

# MaxTester 700 OTDR Series



Fully featured, dedicated portable OTDRs designed for your basic OTDR testing needs.

## KEY FEATURES

7-inch touchscreen

Dynamic range of up to 37 dB

Test through high-port-count splitters (up to 1x128)

Point-to-point link testing on more than 80 km

In-service troubleshooting port (1625 nm filtered)

## APPLICATIONS

FTTx/MDU passive optical network testing

Metro/access, last mile and FTTH/DAS, point-to-point link testing

## MAXTESTER 700 SERIES: COST-OPTIMIZED, YET COMPREHENSIVE OTDRS

The MaxTester 700 series comprises small, lightweight, dedicated portable OTDRs offering a large screen for easy manipulations. These affordable units integrate EXFO's renowned OTDR performance and value-added features in a basic solution that reflects today's needs. The MaxTester series comes in two models: the MaxTester 710 (last mile and access point-to-point OTDR) and the MaxTester 730 (metro and FTTH PON/MDU OTDR).

The MaxTester 710 is perfect for point-to-point last mile testing of passive optical networks (PON) within FTTx architectures. It is ideal for testing short fibers, e.g., inside a CO environment or in a fiber-to-the-antenna (FTTA) network.

The MaxTester 730 is designed for end-to-end testing through up to 1x128 splitters in a PON environment. The 1625 nm out-of-band live testing port allows for efficient troubleshooting. Metro point-to-point testing also makes it possible to test over 80 km of fiber, depending on the network topology.

### SOFTWARE APPLICATIONS



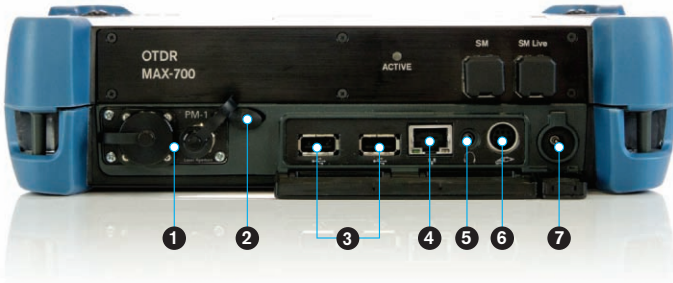
Providing lightning-fast results in the first step of fiber-link testing, ConnectorMax is the industry's first platform-based, automated connector inspection application; it delivers quick pass/fail assessment of connector endfaces and is specifically designed to save both time and money in the field.

### SOFTWARE UTILITIES

<b>Update Manager</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 communicate settings to remote colleagues.
<b>Microsoft Internet Explorer</b>	Access the Web directly from your platform interface.
<b>Bluetooth file sharing</b>	Share files from your MaxTester to any Bluetooth-enabled device.
<b>Wi-Fi connection</b>	Display available Wi-Fi connections and save your default settings.

## PACKAGED FOR EFFICIENCY

- 1 Power meter and VFL
- 2 Stylus
- 3 Two USB 2.0 ports
- 4 1 GigE port
- 5 Headset
- 6 Fiber inspection probe video port
- 7 AC adapter
- 8 Back stand
- 9 Speaker out
- 10 Brightness
- 11 Keyboard/screen capture
- 12 Switch application
- 13 Power on/off
- 14 Battery LED
- 15 Battery



SPECIFICATIONS<sup>a</sup>

TECHNICAL SPECIFICATIONS	MAXTESTER 710	MAXTESTER 730
Display	Touchscreen, color, 800 x 480 TFT, 178 mm (7 in)	Touchscreen, color, 800 x 480 TFT, 178 mm (7 in)
Interfaces	Two USB 2.0 ports RJ-45 LAN 10/100/1000 Mbit/s Fiber inspection probe connector port (video) Built-in Bluetooth and Wi-Fi (hardware option)	Two USB 2.0 ports RJ-45 LAN 10/100/1000 Mbit/s Fiber inspection probe connector port (video) Built-in Bluetooth and Wi-Fi (hardware option)
Storage	4 GB internal memory (flash)	4 GB internal memory (flash)
Batteries	Rechargeable lithium-ion batteries 7 hours of operation as per Telcordia (Bellcore) TR-NWT-001138	Rechargeable lithium-ion batteries 7 hours of operation as per Telcordia (Bellcore) TR-NWT-001138
Power supply	AC/DC adapter, input 100-240 VAC, 50-60 Hz, 1.6 A max, output 24 VDC, 3.75 A	AC/DC adapter, input 100-240 VAC, 50-60 Hz, 1.6 A max, output 24 VDC, 3.75 A
Computer	Intel ATOM processor Windows Embedded Standard operating system	Intel ATOM processor Windows Embedded Standard operating system
Wavelength (nm) <sup>b</sup>	1310 ± 20/1550 ± 20	1310 ± 20/1550 ± 20/1625 ± 10
Dynamic range (dB) <sup>c</sup>	29/28	37/35/35
Event dead zone (m) <sup>d</sup>	2.5	0.8
Attenuation dead zone (m)	10	4/4.5/4.5
Distance range (km)	Singlemode: 1.25, 2.5, 5, 10, 20, 40, 80, 160	Singlemode: 1.25, 2.5, 5, 10, 20, 40, 80, 160, 260
Pulse width (ns)	Singlemode: 5, 10, 30, 50, 100, 275, 500, 1000, 2500, 10 000, 20 000	Singlemode: 5, 10, 30, 50, 100, 275, 500, 1000, 2500, 10 000, 20 000
Linearity (dB/dB)	±0.03	±0.03
Loss threshold (dB)	0.01	0.01
Loss resolution (dB)	0.001	0.001
Sampling resolution (m)	Singlemode: 0.08 to 5	Singlemode: 0.04 to 5
Sampling points	Up to 64 000	Up to 128 000
Distance uncertainty (m) <sup>e</sup>	±(0.75 + 0.005 % x distance + sampling resolution)	±(0.75 + 0.0025 % x distance + sampling resolution)
Measurement time	User-defined (60 min. maximum)	User-defined (60 min. maximum)
Typical real-time refresh (Hz)	3	3
Stable source output power (dBm) <sup>f</sup>	-11	-2.5

**Notes**

- All specifications valid at 23 °C ± 2 °C with an FC/APC connector, unless otherwise specified.
- Typical.
- Typical dynamic range with longest pulse and three-minute averaging at SNR = 1.
- Typical dead zone for reflectance below -45 dB, using a 5 ns pulse.
- Does not include uncertainty due to fiber index.
- Typical output power is given at 1550 nm.

