MaxTester 700 OTDR Series

Please note that this model has been discontinued. For more information, visit EXFO.com

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 FTTA/DAS, point-to-point link testing

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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.

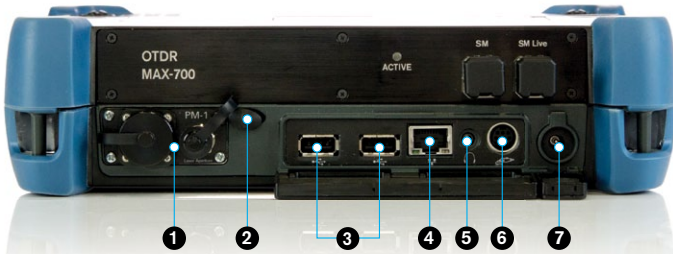## SOFTWARE APPLICATIONS

ConnectorMax

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

Update Manager	Ensure that your MaxTester is up-to-date with the latest software.
VNC configuration	The Virtual Network Computing utility allows technicians to easily communicate settings to remote colleagues.
Microsoft Internet Explorer	Access the Web directly from your platform interface.
Bluetooth file sharing	Share files from your MaxTester to any Bluetooth-enabled device.
Wi-Fi connection	Display available Wi-Fi connections and save your default settings.

*The MaxTester 700 OTDR Series is not part of the FTB Ecosystem.

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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 [a]

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) [b]	1310 ± 20/1550 ± 20	1310 ± 20/1550 ± 20/1625 ± 10
Dynamic range (dB) [c]	29/28	37/35/35
Event dead zone (m) [d]	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) [e]	±(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) [f]	−11	−2.5

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 −45 dB, using a 5 ns pulse.

e. Does not include uncertainty due to fiber index.

f. Typical output power is given at 1550 nm.

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GENERAL SPECIFICATIONS

Size (H x W x D)		190 mm x 252 mm x 66 mm (7 $\frac{1}{2}$ in x 9 $\frac{15}{16}$ in x 2 $\frac{5}{8}$ 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) [a]
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 [b]
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 [c]

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm)	26 to −64 (GeX)
Uncertainty (%) [d]	±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 [e]	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_{out} in 62.5/125 µm: 3 dBm (2 mW)

Notes

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

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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
FPSA = ConnectorMax analysis software
FPSAMF = ConnectorMax kit: single-fiber analysis and reporting; multiple
 fiber connector assessment wizard and reporting
AD = Auto diagnostic for OTDR software (macrobend 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 ᵃ
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

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

Connector ᵇ
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)
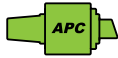 Port 2: filtered 1625 nm, 35 dB (9/125 μm)

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

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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