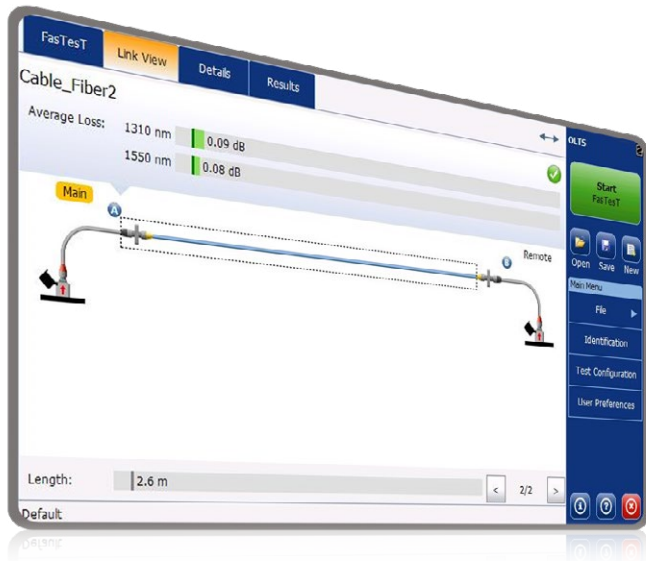


FTBx-945 Telco OLTS

FULLY AUTOMATED FASTEST™ BIDIRECTIONAL MEASUREMENTS FOR INSERTION LOSS, OPTICAL RETURN LOSS AND FIBER LENGTH



- Multifunction optical loss test set (OLTS) measuring insertion loss (IL), optical return loss (ORL) and fiber length at two wavelengths in 5 seconds via fully automated bidirectional FasTest™ analysis.



ConnectorMax



EXFO | Connect

KEY FEATURES

Unmatched FasTest™ performances: 100% automated bidirectional test at two wavelengths under 5 seconds

100% automated fiber inspection: one-step process with pass/fail analysis at both fiber ends

Onboard assistant and diagnosis to reduce reference errors and negative loss

Improved short fiber measurement

Market-leading onboard PDF reporting solution and essential PC-based post-processing included for all users

Compatible with the FTB-1v2/FTB-1 Pro, FTB-2/FTB-2 Pro and FTB-4 Pro platforms

Best-in-class singlemode distance range of 200 km

EXFO Connect-ready

APPLICATIONS

FTTx construction

Telecommunications and outside plant network testing

Data centers

Enterprise structured cabling

COMPLEMENTARY PRODUCTS



Platform
FTB-1v2/
FTB-1 Pro



Platform
FTB-2/FTB-2 Pro



Platform
FTB-4 Pro



Fiber inspection probe
FIP-400B (WiFi or USB)



OTDR/iOLM
FTBx-720C LAN/WAN
access OTDR

THE NEXT GENERATION OF AUTOMATED OLTS: MORE FEATURES, GREATER PERFORMANCE

Ever since its introduction in 1996, the patented FasTest™ technology revolutionized the industry by fully automating the test sequence, saving countless hours of testing and troubleshooting in the field. Proven in thousands of diverse network deployments across the globe, FasTest™ truly enables CAPEX/OPEX savings.

