SPEC SHEET

FTBx-945 Fiber Certifier OLTS

OPTIMIZED FOR DATA CENTER AND ENTERPRISE TIER-1 FIBER CERTIFICATION

- Fully featured Tier-1 certifier compatible with the FTB-1v2/FTB-1 Pro, FTB-2/FTB-2 Pro and FTB-4 Pro modular platforms. Combine the FTBx-945 with EXFO's OTDR/iOLM for an all-in-one Tier-1 and Tier-2 test.

DATA CENTER SOLUTION

FASTEST

EF COMPLIANT

COMPATIBLE WITH FXchange

EXFO Connect

KEY FEATURES

- Leading FasTesT™ performances: certifies two fibers at two wavelengths in 3 seconds
- Onboard assistant and diagnosis to reduce the risk of reference errors and negative loss
- Built-in Encircled-Flux compliancy as per ANSI/TIA and ISO/IEC
- 100% automated fiber inspection: one-step process with pass/fail analysis at both ends of the fiber
- Certifies to multiple industry standards simultaneously
- Market-leading onboard PDF reporting solution and essential PC-based post-processing included for all users
- Optional optical return loss (ORL) measure
- Batch processing of results with FastReporter software
- Best-in-class singlemode distance range of 200 km
- EXFO Connect-ready

APPLICATIONS

- Data centers
- Enterprise structured cabling

COMPLEMENTARY PRODUCTS

Platform
FTB-1v2/FTB-1 Pro

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

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

THE FIBER CERTIFIER OLTS WITH THE EXPERT BLUE TOUCH

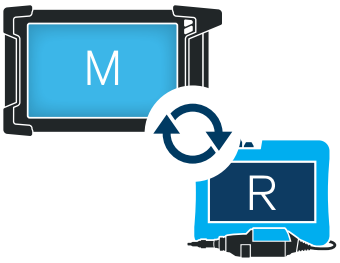
The FTBx-945 Fiber Certifier OLTS has been specifically designed to certify fiber cabling in data centers and enterprise networks. The unit's intuitive Windows-like user interface ensures a minimal learning curve. The FTBx-945 Fiber Certifier offers icon-based functions, onboard assistance and onboard professional reporting.

FULL-FLEDGED UNITS AT BOTH ENDS

The FTBx-945 can be paired with another FTBx-945 or a handheld MaxTester 945 instrument. Both the main and remote units are full-fledged to maximize each technician's efficiency:

- FasTesT™ results with diagnostics are displayed on both units at the end of each test.
- Both technicians can certify the fiber connectors with a fiber inspection probe via the large touchscreens available on both units.

The FTBx-945 and MaxTester 945 Fiber Certifier gives remote technicians greater visibility and efficiency.



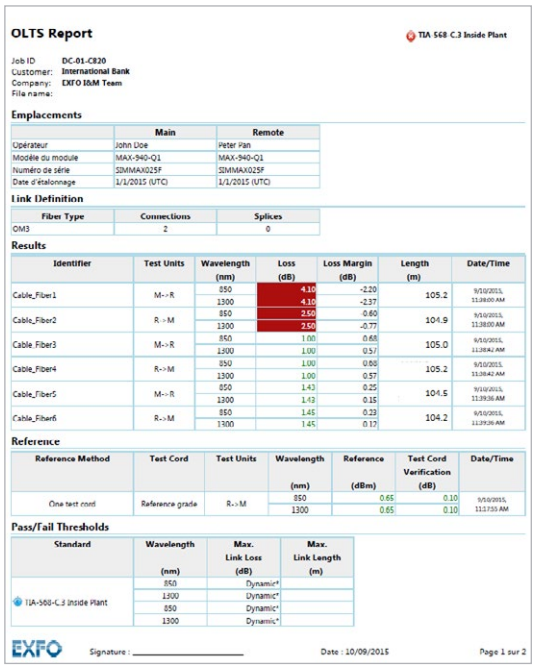
ONBOARD MULTISTANDARD CERTIFICATION

The FTBx-945 Fiber Certifier lets you certify to both cabling and application standards simultaneously. You can therefore certify the cabling (i.e., the physical quality of the fiber and its components, such as splices and connectors), as well as the application that the fiber can carry; for instance, IEEE or Fibre Channel.

ONBOARD PDF REPORTING

The FTBx-945 Fiber Certifier comes with onboard PDF reporting to convert multiple measurements into a single professional report in a format recognized by industry standards. The reporting includes clear pass/fail certification status against the multiple standards tested, and a summary of the measurements with margins, anomalies, test-cord references and verification.

This feature serves as a natural complement to our FastReporter PC-based software designed for batch processing of high-count fiber and multiple measurement combinations (e.g., connector certification, loss and OTDR).



