MaxTester 940 OLTS

FULLY AUTOMATED FASTEST™ BIDIRECTIONAL INSERTION LOSS AND LENGTH MEASUREMENT

FASTEST

Connect**or**Max2

EXFO | Connect

First tablet-inspired multifunction optical loss test set (OLTS) delivering insertion loss (IL) and fiber-length at all wavelengths in 3 seconds via fully automated bidirectional FasTesT™ analysis.

KEY FEATURES

Unmatched FasTesT™ performances: 100 % automated bidirectional test at two wavelengths under three seconds

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

On-board assistant and diagnosis to eliminate reference errors and negative loss

Improved short fiber measurement

On-board professional PDF reporting

Best-in-class singlemode distance range of 160 km

Bright, 7-inch high resolution touchscreen display—the biggest in the market

EXFO Connect-ready for cloud-based test assets management

Wi-Fi and Bluetooth connectivity (optional)

APPLICATIONS

FTTx construction

Telecommunications and outside plant networks testing

COMPLEMENTARY PRODUCTS

Fiber Inspection Probe
FIP-400B (Wi-Fi or USB)

Cleaning Accessories

Data Post-Processing Software
FastReporter 2

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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.
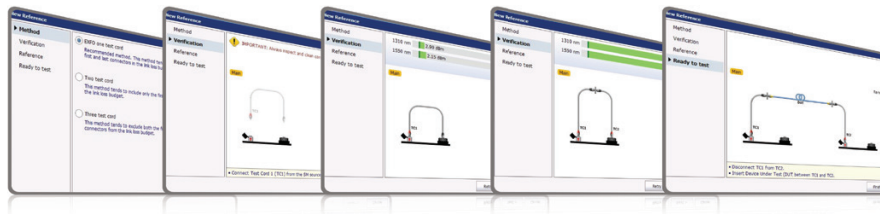
The MAX-940 boasts a 7-inch touchscreen, the largest and most user-friendly display in the industry to make life easier for the technician. The MAX-940 also allows for 100 % automated fiber inspection at both ends of the fiber link. Paired with the FIP-400B automated fiber inspection probes and powered by FasTesT™, this OLTS brings the latest and the best in innovation and automation at your fingertips.

THE BENEFITS

Trustworthy Test Results

On-board step-by-step animated reference assistant

Accurate and repeatable test results starts with proper test cord referencing. Good 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 it can be.

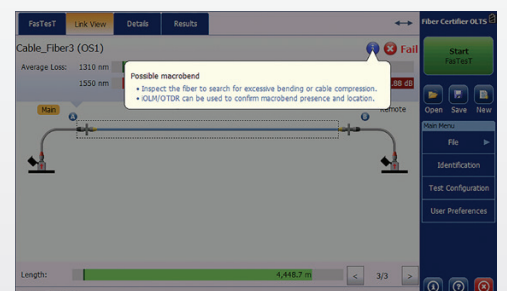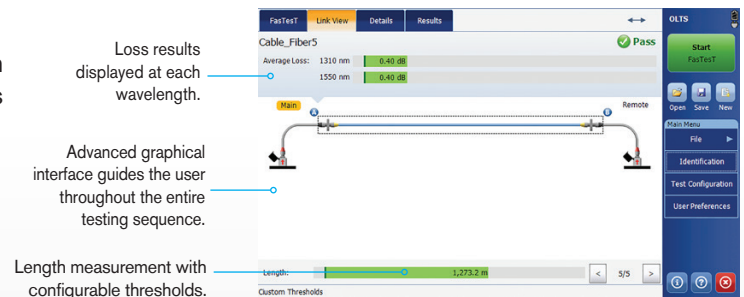#### Test shorter links than ever before

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

EXFO's patent-pending one-cord 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.

Loss results displayed at each wavelength.

Advanced graphical interface guides the user throughout the entire testing sequence.

Length measurement with configurable thresholds.

Test Efficiency

› FasTesT™: acquisition time in 3 seconds

› Online reporting—live from the field

› Maximum simplicity and fast-learning curve with on-board user assistance:

- **Port LED indicators**: guide the user through the referencing and testing processes. LED indicators show the user on which optical port to connect the fiber and a beep indicates that the connection is established to confirm continuity.

