

MaxTester 730C PON/METRO OTDR

OPTIMIZED FOR FTTx/MDU FIBER DEPLOYMENTS
AND TROUBLESHOOTING, SUITABLE FOR METRO



iOLM
READY

EXFO Connect
Compatible



NEW OTDR
GENERATION

Fully featured, entry-level, dedicated OTDR with tablet-inspired design, suitable for metro and optimized to test through optical splitters, for seamless end-to-end FTTH characterization and troubleshooting.

KEY FEATURES

Handy, lightweight, powerful, tablet-inspired design

7-inch, outdoor-enhanced touchscreen—the biggest in the handheld industry

12-hour autonomy

Dead zones: EDZ 0.6 m, ADZ 2.5 m

Dynamic range: 39/38/39 dB

Rugged design built for outside plant

iOLM-ready: intelligent and dynamic application that turns complex OTDR trace analysis into a one-touch task

APPLICATIONS

FTTx/PON testing through splitters (up to 1x128)

Access network testing (P2P)

Metro links testing (P2P)

Live fiber troubleshooting

COMPLEMENTARY PRODUCTS AND OPTIONS



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



Data Post-Processing Software
FastReporter 2



Soft Pulse Suppressor Bag
SPSB

EXFO

SPEC SHEET

THE HANDHELD OTDR... REINVENTED.

The MAX-700B/C Series is the first tablet-inspired OTDR line that is handy, lightweight and rugged enough for any outside plant environment. With a 7-inch, outdoor-enhanced touchscreen—the most efficient handheld display in the industry—it delivers an unprecedented user experience. Its intuitive Windows-like GUI ensures a fast learning curve. Plus, its new and improved OTDR 2 environment offers icon-based functions, instant boot-up, automatic macrobend finders as well as improved auto and real-time modes.

The Max-700B/C Series is a line of genuine high-performance OTDRs from the world's leading manufacturer. It delivers EXFO's tried and true OTDR quality and accuracy along with the best optical performance for right-first-time results, every time.

The amazing 12-hour battery life will never let a technician down, and the plug-and-play hardware options, like the VFL, power meter and USB tools, make every technician's job easier.

Most importantly, the Max-700B/C Series is finally bringing the iOLM, an intelligent OTDR-based application, to the handheld market. This advanced software turns even the most complex trace analysis into a simple, one-touch task.

Ultimately, the Max-700B/C Series is small enough to fit in your hand and big enough to fit all your needs!

THE ENTRY-LEVEL SOLUTION DESIGNED FOR ALL YOUR TESTING NEEDS

The MAX-730C PON/METRO OTDR is optimized to test through optical splitters up to 1x128, ensuring complete end-to-end FTTH characterization. The 1625-nm or 1650-nm, out-of-band, live testing port enables the efficient troubleshooting of active networks without affecting the signal of other clients. Plus, the high dynamic range makes it suitable for metro point-to-point testing.

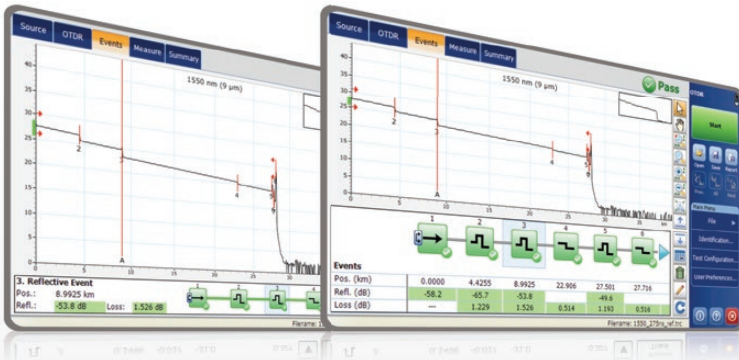
Other models available:

- › MAX-715B short access and FTTH last-mile installation and troubleshooting (30 dB)
- › MAX-720C LAN/WAN access OTDR—optimized for multimode and singlemode access network construction and troubleshooting

LOOKING FOR ICON-BASED MAPPING?

Linear View (Included on All EXFO OTDRs)

Available on our OTDRs since 2006, linear view simplifies interpretation of an OTDR trace by displaying icons in a linear way for each wavelength. This view converts the graph data points obtained from a traditional single pulse trace into reflective or non-reflective icons. With applied pass/fail thresholds, it becomes easier to pinpoint faults on your link.



