SPEC SHEET

Only the MaxTester 940 is discontinued.

MaxTester 945 Fiber Certifier OLTS

OPTIMIZED FOR DATA CENTER AND ENTERPRISE TIER-1 FIBER CERTIFICATION

- Fully featured tier-1 fiber certifier with a tablet-inspired design and short learning curve.

  Optimized, clear and fast first-time-right data center system acceptance.

DATA CENTER SOLUTION

FASTEST

EF COMPLIANT

COMPATIBLE WITH

EXchange

EXFO Connect

KEY FEATURES

- 7-inch, high-resolution touchscreen—the widest screen on the market
- Leading FasTesT™ performances: certifies two fibers at two wavelengths in 2.6 seconds
- Onboard assistant and diagnosis for elimination of reference errors
- 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 (with FIP-400B)
- Certifies to multiple industry standards simultaneously
- Optical return loss (ORL) measurement
- Market-leading onboard PDF reporting solution and essential PC-based post-processing included for all users
- Batch processing of results with FastReporter software
- Best-in-class singlemode distance range of 160 km
- EXFO Connect-ready for cloud-based test asset management
- WiFi and Bluetooth connectivity (optional)

APPLICATIONS

- Data centers
- Enterprise structured cabling

RELATED PRODUCTS

OTDR/iOLM
FTB-720C QUAD OTDR/iOLM

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

FastReporter

Advanced data post-processing software
FastReporter

EXFO

THE FIBER CERTIFIER OLTS WITH THE EXPERT BLUE TOUCH

The MaxTester 945 Fiber Certifier OLTS is the first tablet-inspired test solution that 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 MaxTester 945 Fiber Certifier offers icon-based functions, instant boot-up, as well as onboard assistance and onboard professional reporting.

TABLET-INSPIRED DESIGN

With the most user-friendly display in the industry (7-inch, high-resolution touchscreen), the MaxTester 945 Fiber Certifier delivers unprecedented user experience, and the unit's integrated WiFi/Bluetooth allows for high connectivity. The MaxTester 945 Fiber Certifier guarantees a full day of fieldwork with 12 hours of battery autonomy and internal memory capacity of 150,000 test results.

FULL-FLEDGED UNITS AT BOTH ENDS

Both the main and remote units are full-fledged to maximize the efficiency of each technician:

- 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 scope via the large touchscreens available on the both units.

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

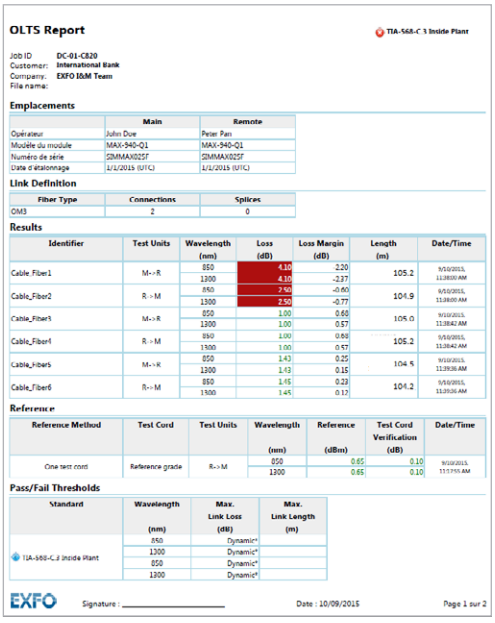
ONBOARD MULTISTANDARD CERTIFICATION

The MaxTester 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 MaxTester 945 Fiber Certifier comes with unique onboard PDF reporting to convert multiple measurements into a single professional report in a format recognized by the 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-C820
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	SIMMAX0257	SIMMAX0257
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, 11:28:00 AM
		1300	4.10	-2.37		
Cable_Fiber2	R->M	850	2.90	-0.60	104.9	9/10/2015, 11:28:00 AM
		1300	2.50	-0.77		
Cable_Fiber3	M->R	850	1.00	0.60	105.0	9/10/2015, 11:38:42 AM
		1300	1.00	0.57		
Cable_Fiber4	R->M	850	1.00	0.60	105.2	9/10/2015, 11:38:42 AM
		1300	1.00	0.57		
Cable_Fiber5	M->R	850	1.43	0.25	104.6	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, 11:29:06 AM
		1300	1.45	0.12		