- **On-board diagnosis**: throughout the referencing and testing processes, the instrument delivers real-time information on the test cord health as well as pass/fail results according to pre-set or custom criteria. When performing testing, the instrument delivers diagnosis about the loss, length and can even identify the presence of a macrobend (refer to side picture).

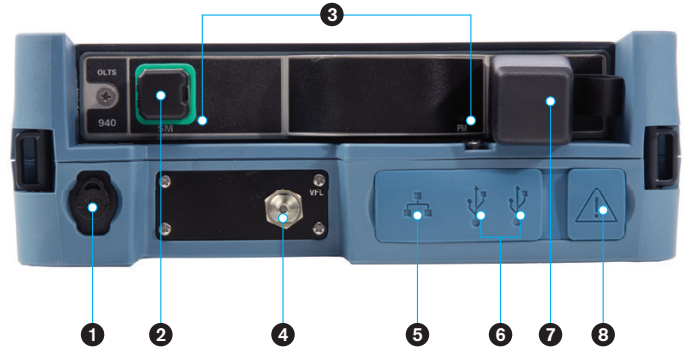- **Margin meters**: indicate the result status as well as the margin according to pre-set thresholds.

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

TABLET-INSPIRED DESIGN

With a 7-inch, high-resolution touchscreen—the most efficient display in the industry—the MAX-940 OLTS delivers an unprecedented user experience. It features integrated Wi-Fi/Bluetooth connectivity and instant boot up. The MAX-940 OLTS also ensures a full day of field work with 12 hours of battery autonomy and its internal memory capacity for 150,000 test results.

PACKAGED FOR EFFICIENCY

1. Stylus
2. FasTesT™ singlemode port
3. Led indicators
4. Visual fault locator (optional)
5. 10/100 Mbit/s Ethernet port
6. Two USB 2.0 ports
7. Power meter

8. AC adapter
9. Home/switch application and screen capture (hold)
10. Power on/off/standby
11. Battery LED status
12. Built-in Wi-Fi/Bluetooth
13. Stand support

KEEP YOUR CONNECTORS CLEAN.
KEEP YOUR NETWORK RUNNING SMOOTHLY.

AUTOMATION AT YOUR FINGERTIPS.

In combination with EXFO's automated fiber inspection probes and backed by FasTesT™, the MAX-940 OLTS allows for 100 % automated fiber inspection at both ends of the fiber link.

DISCOVER THE INDUSTRY'S FIRST FULLY AUTOMATED FIBER INSPECTION PROBE

Housing a unique automatic focus adjustment system, the FIP-400B 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**.

FIVE MODELS TO FIT YOUR BUDGET

The FIP-430B: complete and fully automated feature set, includes the powerful fiber image-centering system, focus adjustment and optimization, and on-board pass/fail analysis.

The FIP-435B: go one step further with the wireless probe. Includes all FIP-430B features.

The semi-automated FIP-420B: same features as the FIP-430B, without the automated focus adjustment.

The semi-automated FIP-425B: wireless version of the semi-automated FIP-420B.

The FIP-410B: all basic inspection features needed for manual inspection only.
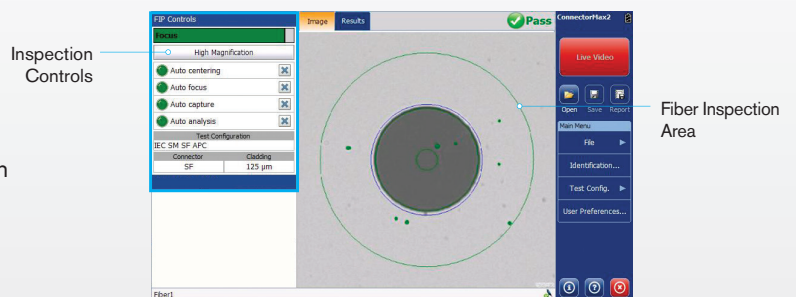
100%
Automated [a]

1-step
Process [a]

57%
Shorter Test Time [b]

