

FTB-1 Platform

EMPOWERING FRONTLINE TECHNICIANS



PART OF THE
EXFO FTB Ecosystem



The FTB-1 Platform is a modular system for fast and powerful FTTx (FTTH and FTTN), Ethernet, TDM and multiservice applications.

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

COMPLEMENTARY PRODUCT













Fiber Inspection Probe
FIP-400B



ADAPTED FOR DEDICATED APPLICATIONS. DEDICATED TO HELPING YOU ADAPT.

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

APPLICATIONS AND MODULES			
	Module: FTB-610 Wideband Copper Tester	Copper loop qualification Combining advanced wideband copper test capabilities with SmartR™ features, while enabling automatic analysis and location of broadband cable faults, the FTB-610 is the ideal tool for the multiskilled engineers troubleshooting FTTN circuits.	
	Module: FTB-635 Wideband Copper and DSL Tester	ADSL2+/VDSL2 and advanced multiplay testing The FTB-635 enables service providers to certify and troubleshoot wideband copper, ADSL2+/VDSL2, 1 GigE and multiplay services, including live video preview, when deploying new-generation IP services over FTTN, FTTC and other hybrid networks.	
	Module: FTB-720 LAN/WAN Access OTDR	Access network testing On the strength of best-in-class specifications and four test wavelengths, the FTB-720 LAN/WAN Access OTDR is optimized for fiber-optic contractors and private network operators, enabling them to fully test and qualify any type of fiber network.	
	Module: FTB-730 PON FTTx/MDU OTDR	FTTH testing 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.	
	Module: FTB-700G Optical, Ethernet and Multiservice Test Module	Fronthaul/Backhaul testing (Mobile Backhaul, FTTA/remote radio heads, DAS and small cells) This all-in-one Ethernet/optical solution combines the best of fiber test capabilities (inspection, OTDR/iOLM) with a wide range of Ethernet and multiservice tests (OTN, SONET/SDH, Fiber Channel, GigE/10 GigE, CPRI/OBSAI and SyncE/1588 PTP), and is designed to streamline field operations when installing, activating and troubleshooting any type of fiber-fed wireless infrastructure.	
	Module: FTB-880 NetBlazer Multiservice Tester	Multiservice testing The FTB-880 NetBlazer allows field technicians to easily turn up, validate and troubleshoot DSx/PDH, SONET/SDH and Ethernet services up to 10 Gbit/s in converged optical networks.	
	Module: FTB-860 NetBlazer Ethernet Tester	Ethernet testing up to 10G The FTB-860 NetBlazer Ethernet Tester enables field technicians to quickly and easily turn up, validate and troubleshoot Ethernet services, with full EtherSAM capabilities, from 10 Mbit/s to 10 Gbit/s.	
	Module: FTB-810 NetBlazer Transport Tester	DSx/PDH and SONET/SDH testing The FTB-810x NetBlazer series offers comprehensive, yet simple test suites for field technicians to easily turn up, validate and troubleshoot transport circuits—covering all DSx/PDH and SONET/SDH interfaces up to 10 Gbit/s.	

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.

FIP-430B | The First Fully Automated Fiber Inspection Probe for the Field

Housing a unique automatic focus adjustment system, the FIP-430B automates 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

3 Models to fit your budget:

FEATURES				
	Basic FIP-410B	Semi-Automated FIP-420B	Fully-Automated FIP-430B	
Three magnification levels	✓	✓	✓	
Image capture	✓	✓	✓	
Five-megapixel CMOS capturing device	✓	✓	✓	
Automatic fiber image-centering function	✗	✓	✓	
Automatic focus function	✗	✗	✓	
On-board pass/fail analysis	✗	✓	✓	
Pass/fail LED indicator	✗	✓	✓	



Read the FIP-400B specification sheet or visit www.EXFO.com/keepthefocus for more information.

Notes

- a. Model FIP-430B only
- 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 enhance the value of the FTB-1 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 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 FTP performance and HTTP availability

EXpert IPTV TEST TOOLS

This powerful IPTV quality assessment solution enables set-top-box emulation and passive monitoring of IPTV streams, allowing quick and easy pass/fail verification of IPTV installations.

- › Real-time video preview
- › Analyzes up to 10 video streams
- › Comprehensive QoS and QoE metrics including MOS score

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-1 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

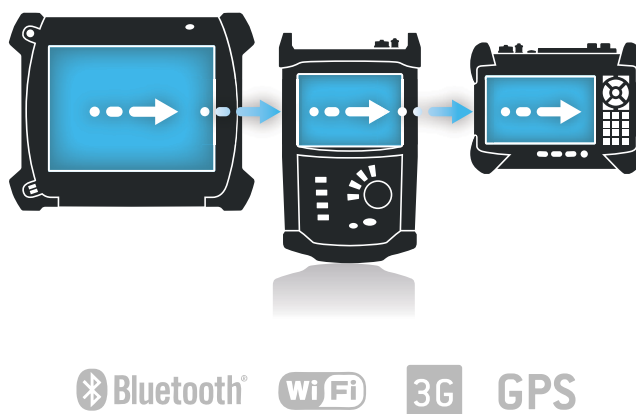
Share files from your FTB-1 to any Bluetooth-enabled device.

