SPEC SHEET

MaxTester 730D PON/metro OTDR

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



- 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.

FROST & SULLIVAN 2016 BEST PRACTICES AWARD – GLOBAL PORTABLE FIBER OPTIC TEST EQUIPMENT MARKET LEADERSHIP AWARD

COMPATIBLE WITH EXchange

iOLM READY

ISE NETWORK INNOVATORS' AWARDS 3.5

Swap-Out connector

KEY FEATURES

- Rugged, handy, lightweight, tablet-inspired design built for outside plant
- 7-inch, outdoor-enhanced touchscreen—the biggest in the handheld industry
- 12-hour autonomy
- Dynamic range up to 39 dB for up to 132 km point-to-point (P2P)
- Short dead zones: event dead zone (EDZ) 0.5 m, attenuation dead zone (ADZ) 2.2 m, PON dead zone 30 m
- FTTx in-service testing at 1650 nm with optional in-line GPON/XGS-PON power meter
- Swap-Out connector, replaceable whenever necessary for optimal performance over time without undue service cost and downtime
- iOLM-ready: one-touch multiple acquisitions, with clear go/no-go results presented in a straightforward visual format
- Industry-leading onboard PDF reporting and post-processing, included for all users

APPLICATIONS

- FTTx/PON testing through splitters (up to 1×128)
- FTTx service activation: GPON, EPON, XGS-PON, 10GE EPON
- Access network testing (P2P)
- Metro links testing (P2P)
- Live fiber troubleshooting
- Passive optical LAN (POL)

RELATED PRODUCTS AND ACCESSORIES



Fiber inspection scope FIP-400B (Wi-Fi or USB)



Soft pulse suppressor bag SPSB



Swap-Out connector

FastReporter

Advanced data post-processing software

MHz MEGA HERTZ

EXFO

THE HANDHELD OTDR… WITH PROVEN PERFORMANCE

The MaxTester 700D Series builds on the proven tablet-inspired, lightweight and rugged OTDR MaxTester platform. The familiar 7-inch, outdoor-enhanced touchscreen continues to deliver an unprecedented user experience with its intuitive Windows-like GUI ensures a fast learning curve. The OTDR environment offers icon-based functions, instant boot-up, automatic macrobend finders as well as improved auto and real-time modes.

The MaxTester 700D 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 MaxTester 700D Series comes with the intelligent Optical Link Mapper (iOLM), an intelligent OTDR-based application. This advanced software turns even the most complex trace analysis into a simple, one-touch task.

Ultimately, the MaxTester 700D Series is small enough to fit in your hand and big enough to fit all your needs!

SECURE YOUR INVESTMENT AGAINST THEFT

Protected instruments have no value on the black market making them completely unappealing to thieves. With our security management option, administrators can define and load a tamper-proof security profile on the MaxTester, displaying a property message on the home screen and securing it with a user password (permanent or renewable).



LOOKING FOR ICON-BASED MAPPING?

Linear view (included with all EXFO OTDRs)

Available on our OTDRs since 2006, the 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.

SWAP-OUT CONNECTOR

The MaxTester 700D OTDR Series comes with a Swap-Out connector which can easily be changed, as and when needed, without having to send the test unit to a service center. This ensures optimal performance over time without undue maintenance costs and downtime. The OTDR's optical connector health can be checked with an onboard diagnostic tool to replace the connector only when necessary.

Maintain top optical performance, no downtime.

Worn connectors impact optical performance and may be the source of inaccuracies. Replace connectors directly from the field, no need to return the unit to the manufacturer or spend money on repairs.

Keep your calibration plan on track.

Your calibration date remains valid, even after swapping the connector. No need to calibrate your unit sooner than planned.

Replace only when needed.

A diagnosis of the optical port is provided by the built-in connector health checker, which allows to replace worn connectors in the field, only when necessary.



iOLM | intelligent Optical Link Mapper

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

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.