THE BENEFITS

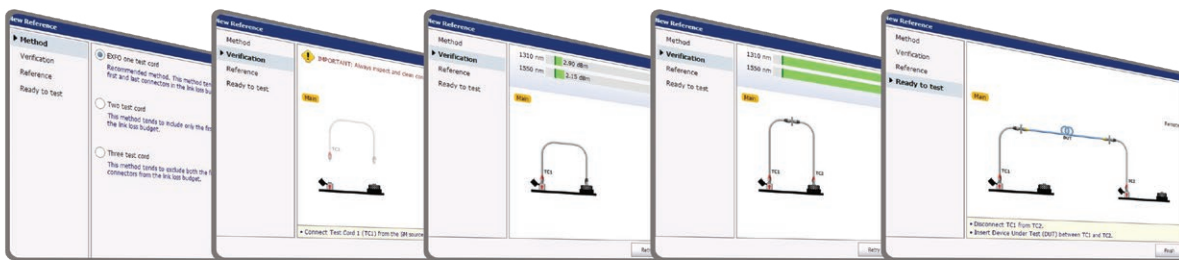
Trustworthy test results

Fully automated fiber inspection

Fiber inspection is at the heart of ensuring that accurate references and measurements can be made. The FTBx-945 integrates EXFO's fully automated line of fiber inspection probes to assess and certify connector health within a few seconds. EXFO's FIP-430B (USB) and FIP-435B (wireless) rely on elaborate algorithms that do the hard work for you to automatically center, focus, capture and analyze the connector image. No user intervention needed: achieve repeatable and accurate inspection, 100% of the time.

Onboard, step-by-step animated reference assistant

Accurate and repeatable test results start with proper test cord referencing. Accurate referencing greatly reduces common mistakes often encountered in the field. Thanks to the reference assistant's animated and interactive interface this step of the testing sequence is now as simple and easy as can be.



Test shorter links than ever before

Thanks to highly accurate optics, this OLTS can test with extreme precision short links with very low loss.

EXFO's patent-pending, one-cord simplex reference method

Greatly reduces test uncertainty for greater test accuracy, which is a key factor when testing short fiber links such as drop fibers in FTTH networks.

Test efficiency

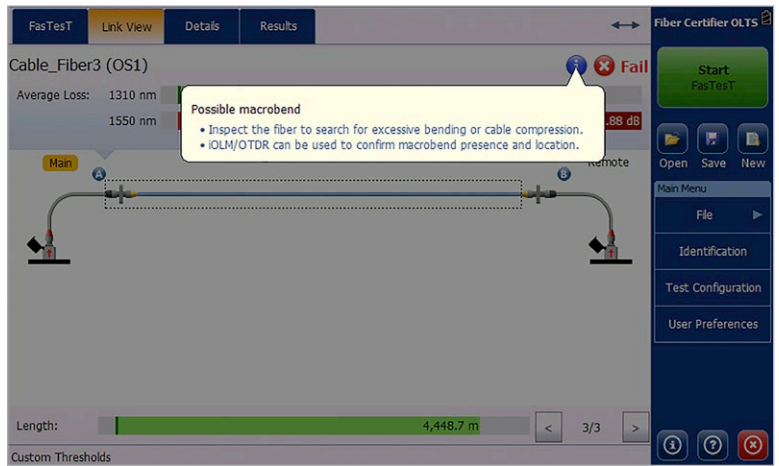
- FasTest™: acquisition time less than three seconds
- Online reporting–live from the field
- Maximum simplicity and fast learning curve with onboard user assistance:
 - **Port LED indicators:** guide the user through the referencing and testing processes. LED indicators show the user which optical port to connect to the fiber. A beep indicates that the connection is established to confirm continuity.
 - **Onboard diagnosis:** throughout the referencing and testing processes, the FTBx-945 delivers real-time information on test cord health as well as pass/fail results according to preset or custom criteria. When testing, the FTBx-945 delivers loss and length data, and can even identify the presence of a macrobend (refer to side picture).
 - **Margin meters:** indicate the result status as well as the margin according to preset thresholds.