OLTS Report

TIA 568 C.3 Inside Plant

Job ID: DC-01-CB20
Customer: International Bank
Company: EXFO I&M Team
File name:

Emplacements

	Main	Remote
Opérateur	John Doe	Peter Pan
Modèle du module	MAX-940-Q1	MAX-940-Q1
Numéro de série	SIMMAX025F	SIMMAX025F
Date d'étalonnage	1/1/2015 (UTC)	1/1/2015 (UTC)

Link Definition

Fiber Type	Connections	Splices
OM3	2	0

Results

Identifier	Test Units	Wavelength (nm)	Loss (dB)	Loss Margin (dB)	Length (m)	Date/Time
Cable_Fiber1	M->R	850	4.10	-2.20	105.2	9/10/2015, 11:38:00 AM
		1300	4.10	-2.37		
Cable_Fiber2	R->M	850	2.50	0.60	104.9	9/10/2015, 11:38:00 AM
		1300	2.50	-0.77		
Cable_Fiber3	M->R	850	1.00	0.68	105.0	9/10/2015, 11:28:42 AM
		1300	1.00	0.57		
Cable_Fiber4	R->M	850	1.00	0.80	105.2	9/10/2015, 11:28:42 AM
		1300	1.00	0.57		
Cable_Fiber5	M->R	850	1.43	0.25	104.5	9/10/2015, 11:39:36 AM
		1300	1.43	0.15		
Cable_Fiber6	R->M	850	1.45	0.23	104.2	9/10/2015, 11:39:36 AM
		1300	1.45	0.17		

Reference

Reference Method	Test Cord	Test Units	Wavelength (nm)	Reference (dBm)	Test Cord Verification (dB)	Date/Time
One test cord	Reference grade	R->M	850	0.65	0.10	9/10/2015, 11:17:55 AM
			1300	0.65	0.10	

Pass/Fail Thresholds

Standard	Wavelength (nm)	Max. Link Loss (dB)	Max. Link Length (m)
TIA-568-C.3 Inside Plant	850	Dynamic*	
	1300	Dynamic*	
	850	Dynamic*	
	1300	Dynamic*	

EXFO Signature : _____ Date : 10/09/2015 Page 1 sur 2

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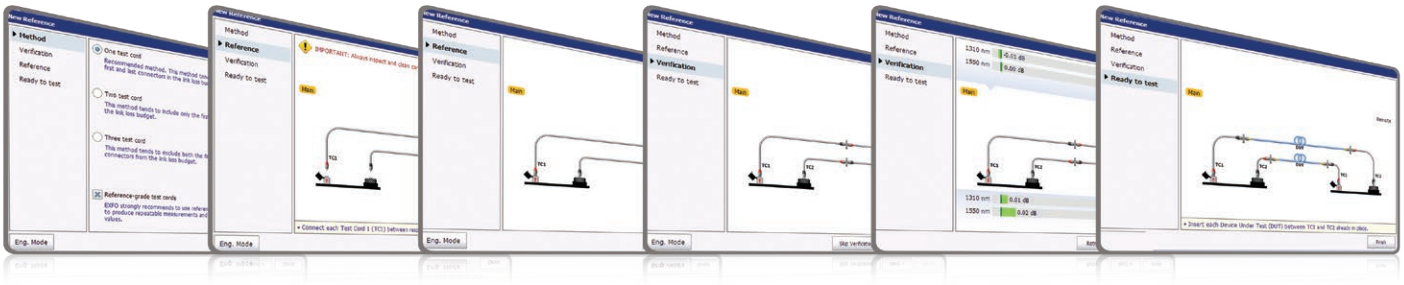
ONBOARD ASSISTANCE AND DIAGNOSIS

The FTBx-945 Fiber Certifier provides a foolproof method against test-cord reference mistakes and negative loss thanks to its step-by-step wizard that guides technicians through the referencing and verification process, as per industry standards. The FTBx-945 Fiber Certifier goes even further by diagnosing the possible causes for fail results and provides guidance to fix issues.

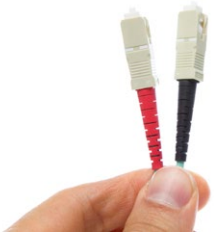


BUILT-IN ENCIRCLED FLUX COMPLIANCY

The FTBx-945 Fiber Certifier comes with a built-in Encircled Flux (EF)-compliant multimode light source. Furthermore, in order to maximize measurement accuracy and avoid invalid results, EXFO designed reference-grade test cords in compliance with ISO/IEC 14763-3 standard requirements.

