

FTB-500 Platform

BOUNDLESS CAPABILITIES, TESTING UNLIMITED



PART OF THE
EXFO|FTB Ecosystem

The FTB-500 platform provides boundless capabilities and expert multimodular design for true next-generation network testing.

KEY FEATURES

Connects anywhere: USB, 3G, Wi-Fi, VPN and Bluetooth

Loaded with utilities: all the tools required to maximize field testing, plus third-party applications

Like a PC: intel processor with Windows Embedded Standard operating system

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

GPS capabilities: accurate coordinates under the same conditions as a regular satellite GPS receiver

FROST & SULLIVAN

2011 BEST PRACTICES AWARD

GLOBAL PORTABLE FIBER OPTIC TEST EQUIPMENT MARKET SHARE LEADERSHIP AWARD

EXFO

Assessing
Next-Gen Networks

SHAPE IT AS YOU SEE FIT.

Massive processing power. Mix-and-match flexibility. Right out of multi-application wonderland.

The FTB-500 platform brings you new, highly advanced applications and pushes your current ones' efficiency to new heights. So go ahead: break new grounds, set new test performance standards, tame new technologies. Benefit from an all-in-one platform that you can build around your most unique requirements.

**FTB-500 8-slot platform****Distributed PMD****Distributed PMD analysis**

Single-ended, span-by-span measurement of PMD, enabling targeted fiber upgrades and cost-effective deployment of 10, 40 and 100 Gbit/s transmission.

Fiber analysis**Full fiber characterization**

PMD, CD and OTDR testing combined in a single solution, for in-depth fiber characterization. Run FastReporter post-processing software while performing your acquisitions, for faster data analysis and report generation—directly on-site.

100 Gbit/s**100 Gbit/s testing applications**

The most advanced hardware, ready for future 100 Gbit/s applications.

**ROADM/POTS
10 Gbit/s****ROADM/POTS and 40 Gbit/s testing**

Integrated optical and transport testing in a portable solution supporting OC-768, STM-256, OTU3 as well as true in-band OSNR for ROADMs, 40G transmission and UDWDM signals.

All-in-one transport and datacom configuration supporting:

- › DS0/E0 to OC-768/STM-256
- › OTU1/OTU2/OTU3/OTU1e/OTU2e with FEC
- › 10/100M, Gigabit Ethernet and 10 Gigabit Ethernet (LAN/WAN)
- › 1x/2x/4x/10x Fibre Channel
- › Next-generation SONET/SDH (GFP, LO/HO VCAT and LCAS)

**FTB-500 4-slot platform****ROADM
and PTN****ROADM and PTN turn-up testing**

Combines SONET/SDH, OTN, Ethernet and Fibre Channel analysis, as well as an optical spectrum analyzer with a built-in polarization controller.

CWDM**CWDM turn-up testing**

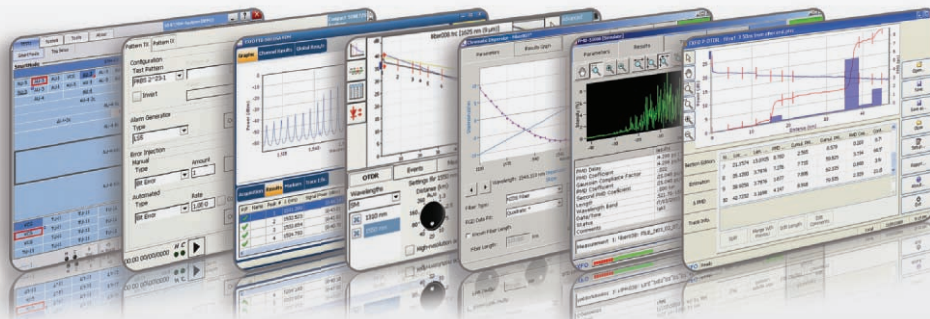
Integrates two metro/CWDM OTDRs and a high-power—up to 23 dBm—optical spectrum analyzer (with built-in polarization controller) into a single portable solution.