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, 11:11:55 AM
			1300	0.65	0.10	

Pass/Fail Thresholds

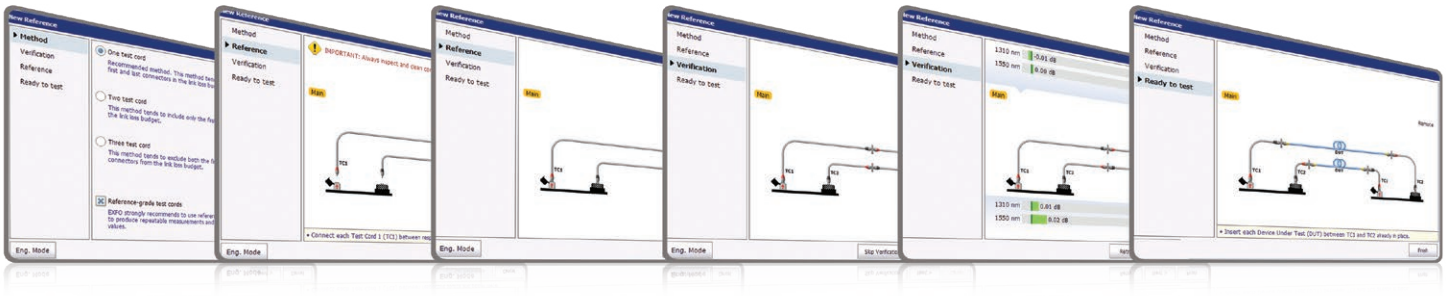
Standard	Wavelength (nm)	Max. Link Loss (dB)	Max. Link Length (m)
TIA-568-C.3 Inside Plant	850	Dynamic*	
	1300	Dynamic*	
	850	Dynamic*	
	1300	Dynamic*	

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

Compact, intuitive tablet-inspired design.

ONBOARD ASSISTANCE AND DIAGNOSIS

The MaxTester 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 MaxTester 945 Fiber Certifier goes even further by diagnosing the possible causes for fail results and provides guidance to fix issues.

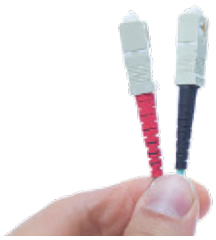


BUILT-IN ENCIRCLED FLUX COMPLIANCY

Each MaxTester 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 MaxTester 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).

OPTICAL PLUG-AND-PLAY OPTIONS

The MaxTester 945 features plug-and-play optical options that can be purchased whenever you need them, at the time of your order or later on. In either case, installation is a snap: you can do it yourself with no need for any software updates.

Visual fault locator (VFL)

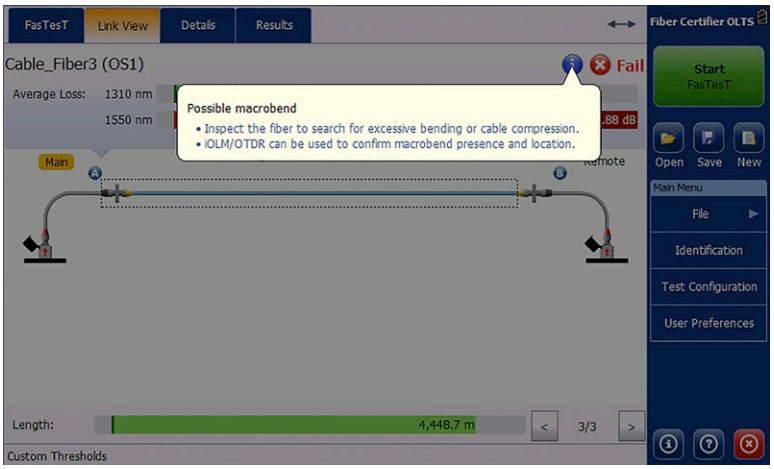
The plug-and-play VFL easily identifies breaks, bends, faulty connectors and splices, in addition to other causes of signal loss. This basic, yet essential, troubleshooting tool should be part of every field technician's toolbox. Visually locating faults by creating a bright-red glow at the exact location of the fault on singlemode or multimode fibers, it can detect faults over distances of up to 5 km.

