SPEC SHEET

# FTB-2/FTB-2 Pro platform

## THE MOST COMPACT MULTITECHNOLOGY PLATFORM AVAILABLE FOR THE SUPERTECH


Available in a standard or Pro model, the FTB-2 is the most compact solution on the market for 10M-to-100G multitechnology and multiservice testing.

PART OF THE
**EXFO|FTB ecosystem**

**EXFO Connect**
compatible

## KEY FEATURES

**Connects anywhere:** USB, mobile, WiFi, virtual private network (VPN) and Bluetooth

**Loaded with utilities:** equipped with all the tools required to maximize field testing and any third-party application

**Like a PC:** available with a dual- or quad-core processor and Windows-based operating system

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

## RELATED PRODUCT


Fiber inspection scope
FIP-400B (WiFi or USB)

## THE POWER YOU NEED FOR ADVANCED APPLICATIONS

The FTB-2 delivers all the power of a high-end platform in a conveniently sized, go-anywhere field-testing tool.

| APPLICATIONS |
|---|
| **Gigabit/10 Gigabit Ethernet configurations**<br>Gigabit Ethernet analyzer, OTDR and optical spectrum analyzer with polarization controller. |
| **Fibre Channel**<br>Fibre Channel is the protocol for the communication structure dedicated to carrying different types of traffic for applications that require first-rate capabilities of storage and technologies. |
| **ROADM commissioning**<br>Insert an OSA within this compact, portable solution for fast and accurate DWDM commissioning and turn up of high-speed networks up to 100/200/400 Gbit/s. |
| **Multiservice testing**<br>Easily turn up, validate and troubleshoot DSn/PDH, SONET/SDH and Ethernet services up to 10 Gbit/s in converged optical networks. Delivering IPTV test capabilities and transmission control protocol (TCP) throughput assessment. |
| **Fiber characterization and troubleshooting**<br>OTDR/iOLM testing combined with fiber endface inspection and optical power measurement for fiber characterization and troubleshooting of any network, including access, LAN/WAN, data center, FTTx, metro, long-haul and ultra-long-haul. |
| **FTTH testing**<br>With a dynamic range of up to 39 dB and enabling power meter and visual fault locator functionalities, the PON FTTx/MDU OTDR module allows fiber installers to seamlessly characterize splitters in PON FTTx and multiple dwelling unit (MDU) applications. |
| **Ethernet testing from 10 Mbit/s to 100 Gbit/s**<br>100% line-rate testing of IP traffic at up to 100G; RFC 2544 and ITU-T Y.1564 Ethernet service activation with full statistics, and packet capture, traffic filtering, ping and traceroute with clear pass/fail verdicts. |
| **CWDM turn-up testing**<br>Integrate CWDM OTDR to test through CWDM-based MUX/DEMUX at ITU-recommended wavelengths. |
| **DWDM testing**<br>Highly accurate and reliable DWDM network commissioning, troubleshooting and channel analysis. |

| OPTICAL TEST MODULES | | FTB-2 | FTB-2 PRO |
|---|---|---|---|
| **Optical spectrum analyzer** | FTBx-5235 | • | • |
| | FTBx-5245 | • | • |
| **Single-ended dispersion analyzer** | FTB-5700 | • | • |
| **OTDR** | FTB-7200D | • | • |
| | FTB-7300E | • | • |
| | FTB-7500E | • | • |
| | FTB-7600E | • | • |
| | FTBx-720C | • | • |
| | FTBx-730C | • | • |
| | FTBx-735C | • | • |
| | FTBx-750C | • | • |
| **OTDR CWDM/DWDM** | FTB-7400E | • | • |
| | FTBx-740C | • | • |
| **OLTS** | FTB-3930 | • | • |

| TRANSPORT AND DATACOM TEST MODULES | | FTB-2 | FTB-2 PRO |
|---|---|---|---|
| **1G-to-100G high-speed multiservice** | FTBx-88260 | | • |
| **Advanced 100G multiservice** | FTBx-88200NGE | | • |
| **Versatile 10G multiservice** | FTBx-8870/8880 | | • |

**Note:** Some FTB-2/FTB-2 Pro platforms may require a hardware upgrade to support the FTBx module format.

## OPTICAL PLUG-AND-PLAY OPTIONS

The platform features optical plug-and-play options that can be purchased whenever you need them: at the time of your order or later on. In either case, installation is a snap and can be performed by the user without the need for any software update.