Multiservice**Multiservice testing**

Simultaneously runs a 10 gigabit next-generation SONET/SDH analyzer, as well as 1 gigabit and 10 gigabit Ethernet analyzers, delivering IPTV test capabilities and TCP throughput assessment.

**GigE/
10 GigE****Gigabit/10 Gigabit Ethernet configurations**

- › Gigabit Ethernet analyzer, OTDR and optical spectrum analyzer with polarization controller
- › Gigabit Ethernet analyzer, 10 gigabit Ethernet analyzer and OTDR



A BROADER SCOPE OF TESTS. A BROADER RANGE OF MODULES. A BREADTH OF FRESH AIR.

The all-new FTB-500 houses any of EXFO's FTB plug-and-play modules, enabling you to reconfigure your test solution as your test needs evolve. Combine physical and optical characterization applications with transport and datacom test modules covering next-generation 10G, 40G and 100G analysis.



Optical test modules

Choose from the industry's most renowned line of OTDRs and most advanced dispersion analyzers.

OTDR	FTB-7xxx (B-C-D-E series)	MultiTest Module	FTB-3930
Optical Spectrum analyzers	FTB-5240S		
	FTB-5240S-P	Multiwavelength Meter	FTB-5320
Single-Ended Dispersion Analyzer	FTB-5700	PMD Analyzer	FTB-5500B
Distributed PMD Analyzer	FTB-5600		
	Industry first!	Chromatic Dispersion Analyzer	FTB-5800
Optical Switch	FTB-9100		



Transport and datacom test modules

Discover the most compact and powerful SONET/SDH, OTN, Fibre Channel and Ethernet analyzers—the new standards in next-generation network testing.

40/43 Gigabit SONET/SDH Test Module	FTB-8140 Transport Blazer
Next-Generation SONET/SDH Test Modules	FTB-8120/8130 Transport Blazer
SONET/SDH Test Module	FTB-8115 Transport Blazer
DSn/PDH and SONET/SDH Electrical Test Module	FTB-8105 Transport Blazer
Multiservice Test Modules	FTB-8120NGE/8130NGE Power Blazer
10 Gigabit Ethernet Test Module	FTB-8510G Packet Blazer
Ethernet Test Modules	FTB-8510/8510B Packet Blazer
Fibre Channel and Ethernet Test Modules	FTB-8525/8535 Packet Blazer
100G/40G Ethernet Test Module	FTB-85100G Packet Blazer



Connector endface analysis software

Providing lightning-fast results in the first step of fiber-link testing, ConnectorMax is the industry's first platform-based, automated inspection application; it delivers fast pass/fail assessment of connector endfaces and is specifically designed to save both time and money in the field.

ENJOY TESTING AT YOUR SWIFT PACE.

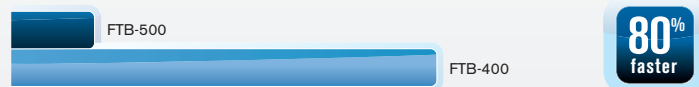
Faster setups. Faster testing. Faster everything.

When you're ready to start your day, you want to be able to actually start it—quick. The FTB-500 “understands” this, as it lets you expedite the setup process and get down to testing, so you can get to your next location faster and breathe through your tight day-to-day schedule.

Loading a 10G BER test configuration from your Favorites list



Generating a .pdf file for a 10G BER test



Setting up a complex test case:

OTU2/ODU2 + ODU1 (all TCMs enabled)/STM-16/LOP VCG/AU-4/TU-11-64v/BER



Timing comparison between the new FTB-500 and the FTB-400.



SOFTWARE TEST TOOLS

SOFTWARE APPLICATIONS



Providing lightning-fast results in the first step of fiber-link testing, ConnectorMax is the industry's first platform-based, automated inspection application; it delivers quick pass/fail assessment of connector endfaces and is specifically designed to save both time and money in the field.

THIRD-PARTY TEST TOOLS

Wireshark

This live-network packet-capture utility makes it possible to look "inside" the packets and obtain data such as transmission time, source, destination, protocol type, etc. Users can then diagnose a problem or root out suspicious behavior. Wireshark is a standard utility on all FTB-500 platforms.

