FTB-1v2/FTB-1 Pro Platform

EMPOWERING FRONTLINE TECHNICIANS

PART OF THE
EXFO | FTB Ecosystem

EXFO Connect
Compatible

Feature(s) of this product is/are protected by one or more of: US design patent D763,712 and equivalent(s) in other countries.

SPEC SHEET

The FTB-1 version 2, available in a standard (FTB-1v2) or Pro (FTB-1 Pro) model, is a portable system designed for fast and powerful optical, Ethernet, time-division multiplexing (TDM) and multiservice applications.

KEY FEATURES

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

Loaded with utilities: equipped with all the tools needed to optimize field testing, plus any third-party applications

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

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

Single- or dual-carrier configuration available to slot FTBx test modules.

See next page for the list of supported modules.

High-power dual-carrier configuration available for the FTB-1 Pro supporting simultaneous 100G quad port testing.

See next page for the list of supported modules.

RELATED PRODUCTS

Fiber Inspector Probe
FIP-400B (WiFi or USB)

* The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc.

EXFO

ADAPTED FOR DEDICATED APPLICATIONS. DEDICATED TO HELPING YOU ADAPT.

Thanks to its small format, ultra-powerful processing and highly intuitive interface, the FTB-1v2 is optimized to allow field technicians to carry out dedicated optical, Ethernet and multiservice test applications simply and efficiently.

APPLICATIONS

Access Fiber Network Testing
The ideal construction and troubleshooting OTDRs for everyday field testing in any access network, such as PON FTTx (up to 1x32 splitter), fiber-to-the-antenna (FTTA) and distributed antenna systems (DAS).

LAN/WAN and Data Center Fiber Testing
OTDR for certification and troubleshooting of any enterprise and data center fiber networks.

FTTx/MDU Fiber Network Testing
Seamlessly characterizes splitters in PON FTTx applications (up to 1x128 splitter), as well as troubleshoot in-service with the in-line dual-channel PON power meter and live OTDR wavelengths.

Metro/FTTx Fiber Network Testing
High-resolution OTDR designed for metro network testing and splitter characterization in PON FTTx applications (up to 1x128 splitter).

Longhaul Fiber Network Testing
High dynamic range combined with high resolution for highly accurate fiber characterization on any longhaul network.

10G Dual-Port Multiservice Testing*
Easily turn up, validate and troubleshoot OTN, SONET/SDH, DSn/PDH, ISDN/PRI, CPRI, Fibre Channel and Ethernet services up to 10 Gbit/s in converged optical networks.

100G Multiservice
100G Dual-Port Multitechnology and Multiservice Testing*
The most comprehensive all-in-one tester, including testing for legacy networks at 64K all the way up to next-generation networks at speeds of 100G.

Fronthaul/Backhaul Testing (Mobile Backhaul, FTTA/Remote Radio Heads, DAS and Small Cells)*
All-in-one optical/Ethernet/CPRI solution combining the best of fiber test capabilities (inspection, iOLM/OTDR) with a wide range of Ethernet and multiservice tests (OTN, SONET/SDH, Fibre Channel, GigE/10 GigE, CPRI/OBSAI and SyncE/1588 PTP). Designed to streamline field operations when installing, activating and troubleshooting any type of fiber-fed wireless infrastructure.

TEST MODULE BACKS		FTB-1v2	FTB-1 PRO
OTDR	FTB-720C	•	•
	FTB-730C	•	•
	FTB-735C	•	•
	FTB-740C-CWDM	•	•
	FTB-740C-DWC	•	•
	FTB-750C	•	•
10G dual port	FTB-880 V2		•
	FTB-870 V2		•
10G quad port	FTB-880Q		•
	FTB-870Q		•
OTDR/ Ethernet/CPRI	FTB-720G V2		•
	FTB-730G V2		•
100G testing	FTB-890		•
	FTB-890NGE		•
OLTS	FTB-940	•	
	FTB-945	•	

	CONFIGURATIONS		
TEST MODULE SUPPORT	SINGLE-CARRIER	DUAL-CARRIER	HIGH-POWER DUAL-CARRIER*
FTBx-720C (OTDR)	•	•	•
FTBx-730C (OTDR)	•	•	•
FTBx-735C (OTDR)	•	•	•
FTBx-740C (OTDR)	•	•	•
FTBx-750C (OTDR)	•	•	•
FTBx-940/945 (OLTS)	•	•	•
FTBx-5235 (OSA)		•	•
FTBx-8880 (10G module)*	•	•	•
FTBx-8870 (10G module)*	•	•	•
FTBx-88200NGE (100G module)*		•	•
FTBx-88260 (100G module)*		•	•

* Applicable to the FTB-1 Pro version only.

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 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 [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	√	√	√	√
WiFi 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.

SOFTWARE TEST TOOLS

This series of platform-based software testing tools enhances the value of the FTB-1v2 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.

