FTB-2/FTB-2 Pro Platform

THE MOST COMPACT MULTITECHNOLOGY PLATFORM AVAILABLE FOR THE SUPERTECH

PART OF THE

EXFO|FTB Ecosystem

EXFO Connect
Compatible

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)

EXFO

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

GigE/10 GigE

Gigabit/10 Gigabit Ethernet Configurations
Gigabit Ethernet analyzer, OTDR and optical spectrum analyzer with polarization controller.

Fibre Channel

Fibre Channel
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

ROADM Commissioning
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.

Multiservice Testing

Multiservice Testing
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

Fiber Characterization and Troubleshooting
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

FTTH Testing
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

Ethernet Testing from 10 Mbit/s to 100 Gbit/s
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

CWDM Turn-Up Testing [a]
Integrate two metro/CWDM OTDRs to test through CWDM-based mux/demux at ITU-recommended wavelengths.

DWDM

DWDM Testing [b]
Highly accurate and reliable DWDM network commissioning, troubleshooting and channel anaysis.

Notes

a. Applicable to the FTB-2 version only.
b. Applicable to the FTB-2 Pro version only.

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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-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
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	•	•
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.

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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 BY GOING FTB PRO

The Windows 8.1 Pro operating system allows for a wide choice of third-party applications and supports an extensive range of USB devices.

› Start faster and multitask

› Use any 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

Go FTB Pro!

EXFO

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 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 [a]

1-step process [a]

57% shorter test time [b]

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	√	√	√	√
Wi-Fi connectivity	X	X	X	√	√

For more information, visit **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.

EXFO

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.
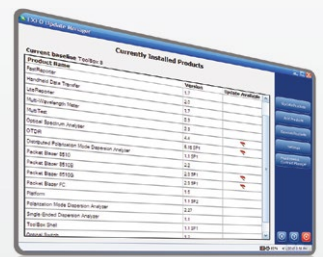
SOFTWARE APPLICATIONS

ConnectorMax2

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 2 — EFFICIENT POST-PROCESSING SOFTWARE

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).
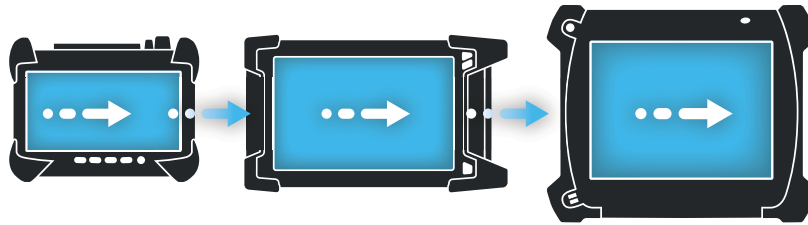
UPDATE MANAGER

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.

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.

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).
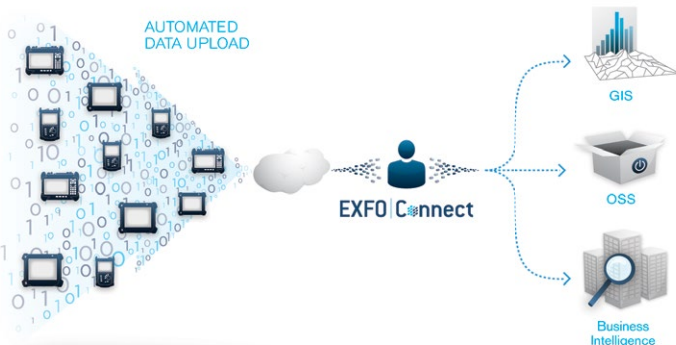
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EXFO|C∘nnect