- The FTBx-945 includes a *Test Again* feature allowing the user to retest failed fibers in three easy steps:

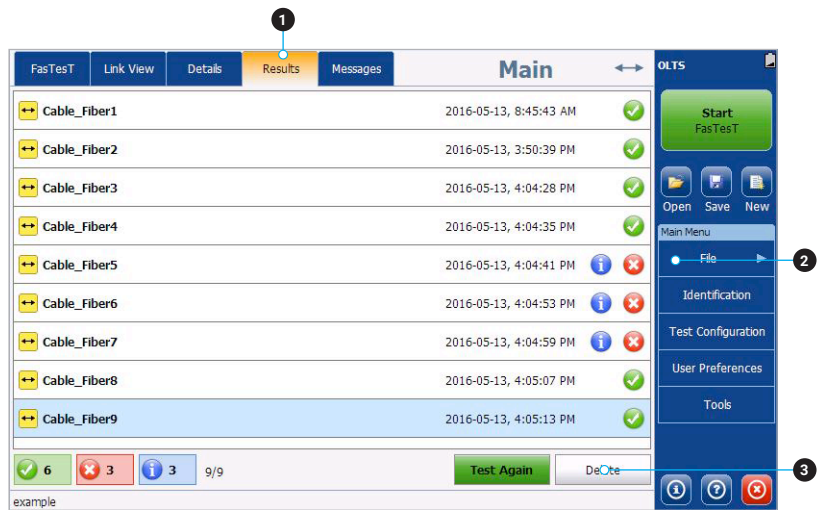
1. Go back to test results
2. Quickly and correctly identify the failed fiber by looking at the pass/fail status
3. Press *Test Again*

Optimized test sequence

- **Real-time continuity feature:** The main and remote units emit visual and audible signals to let the technicians on both ends know that a connection has been established on the specific fiber under test. This also allows the technicians to start the test right away, saving time on each fiber tested.
- **Text messaging capabilities:** Allows users to send text messages through the fiber under test faster than other test sets in the industry.



Onboard diagnosis helps the technician take proper action



See results clearly and test again easily

- 1 Results tab lists all the fibers tested in a cable
- 2 Pass/Fail status indicated under Results
- 3 Test Again button to retest a "failed fiber" using the same settings



AVAILABLE IN THE FTB-1v2/FTB-1 PRO, FTB-2/FTB-2 PRO AND FTB-4 PRO PLATFORMS

The EXFO FTB platforms are the most compact solutions on the market for **multirate, multitechnology, multiservice testing**, delivering all the power of a high-end platform in a conveniently sized, go-anywhere field-testing tool.



INTUITIVE INTERFACE

Widescreen display and multitouch capability



UNMATCHED CONNECTIVITY

WiFi, Bluetooth, Gigabit Ethernet and multiple USB ports



INCREASED PRODUCTIVITY

Store, push and share test data automatically

Do more with the EXFO FTB platform

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 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 email services and over-the-top (OTT) apps



Record and automate actions



Share files via cloud-based storage



SOFTWARE TEST TOOLS

This series of platform-based software testing tools enhance the value of the FTB-1v2/FTB-1 Pro, FTB-2/FTB-2 Pro and FTB-4 Pro platforms, 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

Automate asset management. Push test data to the cloud. Get connected.

EXFO|Connect

EXFO Connect pushes and stores test equipment and test-data content automatically to the cloud, allowing you to streamline test operation from build-out to maintenance.

DISCOVER THE INDUSTRY'S FIRST FULLY AUTOMATED FIBER INSPECTION SCOPES

Housing a unique automatic focus adjustment system, EXFO's fiber inspection scope series automates each operation in the sequence of inspecting a connector endface. The result: **fiber inspection is now a quick, one-step process that can be performed by technicians of all skill levels.**

Automated models

The FIP-500: wireless, autonomous and fully automated scope featuring the fastest inspection in the industry for both multi-fiber and single-fiber connectors. All-day testing without the need to recharge batteries or offload results.

The FIP-435B: connected to EXFO platforms or your smart device, this fully automated wireless scope enables connector certification in one step. View and store results on your EXFO platform or smart device.

The FIP-430B: fully automated inspection scope featuring USB wired connectivity to PC and EXFO platforms.

Semi-automated and manual models

The FIP-420B: semi-automated scope featuring a manual focus adjustment. USB wired connectivity to PC and EXFO platforms.

The FIP-410B: basic inspection features for manual inspection. USB wired connectivity to PC and EXFO platforms.