FEATURES	USB WIRED			WIRELESS	
	Basic **FIP-410B**	Semi-Automated **FIP-420B**	Fully-Automated **FIP-430B**	Semi-Automated **FIP-425B**	Fully-Automated **FIP-435B**
Three magnification levels	✓	✓	✓	✓	✓
Image capture	✓	✓	✓	✓	✓
Five-megapixel CMOS capturing device	✓	✓	✓	✓	✓
Automatic fiber image-centering function	X	✓	✓	✓	✓
Automatic focus adjustment	X	X	✓	X	✓
On-board pass/fail analysis	X	✓	✓	✓	✓
Pass/fail LED indicator	X	✓	✓	✓	✓
Wi-Fi Connectivity	X	X	X	✓	✓

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
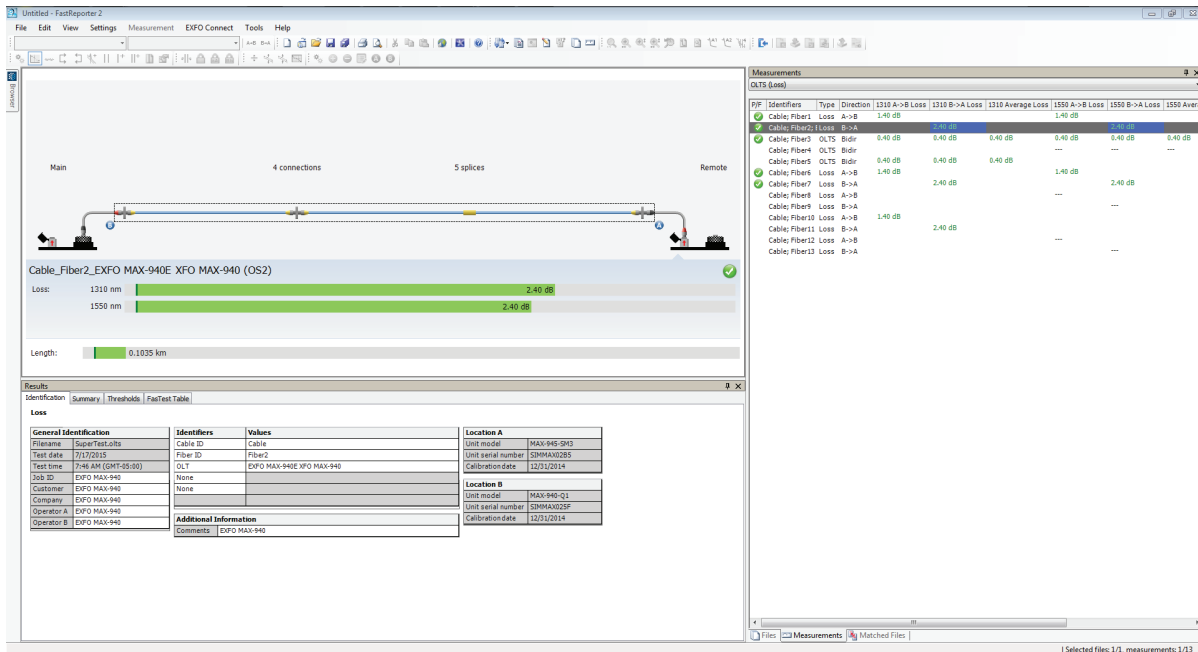
› Stores images and results for recordkeeping

Inspection Controls

Fiber Inspection Area

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FAST TRACK DATA POST-PROCESSING WITH FASTREPORTER 2

ONE SOFTWARE DOES IT ALL

This powerful reporting software is the perfect complement to your MAX-940 OLTS. It allows creating and customizing reports to fully address your needs.

Being able to rely on a single software to manage all your data and generate all your reports for your entire optical-layer test applications is your best option for maximum efficiency. FastReporter 2 was designed to handle everything for you.