Test efficiency

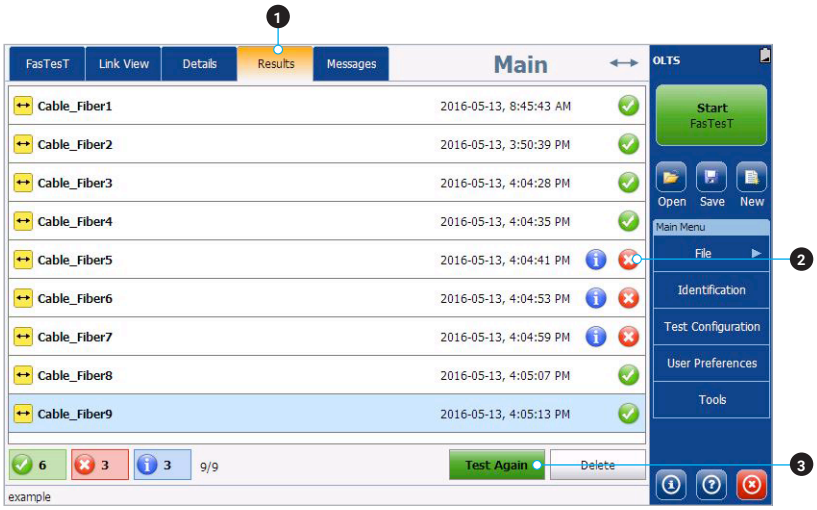
- FasTesT™: acquisition time less than three seconds
- Online reporting–live from the field
- Maximum simplicity and fast learning curve with onboard user assistance:
  - **Port LED indicators**: guide the user through the referencing and testing processes. LED indicators show the user which optical 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 MaxTester delivers real-time information on test cord health as well as pass/fail results according to preset or custom criteria. When testing, the MaxTester 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 MaxTester 945 includes a *Test Again* feature allowing the user to retest failed fibers in three steps:
  1. Go back in 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.

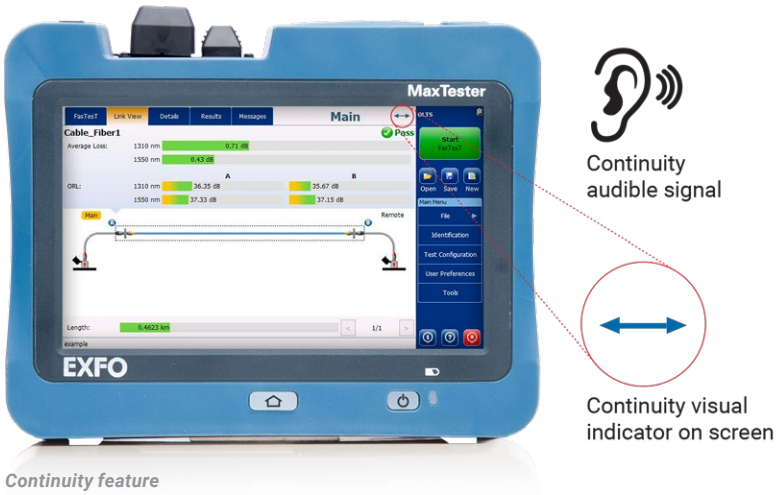


Onboard diagnosis helps the technician take proper action



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



Continuity feature

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.