### Optical power meter

A high-level power meter (GeX) that can measure up to 27 dBm, the highest in the industry. 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 syncs on the same wavelength, thus avoiding any risk of mismatched measurement.

- Extensive range of connectors
- Auto-lambda and auto-switching
- Offers measurement storage and reporting
- Choice of seven standard or coarse wavelength-division multiplexing (CWDM)-calibrated wavelengths

### 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 5 km by creating a bright-red glow at the exact location of the fault on singlemode or multimode fibers (available with the Optical Power Meter only).

## DO MORE!

The Windows 10 operating system allows for a wide choice of third-party applications and supports an extensive range of USB devices.

- Start faster and multitask
- Use the Office suite
- Connect to printers, cameras, keyboards, mice, and more

### Bring your own apps

| Share your desktop (e.g., using TeamViewer) | Antivirus software | Communicate via email and over-the-top (OTT) apps | Record and automate actions | Share files via cloud-based storage |
|---|---|---|---|---|

## 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 scope can prevent a host of issues from arising further down the line, thus saving you time, money and trouble.

### The first fully automated fiber inspection scope for the field

Housing a unique automatic focus adjustment system, the FIP-430B USB and FIP-435B WiFi scopes automate each operation in the connector endface inspection sequence, transforming this critical process into one quick and easy step, which can be performed by technicians of all skill levels.

**100%** automated | **1-step** process | **57%** shorter test time[a]

| FEATURES | USB WIRED | WIRELESS | AUTONOMOUS |
|---|---|---|---|
| | FIP-430B | FIP-435B | FIP-500 |
| Image capture | • | • | • |
| Five-megapixel CMOS capturing device | • | • | • |
| Automatic fiber image-centering function and focus adjustment | • | • | • |
| On-board pass/fail analysis | • | • | • |
| Pass/fail LED indicator | • | • | • |
| USB connectivity to an EXFO platform or PC | • | • | |
| Wireless connectivity to an EXFO platform or PC | | • | |
| Wireless connectivity to a smartphone | | • | • |
| Manual scanning for multifiber / MPO connectors | • | • | |
| Semi-automated multifiber / MPO inspection | • | • | |
| Fully automated multifiber / MPO inspection | | | • |
| On-board touch screen | | | • |
| SmarTips with automated thresholds | | | • |
| Quick-connect mechanism | | | • |

For more information, visit **www.EXFO.com/fiberinspection**.

a. Data sourced from EXFO's case study, with calculation based on typical analysis time.

## SOFTWARE TEST TOOLS

This series of platform-based software testing tools enhance the value of the FTB-2/FTB-2 Pro platform, providing additional testing capabilities without the need for additional modules or units.

### EXFO Remote ToolBox

The Remote ToolBox application remotely controls T&D modules installed on the FTB-2 and FTB-2 Pro using a remote PC and an Ethernet connection.

### Wireshark—Third-party test tools

This live-network packet-capture utility makes it possible to look *inside* the packets and obtain data, including transmission time, source, destination and protocol type. Users can then diagnose a problem or root out suspicious behavior.

### EXpert Test Tools

EXpert VoIP TEST TOOLS

EXpert VoIP generates a voice-over-IP call directly from the test platform to validate performance during service turn-up and troubleshooting.

- Supports a wide range of signaling protocols, including SIP, SCCP, H.248/Megaco and H.323
- Supports mean-opinion-score (MOS) and R-factor quality metrics
- Simplifies testing with configurable pass/fail thresholds and RTP metrics

EXpert IP TEST TOOLS

EXpert IP integrates six commonly used datacom test tools into one platform-based application to ensure that field technicians are prepared for a wide range of testing needs.