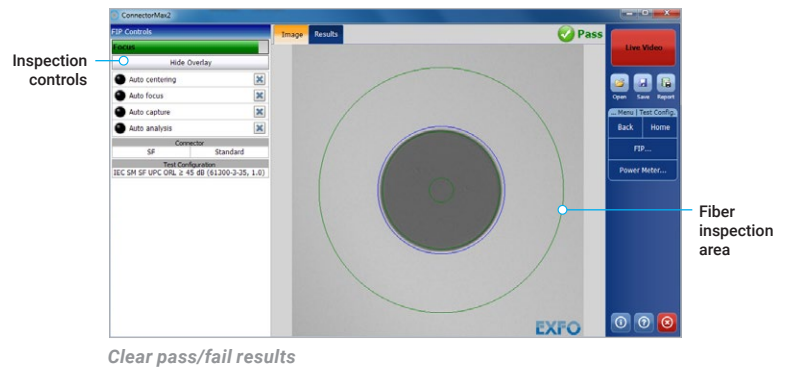


FEATURES	USB WIRED			WIRELESS	AUTONOMOUS
	FIP-410B	FIP-420B	FIP-430B	FIP-435B	FIP-500
Image capture	•	•	•	•	•
Five-megapixel CMOS capturing device	•	•	•	•	•
Automatic fiber image-centering function and focus adjustment		•	•	•	•
Automatic fiber image-focus adjustment			•	•	•
Onboard pass/fail analysis		•	•	•	•
Pass/fail LED indicator		•	•	•	•
USB connectivity to an EXFO platform or PC	•	•	•	•	
Wireless connectivity to an EXFO platform or PC				•	
Wireless connectivity to a smartphone				•	•
Semi-automated multifiber / MPO inspection	•	•	•	•	
Fully automated multifiber / MPO inspection					•
Onboard touch screen and data storage					•
SmarTips with automated thresholds and quick-connect mechanism					•

For more information, visit www.EXFO.com/fiberinspection.

POWERFUL CONNECTOR ENDFACE IMAGE VIEWING AND ANALYSIS SOFTWARE

- Automatic pass/fail analysis of the connector endfaces
- Lightning-fast results in seconds with simple one-touch operation
- Complete test reports for future referencing
- Stores images and results for record-keeping



FastReporter

Data post-processing software

GET ALL ADVANCED CAPABILITIES FOR FREE

FastReporter is a consolidated data management and post-processing solution designed to improve results quality as well as auditing and reporting productivity.

Download the latest version of FastReporter, launch the application and create your EXFO Exchange account to get the full range of capabilities, at no cost. EXFO Exchange automates and optimizes workflows, troubleshooting, field testing and reporting within a secured collaborative software platform for each step of network deployment.

FEATURES	FastReporter (version 3)	
	Basic	Full (now free with EXFO Exchange account)
Number of files	Up to 24 results	Unlimited
Measurement type	OTDR, iOLM, FIP, OLTS, OPM, CD, PMD	
Results viewer	•	•
Reporting – Basic (PDF)	•	•
Reporting – Advanced (Excel, PDF, custom)		•
Basic analysis – Bidir (OTDR and iOLM)	•	•
Advanced editing		•
Automated validation and results correction		•
Job management and identification edition	One file	Batch processing
Hundreds of additional features		•

