

# MaxTester 710B 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 dB

Rugged design built for outside plant

## APPLICATIONS

FTTx last-mile installation and troubleshooting

Short access network testing

FTTA-fiber DAS installations

CATV/HFC network testing

## COMPLEMENTARY PRODUCTS AND OPTIONS



Data Post-Processing Software  
FastReporter 2



Soft Pulse Suppressor Bag  
SPSB



## COST-OPTIMIZED AND COMPREHENSIVE OTDR

The MAX-710B is the first tablet-inspired OTDR 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 and Windows-like GUI ensures a fast learning curve. Plus, its new and improved OTDR 2.0 environment offers icon-based functions, instant boot-up, automatic macrobend finders as well as improved auto and real-time modes.

The Max-710B is a genuine last-mile OTDR from the world's leading manufacturer. It delivers EXFO's tried and true OTDR quality and accuracy along with the best optical performance for first-time-right results, every time. It 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).

In addition to its amazing 12-hour battery life that will never let you down, it offers plug-and-play hardware options, like the VFL, power meter and USB tools.

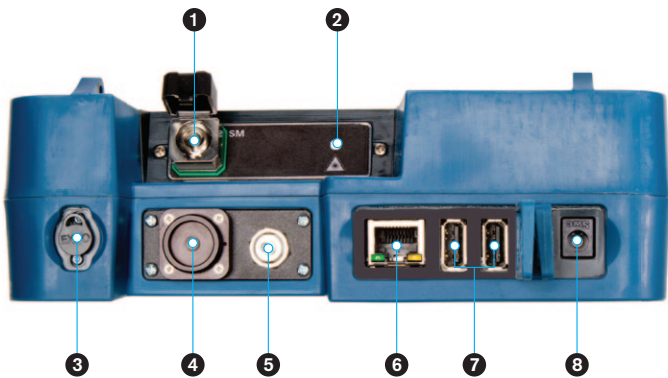
Ultimately, the Max-710B is small enough to fit in your hand and big enough to fit all your needs!

### SOFTWARE UTILITIES

|                                    |  |
|------------------------------------|--|
| <b>Software update</b>             | Ensure that your MaxTester is up-to-date with the latest software.   |
| <b>VNC configuration</b>           | The Virtual Network Computing utility allows technicians to easily control the unit remotely using a computer or laptop. |
| <b>Microsoft Internet Explorer</b> | Access the Web directly from your device interface.  |
| <b>Data mover</b>                  | Transfer all your daily test results quickly and easily.   |
| <b>Centralized documentation</b>   | Instant access to user guides and other relevant documents.  |
| <b>Wallpapers</b>                  | Enhance your work environment with colorful and scenic backgrounds.  |
| <b>PDF Reader</b>                  | View your reports in PDF format.   |

## PACKAGED FOR EFFICIENCY

- 1 Singlemode OTDR port
- 2 Testing LED indicator
- 3 Stylus
- 4 Power meter
- 5 Visual fault locator
- 6 10/100 Mbit/s Ethernet port
- 7 Two USB 2.0 ports
- 8 AC adapter
- 9 Home/switch application and screen capture (hold)
- 10 Power on/off/standby
- 11 Battery LED status



SPECIFICATIONS<sup>a</sup>

| TECHNICAL SPECIFICATIONS               | MAXTESTER 710B  |
|--|---|
| Display                                | 178 mm (7 in) outdoor-enhanced touchscreen, 800 x 480 TFT   |
| Interfaces                             | Two USB 2.0 ports<br>RJ-45 LAN 10/100 Mbit/s  |
| Storage                                | 2 GB internal memory (20 000 OTDR traces, typical)  |
| Batteries                              | Rechargeable lithium-polymer battery<br>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, 9-16 V DCIN 15 Watts minimum                   |
| Wavelength (nm) <sup>b</sup>           | 1310/1550   |
| Dynamic range (dB) <sup>c</sup>        | 30/28   |
| Event dead zone (m) <sup>d</sup>       | 1   |
| Attenuation dead zone (m) <sup>d</sup> | 4   |
| Distance range (km)                    | 0.1 to 160 km   |
| Pulse width (ns)                       | 5 ns to 20 us   |
| Linearity (dB/dB)                      | ±0.05   |
| Loss threshold (dB)                    | 0.01  |
| Loss resolution (dB)                   | 0.001   |
| Sampling resolution (m)                | 0.04 to 5   |
| Sampling points                        | Up to 256 000   |
| Distance uncertainty (m) <sup>e</sup>  | ±(0.75 + 0.005 % x distance + sampling resolution)  |
| Measurement time                       | User-defined (60 min. maximum)  |
| Reflectance accuracy (dB)              | ±2  |
| Typical real-time refresh (Hz)         | 3   |
| Laser safety                           | 1M  |

**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 three-minute averaging at SNR = 1.
- d. Typical dead zone 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.
- e. Does not include uncertainty due to fiber index.