JPerf

This TCP performance testing tool can create TCP and UDP data streams, which measure the throughput of a network that is carrying them. Thanks to various user-definable parameters, technicians can rely on JPerf to optimize or tune a network under test.

Network Stumbler

Network Stumbler verifies wireless network configurations, enabling field technicians to identify areas that have poor coverage or wireless interference, and helping them to aim antennas for full effect and find unauthorized access points.

SOFTWARE UTILITIES

Update Manager

Ensure that your entire fleet of platforms is up-to-date with the latest software, and easily manage your maintenance contracts.

VNC configuration

The Virtual Network Computing utility allows technicians to easily communicate settings to remote colleagues.

Microsoft Internet Explorer

Access the Web directly from your platform interface.

Bluetooth file-sharing

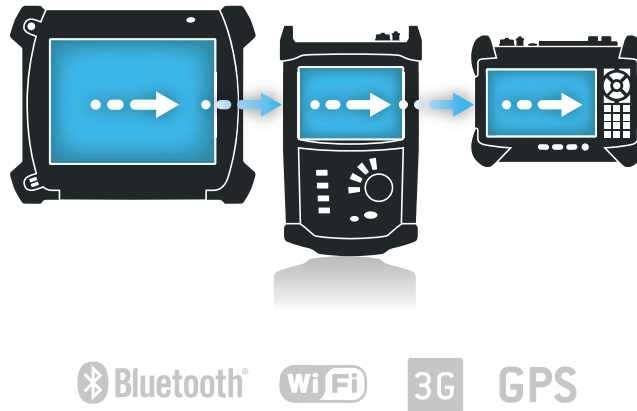
Share files from your FTB-500 to any Bluetooth-enabled device.

Wi-Fi connection

Display available Wi-Fi connections and save your default settings.

CONNECTED ANYWHERE, ANYTIME

The value of connectivity resides in the ability to connect your platform anywhere, at any time. That's why we have equipped our platforms with the technology to be as flexible as possible. Whether to transfer data to the cloud, to a device or to acquire a platform's location via GPS, you have what it takes.



Secure VPN communications

We have brought VPN capabilities to our platforms to provide a secured connection for those who need it. And, we cover 99% of the world's VPN connection types, thanks to Cisco, Juniper and Checkpoints* technologies. Secure communications are now within your reach.^{a,b}

3G mobility

Our 3G universal USB angle is ready to house most service provider SIM cards. In fact, it is compatible with over 80% of the worldwide 3G coverage offered by all the main 3G service providers using unlocked SIM cards.^{b,c}

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

Since our platforms are Windows-based, they are just like a PC. You can install chat tools to quickly communicate with your team.



Notes

- Please refer to the User Guide to learn how to set up your VPN connection, as required by your IT department.
- Current FTB platform must be updated to the latest version supporting these options.
- Please refer to the User Guide when installing this device on your compatible FTB platform.

EXFO | Connect

EXFO CONNECT MAKES YOUR DATA MEAN BUSINESS

EXFO Connect lets you store and push equipment and test data automatically to our cloud-based servers, allowing you to streamline test operations, from build-out to maintenance.

Centralize and automate inventory management to provide global visibility

Test Equipment Manager, a component of EXFO Connect, deals with the constant demands of software updates, keeping track of the equipment and ensuring that field technicians involved in network construction, maintenance or troubleshooting are properly equipped. The best part? It's all automated.

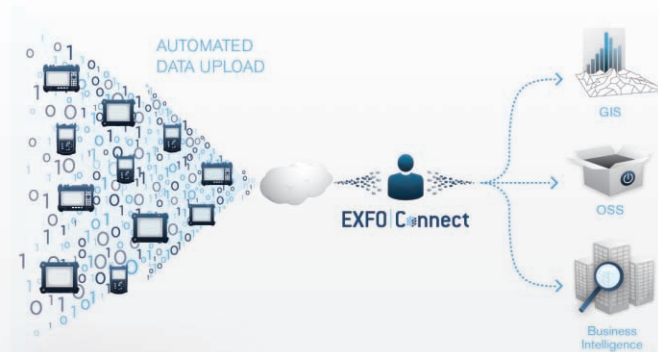


Store and consolidate test data across the entire company

Test Data Manager, another component of EXFO Connect, allows managers to make the most of their test investment. It extracts the full value out of the generated test data to help you optimize network efficiency, all through a highly automated, secure and centralized environment.