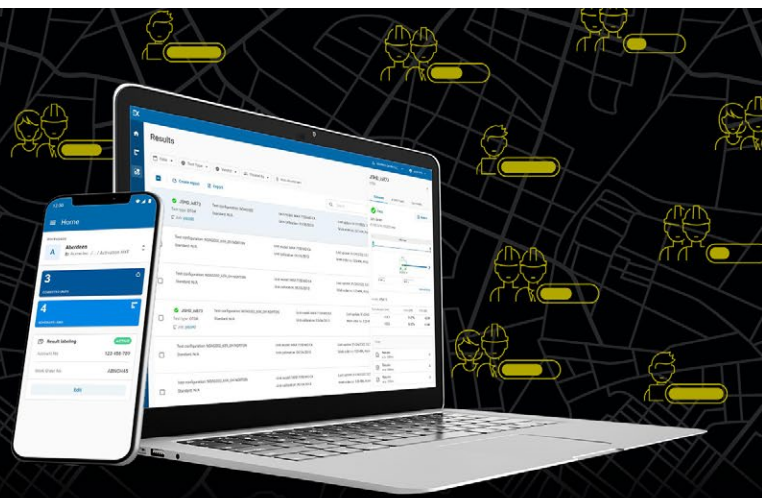
Comparison of basic and full versions of FastReporter (version 3).



**SHARE TEST RESULTS.
BOOST COMPLIANCE.
UNLOCK INSIGHTS.**

Cloud-hosted solution for sharing test results and ensuring compliance.

Paired with EXFO's leading test instruments, EXFO Exchange drives an entire ecosystem, while integrating seamlessly with existing operation processes.



KEY BENEFITS



Automate test results management



Boost compliance and efficiency



Improve collaboration and visibility



Access comprehensive reporting



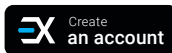
Unlock insights to see what matters

SIMPLE SETUP IN THREE STEPS

1

Create your free EXFO Exchange account

Begin your journey by creating an EXFO Exchange account. Setting up your account is quick and easy.



2

Install the mobile app

Download the EXFO Exchange app to allow test data from compatible EXFO devices to be uploaded securely to the cloud (free of charge).



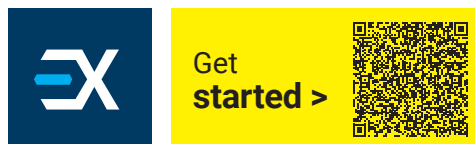
For MaxTester and FTB users, install the native app.



3

Save time and boost efficiency

Once your account created—and the mobile app installed and paired with compatible EXFO devices—all test results will be sent to the cloud. On the web app, you will see field test results from all invited testers.



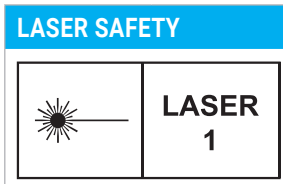
SPECIFICATIONS

POWER METER SPECIFICATIONS ^a	
Detector type	InGaAs
Uncertainty ^b	±(5 % + 32 pW)
Measurement range (dBm)	5 to -75
Calibrated wavelengths (nm)	850, 1270, 1290, 1300, 1310, 1330, 1350, 1370, 1383, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625, 1650
Tone detection (Hz)	270/330/1000/2000

SOURCE SPECIFICATIONS ^a	
Output power (dBm) ^c	Multimode (850 nm/1300 nm): -25 SM1 (1310 nm/1550 nm): 2.5 SM3 (1310 nm/1550 nm/1625 nm): 1 / -1 / -5 SM4 (1310 nm/1490 nm/1550 nm): 1 / -5 / -1
Output power stability (dB)	±0.05 over 8 h
Spectral width (FWHM) (nm)	850 nm: 30 to 60 1300 nm: 100 to 150