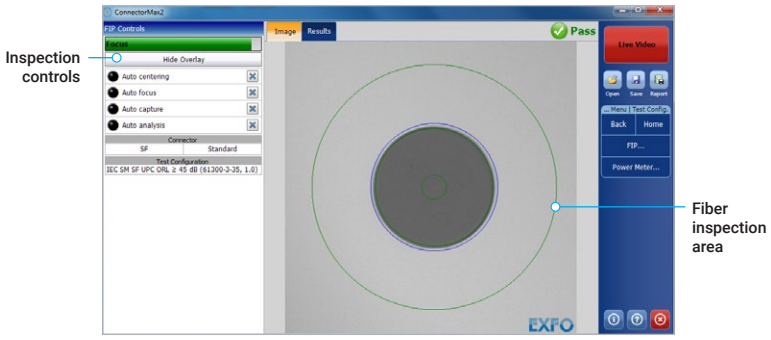
The FIP-410B: basic inspection features for manual inspection. USB wired connectivity to PC and EXFO platforms.

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		•

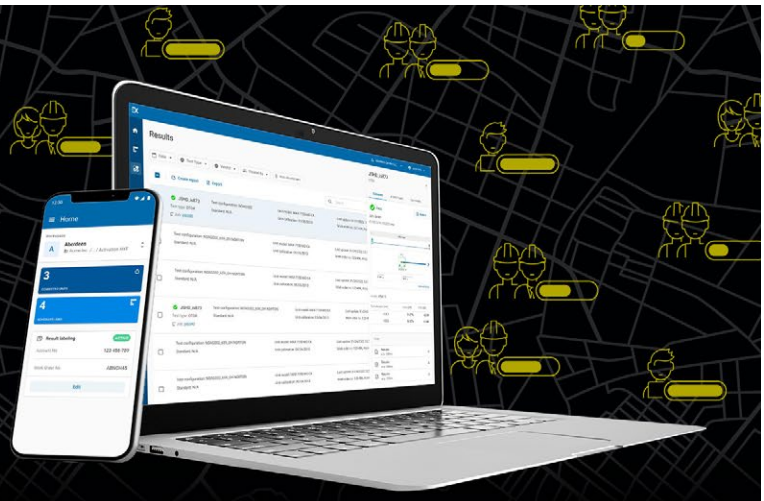
Comparison of basic and full versions of FastReporter (version 3).

EXchange

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.

Create an account

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).

GET IT ON Google Play | Download on the App Store

For MaxTester and FTB users, install the native app.

Access 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.

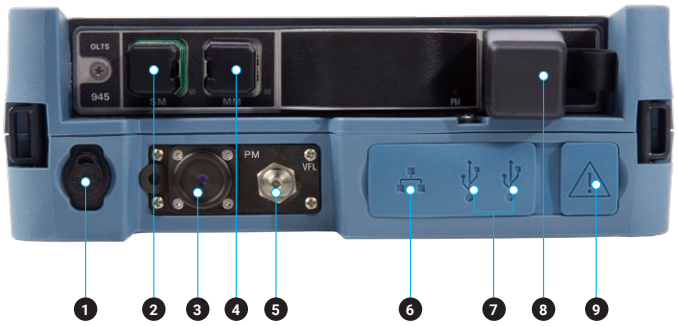
Get **started >**

EXFO

SMALL ENOUGH TO BE HANDHELD. LARGE ENOUGH FOR FULL-SCREEN VIEWING.

PACKAGED FOR EFFICIENCY

1. Stylus
2. Singlemode source port
3. High-power power meter (optional)
4. Multimode source port
5. Visual fault locator
6. 10/100 Mbit/s Ethernet port
7. Two USB 2.0 ports
8. InGaAs power meter
9. AC adapter
10. Home/switch application and screen capture (hold)
11. Power on/off/stand by
12. Battery LED status
13. Built-in WiFi/Bluetooth
14. Stand support



SPECIFICATIONS

SOFTWARE UTILITIES	
Software update	Ensure that your MaxTester is up-to-date with the latest software
VNC configuration	The virtual network computing (VNC) utility allows technicians to easily remote control the unit via a computer or laptop
Microsoft Internet Explorer	Access the Web directly from your device interface
Data mover	Transfer all your daily test results quickly and easily
Centralized documentation	Instant access to user guides and other relevant documents
Wallpapers	Enhance your work environment with colorful and scenic backgrounds
PDF Reader	View your reports in PDF format
Bluetooth file sharing	Share files between your MaxTester and any Bluetooth-enabled device
WiFi connection	Wireless inspection scope interface, upload test results and browse the Internet
Inspection scope	USB or WiFi scope to inspect and analyze connectors