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

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

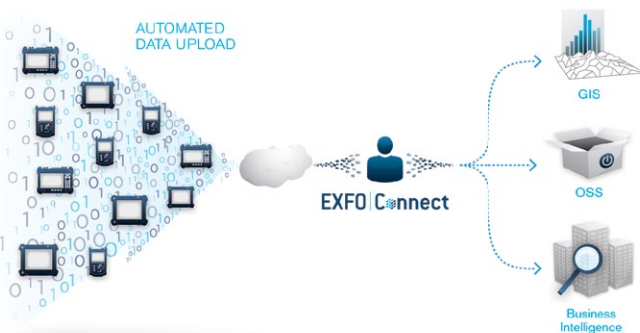
EXFO | Connect

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.



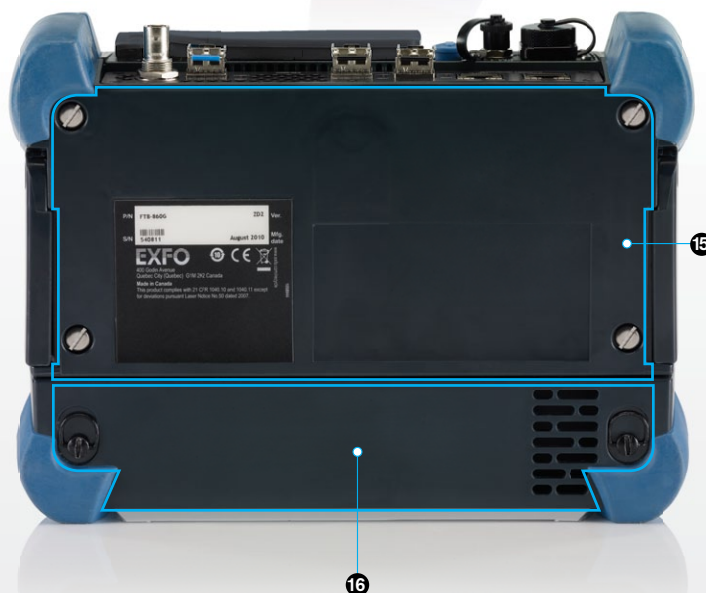
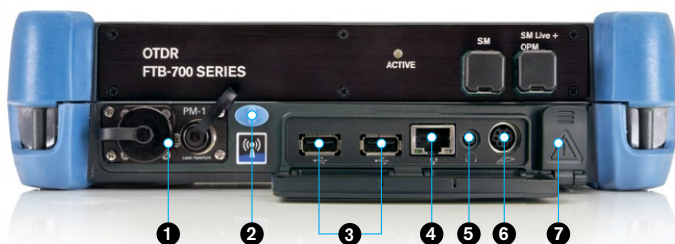
UPDATE MANAGER

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 EFFICIENCY

- | | | |
|--|-----------------------------------|------------------------------|
| 1 Power meter and VFL | 7 AC adapter | 13 Power on/off |
| 2 Stylus | 8 Back stand | 14 Battery LED |
| 3 Two USB 2.0 ports | 9 Speaker out | 15 Module compartment |
| 4 1 GigE port | 10 Brightness | 16 Battery |
| 5 Head set | 11 Keyboard/screen capture | |
| 6 Fiber inspection probe video port | 12 Switch application | |



TECHNICAL SPECIFICATIONS

Display	Touchscreen, color, 800 x 480 TFT, 178 mm (7 in)
Interfaces	Two USB 2.0 ports RJ-45 LAN 10/100/1000 Mbit/s Fiber inspection probe connector port (video) Built-in Bluetooth and Wi-Fi (hardware option)
Storage	8 GB internal memory (flash) 16 GB internal memory (flash), optional
Batteries	Rechargeable lithium-ion batteries 8 hours of operation as per Telcordia ^a (Bellcore) TR-NWT-001138
Power supply	AC/DC adapter, input: \sim 100 – 240 V; 50/60 Hz; 1.6 VA max, output: \sim 24 V; 3.75 A
Computer	Intel ATOM processor Windows Embedded Standard operating system

