MaxTester 715B Last-Mile OTDR

POINT-TO-POINT (P2P) LINKS, LAST-MILE INSTALLATION AND TROUBLESHOOTING

Fully featured, entry-level, dedicated OTDR with tablet-inspired design perfect for frontline singlemode fiber installers.

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 1 m, ADZ 4 m
- Dynamic range of 30/28/28 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 last-mile installation and troubleshooting
- Short access-network testing
- FTTA fiber-DAS installations
- CATV/HFC network testing

COMPLEMENTARY PRODUCTS AND OPTIONS

- Fiber Inspection Probe FIP-400B
- Data Post-Processing Software FastReporter 2
- Soft Pulse Suppressor Bag SPSB

Marketed & Supported By:

canlitek

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EXFO
THE HANDHELD OTDR... REINVENTED.

The MAX-700B 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 OTDR2.0 environment offers icon-based functions, instant boot-up, automatic macrobend finders as well as improved auto and real-time modes.

The MAX-700B 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 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 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-715B OTDR/iOLM is optimized for the point-to-point testing and troubleshooting of FTTx architectures, and is ideal for testing short fibers (e.g., inside a CO environment or at FTTA/DAS network installations).

Other models available:
- MAX-720B Access for any short network construction (36 dB)
- MAX-730B FTTH/PON installation and maintenance for testing through optical splitters and P2P metro (39 dB)

REMOVING THE COMPLEXITY FROM THE OTDR

Using a unique and patented automated multipulse and multi-wavelength acquisition approach, the field-proven iOLM surpasses the traditional OTDR and linear view for expert-level link characterization of any fiber network.

This dynamic OTDR-based application uses EXFO’s most advanced algorithms to deliver detailed information and maximum resolution on every element of the link. Thanks to its unmatched intelligence and simplicity, the iOLM converts complex OTDR tests into clear and accurate go/no-go results, through a single button operation.

> Hardware optimized and intelligent software for maximum performance
> Multiple acquisitions, multiple wavelengths with one button—fully automated
> Expert-level characterization results in a single, comprehensive report
> The fastest and hassle-free way to perform full fiber characterization
> No training required: self-setting device with clear go/no-go results
> Minimized truck rolls, thanks to the simplest analysis, powered by Link-Aware™ technology

Three ways to benefit from the iOLM:

<table>
<thead>
<tr>
<th>OTDR combo (iOLM code)</th>
<th>Upgrade</th>
<th>iOLM only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run iOLM and OTDR applications on one unit</td>
<td>Add iOLM software option, even while in the field</td>
<td>Order a unit with the iOLM application only</td>
</tr>
</tbody>
</table>
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 you can do it by your own, without any software update required.

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 HFC networks or high-power signals. If used with an auto-lambda/auto-switching compatible light source, the power meter automatically syncs on the same wavelength 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. 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. (Available with the Optical Power Meter only)

FIBER CONNECTOR INSPECTION AND CERTIFICATION - THE ESSENTIAL FIRST STEP
Taking the time to properly inspect a fiber-optic cable can prevent a slew of problems down the line—saving you time, money and headaches.

FIP-430B | The First Fully Automated Fiber Inspection Probe for the Field
Housing a unique automatic focus adjustment system, the FIP-430B automates each operation in the connector endface inspection sequence, transforming this critical process into one quick and easy step, which can be performed by technicians of all skill levels.

3 Models to fit your budget:

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Basic FIP-410B</th>
<th>Semi-Automated FIP-420B</th>
<th>Fully-Automated FIP-430B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three magnification levels</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Image capture</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Five-megapixel CMOS capturing device</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Automatic fiber image-centering function</td>
<td>✗</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Automatic focus function</td>
<td>✗</td>
<td>✗</td>
<td>✔</td>
</tr>
<tr>
<td>On-board pass/fail analysis</td>
<td>✗</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Pass/fail LED indicator</td>
<td>✗</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Read the FIP-400B specification sheet or visit www.EXFO.com/keepthefocus for more information.