POWER METER SPECIFICATIONS [a]	
Detector type	GeX
Uncertainty [b]	±(5 % + 10 nW)
Measurement range (dBm)	25 to −50 [c]
Wavelengths range (nm)	850, 1300, 1310, 1490, 1550, 1577, 1625, 1650
Tone detection (Hz)	270/330/1000/2000

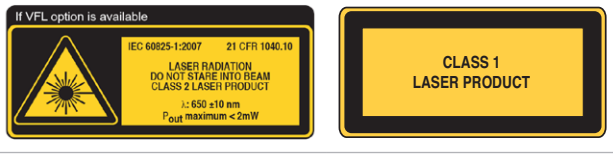
FASTEST™ LOSS/LENGTH SPECIFICATIONS [a]	
Testing speed [d]	FasTesT™ Duplex: 2.6 seconds (two wavelengths, one direction, automated, IL + fiber length) FasTesT™ Simplex: 5 seconds (two wavelengths, bidirectional, automated, IL + ORL + fiber length)
Input/Output connectors	Interchangeable adapter (LC, SC or FC) [c]
Wavelengths (nm) [d]	850 ± 20 1300 ± 20 1310 ± 20 1550 ± 20
Source type	LED (multimode) Laser (singlemode)
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
Loss range (dB) [f]	Multimode: 20 Singlemode Simplex: 45 Singlemode Duplex: 50
Length measurement range (km)	Multimode: 20 [g] Singlemode: 160
Length measurement uncertainty [d, h]	±(0.5 m + 0.5 % x length)
ORL measurement range (dB) [d, i]	50
ORL measurement uncertainty (dB) [d, i, j]	±1
Source	
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 mode	Simplex and Duplex

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. Specifications are provided with FC type connectors.
d. Typical.
e. Measured at 850 nm with SC connector.
f. Typical value, at 850 nm for multimode and 1550 nm for singlemode.
g. At 1300 nm.
h. In duplex.
i. ORL measurement available on MaxTester 945 singlemode wavelengths only.
j. No discrete reflectance greater than −65 dB. Up to 45 dB.

VISUAL FAULT LOCATOR (VFL) (optional)

Laser, 650 nm ± 10 nm
CW/Modulate 1 Hz
Typical P_{out} in 62.5/125 µm: > −1.5 dBm (0.7 mW)
Laser safety: Class 2

LASER SAFETY



ENVIRONMENTAL SPECIFICATIONS

Temperature	Operating Storage	−10 °C to 50 °C (14 °F to 122 °F) −30 °C to 70 °C (−22 °F to 158 °F) [a]
Relative humidity		0 % to 95 % non-condensing

GENERAL SPECIFICATIONS

Display	7-in (178-mm) outdoor-enhanced touchscreen, 800 x 480 TFT
Size (H x W x D)	166 mm x 200 mm x 68 mm (6 9/16 in x 7 7/8 in x 2 ¾ in)
Weight (with battery)	1.5 kg (3.3 lb)
Interfaces	Two USB 2.0 ports RJ45 LAN 10/100 Mbit/s
Storage	6 GB internal memory (150 000 test results, typical)
Battery [b]	Rechargeable lithium-polymer battery 12 hours of operation
Power supply	AC/DC adapter, input 100-240 VAC, 50-60 Hz, 9-16 V DCIN 20 W minimum
Warranty	Three (3) years
Recommended recalibration period	Three (3) years

a. −20 °C to 60 °C (−4 °F to 140 °F) with the battery pack.

b. Typical.

