

# FTB-2/FTB-2 Pro Platform

THE MOST COMPACT MULTITECHNOLOGY  
PLATFORM AVAILABLE FOR THE SUPERTECH



PART OF THE  
EXFO | FTB Ecosystem



A design patent is pending for the FTB-2 platform.

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

## KEY FEATURES

**Connects anywhere:** USB, mobile, Wi-Fi, 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

## COMPLEMENTARY PRODUCT





Fiber Inspection Probe FIP-400B  
(Wi-Fi 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  |  |
|---|--|
|    | <b>Gigabit/10 Gigabit Ethernet Configurations</b><br>Gigabit Ethernet analyzer, OTDR and optical spectrum analyzer with polarization controller.   |
|    | <b>Fibre Channel</b><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.  |
|    | <b>ROADM Commissioning</b><br>House an OSA within this compact, portable solution for fast and accurate DWDM commissioning and turn-up of high-speed networks up to 100 Gbit/s.  |
|    | <b>Multiservice Testing</b><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.                          |
|    | <b>Fiber Characterization</b><br>OTDR/IOLM testing combined with fiber inspection and optical power measurement for link characterization and troubleshooting.   |
|    | <b>FTTH Testing</b><br>With a dynamic range of up to 39 dB and enabling power meter and visual fault locator functionalities, the FTB-730 PON FTTx/MDU OTDR module allows fiber installers to seamlessly characterize splitters in PON FTTx and multiple dwelling unit (MDU) applications. |
|    | <b>Ethernet Testing from 10 Mbit/s to 100 Gbit/s</b><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.          |
|  | <b>CWDM Turn-Up Testing*</b><br>Integrate two metro/CWDM OTDRs to test through CWDM-based mux/demux at ITU-recommended wavelengths.  |
|  | <b>DWDM Testing**</b><br>Highly accurate and reliable DWDM network commissioning, troubleshooting and channel analysis.  |

\* Applicable to the FTB-2 version only.

\*\* Applicable to the FTB-2 Pro version only.

| OPTICAL TEST MODULES             |               | FTB-2 | FTB-2 PRO |
|----------------------------------|---------------|-------|-----------|
| Optical Channel Analyzer         | FTB-5230S-OCA | ✓     | ✓         |
| Optical Spectrum Analyzer        | FTB-5230S     | ✓     | ✓         |
|                                  | FTB-5240S     | ✓     | ✓         |
| Single-Ended Dispersion Analyzer | FTB-5700      | ✓     | ✓         |
| OTDR                             | FTB-7200D     | ✓     | ✓         |
|                                  | FTB-7300E     | ✓     | ✓         |
|                                  | FTB-7400E     | ✓     | ✓         |
|                                  | FTB-7500E     | ✓     | ✓         |
|                                  | FTB-7600E     | ✓     | ✓         |

| TRANSPORT AND DATACOM TEST MODULES  |              | FTB-2 | FTB-2 PRO |
|-------------------------------------|--------------|-------|-----------|
| Multiservice                        | FTB-8830NGE  | ✓     | ✓         |
| 10M-to-100G High-Speed Multiservice | FTB-88100NGE |       | ✓         |
| 40G/100G High-Speed Multiservice    | FTB-88100G   |       | ✓         |
| DSn/PDH and SONET/SDH Electrical    | FTB-8805     | ✓     | ✓         |

## 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).

## THE WINDOWS 8.1 PRO ADVANTAGE ON THE FTB-2 PRO

Stay productive and connected while on the move with Windows-compatible applications and services.

### Applications

Use them the way you always have: install Word, Excel, PowerPoint and other programs that you count on to continue working the way you are accustomed to.

### Best User Experience

- › Faster start time
- › Multitasking

### Familiar Desktop

- › File Explorer
- › Boot to desktop
- › Start button

### Apps for Everyone

- › Skype
- › OneDrive
- › Windows Store

Connect to a wide range of devices, such as printers, cameras, keyboards and mice.



## FIBER CONNECTOR INSPECTION AND CERTIFICATION—THE ESSENTIAL FIRST STEP

Taking the time to properly inspect a fiber-optic cable can prevent a slew of problems down the line—saving you time, money and headaches.

