connector screw
- 3 Testing LED indicator
- 4 Multimode OTDR port (applicable for Q2-QUAD model)
- 5 VFL
- 6 Power meter
- 7 10/100/1000 Mbit/s Ethernet port
- 8 Two USB 3.0 ports
- 9 Charger/battery LED

- 10 USB-C PD port
- 11 Mount for hand/shoulder strap
- 2 Power on/off/stand by button
- 13 Power ON/OFF LED status indicator
- Speake
- 15 8-inch (203-mm) color touchscreen
- 16 Built-in LTE/WiFi/Bluetooth radios
- 17 Kickstand









#### **SPECIFICATIONS** <sup>a</sup>

TECHNICAL SPECIFICATIONS		
Wavelength (nm) <sup>b</sup>	850 ± 20/1300 ± 20/1310 ± 30/1550 ± 30/1650 ± 15	
Live wavelength (nm)	1650 Isolation: 50 dB from 1265 nm to 1617 nm	
Dynamic range (dB) °	27/29/36/35/35	
Event dead zone (m) d	SM: 0.7 MM: 0.7	
Attenuation dead zone (m)	SM: 2.5 <sup>e</sup> MM: 2.5 <sup>f</sup>	
PON dead zone (m) <sup>g</sup>	35	
Distance range (km)	MM: 0.1 to 40 SM: 0.1 to 260	
Pulse width (ns)	MM: 3 to 1000 SM: 3 to 20 000	
MM launch conditions h	EF-compliant	
Linearity (dB/dB)	±0.03	
Loss threshold (dB)	0.01	
Loss resolution (dB)	0.001	
Sampling resolution (m)	MM: 0.04 to 5 SM: 0.04 to 10	
Sampling points	Up to 256 000	
Distance uncertainty (m)	±(0.75 + 0.0025 % x distance + sampling resolution)	
Measurement time	User-defined	
Reflectance accuracy (dB) <sup>b</sup>	±2	
Typical real-time refresh (Hz)	4	

IN-LINE POWER CHECKER b, j, k	
Power range (dBm)	-60 to 23
Power uncertainty (dB) I, m	±0.5
Calibrated wavelengths (nm)	1310, 1490, 1550, 1625, 1650
Selectable wavelengths (nm)	1310, 1490, 1550, 1577, 1625, 1650
Tone detection	270 Hz/330 Hz/1 kHz/2 kHz

TECHNICAL SPECIFICATIONS (in-line PON power meter with OPM2 in option) a, b		
Power range (dBm)	-60 to 23	
PON power meter (nm)	Two channels: 1490/1550 and 1490/1577	
Power uncertainty (dB) c, d	±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) e	MM: -2 SM: -8
Modulation	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz

- a. All specifications valid at 23  $^{\circ}\text{C}$   $\pm$  2  $^{\circ}\text{C}$  with an FC/APC connector, unless otherwise specified.
- h Typical
- c. Typical dynamic range with longest pulse and three-minute averaging at SNR = 1.
- d. Typical, for reflectance of  $-55~\mathrm{dB}$  in SM and  $-45~\mathrm{dB}$  in MM.
- e. Typical, for reflectance at -55 dB, using a 3-ns pulse.
- f. Typical, for reflectance at -45 dB, using a 3-ns pulse.
- g. Non-reflective FUT, non-reflective splitter, 13-dB loss, 50-ns pulse in SM, typical value.
- h. Compliant with Encircled Flux TIA-526-14-B and IEC 61280-4-1 Ed. 2.0 using an external EF conditioner (SPSB-EF-C-30).
- i. Does not include uncertainty due to fiber index.

- j. Not available when OPM2 is selected.
- k. Specifications valid when OTDR not in operation or in idle mode.
- I. At calibrated wavelengths.
- m. Requires a good entry connector's health.



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 a, b	Bluetooth, WiFi, 2G/3G/4G LTE, GNSS (GPS/GALILEO/QZSS)
Storage	>20,000 OTDR SOR traces
Battery	Rechargeable LiFePO4 battery, up to 10 hours ° 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 Storage	−10 °C to 50 °C (14 °F to 122 °F) −40 °C to 70 °C (−40 °F to 158 °F)
Relative humidity	0 % to 95 % non-condensing

BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional) d			
Calibrated wavelengths (nm)	850, 1300, 1310, 1342, 1358, 1490, 1550, 1577, 1625, 1650		
Selectable wavelenghts (nm)	850, 1300, 1310, 1342, 1358, 1490, 1550, 1577, 1625, 1650		
Power range (dBm) <sup>e</sup>	27 to -50		
Uncertainty (%) f	±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 9 (Complies with FDA 1040.10 and IEC 60825-1:2014-05)

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

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

**LASER** 

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





DO NOT EXPOSE USERS OF TELESCOPIC OPTICS

DO NOT STARE INTO BEAM

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  $\pm$  1 °C, 1550 nm and FC connector. With modules in idle mode. Battery operated after 30-minute warm-up.
- 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-3207	Replacement APC Swap-Out connector
GP-2235	Spare stylus	GP-3208	Replacement UPC Swap-Out connector
GP-2320	Utility glove		

ORDERING INFORMATION	
FTB-LITE-720D-XX-XX-XX-XX-XX-XX	(-XX-XX-XX 
Optical configuration ■ SM1 = SM OTDR, 1310/1550 nm SM8 = SM OTDR, 1310/1550 nm and 1650 nm filtered, on the same port Q2-QUAD = QUAD OTDR, 850/1300 nm and 1310/1550 nm a.b  Base software ■ OTDR = Enables OTDR application only OIX = Enables OTDR and base iOLM features ° SM and MM connector d ■ EA-EUI-28 = APC/DIN 47256 EA-EUI-98 = APC/FC narrow key EA-EUI-95 = APC/FC 2000 EA-EUI-95 = APC/E-2000 EA-EUI-98 = APC/LC EI connectors = See section below OPM option ■	Inspection scope base tips f 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 g Automated focus Automated pass/fail analysis Triple magnification Autocentering  Power meter connector adapter g 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
00 = Without OPM2 option OPM2 = In-line PON power meter mode (dual band) °	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
Example: FTB-LITE-720D-SM1-OTDR-EA-EUI-89-OPM2-FRF- VPM2X-FOA-22	FRF = With full RF capability (LTE, GNSS, WiFi and Bluetooth) Li

- a. The two ports are configured with the same adapter type.
- b. MM connector port will be supplied in UPC.
- c. Coming soon. Contact your EXFO representative for details.
- d. MM connectors available in EI (UPC) only.
- e. Available with SM8 model.

- f. Available if inspection scope is selected.
- g. For use with separate mobile smart device running ConnectorMax2 software.
- $h. \ \ Only \ available \ if \ power \ meter \ option \ is \ selected. \ Additional \ connector \ adapters \ available, \ contact \ EXFO.$
- i. FRF option is mandatory
- j. 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.

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