

# FTB-1 Platform

EMPOWERING FRONTLINE TECHNICIANS



PART OF THE  
EXFO|FTB Ecosystem

 EXFO Connect  
Compatible



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

SPEC SHEET

## 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		
	<b>Module: FTB-610 Wideband Copper Tester</b>	<p><b>Copper loop qualification</b> 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.</p> 
	<b>Module: FTB-635 Wideband Copper and DSL Tester</b>	<p><b>ADSL2+/VDSL2 and advanced multiplay testing</b> 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.</p> 
	<b>Module: FTB-720 LAN/WAN Access OTDR</b>	<p><b>Access network testing</b> 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.</p>
	<b>Module: FTB-730 PON FTTx/MDU OTDR</b>	<p><b>FTTH testing</b> 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.</p>
	<b>Module: FTB-880 NetBlazer Multiservice Tester</b>	<p><b>Multiservice testing</b> The FTB-880 NetBlazer allows field technicians to easily turn up, validate and troubleshoot DSn/PDH, SONET/SDH and Ethernet services up to 10 Gbit/s in converged optical networks.</p>
	<b>Module: FTB-860 NetBlazer Ethernet Tester</b>	<p><b>Ethernet testing up to 10G</b> 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.</p> 
	<b>Module: FTB-810 NetBlazer Transport Tester</b>	<p><b>DSn/PDH and SONET/SDH testing</b> 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 DSn/PDH and SONET/SDH interfaces up to 10 Gbit/s.</p>

## 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

### SOFTWARE APPLICATIONS

#### ConnectorMax

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-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

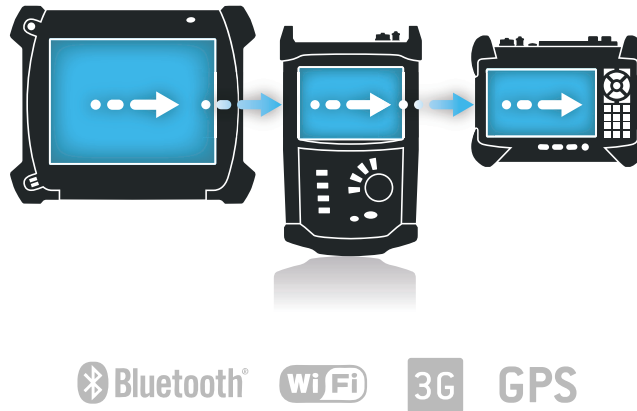
Share files from your FTB-1 to any Bluetooth-enabled device.

#### 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.<sup>a,b</sup>

### **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.<sup>b,c</sup>

### **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.

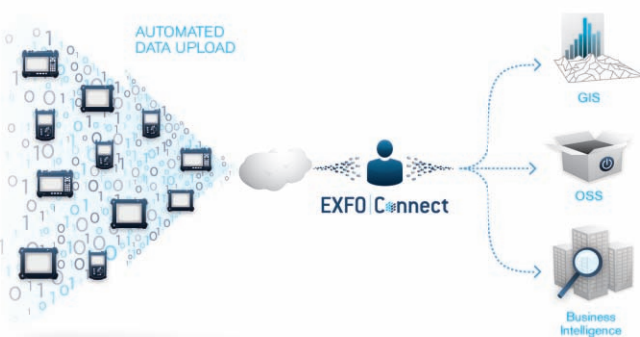
# EXFO | Connect

## 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.

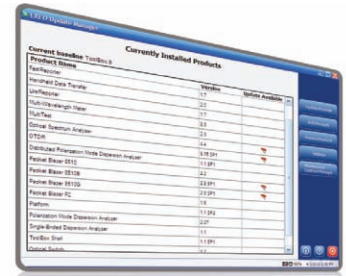
### Create and customize reports from collected data

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.