### The First Fully Automated Fiber Inspection Probe for the Field

Housing a unique automatic focus adjustment system, the FIP-430B USB and FIP-435B Wi-Fi Probes 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<sup>a</sup>

**1-step**  
process<sup>a</sup>

**57%**  
shorter test time<sup>b</sup>



### 5 models to fit your budget:

| FEATURES                                 | USB WIRED         |                            |                             | WIRELESS                   |                             |
|--|-------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|
|  | Basic<br>FIP-410B | Semi-Automated<br>FIP-420B | Fully Automated<br>FIP-430B | Semi-Automated<br>FIP-425B | Fully Automated<br>FIP-435B |
| Three magnification levels               | ✓                 | ✓                          | ✓                           | ✓                          | ✓                           |
| Image capture                            | ✓                 | ✓                          | ✓                           | ✓                          | ✓                           |
| Five-megapixel CMOS capturing device     | ✓                 | ✓                          | ✓                           | ✓                          | ✓                           |
| Automatic fiber image-centering function | ✗                 | ✓                          | ✓                           | ✓                          | ✓                           |
| Automatic focus adjustment               | ✗                 | ✗                          | ✓                           | ✗                          | ✓                           |
| Onboard pass/fail analysis               | ✗                 | ✓                          | ✓                           | ✓                          | ✓                           |
| Pass/fail LED indicator                  | ✗                 | ✓                          | ✓                           | ✓                          | ✓                           |
| Wi-Fi connectivity                       | ✗                 | ✗                          | ✗                           | ✓                          | ✓                           |

For more information, visit [www.EXFO.com/fiberinspection](http://www.EXFO.com/fiberinspection).

#### Notes

a. FIP-430B and FIP-435B models.

b. 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 enhances the value of the FTB-2 Platform, providing additional testing capabilities without the need for additional modules or units.

## 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

## THIRD-PARTY TEST TOOLS

## Wireshark

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.

## SOFTWARE APPLICATIONS

Connect<sup>or</sup>Max2

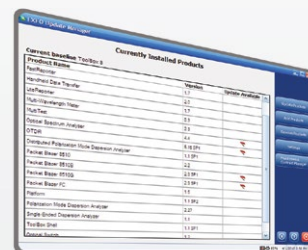
Providing lightning-fast results in the first step of fiber-link testing, ConnectorMax2 is a powerful, platform-based, automated inspection application that delivers quick pass/fail assessment of connector endfaces, and which is specifically designed to save both time and money in the field.



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

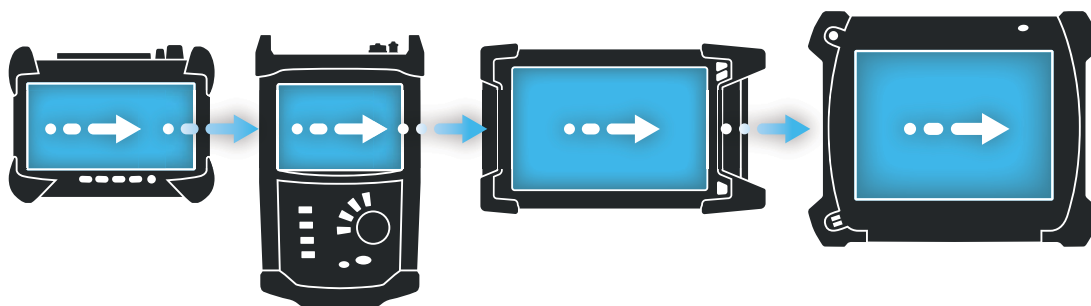
## UPDATE MANAGER

Stay current with the Update Manager, which enables you to easily manage the applications developed for your test solution. Thanks to EXFO's feature enhancement program, it has never been easier to benefit from our latest innovation. Based on customer feedback, acute market trend analysis and compliance with the latest standards, EXFO is committed to ensuring that your product is at its best.



## 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.



Bluetooth® Wi-Fi 3G GPS



### Secure VPN communications

With Microsoft VPN on the FTB-2, or the ability to install and configure any VPN client solution defined by your IT department on the FTB-2 Pro, 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 on the FTB-2 Pro).