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 and options

In addition to the standard iOLM feature set, you can select added-value features as part of the **Advanced** packages or standalone options. Please refer to the **iOLM specification sheet** for the complete and most recent description of these features.

iOLM Standard

- Dynamic multipulse multiwavelength acquisition
- Intelligent traces analysis and diagnostics
- Single link view and event table
- SOR trace generation
- Single iOLM file per link for easy reporting
- Unbalanced/tapered PON characterization and troubleshooting
- **Optimode**: Short-link close events, fast short link, fast medium range

iOLM Advanced (iADV) [a]

- Real-time OTDR
- SOR pulse and wavelength editor
- SOR trace view
- Custom elements
- Advanced link edition and re-analysis
- 2:N splitter characterization
- **Optimode:** SFP-safe troubleshooting [b], PON last-mile certification

iLOOP [a]

- iOLM loopback (uni- or bidirectional)
- iOLM automated bidirectional analysis over TestFlow [b, c]

iCERT [a]

- Cabling certification option

a. Require enabling iOLM standard.
b. Configuration without splitter.
c. Requires TestFlow subscription.

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).

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

EXFO's high-level power meter (GeX) 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.

Visual fault locator (VFL)

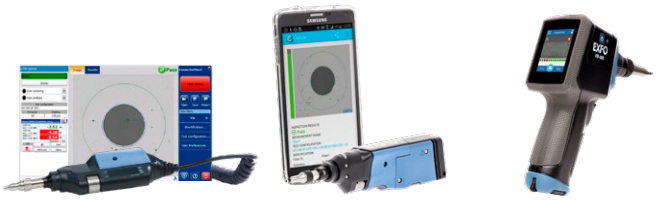
The plug-and-play VFL easily identifies breaks, bends, faulty connectors and splices, in addition to other causes of signal loss. This basic, yet essential troubleshooting tool should be part of every field technician's toolbox. The VFL visually locates and detects faults over distances of up to 5 km by creating a bright-red glow at the exact location of the fault (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 scope 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 is a proven best practice that will maximize your OTDR performance and your efficiency.



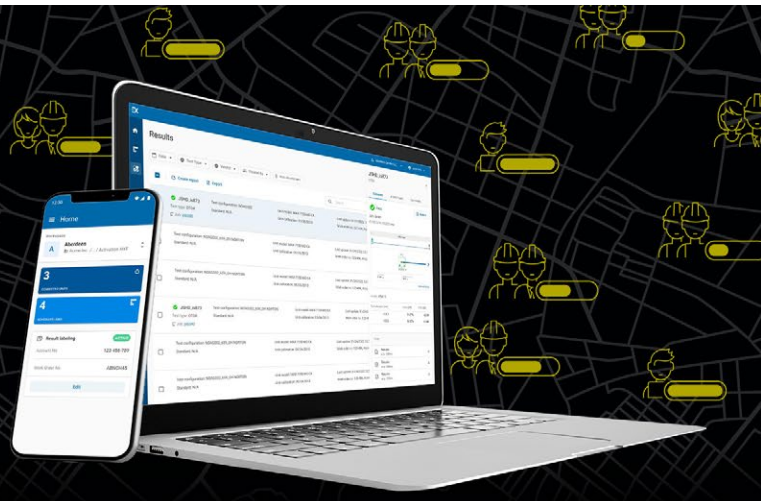
FEATURES	USB WIRED	WIRELESS	AUTONOMOUS
	FIP-430B	FIP-435B	FIP-500
Image capture	•	•	•
Five-megapixel CMOS capturing device	•	•	•
Automatic fiber image-centering function and focus adjustment	•	•	•
Automatic fiber image-focus adjustment	•	•	•
On-board pass/fail analysis	•	•	•
Pass/fail LED indicator	•	•	•
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			•
On-board touch screen and data storage			•
SmarTips with automated thresholds and quick-connect mechanism			•

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.