ORDERING INFORMATION

MAX-945-XX-XX-XX-XX-XX-XX-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 [a]
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-98 = APC/LC
EI-EUI-89 = UPC/FC [h]
EI-EUI-91 = UPC/SC [h]
EI-EUI-98 = UPC/LC [h]

VFL and power meter
00 = Without VFL and power meter
VFL = With VFL
PM2X = With power meter; GeX detector
VPM2X = With VFL and power meter; GeX detector

WiFi and Bluetooth
00 = Without RF components
RF = With RF capability (WiFi and Bluetooth)

Inspection scope model [b]
00 = Without inspection scope
FP410B = Digital video inspection probe
Triple magnification
FP420B = Analysis digital video inspection probe
Automated pass/fail analysis
Triple magnification
Autocentering
FP430B = Automated analysis digital video inspection scope
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering
FP435B = Wireless analysis digital video inspection scope [c]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering

Extra FIP-400B tips [d]

Bulkhead tips
FIPT-400-FC-APC = FC/APC tip for bulkhead adapter
FIPT-400-FC-SC = FC and SC tip for bulkhead adapter [e]
FIPT-400-LC = LC tip for bulkhead adapters
FIPT-400-LC-APC = LC/APC tip for bulkhead adapter
FIPT-400-MU = MU tip for bulkhead adapters
FIPT-400-SC-APC = SC/APC tip for bulkhead adapter [f]
FIPT-400-SC-UPC = SC/UPC tip for bulkhead adapter
FIPT-400-ST = ST tip for bulkhead adapter

Patchcord tips
FIPT-400-U12M = Universal patchcord tip for 1.25 mm ferrules
FIPT-400-U12MA = Universal patchcord tip for 1.25 mm ferrules APC
FIPT-400-U16M = Universal patchcord tip for 1.6 mm ferrules
FIPT-400-U20M2 = Universal patchcord tip for 2.0 mm ferrules (D4, Lemo)
FIPT-400-U25M = Universal patchcord tip for 2.5 mm ferrules [e]
FIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC [f]

Multifiber tips [g]
FIPT-400-MTP2 = MTP/MPO UPC tip for bulkhead adapter
FIPT-400-MTPA2 = MTP/MPO APC tip for bulkhead adapter
FIPT-400-MTP-MTR = MTP/MPO multirow UPC tip for bulkhead adapter
FIPT-400-MTP-MTRA = MTP/MPO multirow APC tip for bulkhead adapter

Tip kits
FIPT-400-LC-K = LC tip kit including:
FIPT-400-LC: LC tip for bulkhead adapters,
FIPT-400-LC-APC: LC/APC tip for bulkhead adapter,
FIPT-400-U12M: universal patchcord tip for 1.25 mm ferrules,
FIPT-400-U12MA: universal patchcord tip for 1.25 mm ferrules APC
FIPT-400-LC-K-APC = LC tip kit including:
FIPT-400-LC-APC: LC/APC tip for bulkhead adapter,
FIPT-400-U12MA: universal patchcord tip for 1.25 mm ferrules APC
FIPT-400-LC-K-UPC = LC tip kit including:
FIPT-400-LC: LC tip for bulkhead adapters,
FIPT-400-U12M: universal patchcord tip for 1.25 mm ferrules
FIPT-400-MTP-MTR-K = MTP/MPO multirow APC and UPC tip for bulkhead adapter [g]

Base tips
APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC
UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

Example: MAX-945-ICERT-Q1-QUAD-EA-EUI-91-VFL-RF-FP435B-APC

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

b. Includes ConnectorMax2 software.

c. RF option mandatory and included with this model.

d. This list represents a selection of fiber inspection tips that covers the most common connectors and applications but does not reflect all the tips available. EXFO offers a wide range of inspection tips, bulkhead adapters and kits to cover many more connector types and different applications. Please contact your local EXFO sales representative or visit **www.EXFO.com/FIPtips** for more information.

e. Included when UPC base tips are selected.

f. Included when APC base tips are selected.

g. Includes a bulkhead adapter for patch cord inspection.

h. A hybrid REF Grade Test Cord will be supplied when EI (UPC) interfaces are required.

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

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