GENERAL SPECIFICATIONS

Size (H x W x D)	190 mm x 252 mm x 66 mm (7 1/2 in x 9 15/16 in x 2 5/8 in)
Weight (with battery)	1.5 kg (3.3 lb)
Temperature	Battery operated: 0 °C to 50 °C (32 °F to 122 °F) Charge mode: 5 °C to 40 °C (41 °F to 104 °F)
Operation	
Storage	unit: -40 °C to 70 °C (-40 °F to 158 °F) ^b
Relative humidity	0 % to 95 % non-condensing

ACCESSORIES

GP-10-086	Rigid FTB-1 carrying case	GP-2113	GPS USB dongle
GP-10-072	Semi-rigid FTB-1 carrying case	GP-2137	USB-to-RS-232 converter
GP-302	USB mouse	GP-2138	DC car adapter/inverter
GP-1002	Headset	GP-2144	USB 16G micro-drive
GP-1008	VFL adapter (2.5 mm to 1.25 mm)	GP-2155	Carry-on size backpack ^c
GP-2001	USB keyboard	GP-2158	FTB-1 utility glove
GP-2016	10 feet RJ-45 LAN cable	GP-2200	Module receptacle back panel
GP-2112	3G Universal USB dongle		

PM-1 BUILT-IN POWER METER SPECIFICATIONS^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)	10 to -86 (InGaAs) 26 to -64 (GeX)
Uncertainty (%) ^e	$\pm 5\% \pm 3$ pW (InGaAs) $\pm 5\% \pm 0.4$ nW (GeX)
Display resolution (dB)	
InGaAs	0.01 = max to -76 dBm 0.1 = -76 dBm to -86 dBm 1 = -86 dBm to min
GeX	0.01 = max to -54 dBm 0.1 = -50 dBm to -60 dBm 1 = -60 dBm to min
Automatic offset nulling range ^f	Max power to -63 dBm for InGaAs Max power to -40 dBm for GeX
Tone detection (Hz)	270/1000/2000

VISUAL FAULT LOCATOR (VFL) (OPTIONAL)

Laser, 650 nm \pm 10 nm
CW
Typical P_{out} in 62.5/125 μ m: 3 dBm (2 mW)

Notes

- With optional extended-life battery.
- 20 °C to 60 °C (-4 °F to 140 °F) with the battery pack, and for the AC adapter.
- The selected model may change without notice.
- At 23 °C \pm 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery operated.
- Up to 5 dBm.
- For ± 0.05 dB, from 18 °C to 28 °C.

LASER SAFETY



ORDERING INFORMATION

FTB-1-XX-XX-XX-XX-XX-XX-XX-XX-XX	
Model ■	Software option
FTB-1	00 = Without any software option
Display ■	IPT = Ping and traceroute functionalities
S1 = TFT active screen	Expert-VolP = RTP-based call testing software application, including packet loss analysis, jitter measurement and complete voice quality metrics
S2 = Outdoor-enhanced screen	Expert-IP = IP/Ethernet test suite, with tests including FTP performance, HTTP availability, VLAN scan, LAN discovery, ping, traceroute, IP/Ethernet port statistics (license for a single platform)
Memory ■	Expert-IPTV = IPTV test suite
00 = 8 GB internal memory (flash)	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
XMEM = 16 GB internal memory (flash)	Expert-SIP = SIP call signaling support ^b
Battery ■	Expert-SCCP = SCCP call signaling support ^b
00 = Standard rechargeable lithium-ion battery	Expert-H.323 = H.323 call signaling support ^b
EXT = Extended-life rechargeable lithium-ion battery	Expert-H.248 = H.248/Megaco call signaling support ^b
Wi-Fi/Bluetooth hardware option ■	FR2-PL = FastReporter 2 Software Fiber Characterization package
00 = Without RF components	FR2-PL-LB = FastReporter 2 Software Fiber Characterization package and iOLM Loopback mode
RF = With RF capability (Wi-Fi and Bluetooth)	
Power meter ■	Inspection probe base tips ^c
00 = Without power meter	APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC
VFL1 = Visual fault locator only	UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC
VPM2X = VFL platform; PM; GeX detector	
VPM2X-CWDM = VFL platform; PM; GeX detector; CWDM wavelengths calibrated (from 1270 nm to 1610 nm)	Inspection probe models
VPM3 = VFL; power meter; InGaAs detector	00 = Without inspection Probe
VPM3-CWDM = VFL; power meter; InGaAs detector; CWDM wavelengths calibrated (from 1270 to 1610 nm)	FP410B = Digital video inspection probe ^d Triple magnification
Connector adapter ^a ■	FP420B = Analysis digital video inspection probe ^d Automated pass/fail analysis Triple magnification Autocentering
FOA-12 = Biconic	FP430B = Automated analysis digital video inspection probe ^d Automated focus Automated pass/fail analysis Triple magnification Autocentering
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	

Example: FTB-1-S2-XMEM-EXT-RF-VPM2X-FOA-78-FP430B-APC-EXpert-IPTV

Notes

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

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