

# FTB-2/FTB-2 Pro Platform

THE MOST COMPACT MULTITECHNOLOGY  
PLATFORM AVAILABLE FOR THE SUPERTECH



PART OF THE  
EXFO FTB Ecosystem



Feature(s) of this product is/are protected by one or more of: US design patents D739,277; D763,713; and D798,171 and equivalent(s) in other countries.

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.

## 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 Probe 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	
	<p><b>Gigabit/10 Gigabit Ethernet Configurations</b> Gigabit Ethernet analyzer, OTDR and optical spectrum analyzer with polarization controller.</p>
	<p><b>Fibre Channel</b> 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.</p>
	<p><b>ROADM Commissioning</b> House 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.</p>
	<p><b>Multiservice Testing</b> 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.</p>
	<p><b>Fiber Characterization and Troubleshooting</b> 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.</p>
	<p><b>FTTH Testing</b> 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.</p>
	<p><b>Ethernet Testing from 10 Mbit/s to 100 Gbit/s</b> 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.</p>
	<p><b>CWDM Turn-Up Testing</b> Integrate two metro/CWDM OTDRs to test through CWDM-based MUX/DEMUX at ITU-recommended wavelengths.</p>
	<p><b>DWDM Testing</b> Highly accurate and reliable DWDM network commissioning, troubleshooting and channel analysis.</p>

OPTICAL TEST MODULES		FTB-2	FTB-2 PRO
<b>Optical Channel Analyzer</b>	FTB-5230S-OCA	•	•
<b>Optical Spectrum Analyzer</b>	FTB-5230S	•	•
	FTB-5240S	•	•
	FTBx-5245	•	•
<b>Single-Ended Dispersion Analyzer</b>	FTB-5700	•	•
<b>OTDR</b>	FTB-7200D	•	•
	FTB-7300E	•	•
	FTB-7500E	•	•
	FTB-7600E	•	•
	FTBx-720C	•	•
	FTBx-730C	•	•
	FTBx-735C	•	•
	FTBx-750C	•	•
<b>OTDR CWDM/DWDM</b>	FTB-7400E	•	•
	FTBx-740C	•	•
<b>OLTS</b>	FTB-3930	•	•

TRANSPORT AND DATACOM TEST MODULES		FTB-2	FTB-2 PRO
<b>10M-to-100G High-Speed Multiservice</b>	FTB-88100NGE		•
<b>40G/100G High-Speed Multiservice</b>	FTB-88100G		•
<b>Advanced 100G Multiservice</b>	FTBx-88200NGE		•
<b>Versatile 10G Multiservice</b>	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  
e-mail services  
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 probe 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 Probe for the Field**

Housing a unique automatic focus adjustment system, the FIP-430B USB and FIP-435B WiFi 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>



**FIVE MODELS TO FIT YOUR BUDGET**

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

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

#### ConnectorMax

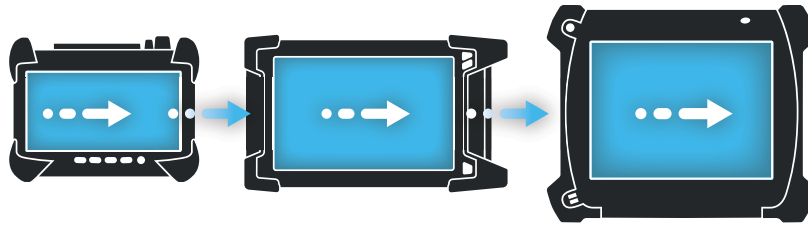
Providing lightning-fast results in the first step of fiber-link testing, ConnectorMax2 is a powerful, platform-based, automated inspection application that delivers quick pass/fail assessment of connector endfaces and which is specifically designed to save both time and money in the field.

#### FastReporter

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).

## 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 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 on the FTB-2 Pro).