- Rapidly performs debugging sequences with VLAN scan and LAN discovery
- Validates end-to-end ping and traceroute
- Verifies file-transfer-protocol (FTP) performance and hypertext-transfer-protocol (HTTP) availability

EXpert IPTV TEST TOOLS

This powerful Internet-protocol-television (IPTV) quality assessment solution enables set-top box emulation and passive monitoring of IPTV streams, allowing for quick and easy pass/fail verification of IPTV installations.

- Real-time video preview
- Analyzes up to 10 video streams
- Comprehensive quality-of-service (QoS) and quality-of-experience (QoE) metrics, including the MOS score

### Software applications

ConnectorMax

Providing lightning-fast results during the first step of fiber-link testing, ConnectorMax2 is a powerful, platform-based automated inspection application that delivers quick pass/fail assessment of connector endfaces, and which is specifically designed to save both time and money in the field.

FastReporter

Consolidated data management and post-processing tool designed to increase reporting productivity for connector endface inspection and all types of optical-layer testing: intelligent Optical Link Mapper (iOLM), OTDR, ORL, loss, PMD and chromatic dispersion (CD).

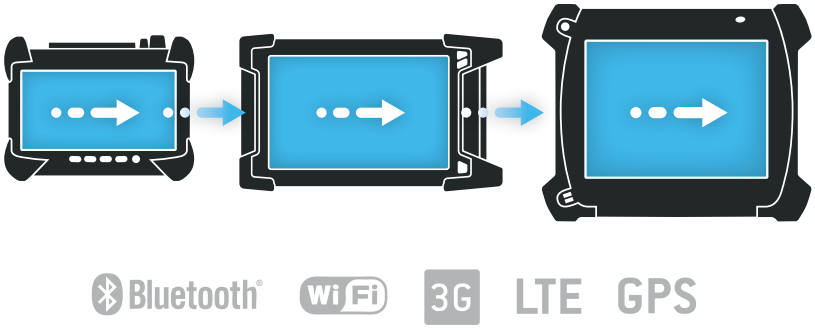
EXFO MULTILINK

EXFO Multilink is a multi-user, multimodule and multiplatform client software application for remote controlled access of T&D modules on the FTB-2 and select optical modules (FTBx-1750, FTBx-3500, and FTBx-9150/FTBx-9160), through a centralized dashboard featuring an easy-to-use GUI.

EXFO

## CONNECTED ANYWHERE, ANYTIME

The value of connectivity resides in the ability to connect your platform anywhere, at any time. This is why we've equipped our platforms with technology offering unprecedented flexibility. Whether you need to transfer data to the cloud or interface with a smart device, you'll have the capability needed.




### Secure VPN communications

With Microsoft VPN on the FTB platforms, or the ability to install and configure any VPN client solution defined by your IT department on it, secure communications are now within your reach.

### 3G/LTE mobility

Get connected wherever you are: choose any Windows-supported 3G/LTE USB dongle and connect to your wireless service provider.

### Remote control

Use remote assistance to troubleshoot units in the field, trigger tests remotely, or help a technician with a problem. Working without it is hard to imagine.

### Instant messaging

Because our platforms are Windows-based, they function just like PCs. You can even use chat tools to quickly communicate with your team members (Skype comes preinstalled).

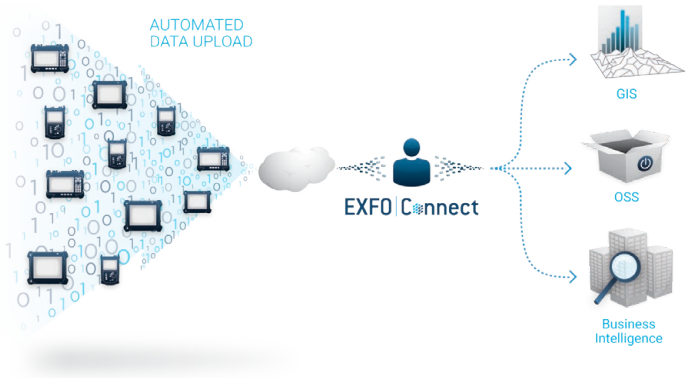
# EXFO Connect

## EXFO CONNECT MAKES YOUR DATA MEAN BUSINESS

EXFO Connect completely redefines integrated testing with its cloud-hosted solution. Equipped with powerful database and application technologies, EXFO Connect provides an automated, secure environment that links together your EXFO test instruments and centralizes captured data across your organization. With its powerful correlation engine, EXFO Connect enables you to convert captured data into actionable information through customized test-data reporting and features that streamline test operations from build-out to maintenance.