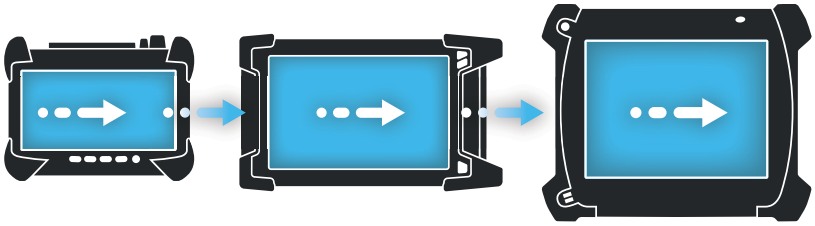
SOFTWARE APPLICATIONS

ConnectorMax2	Providing lightning-fast results 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.

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 WiFi 3G GPS

Secure VPN communications

Offers the ability to install and configure any VPN client solution defined by your IT department. Secure communications are now within your reach.

3G/4G/LTE mobility

Get connected wherever you are: choose any Windows-supported 3G/4G/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 install chat tools to quickly communicate with your team members (Skype comes pre-installed).

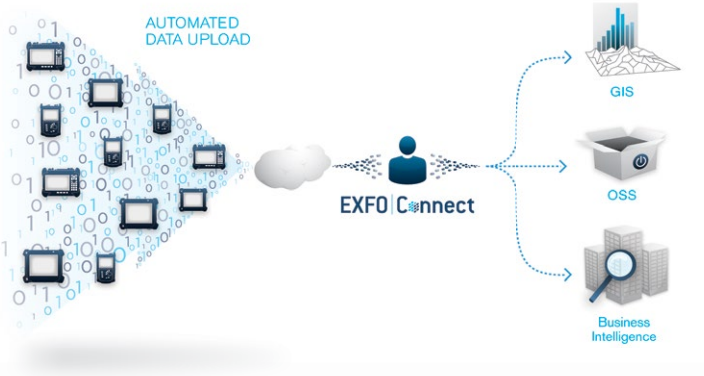
EXFO Connect

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.

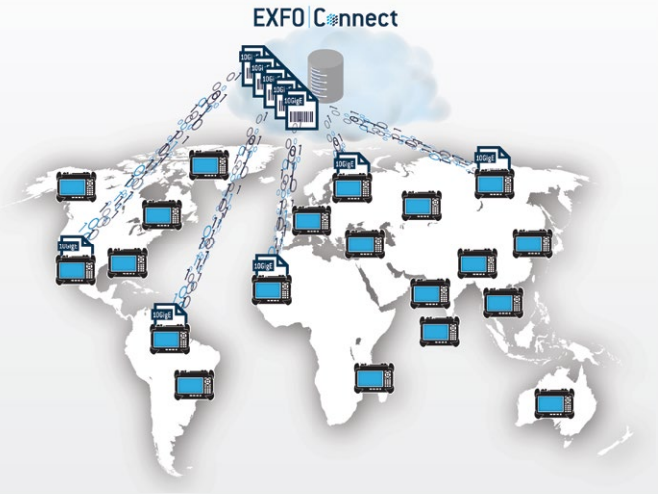


Test Data Manager

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

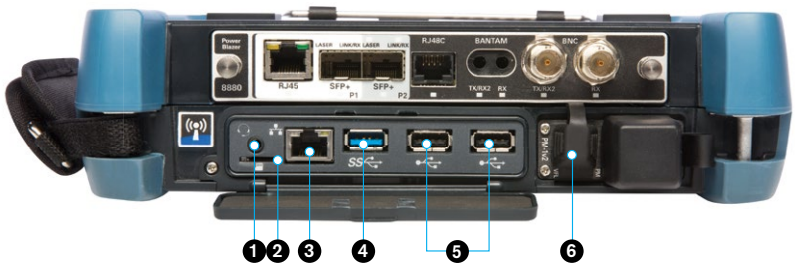
FTB Anywhere™ is a shared test-license capability for the award-winning FTB Ecosystem. This unique approach to delivering advanced test applications enables network operators to purchase a specific number of cloud-hosted licenses that can be shared instantly with their technicians, wherever they happen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