CHALLENGE NO. 1 — EDITING MULTIPLE MEASUREMENT FILES

Batch documenting
› Document an entire project/cable
› Manage separate measurements simultaneously

Batch standardization
› Adjust cable and fiber parameters
› Add/remove OTDR events
› Adjust detection thresholds
› Perform manual measurements on OTDR files
› Set pass/fail thresholds

CHALLENGE NO. 2 — ANALYZING MULTIPLE MEASUREMENT FILES

Specialized analysis tool to:
› Perform OTDR-iOLM bidirectional batch analysis
› Detect duplicated measurements
› Easily identify results that don't meet network requirements
› Apply new configurations, threshold and/or standards in batch

CHALLENGE NO. 3 — DOCUMENTING YOUR NETWORK

Flexibility
› Various report templates and formats (PDF, Excel, HTML)
› Report customization via Excel or Crystal Reports
› Combined reports such as:
  - Fiber characterization (CD, PMD, OTDR and OLTS)
  - OTDR and fiber inspection (FIP)
  - iOLM and fiber inspection (FIP)

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FᴀsᴛTᴇsᴛ™ LOSS/LENGTH SPECIFICATIONS [a]

Testing speed [c]	3 seconds (two wavelengths, bidirectional, automated)
Wavelengths (nm)	SM (1310 ± 20) (1550 ± 20)
Emitter type	Laser (singlemode)
Length measurement range (km)	160
Length measurement uncertainty [c]	± (1.5 m + 0.5 % x length)
Loss range (dB) [c]	45

VISUAL FAULT LOCATOR (VFL) (OPTIONAL)

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

Notes

a. At 23 °C ± 1 °C and 1550 nm, on batteries and after a 15-minute warm up, unless specified otherwise.

b. Uncertainty is valid at calibration conditions.

c. Typical.

LASER SAFETY

If VFL option is available

IEC 60825-1:2007   21 CFR 1040.10
LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
λ: 650 ±10 nm
P_{out} maximum < 2mW

CLASS 1
LASER PRODUCT

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ENVIRONMENTAL SPECIFICATIONS

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

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 RJ-45 LAN 10/100 Mbit/s Optional Wi-Fi/Bluetooth option
Storage	2 GB internal memory (150 000 test results, typical)
Battery	Rechargeable lithium-polymer battery 12 hours of operation
Power supply	Power supply AC/DC adapter, input 100-240 VAC, 50-60 Hz
Warranty	3 years
Recommended recalibration period	3 years

Note

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

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ORDERING INFORMATION

MAX-940-XX-XX-XX-XX-XX-XX-XX

Model
MAX-940 = OLTS

Optical configuration
SM1 = Singlemode 1310/1550 nm, IL

Connector [g]
EI-EUI-28 = UPC/DIN 47256
EI-EUI-76 = UPC/HMS-10/AG
EI-EUI-89 = UPC/FC narrow key
EI-EUI-90 = UPC/ST
EI-EUI-91 = UPC/SC
EI-EUI-95 = UPC/E-2000
EI-EUI-98 = UPC/LC
EA-EUI-28 = APC/DIN 47256
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-95 = APC/E-2000
EA-EUI-98 = APC/LC

VFL
00 = Without VFL
VFL = With VFL

Wi-Fi and Bluetooth
00 = Without RF components
RF = With RF capability (Wi-Fi and Bluetooth)

Inspection probe model [a]
00 = Without inspection Probe

FP410B = Digital video inspection probe
          Triple magnification

FP420B = Analysis digital video inspection probe
          Automated pass/fail analysis
          Triple magnification
          Autocentering

FP425B = Wireless digital video inspection probe [f]
          Automated pass/fail analysis
          Triple magnification
          Autocentering

FP430B = Automated analysis digital video inspection probe
          Automated focus
          Automated pass/fail analysis
          Triple magnification
          Autocentering

FP435B = Wireless analysis digital video inspection probe [f]
          Automated focus
          Automated pass/fail analysis
          Triple magnification
          Autocentering

Example: MAX-940-EI-EUI-89-VFL-RF-FP435B-UPC

Extra FIP-400B tips [b]
Bulkhead tips
FIPT-400-FC-APC = FCAPC tip for bulkhead adapter
FIPT-400-FC-SC = FC and SC tip for bulkhead adapter [c]
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 [d]
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 [c]
FIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC [d]

Multifiber tips [e]
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
                    and 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 and
                    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 [e]

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

Notes

a. Includes ConnectorMax2 software.

b. 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 adaptors 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.

c. Included when UPC base tips are selected.

d. Included when APC base tips are selected.

e. Includes a bulkhead adapter for patch cord inspection.

f. RF option mandatory and included with this model.

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

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