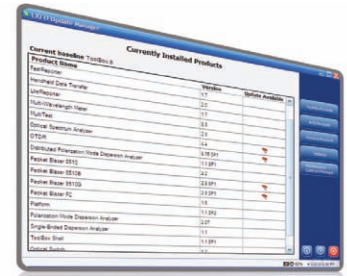
Create and customize reports from collected data

EXFO Connect tracks and updates your test gear, giving you fingertip access to all the data and allowing for quick correlation and tailored reporting for any member of the organization.

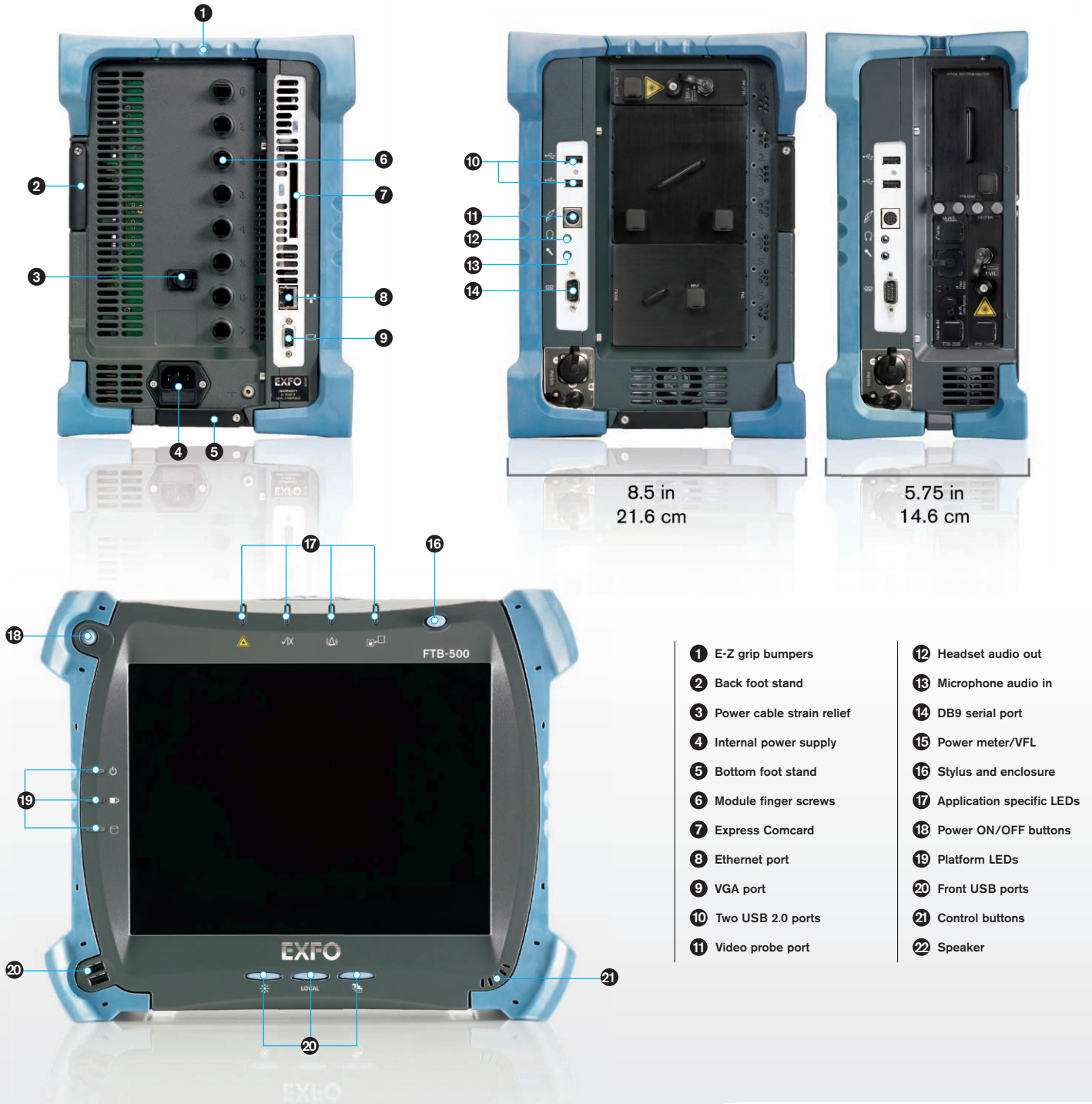


UPDATE MANAGER

Stay current with the FTB-1 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.



DESIGNED FOR PORTABILITY. MANAGEABILITY. VIEWABILITY. IN SHORT, FOR EASY-ABILITY.



- 1 E-Z grip bumpers
- 2 Back foot stand
- 3 Power cable strain relief
- 4 Internal power supply
- 5 Bottom foot stand
- 6 Module finger screws
- 7 Express Comcard
- 8 Ethernet port
- 9 VGA port
- 10 Two USB 2.0 ports
- 11 Video probe port
- 12 Headset audio out
- 13 Microphone audio in
- 14 DB9 serial port
- 15 Power meter/VFL
- 16 Stylus and enclosure
- 17 Application specific LEDs
- 18 Power ON/OFF buttons
- 19 Platform LEDs
- 20 Front USB ports
- 21 Control buttons
- 22 Speaker

SPECIFICATIONS^a

Central processing unit (CPU)	Intel Core 2 Duo
Display	Touchscreen, color TFT, 800 x 600 TFT, 307 mm (12.1 in)
Interfaces	Ethernet port Fiber probe port ExpressCard port 34 mm format Serial RS-232 port Monitor port Four USB 2.0 ports Standard PC Mic in and Speaker out ports (3.5 mm)
Storage	Internal 80 GB hard drive minimum with G-shock protection Flash USB drive (1 GB, 2 GB and 8 GB optional) ExpressCard memory card (16 GB and up, optional) External USB read/write DVD drive (optional)