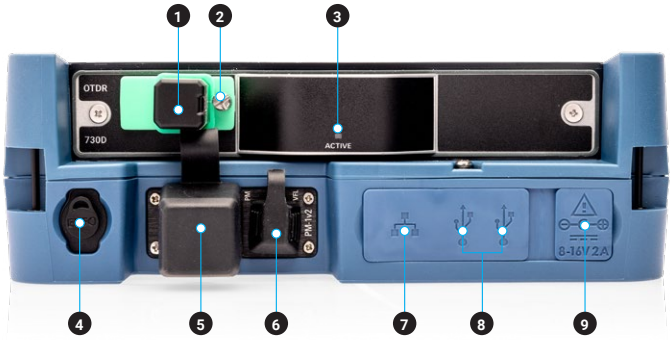
Get **started >**

EXFO

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.
Data mover	Transfer all your daily test results quickly and easily.
Centralized documentation	Instant access to user guides and other relevant documents.
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 FIP inspection scope interface. Upload test results.
Inspection scope	USB or Wi-Fi scope to inspect and analyze connectors.
FTP server	Exchange files over Wi-Fi to an FTP application on a smartphone for easier file sharing from the field.
Security management	Tamper-proof security profile with user password (permanent or renewable) and custom property message.

PACKAGED FOR EFFICIENCY

1. Singlemode OTDR port
2. Swap out connector screw
3. Testing LED indicator
4. Stylus
5. Power meter
6. Visual fault locator
7. 10/100 Mbit/s Ethernet port
8. Two USB 2.0 ports
9. AC adapter
10. Home/switch application and screen capture (hold)
11. Power on/off/stand by
12. Battery LED status
13. Built-in Wi-Fi/Bluetooth
14. Stand support









SPECIFICATIONS[a]

TECHNICAL SPECIFICATIONS	
Display	7-in (178-mm) outdoor-enhanced touchscreen, 800 × 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 ± 15
Live wavelength (nm)	1650 Isolation: 50 dB from 1265 nm to 1617 nm
Dynamic range (dB)[c]	39/39/39/39
Event dead zone (m)[d]	0.5
Attenuation dead zone (m)[d]	2.2
PON dead zone (m)[e]	30
Distance range (km)	0.1 to 400
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)[f]	±(0.75 + 0.0025 % × distance + sampling resolution)
Measurement time	User-defined
Reflectance accuracy (dB)[b]	±2
Typical real-time refresh (Hz)	4

IN-LINE POWER CHECKER[b, g, h]	
Power range (dBm)	–60 to 23
Power uncertainty (dB)[i, j]	±0.5
Calibrated wavelengths (nm)	1310, 1490, 1550, 1625, 1650
Selectable wavelengths (nm)	1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1577, 1590, 1610, 1625, 1650
Tone detection	270 Hz, 330 Hz, 1 kHz, 2 kHz

TECHNICAL SPECIFICATIONS (in-line PON power meter with OPM2 in option)[b, h]	
Power range (dBm)	–60 to 23
PON power meter (nm)	Two channels: 1490/1550 and 1490/1577
Power uncertainty (dB)[i, j]	±0.5
Calibrated wavelengths (nm)	1310, 1490, 1550, 1625, 1650
Selectable wavelengths (nm)	1310, 1490, 1550, 1577, 1625, 1650, 1490/1550, 1490/1577

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 three-minute averaging at SNR = 1.
d. Typical, for reflectance at –55 dB, using a 3-ns pulse.
e. Non-reflective FUT, non-reflective splitter, 13-dB loss, 50-ns pulse, typical value at 1550 nm.
f. Does not include uncertainty due to fiber index.
g. Not available when OPM2 is selected.
h. Specifications valid when OTDR not in operation or in idle mode.
i. At calibrated wavelengths.
j. Requires a good entry connector's health.

SOURCE

Output power (dBm) [a]	−3
Modulation	CW, 270 Hz, 330 Hz, 1 kHz, 2 kHz

GENERAL SPECIFICATIONS

Size (H × W × D)		166 mm × 200 mm × 68 mm (6 9/16 in × 7 7/8 in × 2 3/4 in)
Weight (with battery)		1.5 kg (3.3 lb)
Temperature	Operating Storage	−10 °C to 50 °C (14 °F to 122 °F) −40 °C to 70 °C (−40 °F to 158 °F) [b]
Relative humidity		0 % to 95 % non-condensing
Warranty (year)		1

BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional) [c]