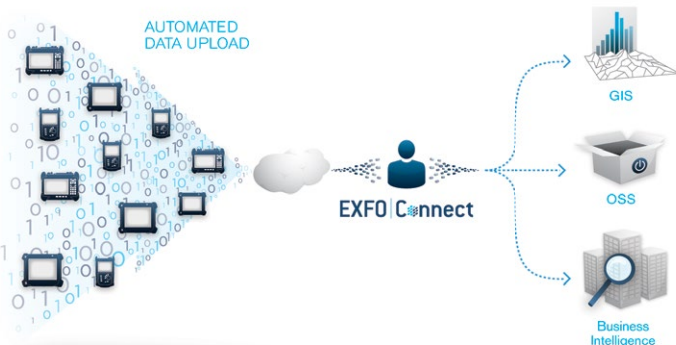
# EXFO | Connect

## 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.

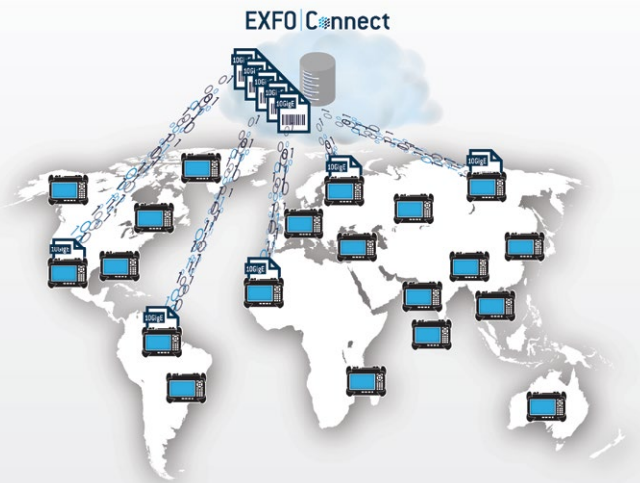


### Test Data Manager

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

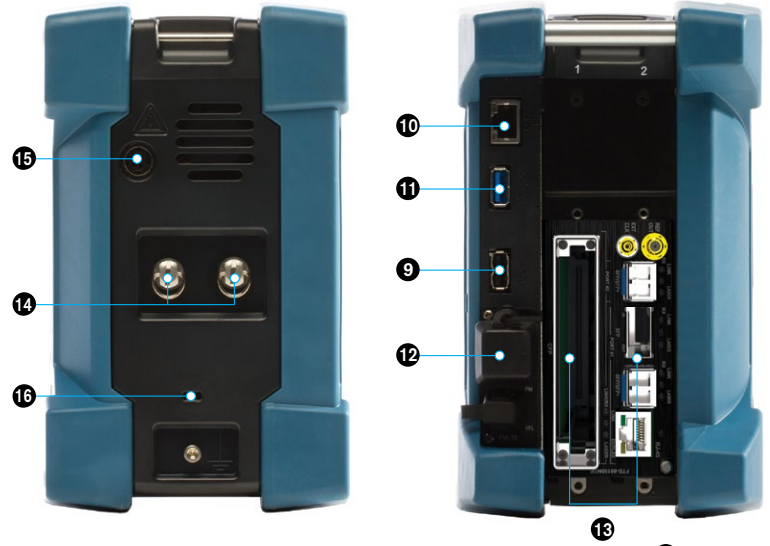
FTB Anywhere™ is a shared test-license capability for the award-winning FTB Ecosystem. This unique approach to delivering advanced test applications enables network operators to purchase a specific number of cloud-hosted licenses that can be shared instantly with their technicians, wherever they happen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





## DESIGNED FOR HIGH-SPEED AND MULTISERVICE

- ❶ Power on/off
- ❷ Switch application
- ❸ Keyboard/screen capture
- ❹ Battery LED
- ❺ Stylus
- ❻ Display port
- ❼ Headset jack
- ❽ Speaker
- ❾ USB 2.0 port
- ❿ 1 GigE port
- ⓫ USB 3.0 port
- ⓬ Power meter and VFL
- ⓭ Two slots to house modules
- ⓮ Module screws
- ⓯ AC adapter
- ⓰ Kensington security lock slot
- ⓱ Back stand
- ⓲ 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 Two USB 2.0 ports One USB 3.0 port Display port Headset jack	RJ45 LAN 10/100/1000 Mbit/s Two USB 2.0 ports One USB 3.0 port Display port Headset jack
Storage (internal flash memory)	64 GB	64 GB or 128 GB (optional)
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 10	Quad-core processor/4 GB RAM/Windows 10