Batteries ^b	Eight-slot configuration: three rechargeable Li-ion, smart batteries (total of 207 W•h) Four-slot configuration: two rechargeable Li-ion, smart batteries (total of 138 W•h)
Power supply	100–240 VAC, 50/60 Hz

GENERAL SPECIFICATIONS

Temperature operating storage ^c	0 °C to 50 °C (32 °F to 122 °F) –40 °C to 70 °C (–40 °F to 158 °F)
Relative humidity	0 % to 95 % (non-condensing)
Size (H x W x D)	Eight-slot configuration: 366 mm x 296 mm x 216 mm (11 11/16 in x 14 7/16 in x 8 1/2 in) Four-slot configuration: 366 mm x 296 mm x 146 mm (11 11/16 in x 14 7/16 in x 5 3/4 in)
Weight ^d	Eight-slot configuration: 10.9 kg (24 lb) Four-slot configuration: 8.5 kg (18.7 lb)

CE compliance, CSA, EU WEEE, China RoHS

ACCESSORIES

GP-10-047B	Semi-rigid carrying case with wheels and handle (four-slot platform)	GP-2091	USB keyboard (USB port)
GP-10-056B	Semi-rigid carrying case with wheels and handle (eight-slot platform)	GP-2092	USB memory stick (8 GB)
GP-10-075	Universal hard carrying case (eight-slot platform)	GP-2093	ExpressCard Wi-Fi
GP-10-078	Universal hard carrying case (four-slot platform)	GP-2095	Headset
GP-302	USB mouse	GP-2096	USB A-A for master-to-master communication
GP-2016	RJ-45 LAN cable (10 ft)	GP-2100	DVD ±R writable 8x external USB 2.0
GP-2028	Computer security cable kit	GP-2101	Cable RS232 straight F-M
GP-2086	Bluetooth USB Adapter	GP-2112	3G Universal USB Dongle
GP-2090	Extra Li-ion smart battery	GP-2113	GPS USB Dongle