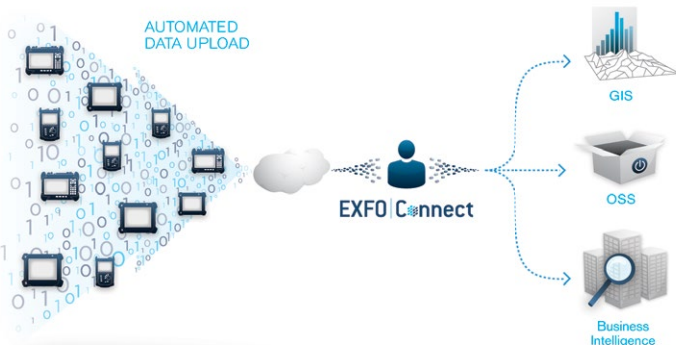
# EXFO | Connect

## 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.

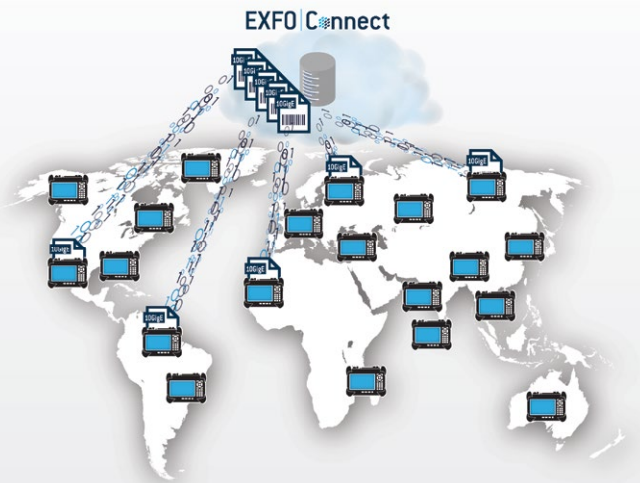


### Test Data Manager

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.

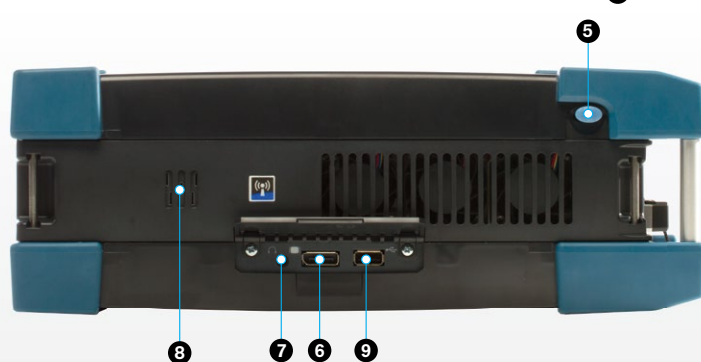
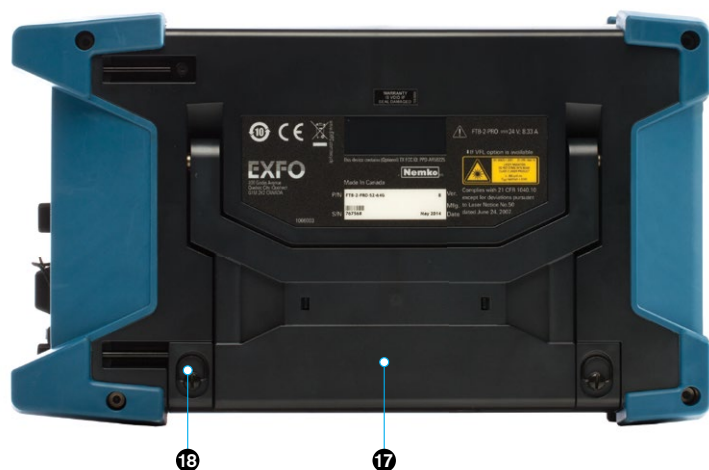
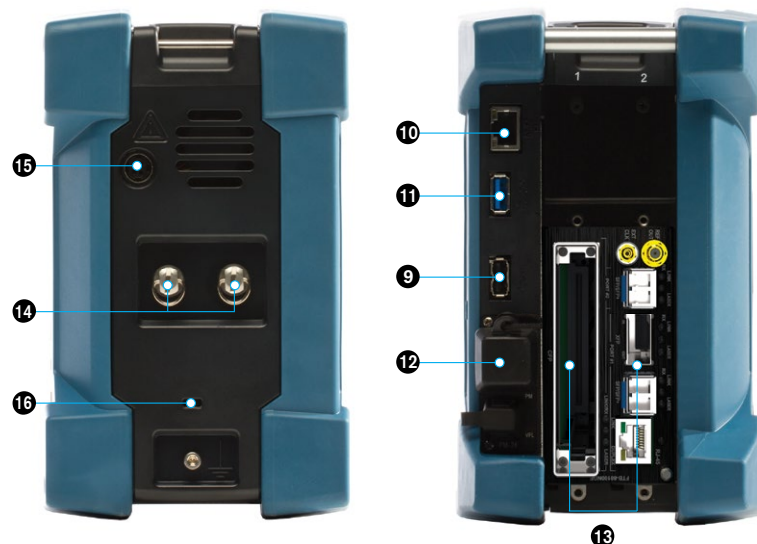
### FTB Anywhere: Floating Test Licenses