EXFO's test cords are made from reference-grade connectors, and the fiber used is strictly controlled to ensure proper core size and geometry. For multimode testing, this makes it possible to remain within Encircled Flux template limits at the output of the test cord, without the need for an external EF-mode conditioner. These high-quality, reference-grade test cords are less fragile and less expensive than EF-conditioned test cords, helping to reduce your overall equipment cost of ownership.

EXFO's test cords are also color-coded to prevent manipulation errors when they are connected to the test ports and device under test. The user interface displays animated instructions with the same color codes to facilitate the test process.



THREE YEARS OF PEACE OF MIND FOR REPAIRS AND CALIBRATION

The FTBx-945 Fiber Certifier has been rigorously tested to guarantee the highest standards of reliability and durability. This is why we feel so confident about offering a warranty and a recommended calibration interval of three years.

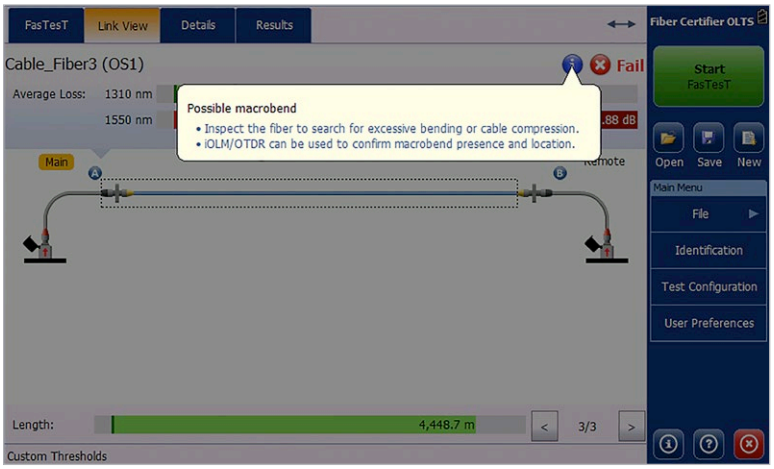
You can safely use this highly-reliable instrument for accurate test results while significantly reducing your certifier's cost of ownership (your cost of calibration and the related downtime will be divided by a factor of three).

Test efficiency

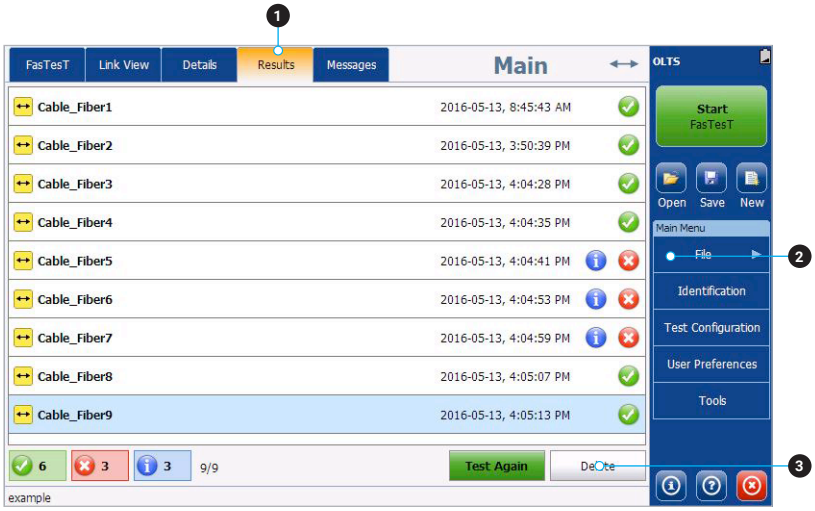
- FasTesT™: acquisition time less than three seconds
- Online reporting–live from the field
- Maximum simplicity and fast learning curve with onboard user assistance:
  - **Port LED indicators**: guide the user through the referencing and testing processes. LED indicators show the user which optical 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

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.

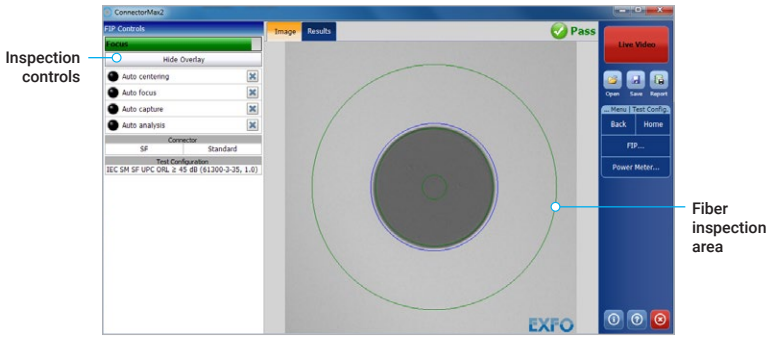
The FIP-410B: basic inspection features for manual inspection. USB wired connectivity to PC and EXFO platforms.