Notes:
- a. Model FIP-430B only
- b. Data sourced from EXFO's case study, with calculation based on typical analysis time.
## SOFTWARE UTILITIES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software update</td>
<td>Ensure that your MaxTester is up-to-date with the latest software.</td>
</tr>
<tr>
<td>VNC configuration</td>
<td>The Virtual Network Computing utility allows technicians to easily remote control the unit via a computer or laptop.</td>
</tr>
<tr>
<td>Microsoft Internet Explorer</td>
<td>Access the Web directly from your device interface.</td>
</tr>
<tr>
<td>Data mover</td>
<td>Transfer all your daily test results quickly and easily.</td>
</tr>
<tr>
<td>Centralized documentation</td>
<td>Instant access to user guides and other relevant documents.</td>
</tr>
<tr>
<td>Wallpapers</td>
<td>Enhance your work environment with colorful and scenic backgrounds.</td>
</tr>
<tr>
<td>PDF Reader</td>
<td>View your reports in PDF format.</td>
</tr>
<tr>
<td>Bluetooth file sharing</td>
<td>Share files between your MaxTester and any Bluetooth-enabled device.</td>
</tr>
<tr>
<td>Wi-Fi connection</td>
<td>Upload test results and browse the internet.</td>
</tr>
<tr>
<td>Inspection probe</td>
<td>USB probe to inspect and analyze connectors.</td>
</tr>
</tbody>
</table>

## PACKAGED FOR EFFICIENCY

1. Singlemode OTDR port
2. In-service testing OTDR port
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

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EXFO
# SPECIFICATIONS

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>MaxTester 715B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display</strong></td>
<td>7 in (178 mm) outdoor-enhanced touchscreen, 800 x 480 TFT</td>
</tr>
<tr>
<td>Interfaces</td>
<td>Two USB 2.0 ports, RJ-45 LAN 10/100 Mbit/s</td>
</tr>
<tr>
<td>Storage</td>
<td>2 GB internal memory (20 000 OTDR traces, typical)</td>
</tr>
<tr>
<td>Batteries</td>
<td>Rechargeable lithium-polymer battery</td>
</tr>
<tr>
<td></td>
<td>12 hours of operation as per Telcordia (Bellcore) TR-NWT-00113B</td>
</tr>
<tr>
<td>Power supply</td>
<td>Power supply AC/DC adapter, input 100-240 VAC, 50-60 Hz, 9-16 V DCIN 15 Watts minimum</td>
</tr>
<tr>
<td>Wavelength (nm)</td>
<td>1310/1550/1625</td>
</tr>
<tr>
<td>Dynamic range (dBm)</td>
<td>30/28/28</td>
</tr>
<tr>
<td>Event dead zone (m)</td>
<td>1</td>
</tr>
<tr>
<td>Attenuation dead zone (m)</td>
<td>4</td>
</tr>
<tr>
<td>Distance range (km)</td>
<td>0.1 to 160</td>
</tr>
<tr>
<td>Pulse width (ns)</td>
<td>5 to 20 000</td>
</tr>
<tr>
<td>Linearity (dB/10 dB)</td>
<td>±0.06</td>
</tr>
<tr>
<td>Loss threshold (dB)</td>
<td>0.01</td>
</tr>
<tr>
<td>Loss resolution (dB)</td>
<td>0.001</td>
</tr>
<tr>
<td>Sampling resolution (m)</td>
<td>0.04 to 6</td>
</tr>
<tr>
<td>Sampling points</td>
<td>Up to 256 000</td>
</tr>
<tr>
<td>Distance uncertainty (m)</td>
<td>±0.75 ± 0.005 % x distance + sampling resolution</td>
</tr>
<tr>
<td>Measurement time</td>
<td>User-defined (60 min. maximum)</td>
</tr>
<tr>
<td>Reflectance accuracy (dB)</td>
<td>±2</td>
</tr>
<tr>
<td>Typical real-time refresh (Hz)</td>
<td>3</td>
</tr>
<tr>
<td>Laser safety</td>
<td>1M</td>
</tr>
</tbody>
</table>

**Notes**

a. All specifications valid at 23 °C ± 3 °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 below -35 dB, using a 5-ns pulse.

e. Typical for reflectance below -55 dB, using a 5-ns pulse. Attenuation dead zone at 1310 nm is 5 m typical with reflectance below -45 dB.

f. Does not include uncertainty due to fiber index.
GENERAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (H x W x D)</td>
<td>200 mm x 155 mm x 68 mm</td>
</tr>
<tr>
<td>Weight (with battery)</td>
<td>1.29 kg (2.8 lb)</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-10 °C to 50 °C (14 °F to 122 °F)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40 °C to 75 °C (-40 °F to 167 °F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>0 % to 95 % noncondensing</td>
</tr>
</tbody>
</table>

SOURCE (optional)