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.



## DESIGNED FOR HIGH-SPEED AND MULTISERVICE

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





| TECHNICAL SPECIFICATIONS <sup>a</sup> | FTB-2  | FTB-2 Pro  |
|---------------------------------------|--|--|
| 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>Two USB 2.0 ports<br>One USB 3.0 port<br>Display port<br>Headset jack | RJ45 LAN 10/100/1000 Mbit/s<br>Two USB 2.0 ports<br>One USB 3.0 port<br>Display port<br>Headset jack |
| Storage                               | 64 GB internal memory (flash)  | 64 GB or 128 GB internal memory (flash)  |
| 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; 2.5 A max, output: --- 24 V; 3.75 A                   | AC/DC adapter, input: ~ 100 – 240 V; 50/60 Hz; 4.0 A max, output: --- 24 V; 8.33 A                   |
| Computer                              | Dual-core processor/4 GB RAM/Windows Embedded 8 Standard   | Quad-core processor/4 GB RAM/Windows 8.1 Pro   |

<sup>a</sup> Highest size available as a hardware option

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

| BUILT-IN POWER METER SPECIFICATIONS (GEX) (OPTIONAL) <sup>d</sup> |  |
|---|--|
| 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) <sup>e</sup>                                    | 27 to –50  |
| Uncertainty (%) <sup>e, f</sup>                                   | ±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 <sub>out</sub> in 62.5/125 µm: >–1.5 dBm (0.7 mW) |  |

#### Notes

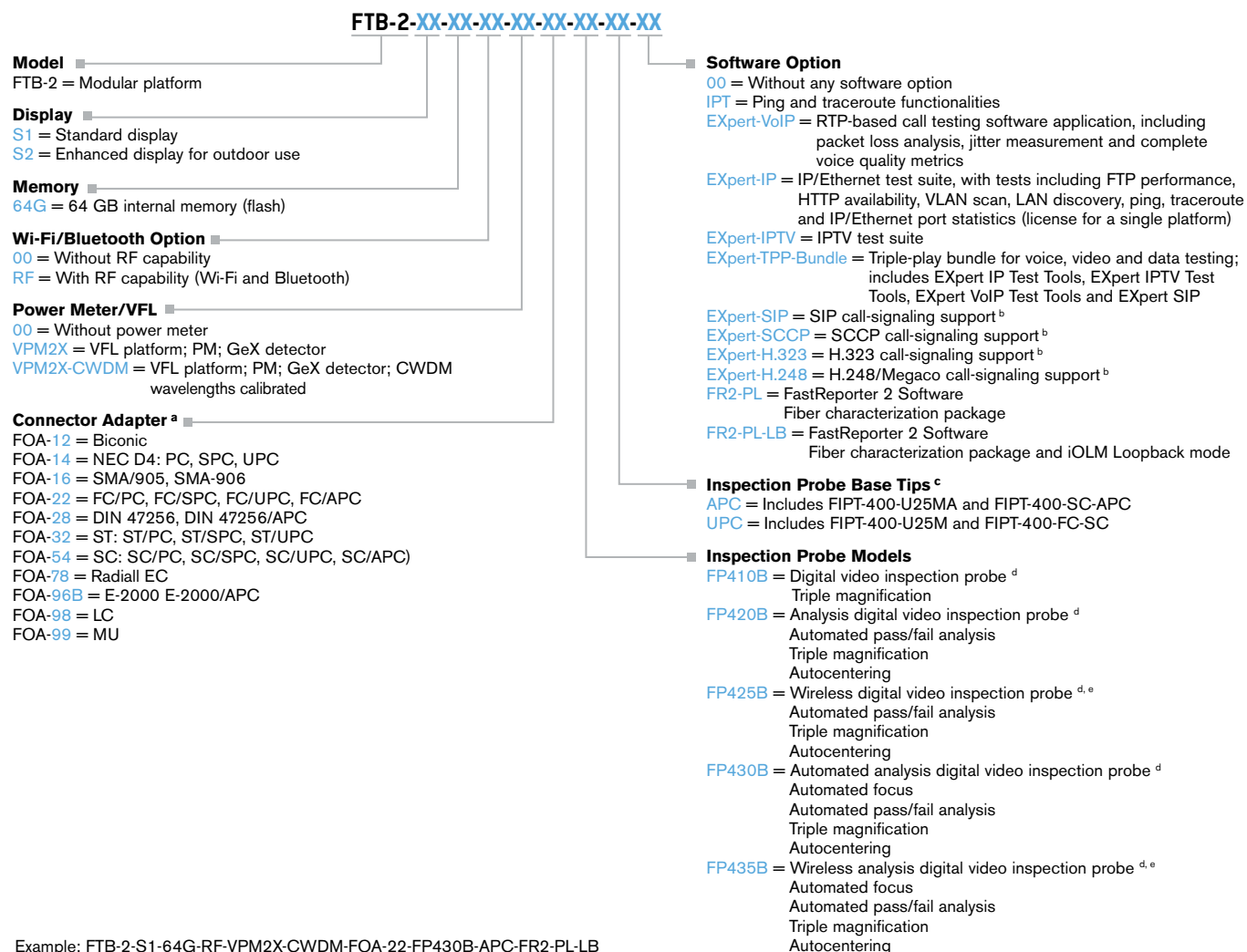
- All specifications valid at 23 °C (73 °F).
- Not including internal batteries. Battery storage temperatures: –20 °C to 60 °C (–4 °F to 140 °F) for shipping, and –20 °C to 45 °C (–4 °F to 113 °F) for long-term storage.
- Platform without batteries or modules
- At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery-operated after warm-up.
- Typical.
- At calibration conditions.