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



Clear pass/fail results

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).

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.

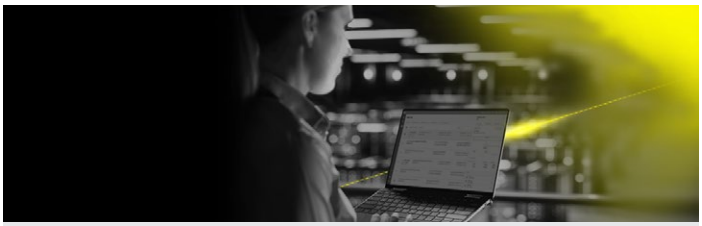
EXchange

MANAGE FIELD TESTS. STREAMLINE WORKFLOWS. UNLOCK INSIGHTS.

Interconnect all parts of your field test ecosystem through EXFO Exchange, our open collaborative software platform.

KEY BENEFITS

- **Connect operations with real-time visibility**
- **Increase collaboration and build trust with business partners**
- **Boost efficiency with automated processes**
- **Reduce maintenance costs**
- **Unlock insights to see what matters**



From the office

Invite your workforce and contractors to join your organization's workspace on EXFO Exchange. This will help you better organize projects and gain unprecedented visibility in real time over job progress and MoP compliance. Optimize closeout package generation to close jobs rapidly and monetize/get paid faster.

From the field

Request an invitation from your team manager to complete jobs faster and better, save results automatically and share them in real time.

KEY FEATURES

Centralized and organized data | **Easy integration** | **Consolidated reporting service** | **Process automation** | **Collaboration**

Get **started >**

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POWER METER SPECIFICATIONS [a]

Input connector	Interchangeable adapter (LC, SC or FC) [b]
Detector type	InGaAs
Uncertainty [c]	±(5 % + 32 pW)
Measurement range (dBm)	5 to −75
Calibrated wavelengths (nm)	8850, 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

Output power (dBm) [d]	Multimode: −25 Singlemode: 2.5
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]

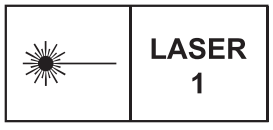
Testing speed [d]	FasTesT™ Duplex: 3 seconds (two wavelengths, one direction, automated, IL + fiber length) FasTesT™ Simplex: 5 seconds (two wavelengths, bidirectional, automated, IL + ORL + fiber length)
Input/Output connectors	Interchangeable adapter (LC, SC or FC) [b]
Wavelengths (nm) [d]	MM (LED) 850 ± 20 1300 ± 20
Launch condition [e]	EF compliancy guaranteed at multimode source port Within TIA-526-14-B, ISO/IEC 14763-3 and IEC 61280-4-1 Encircled Flux template limits at the end of an EXFO reference-grade 50/125 µm test cord
Length measurement range (km)	Multimode: 20 [f] Singlemode: 200
Length measurement uncertainty [d, g]	±(0.5 m + 0.5 % x length)
ORL measurement range (dB) [d, h]	50
ORL measurement uncertainty (dB) [d, h, i]	± 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 Storage	0 °C to 50 °C (32 °F to 122 °F) −30 °C to 70 °C (−22 °F to 158 °F)
Relative humidity		0% to 95% non-condensing

This picture is shown as a guideline only. Actual module may differ depending on the configuration selected.

LASER SAFETY



a. At 23 °C ± 1 °C and 1550 nm, on batteries and after 15 minutes of warm up, unless specified otherwise.
b. Specifications are provided with FC type connectors.
c. Uncertainty is valid at calibration conditions.
d. Typical.
e. Measured at 850 nm with SC connector.
f. At 1300 nm.
g. In duplex.
h. ORL measurement available on MaxTester 945 singlemode wavelengths only.
i. No discrete reflectance greater than −65 dB. Up to 45 dB

ORDERING INFORMATION

FTBx-945-XX-XX

Optical configuration
ICERT-Q1-QUAD = Quad
Port 1: 850/1300 nm IL and length measurement
Port 2: 1310/1550 nm IL, length and ORL measurement

Connector [b]
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-98 = APC/LC
EI-EUI-89 = UPC/FC [c]
EI-EUI-91 = UPC/SC [c]
EI-EUI-98 = UPC/LC [c]

Example: FTBx-945-ICERT-Q1-QUAD-EA-EUI-91

a. EUI adapters are the same on singlemode, multimode source ports and power meter ports. Multimode connectors are always UPC.
b. Connector adapters are the same on singlemode source ports, multimode source ports and power meter ports. Multimode connectors are always UPC.
c. 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, APC connectors are mandatory on the 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)

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