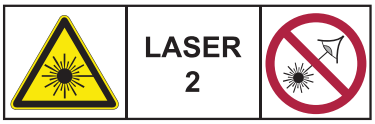
Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Selectable wavelenghts (nm)	850, 1300, 1310, 1490, 1550, 1577, 1625, 1650
Power range (dBm) [d]	27 to −50
Uncertainty (%) [e]	±5 % ± 10 nW
Display resolution (dB)	0.01 = max to −40 dBm 0.1 = −40 dBm to −50 dBm
Automatic offset nulling 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 (complies with FDA 1040.10 and IEC 60825-1:2014)

With VFL:



Without VFL:



ACCESSORIES (optional)

GP-10-061	Soft carrying case	GP-2209	Spare battery
GP-10-072	Semi-rigid carrying case	GP-2240	Utility glove
GP-10-100	Rigid carrying case	GP-2242	Replacement hand strap
GP-1008	VFL adapter (2.50 mm to 1.25 mm)	GP-2243	Spare AC/DC adapter (specify country power cord)
GP-2155	Carry-on size backpack	GP-3115	Kickstand
GP-2205	DC vehicle battery-charging adaptor (12 V)	GP-3207	Replacement APC Swap-Out connector
GP-2208	Spare stylus	GP-3208	Replacement UPC Swap-Out connector

a. Typical output power is given at 1550 nm.
b. −20 °C to 60 °C (−4 °F to 140 °F) with the battery pack.
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-730D-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX

Optical configuration
SM1 = SM OTDR, 1310/1550 nm
SM3 = SM OTDR, 1310/1550/1625 nm
SM7 = SM OTDR, 1650 nm live
SM8 = SM OTDR, 1310/1550 nm and 1650 nm live on single port

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 below

OPM option
00 = Without OPM2 option
OPM2 = In-line PON power meter mode (dual band) [a]

iOLM software pack [b]
00 = iOLM Standard
iADV = iOLM Advanced

Software option
00 = Without additional software option
iLOOP = iOLM loopback mode [b]
iCERT = iOLM tier-2 certification [b]
PSWRD = Security management option

Power meter
00 = Without power meter
VFL = Visual fault locator (650 nm)
PM2X = Power meter; GeX detector
VPM2X = VFL and power meter; GeX detector

Example: MAX-730D-SM8-OI-EA-EUI-91-OPM2-iADV-VPM2X-FOA-54B

Wi-Fi and Bluetooth
00 = Without RF components
RF = With RF capability (Wi-Fi and Bluetooth) [c, d]

Extra FIP-400B tips [e]
Bulkhead tips
FIPT-400-LC-SQ = LC tip for bulkhead adapters [f]
FIPT-400-LC-APC = LC/APC tip for bulkhead adapter [g]
FIPT-400-SC-APC = SC APC tip for bulkhead adapter [g]

Patchcord tips [h]
FIPT-400-U12M = Universal patchcord tip for 1.25 mm ferrules [f]
FIPT-400-U12MA = Universal patchcord tip for 1.25 mm ferrules APC [h]
FIPT-400-U25M = Universal patchcord tip for 2.5 mm ferrules [f]
FIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC [g]

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

Inspection scope model [i]
00 = Without inspection probe
FP430B = Automated analysis digital video inspection probe
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering
FP435B = Wireless analysis digital video inspection probe [d]
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering

Power meter connector adapter
FOA-22 = FC/PC, FC/SPC, FC/UPC, FC/APC
FOA-32 = ST: ST/PC, ST/SPC, ST/UPC
FOA-54B = SC: SC/PC, SC/SPC, SC/UPC, SC/APC
FOA-96B = E-2000/APC
FOA-98 = LC
FOA-99 = MU

a. Available with SM7 and SM8 models.
b. Please refer to the **iOLM specification sheet** for the complete and most recent description of these value packs. Only available if iOLM or Oi base software option is selected.
c. Not available in China.
d. Included with FP435B scope options.
e. 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.
f. Included when UPC base tips are selected.
g. Included when APC base tips are selected.
h. Includes a bulkhead adapter for patchcord inspection.
i. 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.

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).

Provided by: Mega Hertz | 800-883-8839 | info@go2mhz.com | www.go2mhz.com
https://www.go2mhz.com/product/maxtester-730d-pon-metro-otdr/

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