This improved linear view offers you the flexibility to display both the OTDR graph and its linear view without having to perform a toggle to analyze your fiber link.

Although this linear view simplifies OTDR interpretation of a single pulse-width trace, the user must still set the OTDR parameters. In addition, multiple traces must often be performed in order to fully characterize the fiber links. See the section below to learn about how the iOLM can perform this automatically and with more accurate results.

iOLM—REMOVING THE COMPLEXITY FROM OTDR TESTING

OTDR TESTING COMES
WITH ITS LOAD OF
CHALLENGES...



WRONG
OTDR TRACES



COUNTLESS TRACES
TO ANALYZE



REPEATING THE
SAME JOB TWICE



COMPLEX INSTRUMENT
TRAINING/SUPPORT

iOLM | intelligent Optical
Link Mapper

In response to these challenges, EXFO developed a better way to test fiber optics:

The iOLM is an OTDR-based application designed to simplify OTDR testing by eliminating the need to configure parameters, and/or analyze and interpret multiple complex OTDR traces. Its advanced algorithms dynamically define the testing parameters, as well as the number of acquisitions that best fit the network under test. By correlating multipulse widths on multiple wavelengths, the iOLM locates and identifies faults with maximum resolution—all at the push of a single button.

HOW DOES IT WORK?

Dynamic
multipulse
acquisition



Intelligent
trace analysis



All results
combined into a
single link view



Comprehensive
diagnosis



Turning traditional OTDR testing into clear, automated, first-time-right results for technicians of any skill level.

Patent protection applies to the intelligent Optical Link Mapper, including its proprietary measurement software. EXFO's Universal Interface is protected by US patent 6,612,750.

THREE WAYS TO BENEFIT FROM THE iOLM

COMBO



Run both iOLM and OTDR applications (Oi code)

UPGRADE



Add the iOLM software option to your
iOLM-ready unit, even while in the field

iOLM ONLY



Order a unit with the iOLM
application only

iOLM FEATURES VALUE PACK

In addition to the standard iOLM feature set, you can select added-value features as part of the **Advanced** or **Pro** packages. Please refer to the intelligent Optical Link Mapper (iOLM) specification sheet for the complete and most recent description of these value packs.



ONE SOFTWARE DOES IT ALL

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



OPTICAL PLUG-AND-PLAY OPTIONS

The MaxTester 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, and can be performed by the user without the need for any software update.

Optical Power Meter

A high-level power meter (GeX) that can measure up to 27 dBm, the highest in the industry. This is essential for hybrid fiber-coaxial (HFC) networks or high-power signals. If used with an auto-lambda/auto-switching compatible light source, the power meter automatically synchronizes on the same wavelength, thus avoiding any risk of mismatched measurement.

- › Extensive range of connectors
- › Auto-lambda and auto-switching
- › Offers measurement storage and reporting
- › Seven standard calibrated wavelengths

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. The VFL visually locates and detects faults over distances of up to 5 km by creating a bright-red glow at the exact location of the fault on singlemode or multimode fibers (available with the Optical Power Meter only).

FIBER CONNECTOR INSPECTION AND CERTIFICATION—THE ESSENTIAL FIRST STEP BEFORE ANY OTDR TESTING



Taking the time to properly inspect a fiber-optic connector using an EXFO fiber inspection probe can prevent a host of issues from arising further down the line, thus saving you time, money and trouble. Moreover, using a fully automated solution with autofocus capabilities will turn this critical inspection phase into a fast and hassle-free one-step process.

DID YOU KNOW THAT THE CONNECTOR OF YOUR OTDR/iOLM IS ALSO CRITICAL?

The presence of a dirty connector at an OTDR port or launch cable can negatively impact your test results, and even cause permanent damage during mating. Therefore, it is critical to regularly inspect these connectors to ensure that they are free of any contamination. Making inspection the first step of your OTDR best practices will maximize the performances of your OTDR and your efficiency.

Connect^{or}Max2

FIVE MODELS TO FIT YOUR BUDGET

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	✗	✓	✓	✓	✓
Automatic focus adjustment	✗	✗	✓	✗	✓
Onboard pass/fail analysis	✗	✓	✓	✓	✓
Pass/fail LED indicator	✗	✓	✓	✓	✓
Wi-Fi Connectivity	✗	✗	✗	✓	✓

For additional information, please refer to the FIP-400B USB or FIP-400B wireless specification sheets.