FASTEST™ LOSS/LENGTH SPECIFICATIONS ^a											
Testing speed ^c	FasTest™ Simplex: 3 seconds (two wavelengths, bidirectional, automated, IL + fiber length) FasTest™ Simplex: 6 seconds (three wavelengths, bidirectional, automated, IL + ORL + fiber length)										
Wavelengths (nm) ^c	<table border="0"> <tr> <td>Multimode (LED)</td> <td>Singlemode (Laser)</td> </tr> <tr> <td>850 ± 20</td> <td>1310 ± 20</td> </tr> <tr> <td>1300 ± 20</td> <td>1490 ± 10</td> </tr> <tr> <td></td> <td>1550 ± 20</td> </tr> <tr> <td></td> <td>1625 ± 10</td> </tr> </table>	Multimode (LED)	Singlemode (Laser)	850 ± 20	1310 ± 20	1300 ± 20	1490 ± 10		1550 ± 20		1625 ± 10
Multimode (LED)	Singlemode (Laser)										
850 ± 20	1310 ± 20										
1300 ± 20	1490 ± 10										
	1550 ± 20										
	1625 ± 10										
Launch condition ^d	Encircled Flux (EF) compliancy guaranteed at 50/125 µm multimode source port. Within TIA-526-14-B, ISO/IEC 14763-3 and IEC 61280-4-1 EF template limits at the end of an EXFO reference-grade 50/125 µm test cord.										
Loss range (dB) ^e	Multimode: 20 Singlemode simplex: 45 Singlemode duplex: 50										
Length measurement range (km) ^f	Multimode: 20 Singlemode: 200										
Length measurement uncertainty ^c	Duplex: ±(0.5 m + 0.5 % x length) Simplex: ±(1 m + 0.5 % x length)										
ORL measurement range (dB) ^c	50										
ORL measurement uncertainty (dB) ^{c,g}	±1										

GENERAL SPECIFICATIONS	
Size (H x W x D)	158 mm x 25 mm x 196 mm (6 ¼ in x 1 in x 7 ¾ in)
Weight	0.4 kg (0.9 lb)
Temperature	Operating 0 °C to 50 °C (32 °F to 122 °F) Storage -30 °C to 70 °C (-22 °F to 158 °F)
Relative humidity	0 % to 95 % non-condensing



a. All specifications valid at 23 °C ± 1 °C and 1550 nm, on batteries and after 15 minutes of warm up, unless otherwise specified.

b. Uncertainty is valid at calibration conditions.

c. Typical.

d. Measured at 850 nm with SC connector.

e. Typical value, at 850 nm for multimode and 1550 nm for singlemode.

f. At 1300 nm for multimode and 1550 nm for singlemode.

g. No discrete reflectance greater than -65 dB. Up to 45 dB.

ORDERING INFORMATION

FTBx-945-XX-XX

Optical configuration

SM1 = Singlemode 1310/1550 nm, IL and ORL
 SM3 = Singlemode 1310/1550/1625 nm, IL and ORL
 SM4 = Singlemode 1310/1490/1550 nm, IL and ORL
 ICERT-Q1-QUAD = QUAD 850/1300/1310/1550 nm, IL and ORL

Connector^{a, b}

EA-EUI-28 = APC/DIN 47256^c
 EA-EUI-89 = APC/FC narrow key
 EA-EUI-91 = APC/SC
 EA-EUI-95 = APC/E-2000^c
 EA-EUI-98 = APC/LC
 EI-EUI-89 = UPC/FC^d
 EI-EUI-91 = UPC/SC^d
 EI-EUI-98 = UPC/LC^d

Example: FTBx-945-SM1-EA-EUI-91

a. Power meter connector type is the same as the EUI connector type.

b. Connector adapters are the same on singlemode source ports, multimode source ports and power meter ports. Multimode connectors are always UPC.

c. Not available for iCERT model.

d. A hybrid REF grade test cord will be supplied when EI (UPC) interfaces are required.

EA CONNECTORS



To maximize the performance of your FTBx-945 ORL measurements, EXFO recommends using APC connectors on singlemode port. These connectors generate lower reflectance, which is a critical parameter that affects performance for ORL measurement. APC connectors provide better performance than UPC connectors, thereby improving testing efficiency.

EXFO headquarters T +1 418 683-0211 Toll-free +1 800 663-3936 (USA and Canada)

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

For the most recent patent marking information, please visit www.EXFO.com/patent. EXFO is certified ISO 9001 and attests to the quality of these products. 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.

For the most recent version of this spec sheet, please go to www.EXFO.com/specs.

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