### Test Equipment Manager

EXFO Connect's Test Equipment Manager is an automated application that centralizes the management of all EXFO test instruments. A repository for software loads, licenses and platform profiles, it helps managers handle constant demand for software updates. It also keeps track of equipment and ensures field technicians are equipped with up-to-date capabilities.

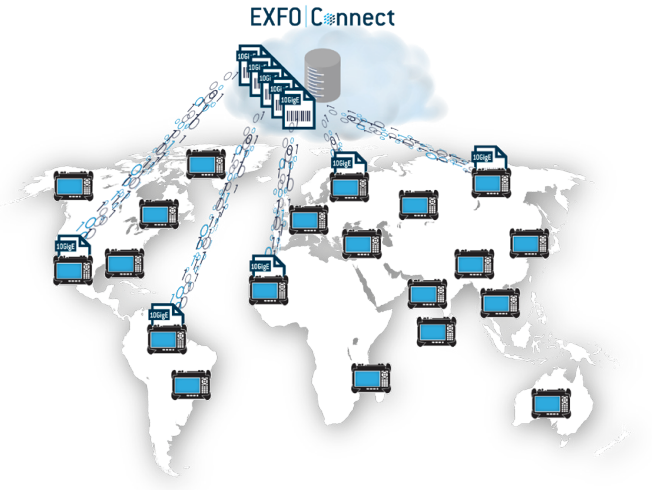




### Test Data Manager

EXFO Connect's Test Data Manager is an automated application that provides a secure and centralized environment in which test data is collected, archived and referenced for future use. With test results at their fingertips, managers can create birth certificates, generate reports and set benchmarks.

### FTB Anywhere: Floating test licenses

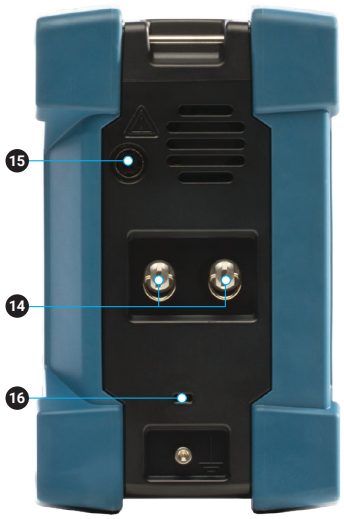
FTB Anywhere™ is a shared test-license capability for the award-winning FTB Ecosystem. This unique approach to delivering advanced test applications enables network operators to purchase a specific number of cloud-hosted licenses that can be shared instantly with their technicians, wherever they happen to be.

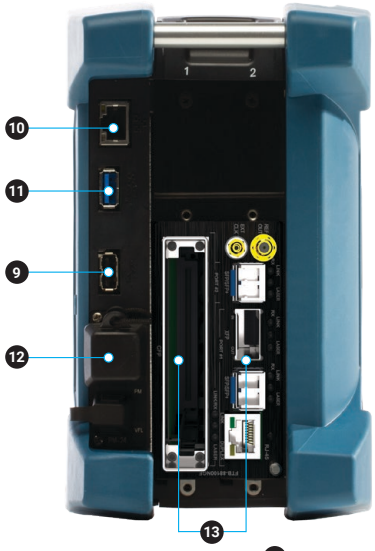



EXFO

## DESIGNED FOR HIGH-SPEED AND MULTISERVICE

1. Power on/off
2. Switch application
3. Keyboard/screen capture
4. Battery LED
5. Stylus
6. Display port
7. Headset jack
8. Speaker
9. USB 2.0 port
10. 1 GigE port
11. USB 3.0 port
12. Power meter and VFL
13. Two slots to house modules
14. Module screws
15. Ac adapter
16. Kensington secyrity lock slot
17. Back stand
18. Battery compartment