PM-500 BUILT-IN POWER METER SPECIFICATIONS (OPTIONAL)^e

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm)	10 to –86
Uncertainty (%) ^e	±5 % ± 3 pW (up to 5 dBm)
Display resolution (dB)	0.01 = max to –76 dBm 0.1 = –76 dBm to –86 dBm
Automatic offset nulling range ^f	Max power to –63 dBm
Tone detection (Hz)	270/1000/2000

Notes

- All specifications valid at 23 °C (73 °F).
- Standard recharge time is 4 h. Recharge temperature: 0 °C to 45 °C (32 °F to 113 °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 with batteries (three for the eight-slot configuration, and two for the four-slot configuration) and without modules.
- At 23 °C ± 1 °C, at 1550 nm and with an FC connector. With modules in idle mode. Battery-operated.
- For ±0.05 dB, from 18 °C to 28 °C.


VISUAL FAULT LOCATOR (VFL) (OPTIONAL)

Laser, 650 nm ±10 nm

CW

Typical P_{out} in 62.5/125 μm: 2 dBm (1.6 mW)

LASER SAFETY



21 CFR 1040.10 AND IEC 60825-1:2007 CLASS 3R WITH VFL OPTION

ORDERING INFORMATION

FTB-500-XX-XX-XX-XX-XX-XX-XX-XX

Display

- S1 = TFT active screen
- S2 = Outdoor-enhanced screen

Module capacity

- QTR = Four-slot module capacity
- OCT = Eight-slot module capacity

Batteries

- 00 = Without batteries
- BTY = With batteries

Power meter

- 00 = Without power meter
- VPM3 = VFL, power meter with InGaAs detector

ConnectorMax

- 00 = Without fiber inspection probe analysis software
- FP5A = With fiber inspection probe analysis software
- FP5AMF = ConnectorMax kit: single-fiber analysis and reporting; multiple-fiber connector assessment wizard and reporting

Platform software option^a

- FPS = Fiber probe software

Probe option

- 00 = Without probe
- FP4S = Inspection probe (400x)
- FP4D = Inspection probe (200x/400x)

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 = Radial EC
- FOA-96B = E-2000 E-2000/APC
- FOA-98 = LC
- FOA-99 = MU

Example: FTB-500-S1-OCT-BTY-VPM3-FOA-22-FP4S-FPS-FPSA

- Notes**
- a. Included when selecting one of the probe models.
 - b. If power meter is selected.

EXFO Corporate Headquarters > 400 Godin Avenue, Quebec City (Quebec) G1M 2K2 CANADA | Tel.: +1 418 683-0211 | Fax: +1 418 683-2170 | info@EXFO.com

			Toll-free: +1 800 663-3936 (USA and Canada) www.EXFO.com
EXFO America	3400 Waterview Parkway, Suite 100	Richardson, TX 75080 USA	Tel.: +1 972 761-9271 Fax: +1 972 761-9067
EXFO Asia	100 Beach Road, #22-01/03 Shaw Tower	SINGAPORE 189702	Tel.: +65 6333 8241 Fax: +65 6333 8242
EXFO China	36 North, 3 rd Ring Road East, Dongcheng District Room 1207, Tower C, Global Trade Center	Beijing 100013 P. R. CHINA	Tel.: + 86 10 5825 7755 Fax: +86 10 5825 7722
EXFO Europe	Omega Enterprise Park, Electron Way	Chandlers Ford, Hampshire S053 4SE ENGLAND	Tel.: +44 23 8024 6810 Fax: +44 23 8024 6801
EXFO Finland	Elektronikkatie 2	FI-90590 Oulu, FINLAND	Tel.: +358 (0)403 010 300 Fax: +358 (0)8 564 5203
EXFO Service Assurance	270 Billerica Road	Chelmsford, MA 01824 USA	Tel.: +1 978 367-5600 Fax: +1 978 367-5700

EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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 In case of discrepancy, the Web version takes precedence over any printed literature.