- Output power (dBm): -11.5
- Modulation: CW, 1 kHz, 2 kHz

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

- Calibrated wavelengths (nm): 850, 1300, 1310, 1490, 1550, 1625, 1650
- Power range (dBm): 27 to -50
- Uncertainty (dB): ±5 ± 10 mW
- Display resolution (dB): 0.01 = max to -40 dBm
  0.1 = -40 dBm to -50 dBm
- Automatic offset nulling range: Max power to -34 dBm
- Tone detection (Hz): 270/330/1000/2000

VISUAL FAULT LOCATOR (VFL) (optional)

- Laser: 850 nm ± 10 nm
- CW/Modulate: 1 Hz
- Typical P_{av} in 62.5/125 μm: > -1.5 dBm (0.7 mW)
- Laser safety: Class 2

LASER SAFETY

**CAUTION: VIEWING THE LASER OUTPUT WITH CERTAIN OPTICAL INSTRUMENTS (FOR EXAMPLE, EYE LOUPES, MAGNIFIERS AND MICROSCOPES) WITHIN A DISTANCE OF 100 MM MAY POSE AN EYE HAZARD.**

ACCESSORIES

| GP-10-072 Semi-rigid carrying case | GP-2016 10-foot RJ-45 LAN cable |
| GP-10-086 Rigid carrying case     | GP-2144 USB 160 micro-drive    |
| GP-302 USB mouse                  | GP-2155 Carry-on size backpack |
| GP-1008 VFL adapter (2.5 mm to 1.25 mm) | GP-2205 DC vehicle battery-charging adaptor (12 V) |
| GP-2001 USB keyboard              | GP-2207 Stand support         |

Notes

a. -30 °C to 69 °C (-2 °F to 160 °F) with the battery pack.
b. Typical output power is given at 1550 nm.
c. At 23 °C ± 1 °C, 1550 nm and FC connectors with modules in idle mode. Battery operated after 20-minute warm-up.
d. Typical.
e. At calibration conditions.
f. For ±0.85 dB, from 0 °C to 30 °C.
**ORDERING INFORMATION**

**MAX-715B-XX-XX-XX-XX-XX-XX-XX**

**Model**
M1 = Last-mile OTDR, 1310/1550 nm (9/125 µm)
M2 = Last-mile OTDR, 1510/1550 nm and 1625 nm (9/125 µm)
M3 = Last-mile OTDR, 1310/1550/1625 nm (9/125 µm)

**OTDR software options**
- OTDR = Enables OTDR application only
- IOLM = Enables the IOLM application only
- OI = Enables OTDR and IOLM applications

**Connector**
- EA-EUI-28 = APC/DIN 47626
- EA-EUI-99 = APC/PC narrow key
- EA-EUI-91 = APC/SC
- EA-EUI-95 = APC/PC/2000
- EA-EU-69 = APC/LC
- EI-connectors = See note below

**Connectivity**
- O0 = Without RF components
- RF = With RF capability (WiFi and Bluetooth)

**Power meter**
- O0 = Without power meter
- PMAX = Power meter; GaX detector
- VPMxx = VFL and power meter; GaX detector

**Software options**
- OC = Without any software option
- SRC = Source through OTDR port

**Inspection probe base tips**
- APC = Includes FPT-400-02/SC and FPT-400-APC
- UPC = Includes FPT-400-SC and FPT-400-FC

**Inspection probe model**
- FP410B = Digital video inspection probe
- FP420B = Analysis digital video inspection probe
  Automated pass/fail analysis
  Triple magnification
  Autocentering

**Connector adapter**
- F0A-12 = Biconic
- F0A-14 = NEC D4: FC, SC, UPC
- F0A-16 = SMA505, SMA-905
- F0A-32 = FC/PC, FC/SC, FC/UPC, FC/APC
- F0A-38 = DIN 47626, DIN 47626/FC
- F0A-92 = ST: ST/FC, ST/SC, ST/UPC
- F0A-76 = Radial FC
- F0A-26B = E-2000/APC
- F0A-99 = LC
- F0A-99 = MU


**Notes**
- a. Available if inspection probe is selected.
- b. Includes ConnectorMax2 software.
- c. Available if power meter is selected.

**EI CONNECTORS**

To maximize the performance of your OTDR, EXFO recommends using APC connectors. 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-XXX in the ordering part number. Additional connectors available are the EI-EUI-76 (UPC/MS-10/AG) and EI-EUI-96 (UPC/ST).

---

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**Registered Office**

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