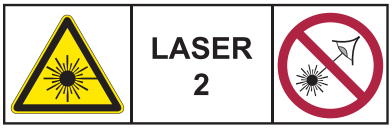

| TECHNICAL SPECIFICATIONS [a] | FTB-2 | FTB-2 PRO |
|---|---|---|
| Mainframe | Dual-core processor / 4 GB RAM / Windows 10 | Quad-core processor / 4 GB RAM / Windows 10 |
| Display | Touchscreen, color, 1280 × 800 TFT 256 mm (10.1 in) | Touchscreen, color, 1280 × 800 TFT 256 mm (10.1 in) |
| Interfaces | RJ45 LAN 10/100/1000 Mbit/s<br>USB 2.0 ports (2)<br>USB 3.0 port (1)<br>Display port<br>Headset jack | RJ45 LAN 10/100/1000 Mbit/s<br>USB 2.0 ports (2)<br>USB 3.0 port (1)<br>Display port<br>Headset jack |
| Storage (internal flash memory) | 128 GB | 128 GB |
| Battery | One rechargeable Li-ion smart battery | Two rechargeable Li-ion smart batteries |
| Power supply | AC/DC adapter, input: ~ 100 – 240 V; 50/60 Hz;<br>2.5 A max, output: ⎓ 24 V; 3.75 A | AC/DC adapter, input: ~ 100 – 240 V; 50/60 Hz;<br>4.0 A max, output: ⎓ 24 V; 8.33 A |

| GENERAL SPECIFICATIONS | | |
|---|---|---|
| Size (H x W x D) | | 199 mm × 333 mm × 119 mm (7 $^{13}/_{16}$ in × 13 $^{1}/_{8}$ in × 4 $^{11}/_{16}$ in) |
| Weight [b] | | 3 kg (6.6 lb) |
| Temperature | Operating<br>Storage [c] | 0 °C to 50 °C (32 °F to 122 °F)<br>–40 °C to 60 °C (–40 °F to 140 °F) |
| Relative humidity | | ≤95 % non-condensing |

| BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional) [d] | |
|---|---|
| Calibrated wavelengths (nm) | 850, 1300, 1310, 1490, 1550, 1625, 1650 |
| Optional CWDM calibrated wavelengths (nm) | 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1383, 1625 |
| Power range (dBm) [e] | 27 to –50 |
| Uncertainty (%) [e, f] | ±5 % ± 10 nW |
| Display resolution (dB) | 0.01 = max to —40 dBm<br>0.1 = —40 dBm to —50 dBm |

| VISUAL FAULT LOCATOR (VFL) (optional) |
|---|
| Laser, 650 nm ± 10 nm |
| CW/Modulate 1 Hz |
| Typical $P_{out}$ in 62.5/125 µm: > –1.5 dBm (0.7 mW) |

## LASER SAFETY




The test modules that you use with your unit may have different laser classes. Refer to the module's documentation for exact information.

a. All specifications valid at 23 °C (73 °F).
b. Platform without batteries or modules. FTB-2 weight with battery: 3.4 kg (7.6 lb); FTB-2 Pro weight with battery: 3.9 kg (8.6 lb).
c. Not including internal batteries. Battery storage temperatures: –20 °C to 60 °C (–4 °F to 140 °F) for shipping and –20 °C to 45 °C (–4 °F to 113 °F) for long-term storage.
d. At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery-operated after warm-up.
e. Typical.
f. At calibration conditions.