SOFTWARE UTILITIES

Software update	Ensure that your MaxTester is up-to-date with the latest software.
VNC configuration	The Virtual Network Computing 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.
Wi-Fi connection	Wi-Fi probe interface, upload test results and browse the Internet.
Inspection probe	USB probe to inspect and analyze connectors.

PACKAGED FOR EFFICIENCY

- ❶ Singlemode OTDR port
- ❷ Singlemode OTDR live port
- ❸ Stylus
- ❹ Power meter
- ❺ Visual fault locator
- ❻ 10/100 Mbit/s Ethernet port
- ❼ Two USB 2.0 ports
- ❽ AC adapter
- ❾ Home/switch application and screen capture (hold)
- ❿ Power on/off/stand by
- ⓫ Battery LED status
- ⓬ Built-in Wi-Fi/Bluetooth
- ⓭ Stand support



SPECIFICATIONS^a

TECHNICAL SPECIFICATIONS	MAXTESTER 730C
Display	7-in (178-mm) outdoor-enhanced touchscreen, 800 x 480 TFT
Interfaces	Two USB 2.0 ports RJ45 LAN 10/100 Mbit/s
Storage	2 GB internal memory (20 000 OTDR traces, typical)
Batteries	Rechargeable lithium-polymer battery 12 hours of operation as per Telcordia (Bellcore) TR-NWT-001138
Power supply	Power supply AC/DC adapter, input 100-240 VAC, 50-60 Hz
Wavelength (nm) ^b	1310 ± 20/1550 ± 20/1625 ± 10/1650 ± 5
Dynamic range (dB) ^c	39/38/39/39
Event dead zone (m) ^d	0.6
Attenuation dead zone (m) ^e	2.5
PON dead zone (m) ^f	35
Distance range (km)	0.1 to 400
SM live port built-in filter	1625 nm: highpass >1595 nm isolation >50 dB from 1270 to 1585 nm 1650 nm: bandpass 1650 nm ± 7 nm isolation >50 dB out of 1650 nm ± 10 nm
Pulse width (ns)	3 to 20 000
Linearity (dB/dB)	±0.03
Loss threshold (dB)	0.01
Loss resolution (dB)	0.001
Sampling resolution (m)	0.04 to 10
Sampling points	Up to 256 000
Distance uncertainty (m) ^g	±(0.75 + 0.0025 % x distance + sampling resolution)
Measurement time	User-defined (maximum: 60 minutes)
Reflectance accuracy (dB)	±2
Typical real-time refresh (Hz)	4

Notes

a. All specifications valid at 23 °C ± 2 °C with an FC/APC connector, unless otherwise specified.

b. Typical.

c. Typical dynamic range with longest pulse and 3-minute averaging at SNR = 1.

d. Typical, for reflectance at -55 dB, using a 3-ns pulse.

e. Typical, for reflectance at -55 dB (at 1310 nm), using a 3-ns pulse. Attenuation dead zone at 1310 nm is 3.5 m typical with reflectance below -45 dB.

f. Non-reflective FUT, non-reflective splitter, 13-dB loss, 50-ns pulse, typical value.

g. Does not include uncertainty due to fiber index.

TECHNICAL SPECIFICATIONS (In-Line Power Meter)	
Input power range (dBm)	1490 nm: -65 to 18 1550 nm: -50 to 28
PON power meter (nm)	Two channels: 1490/1550
Broadband power meter (nm)	One channel: 1270 to 1625
Power uncertainty (dB) ^a	±0.2
Calibrated wavelengths (nm)	1310, 1490, 1550 and 1625
PON power meter spectral band (nm)	1450 to 1530
Broadband power meter spectral band (nm)	1270 to 1625
Display resolution (dB)	0.1
PON power meter ORL (dB) ^a	-55
Broadband power meter ORL (dB) ^a	-50

GENERAL SPECIFICATIONS

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 ³ / ₄ in)
Weight (with battery)	1.5 kg (3.3 lb)
Temperature	Operating: -10 °C to 50 °C (14 °F to 122 °F)
Storage	-40 °C to 70 °C (-40 °F to 158 °F) ^a
Relative humidity	0 % to 95 % noncondensing

SOURCE

Output power (dBm) ^b	-2.5
Modulation	CW, 1 kHz, 2 kHz

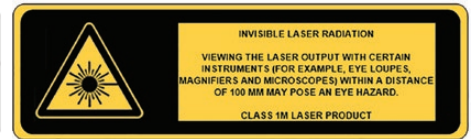
BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional) ^c