#### 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.

## ORDERING INFORMATION



## Notes

- a. Available if power meter is selected.
- b. Available if EXpert VoIP selected.
- c. Available if inspection probe is selected.
- d. Includes ConnectorMax2 software.
- e. Requires RF capability (Wi-Fi and Bluetooth hardware option).

## ORDERING INFORMATION

## FTB-2-PRO-XX-XX-XX-XX-XX-XX-XX-XX

**Model** ■

FTB-2-PRO = Modular platform

**Display** ■

S1 = Standard display

S2 = Enhanced display for outdoor use

**Memory** ■

64G = 64 GB internal memory (flash)

128G = 128 GB internal memory (flash)

**Wi-Fi/Bluetooth Option** ■

00 = Without RF capability

RF = With RF capability (Wi-Fi and Bluetooth)

**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** <sup>a</sup> ■

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-VolP = 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 VolP Test Tools and EXpert SIP

EXpert-SIP = SIP call-signaling support <sup>b</sup>EXpert-SCCP = SCCP call-signaling support <sup>b</sup>EXpert-H.323 = H.323 call-signaling support <sup>b</sup>EXpert-H.248 = H.248/Megaco call-signaling support <sup>b</sup>

FR2-PL = FastReporter 2 Software

Fiber characterization package

FR2-PL-LB = FastReporter 2 Software

Fiber characterization package and iOLM Loopback mode

**Inspection Probe Base Tips** <sup>c</sup>

APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC

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

**Inspection Probe Models**

00 = Without Inspection Probe

FP410B = Digital video inspection probe <sup>d</sup>  
Triple magnificationFP420B = Analysis digital video inspection probe <sup>d</sup>  
Automated pass/fail analysis  
Triple magnification  
AutocenteringFP430B = Automated analysis digital video inspection probe <sup>d</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering

Example: FTB-2-PRO-S1-64G-RF-VPM2X-FOA-54-FP420B-APC-EXPERT-IP

**Notes**

- Available if power meter is selected.
- Available if EXpert VolP selected.
- Available if inspection probe is selected.
- Includes ConnectorMax2 software.

EXFO Headquarters > Tel.: +1 418 683-0211 | Toll-free: +1 800 663-3936 (USA and Canada) | Fax: +1 418 683-2170 | info@EXFO.com | [www.EXFO.com](http://www.EXFO.com)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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