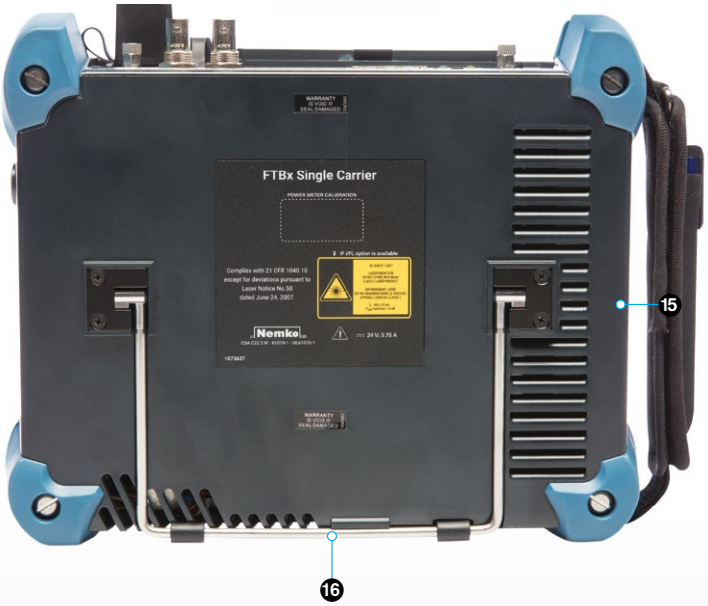


EXFO

DESIGNED FOR EFFICIENCY

1. Mic./headset jack
2. Micro SD card slot
3. 1 GigE port
4. One USB 3.0 port
5. Two USB 2.0 ports
6. Power meter and VFL
7. AC adapter
8. Kensington security lock slot
9. Speaker
10. Brightness control
11. Keyboard/screen capture
12. Switch application
13. Power on/off
14. Battery LED
15. Module back
16. Stand support





CONFIGURATIONS

Single carrier *Dual carrier* *High-power dual carrier*

SPECIFICATIONS [a]	FTB-1v2	FTB-1 PRO
Mainframe	Dual-core processor/4 GB RAM/Windows 10	Quad-core processor/4 GB RAM/Windows 10
Display	Multitouch, wide-screen, color, 1280 x 800 TFT 203 mm (8 in)	Multitouch wide-screen, color, 1280 x 800 TFT 203 mm (8 in)
Interfaces	RJ45 LAN 10/100/1000 Mbit/s Two USB 2.0 ports One USB 3.0 port Micro SD card slot 3.5 mm headset/microphone port	RJ45 LAN 10/100/1000 Mbit/s Two USB 2.0 ports One USB 3.0 port Micro SD card slot 3.5 mm headset/microphone port
Storage	64 GB internal memory (flash)	128 GB internal memory (flash)
Battery	Rechargeable Li-ion smart battery	Rechargeable Li-ion smart battery (Two batteries with the high-power dual carrier)
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; 2.5 A max, output: ⎓ 24 V; 3.75 A With high-power dual carrier AC/DC adapter, input: ∼ 100 – 240 V; 50/60 Hz; 4.0 A max, output: ⎓ 24 V; 8.33 A

GENERAL SPECIFICATIONS		
Size (H x W x D)	With single-depth module back / With single carrier With double-depth module back / With dual carrier With high-power dual carrier	210 mm x 254 mm x 66 mm (8 ¼ in x 10 in x 2 ⅝ in) 210 mm x 254 mm x 96 mm (8 ¼ in x 10 in x 3 ⅞ in) 210 mm x 254 mm x 122 mm (8 ¼ in x 10 in x 4 ¾ in)
Weight (with battery) [c]		1.5 kg (3.3 lb) With single carrier 2.0 kg (4.3 lb) With dual carrier 2.4 kg (5.2 lb) With high-power dual carrier 3.2 kg (7.1 lb)
Temperature	Operation Storage	0 °C to 50 °C (32 °F to 122 °F) –40 °C to 70 °C (–40 °F to 158 °F) [b]
Relative humidity		0 % to 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 and 1625
Power range (dBm)	Typical 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: Class 2

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.

Notes

a. All specifications valid at 23 °C (73 °F).
b. –20 °C to 60 °C (–4 °F to 140 °F) with the battery, and –20 °C to 45 °C (–4 °F to 113 °F) for long-term storage.
c. Platform with batteries and without module.
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-1v2-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX

Model
FTB-1v2 = Platform

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

WiFi/Bluetooth option
00 = Without RF components
RF = With RF capability (WiFi and Bluetooth)

Memory
64G = 64 GB internal memory (flash)

Module support hardware configuration
00 = Base configuration (support of current family of module backs)
SC = Single carrier (support of one single-slot FTBx module)
DC = Dual carrier (support of two single-slot FTBx modules or one dual-slot FTBx module)

Power meter/VFL
00 = Without power meter (PM)/VFL
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]

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
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-1v2-S1-RF-64G-00-VPM2X-CWDM-FOA-22-FP420B-APC-EXpert-IPTV

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 (WiFi and Bluetooth option).

ORDERING INFORMATION

FTB-1v2-PRO-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX

Model
FTB-1v2-PRO = Platform

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

WiFi/Bluetooth option
00 = Without RF components
RF = With RF capability (WiFi and Bluetooth)

Memory
128G = 128 GB internal memory (flash)

Module support hardware configuration
00 = Base configuration (support of current family of module backs)
SC = Single carrier (support of one single-slot FTBx module)
DC = Dual carrier (support of two single-slot FTBx modules or one dual-slot FTBx module)
HPDC = High-power dual carrier (support of two single-slot FTBx modules or one dual slot FTBx module)

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

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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)
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Triple magnification
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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-1v2-PRO-S1-RF-128G-DC-VPM2X-FOA-98-FP430B-APC-EXpert-IPTV

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 (WiFi and Bluetooth option).

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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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