GENERAL SPECIFICATIONS	
Size (H × W × D)	199 mm × 333 mm × 119 mm (7 13/16 in × 13 1/8 in × 4 11/16 in)
Weight <sup>c</sup>	3 kg (6.6 lb)
Temperature Operation Storage <sup>b</sup>	0 °C to 50 °C (32 °F to 122 °F) –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 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)

LASER SAFETY	
 <p>IEC 60825-1:2007 21 CFR 1040.10 LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT λ : 650 ±10 nm P<sub>out</sub> maximum &lt; 2mW</p>	<p>The test modules that you use with your unit may have different laser classes. Refer to the module's documentation for exact information.</p>

#### 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. FTB-2 weight with battery: 3.4 kg (7.6 lb); FTB-2 Pro weight with battery: 3.9 kg (8.6 lb).
- At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery-operated after warm-up.
- Typical.
- At calibration conditions.

**ORDERING INFORMATION**

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

**Model**

FTB-2 = Modular platform

**Display**

S1 = Standard display  
S2 = Enhanced display for outdoor use

**Memory**

64G = 64 GB internal memory (flash)

**WiFi/Bluetooth Option**

00 = Without RF option enabled  
RF = With RF option/capability  
NRF = Without RF hardware components <sup>a</sup>

**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>b</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 VoIP Test Tools and EXpert SIP  
EXpert-SIP = SIP call-signaling support <sup>c</sup>  
EXpert-SCCP = SCCP call-signaling support <sup>c</sup>  
EXpert-H.323 = H.323 call-signaling support <sup>c</sup>  
EXpert-H.248 = H.248/Megaco call-signaling support <sup>c</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>d</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>e</sup>  
Triple magnification  
FP420B = Analysis digital video inspection probe <sup>e</sup>  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP425B = Wireless digital video inspection probe <sup>e,f</sup>  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP430B = Automated analysis digital video inspection probe <sup>e</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering  
FP435B = Wireless analysis digital video inspection probe <sup>e,f</sup>  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering

Example: FTB-2-S1-64G-RF-VPM2X-CWDM-FOA-22-FP430B-APC-FR2-PL-LB

**Notes**

- 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 probe is selected.
- e. Includes ConnectorMax2 software.
- f. Requires RF capability (WiFi 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 option enabled

RF = With RF option/capability

NRF = Without RF hardware components<sup>a</sup>**Power Meter/VFL**

00 = Without power meter

VPM2X = VFL platform; PM; GeX detector

VPM2X-CWDM = VFL platform; PM; GeX detector; CWDM wavelengths calibrated

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FOA-12 = Biconic

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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

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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<sup>c</sup>EXpert-SCCP = SCCP call-signaling support<sup>c</sup>EXpert-H.323 = H.323 call-signaling support<sup>c</sup>EXpert-H.248 = H.248/Megaco call-signaling support<sup>c</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>d</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>e</sup>

Triple magnification

FP420B = Analysis digital video inspection probe<sup>e</sup>

Automated pass/fail analysis

Triple magnification

Autocentering

FP425B = Wireless digital video inspection probe<sup>e,f</sup>

Automated pass/fail analysis

Triple magnification

Autocentering

FP430B = Automated analysis digital video inspection probe<sup>e</sup>

Automated focus

Automated pass/fail analysis

Triple magnification

Autocentering

FP435B = Wireless analysis digital video inspection probe<sup>e,f</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**

- Only available with S1 standard display
- Available if power meter is selected.
- Available if EXpert VoIP selected.
- Available if inspection probe is selected.
- Includes ConnectorMax2 software.

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