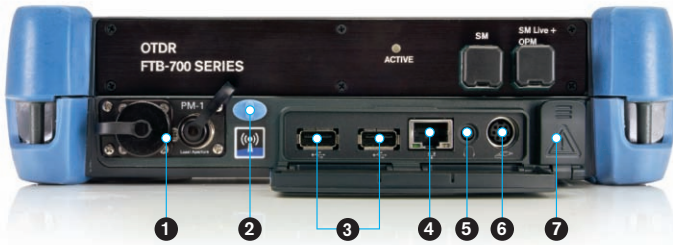
## UPDATE MANAGER

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



## 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 <sup>a</sup> (Bellcore) TR-NWT-001138
Power supply	AC/DC adapter, input 100-240 VAC, 50-60 Hz, 1.6 A max, output 24 VDC, 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	
Operating	0 °C to 50 °C (32 °F to 122 °F)
Storage	-40 °C to 70 °C (-40 °F to 158 °F) <sup>b</sup>
Relative humidity	0 % to 95 % non-condensing

## ACCESSORIES

FP4S	400x fiber inspection probe	GP-2028	Computer security cable kit
FP4D	200x/400x fiber inspection probe	GP-2112	3G Universal USB dongle
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 <sup>c</sup>
GP-2001	USB keyboard	GP-2158	FTB-1 utility glove
GP-2016	10 feet RJ-45 LAN cable	GP-2200	Module receptacle back panel

PM-1 BUILT-IN POWER METER SPECIFICATIONS<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)	10 to -86 (InGaAs) 26 to -64 (GeX)
Uncertainty (%) <sup>e</sup>	±5 % ± 3 pW (InGaAs) ±5 % ± 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 <sup>f</sup>	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 ± 10 nm
CW
Typical P <sub>out</sub> in 62.5/125 μm: 3 dBm (2 mW)

## LASER SAFETY



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

## Notes

- With optional extended-life battery.
- 20 °C to 60 °C (-4 °F to 140 °F) with the battery pack.
- The selected model may change without notice.
- At 23 °C ± 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.

**ORDERING INFORMATION**

**FTB-1-XX-XX-XX-XX-XX-XX-XX-XX**

**Model** ■  
FTB-1

**Display** ■  
S1 = TFT active screen  
S2 = Outdoor-enhanced screen

**Memory** ■  
00 = 8 GB internal memory (flash)  
XMEM = 16 GB internal memory (flash)

**Battery** ■  
00 = Standard rechargeable lithium-ion battery  
EXT = Extended-life rechargeable lithium-ion battery

**Wi-Fi/Bluetooth hardware option** ■  
00 = Without RF components  
RF = With RF capability (Wi-Fi and Bluetooth)

**Power meter** ■  
00 = Without power meter  
VFL1 = Visual fault locator only  
VPM2X = VFL platform; PM; GeX detector  
VPM2X-CWDM = VFL platform; PM; GeX detector; CWDM wavelengths calibrated (from 1270 nm to 1610 nm)  
VPM3 = VFL; power meter; InGaAs detector  
VPM3-CWDM = VFL; power meter; InGaAs detector; CWDM wavelengths calibrated (from 1270 to 1610 nm)

**Software option**  
00 = Without any software option  
IPT = Ping and traceroute functionalities  
FPSA = ConnectorMax analysis software  
FPSAMF = ConnectorMax kit: single-fiber analysis and reporting; multiple-fiber connector assessment wizard and reporting  
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, 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>a</sup>  
EXpert-SCCP = SCCP call signaling support<sup>a</sup>  
EXpert-H.323 = H.323 call signaling support<sup>a</sup>  
EXpert-H.248 = H.248/Megaco call signaling support<sup>a</sup>

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

**Connector adapter<sup>a</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  
WC2 = FOA-FC-ST-SC-LC

Example: FTB-1-S2-XMEM-EXT-RF-VPM2X-FOA-78-FP4S-FPSA

**Note**  
a. If EXpert VoIP is selected.

EXFO Headquarters > Tel.: +1 418 683-0211 | Toll-free: +1 800 663-3936 (USA and Canada) | Fax: +1 418 683-2170 | info@EXFO.com | [www.EXFO.com](http://www.EXFO.com)

EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to [www.EXFO.com/contact](http://www.EXFO.com/contact).

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](http://www.EXFO.com/recycle). Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

For the most recent version of this spec sheet, please go to the EXFO website at [www.EXFO.com/specs](http://www.EXFO.com/specs).

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