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.
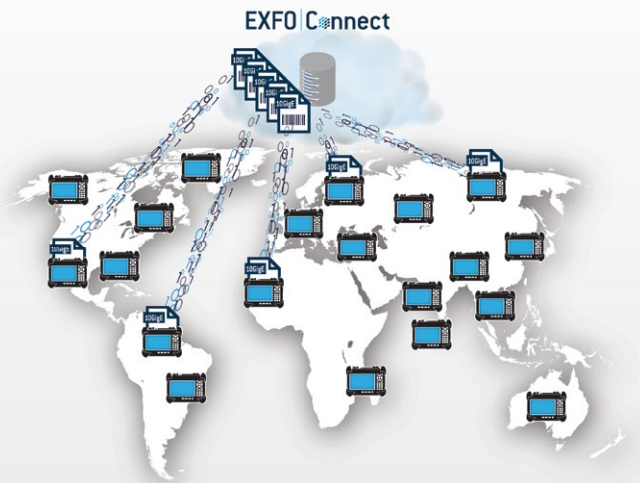

Test Data Manager

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.
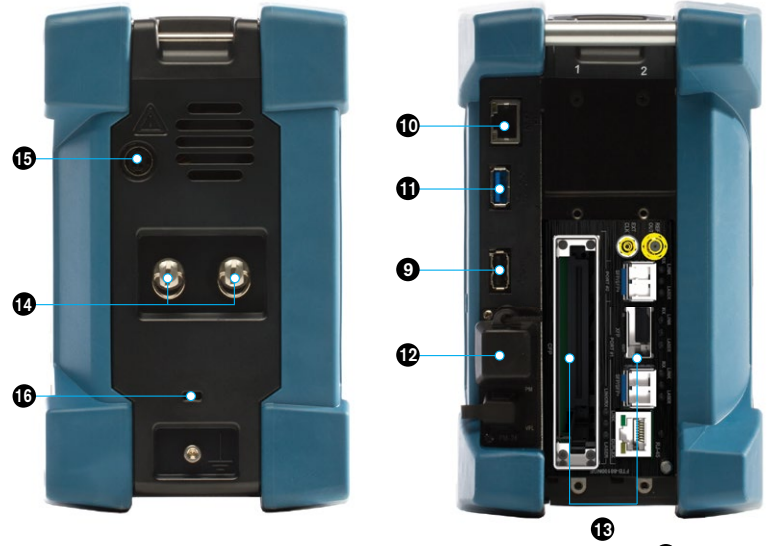

FTB Anywhere: Floating Test Licenses

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.

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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 security lock slot
17. Back stand
18. Battery compartment

TECHNICAL SPECIFICATIONS [a]	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 Embedded 8 Standard	Quad-core processor/4 GB RAM/Windows 8.1 Pro

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 [c]	3 kg (6.6 lb)
Temperature 　Operation 　Storage [b]	 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) [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 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

IEC 60825-1:2007   21 CFR 1040.10
LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
λ : 650 ±10 nm
P$_{out}$ maximum < 2mW

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

Notes

a. All specifications valid at 23 °C (73 °F).

b. 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.

c. 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).

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.

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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)

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 [a]
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 [b]
EXpert-SCCP = SCCP call-signaling support [b]
EXpert-H.323 = H.323 call-signaling support [b]
EXpert-H.248 = H.248/Megaco call-signaling support [b]
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 [c]
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 [d]
　　　　　Triple magnification
FP420B = Analysis digital video inspection probe [d]
　　　　　Automated pass/fail analysis
　　　　　Triple magnification
　　　　　Autocentering
FP425B = Wireless digital video inspection probe [d, e]
　　　　　Automated pass/fail analysis
　　　　　Triple magnification
　　　　　Autocentering
FP430B = Automated analysis digital video inspection probe [d]
　　　　　Automated focus
　　　　　Automated pass/fail analysis
　　　　　Triple magnification
　　　　　Autocentering
FP435B = Wireless analysis digital video inspection probe [d, e]
　　　　　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. 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).

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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

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Software Option
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FP425B = Wireless digital video inspection probe [d, e]
Automated pass/fail analysis
Triple magnification
Autocentering
FP430B = Automated analysis digital video inspection probe [d]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering
FP435B = Wireless analysis digital video inspection probe [d, e]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering

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

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.

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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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