## ORDERING INFORMATION

**FTB-2-XX-XX-XX-XX-XX-XX-XX-XX**

**Display**
S1 = Standard display
S2 = Enhanced display for outdoor use

**Memory**
128G = 128 GB internal memory (flash)

**WiFi/Bluetooth option**
00 = Without RF option enabled
RF = With RF option/capability
NRF = Without RF hardware components [a]

**Power meter/VFL**
00 = Without power meter
VPM2X = VFL platform; PM; GeX detector
VPM2X-CWDM = VFL platform; PM; GeX detector; CWDM wavelengths calibrated

**Connector adapter** [b]
FOA-12 = Biconic
FOA-14 = NEC D4: PC, SPC, UPC
FOA-16 = SMA/905, SMA-906
FOA-22 = FC/PC, FC/SPC, FC/UPC, FC/APC
FOA-28 = DIN 47256, DIN 47256/APC
FOA-32 = ST: ST/PC, ST/SPC, ST/UPC
FOA-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC)
FOA-78 = Radiall EC
FOA-96B = E-2000 E-2000/APC
FOA-98 = LC
FOA-99 = MU

**Software option**
00 = Without any software option
IPT = Ping and traceroute functionalities
EXpert-VoIP = RTP-based call testing software application, including packet loss analysis, jitter measurement and complete voice quality metrics
EXpert-IP = IP/Ethernet test suite, with tests including FTP performance, HTTP availability, VLAN scan, LAN discovery, ping, traceroute and IP/Ethernet port statistics (license for a single platform)
EXpert-IPTV = IPTV test suite
EXpert-TPP-Bundle = Triple-play bundle for voice, video and data testing; includes EXpert IP Test Tools, EXpert IPTV Test Tools, EXpert VoIP Test Tools and EXpert SIP
EXpert-SIP = SIP call-signaling support [c]
EXpert-SCCP = SCCP call-signaling support [c]
EXpert-H.323 = H.323 call-signaling support [c]
EXpert-H.248 = H.248/Megaco call-signaling support [c]
FR2-PL = FastReporter 2 Software Fiber characterization package
FR2-PL-LB = FastReporter 2 Software Fiber characterization package and iOLM Loopback mode
Automation = Support of remote and local access to instrument using SCPI

**Inspection scope base tips** [d]
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
FP430B = Automated analysis digital video inspection scope [e]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering
FP435B = Wireless analysis digital video inspection scope [e, f]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering

Example: FTB-2-S1-128G-RF-VPM2X-CWDM-FOA-22-FP430B-APC-FR2-PL-LB

a. Only available with S1 standard display.
b. Available if EXpert VoIP is selected.
c. Available if EXpert VoIP is selected.
d. Available if inspection scope is selected.
e. Includes ConnectorMax2 software.
f. Requires RF capability (WiFi and Bluetooth hardware option).

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**FTB-2-Pro-XX-XX-XX-XX-XX-XX-XX-XX**

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S1 = Standard display
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128G = 128 GB internal memory (flash)

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FOA-14 = NEC D4: PC, SPC, UPC
FOA-16 = SMA/905, SMA-906
FOA-22 = FC/PC, FC/SPC, FC/UPC, FC/APC
FOA-28 = DIN 47256, DIN 47256/APC
FOA-32 = ST: ST/PC, ST/SPC, ST/UPC
FOA-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC)
FOA-78 = Radiall EC
FOA-96B = E-2000 E-2000/APC
FOA-98 = LC
FOA-99 = MU

**Software option**
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EXpert-SIP = SIP call-signaling support [c]
EXpert-SCCP = SCCP call-signaling support [c]
EXpert-H.323 = H.323 call-signaling support [c]
EXpert-H.248 = H.248/Megaco call-signaling support [c]
FR2-PL = FastReporter 2 Software Fiber characterization package
FR2-PL-LB = FastReporter 2 Software Fiber characterization package and iOLM Loopback mode

**Inspection scope base tips** [d]
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**Inspection scope models**
00 = Without inspection scope
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Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering
FP435B = Wireless analysis digital video inspection scope [e, f]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering

Example: FTB-2-Pro-S1-128G-RF-VPM2X-FOA-54-FP435B-APC-EXPERT-IP

a. Only available with S1 standard display.
b. Available if power meter is selected.
c. Available if EXpert VoIP selected.
d. Available if inspection scope is selected.
e. Includes ConnectorMax2 software.

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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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