**GENERAL SPECIFICATIONS**

|                       |  |
|-----------------------|--|
| Size (H x W x D)      | 200 mm x 155 mm x 68 mm (7 <sup>7</sup> / <sub>8</sub> in x 6 <sup>1</sup> / <sub>8</sub> in x 2 <sup>3</sup> / <sub>4</sub> in) |
| Weight (with battery) | 1.29 kg (2.8 lb)   |
| Temperature           | Operating: -10 °C to 50 °C (14 °F to 122 °F)<br>Storage: -40 °C to 70 °C (-40 °F to 158 °F) <sup>a</sup>                         |
| Relative humidity     | 0 % to 95 % noncondensing  |

**SOURCE (optional)**

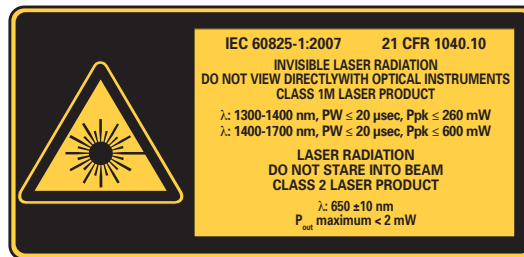
|                                 |                  |
|---------------------------------|------------------|
| Output power (dBm) <sup>b</sup> | -11.5            |
| Modulation                      | CW, 1 kHz, 2 kHz |

**BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional)<sup>c</sup>**

|   |   |
|---|---|
| Calibrated wavelengths (nm)                   | 850, 1300, 1310, 1490, 1550, 1625, 1650           |
| Power range (dBm) <sup>d</sup>                | 27 to -50   |
| Uncertainty (%) <sup>e</sup>                  | ±5 % ± 10 nW                                      |
| Display resolution (dB)                       | 0.01 = max to -40 dBm<br>0.1 = -40 dBm to -50 dBm |
| Automatic offset nulling range <sup>d,f</sup> | Max power to -34 dBm                              |
| Tone detection (Hz)                           | 270/330/1000/2000                                 |

**VISUAL FAULT LOCATOR (VFL) (OPTIONAL)**

|  |
|--|
| Laser, 650 nm ± 10 nm  |
| CW/Modulate 1 Hz   |
| Typical P <sub>out</sub> in 62.5/125 μm: > -1.5 dBm (0.7 mW) |
| Laser safety: Class 2  |

**LASER SAFETY**

COMPLIES WITH 21 CFR 1040.10  
 EXCEPT FOR DEVIATIONS PURSUANT  
 TO LASER NOTICE NO.50,  
 DATED JUNE 24, 2007.

**ACCESSORIES**

|           |                                 |         |  |
|-----------|---------------------------------|---------|--|
| GP-10-092 | Semi-rigid carrying case        | GP-2016 | 10-foot RJ-45 LAN cable                    |
| GP-10-093 | Rigid carrying case             | GP-2144 | USB 16G micro-drive                        |
| GP-302    | USB mouse                       | GP-2155 | Carry-on size backpack <sup>b</sup>        |
| GP-1008   | VFL adapter (2.5 mm to 1.25 mm) | GP-2205 | DC vehicle battery-charging adaptor (12 V) |
| GP-2001   | USB keyboard                    |         |  |

**Notes**

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

## ORDERING INFORMATION

## MAX-710B-XX-XX-XX-XX-XX-XX

**Model**

M1 = Last-mile OTDR, 1310/1550 nm (9/125 μm)

**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 note below

**OTDR software options**

OTDR = Enables OTDR application only

**Software options**

00 = Without any software option  
 SRC = Source through OTDR port

**Connector adapter<sup>a</sup>**

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-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC  
 FOA-78 = Radiall EC  
 FOA-96B = E-2000/APC  
 FOA-98 = LC  
 FOA-99 = MU

**Power meter**

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

Example: MAX-710B-M1-EA-EUI-91-Oi-VPM2X-FOA-22-SRC

**Note**

a. 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.

Note: UPC connectors are also available. Simply replace EA-XX by EI-XX in the ordering part number. Additional connectors available are the EI-EUI-76 (UPC/HMS-10/AG) and EI-EUI-90 (UPC/ST).

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