## GENERAL SPECIFICATIONS

Size (H x W x D)	190 mm x 252 mm x 66 mm (7 1/2 in x 9 15/16 in x 2 5/8 in)
Weight (with battery)	2.2 kg (4.7 lb)
Temperature	Operating: 0 °C to 50 °C (32 °F to 122 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F) <sup>a</sup>
Relative humidity	0 % to 95 % non-condensing

## ACCESSORIES

FP4S	400x fiber inspection probe	GP-2016	10 foot RJ-45 LAN cable
FP4D	200x/400x fiber inspection probe	GP-2028	Computer security cable kit
GP-10-086	Rigid carrying case	GP-2137	USB-to-RS-232 converter
GP-10-072	Semi-rigid carrying case	GP-2138	DC car adapter/inverter
GP-302	USB mouse	GP-2144	USB 16G micro-drive
GP-1002	Headset	GP-2155	Carry-on size backpack <sup>b</sup>
GP-1008	VFL adapter (2.5 mm to 1.25 mm)	GP-2158	Utility glove
GP-2001	USB keyboard		

PM-1 BUILT-IN POWER METER SPECIFICATIONS <sup>c</sup>

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm)	26 to -64 (GeX)
Uncertainty (%) <sup>d</sup>	±5 % ± 0.4 nW (GeX)
Display resolution (dB)	
GeX	0.01 = max to -54 dBm 0.1 = -50 dBm to -60 dBm 1 = -60 dBm to min
Automatic offset nulling range <sup>e</sup>	Max power to -40 dBm for GeX
Tone detection (Hz)	270/1000/2000

## LASER SAFETY



21 CFR 1040.10 AND IEC 60825-1:2007  
CLASS 1M WITHOUT VFL OPTION  
CLASS 3R WITH VFL OPTION

## VISUAL FAULT LOCATOR (VFL) (OPTIONAL)

Laser, 650 nm ±10 nm
CW
Typical P <sub>out</sub> in 62.5/125 μm: 3 dBm (2 mW)

## Notes

- 20 °C to 60 °C (-4 °F to 140 °F) with the battery pack.
- The selected model may change without notice.
- At 23 °C ± 1 °C, 1550 nm and FC connector. With modules in idle mode. Battery operated.
- Up to 5 dBm.
- For ±0.05 dB, from 18 °C to 28 °C.

**ORDERING INFORMATION**

**MAX-700-XX-XX-XX-XX-XX-XX-XX**

**Display and connectivity**

- S1 = TFT active screen
- S2-RF = Outdoor-enhanced screen with built-in Wi-Fi and Bluetooth
- RF = With RF capability (Wi-Fi and Bluetooth)

**Software options**

- 00 = Without any software option
- FPESA = ConnectorMax analysis software
- FPESAMF = ConnectorMax kit: single-fiber analysis and reporting; multiple fiber connector assessment wizard and reporting
- AD = Auto diagnostic for OTDR software (macroband detection summary functionality and fault finder)

**Power meter**

- 00 = Without power meter
- VFL1 = Visual fault locator only
- VPM2X = VFL platform; PM; GeX detector

**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-54 = SC: SC/PC, SC/SPC, SC/UPC, SC/APC
- FOA-78 = Radiall EC
- FOA-96B = E-2000 E-2000/APC
- FOA-98 = LC
- FOA-99 = MU
- WC2 = FOA-FC-ST-SC-LC

**Connector<sup>b</sup>**

- EA-EUI-28 = APC/DIN 47256
- EA-EUI-89 = APC/FC narrow key
- EA-EUI-91 = APC/SC
- EA-EUI-95 = APC/E-2000
- 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

**Model**

- MAX-710-M1 = MAX-710-ACCESS  
Last-mile singlemode OTDR module, 1310/1550 nm, 29/28 dB (9/125 μm)
- MAX-730-M1 = MAX-730-FTTx  
Singlemode OTDR module, 1310/1550 nm, 37/35 dB (9/125 μm)
- MAX-730-M2 = MAX-730-FTTx  
Singlemode OTDR module  
Port 1: 1310/1550 nm, 37/35 dB (9/125 μm)  
Port 2: filtered 1625 nm, 35 dB (9/125 μm)

**Probe**

- 00 = Without probe
- FP4S = Inspection probe (400x)
- FP4D = Inspection probe (200x/400x)

Example: MAX-700-S2-RF-FPSA-VPM2X-FOA-22-FP4D-MAX-710-M1-EI-EUI-89

**Notes**

- a. If power meter is selected.
- b. For the MAX-730-M2 model, the second available connector must be the same as the first connector 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 dead zones. APC connectors provide better performances than UPC connectors, thereby improving testing efficiency.

Note: UPC connectors are also available, simply replace EA-XX by EI-XX in the part number.

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EXFO is certified ISO 9001 and attests to the quality of these products. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. 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](http://www.EXFO.com/recycle). Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.

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Assessing  
Next-Gen Networks