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm) ^d	27 to -50
Uncertainty (%) ^e	±5 % ± 10 nW
Display resolution (dB)	0.01 = max to -40 dBm 0.1 = -40 dBm to -50 dBm
Automatic offset nulling range ^{d,f}	Max power to -30 dBm
Tone detection (Hz)	270/330/1000/2000

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



ACCESSORIES

GP-10-061	Soft carrying case	GP-2144	USB 16G micro-drive
GP-10-072	Semi-rigid carrying case	GP-2155	Carry-on size backpack
GP-10-086	Rigid carrying case	GP-2205	DC vehicle battery-charging adaptor (12 V)
GP-1008	VFL adapter (2.5 mm to 1.25 mm)		
GP-2016	10-foot RJ45 LAN cable		

Notes

- a. -20 °C to 60 °C (-4 °F to 140 °F) with the battery pack.
b. Typical output power is given at 1550 nm.
c. At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery operated after 20-minute warm-up.
d. Typical.
e. At calibration conditions.
f. For ±0.05 dB, from 10 °C to 30 °C.

ORDERING INFORMATION

MAX-730C-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX

Model

MAX-730C = OTDR

Optical configuration

SM1 = SM OTDR, 1310/1550 nm

SM2 = SM OTDR, 1310/1550 nm and 1625 nm live ^a

SM3 = SM OTDR, 1310/1550/1625 nm

SM6 = SM OTDR, 1625 nm live

SM7 = SM OTDR, 1650 nm live

SM8 = SM OTDR, 1310/1550 nm and 1650 nm live ^a**Base Software**

OTDR = Enables OTDR application only

iOLM = Enables iOLM application only

Oi = Enables OTDR and iOLM applications

Connector

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

EI connectors = See section on next page

OPM Option ^b

00 = Without OPM Option

OPM = In-line power meter, one broadband channel

OPM2 = In-line power meter, dual channel 1490/1550 nm

iOLM Software Option ^c

00 = iOLM Standard

iADV = iOLM Advanced

iPRO = iOLM Pro

iCERT = iOLM tier-2 certification

Power Meter

00 = Without power meter

PM2X = Power meter; GeX detector

VPM2X = VFL and power meter; GeX detector

Power Meter Connector Adapter

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-54B = SC: SC/PC, SC/SPC, SC/UPC, SC/APC

FOA-78 = Radiall EC

FOA-96B = E-2000/APC

FOA-98 = LC

FOA-99 = MU

FastReporter software

00 = Without software option

FR2 = FastReporter 2 software

Wi-Fi and Bluetooth

00 = Without RF components

RF = With RF capability (Wi-Fi and Bluetooth) ^{d,e}**Extra FIPT-400B tips^f****Bulkhead tips**

FIPT-400-FC-APC = FCAPC tip for bulkhead adapter

FIPT-400-FC-SC = FC and SC tip for bulkhead adapter ^g

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 ^h

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 ^gFIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC ^h**Multifiber tipsⁱ**

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 ⁱ**Base Tips^j**

APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC

UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

Inspection probe model^k

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 ^e

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 ^e

Automated focus

Automated pass/fail analysis

Triple magnification

Autocentering

Example: MAX-730C-SM2-OI-EA-EUI-91-OPM2-iPRO-VPM2X-FOA-54B-FR2

Notes

a. The two ports are configured with the same adapter.

b. Available with SM2/SM6/SM7 and SM8 models

c. Please refer to the intelligent Optical Link Mapper (iOLM) specification sheet for the complete and most recent description of these value packs.

d. Not available in China.

e. Included with FP425B and FP435B probe options.

f. 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.

g. Included when UPC base tips are selected.

h. Included when APC base tips are selected.

i. Includes a bulkhead adapter for patch cord inspection.

j. Available if inspection probe is selected.

k. Includes ConnectorMax2 software.

EI CONNECTORS



To maximize the performance of your OTDR, EXFO recommends using APC connectors on singlemode port. These connectors generate lower reflectance, which is a critical parameter that affects performance, particularly in dead zones. APC connectors provide better performance than UPC connectors, thereby improving testing efficiency.

For best results, APC connectors are mandatory with the iOLM application.

Note: UPC connectors are also available. Simply replace EA-XX by EI-XX in the ordering part number. Additional connector available: EI-EUI-90 (UPC/ST).

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

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

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 the EXFO website at www.EXFO.com/specs.

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

Keep this document for future reference.