

# PXM/LXM

## MPO OPTICAL LOSS TEST SET (OLTS)

- Full-featured MPO-12 power meter and light source with the industry's fastest test speeds.
- Tier-1 MPO fiber certification with loss, polarity, and length measurement and on-board certification standards.



**FastReporter**  
Data post-processing software



### KEY FEATURES AND BENEFITS

- Leading FasTesT™ performance: test MPO-12 cables at 2 wavelengths in just 1 second
- Dual wavelength on light source
- Insertion loss measurement
- Polarity type validation
- Up to 25 km in length measurement
- On-board certification standards with dynamic loss calculator
- In-line visual fault locator (VFL) for fiber tracing on LXM
- Comprehensive results combined on one page
- PXM with contactless connector
- 4-inch color touchscreen
- Native MPO-12 connector on devices
- 3 year warranty and calibration interval

### RELATED PRODUCTS



Fiber inspection scope  
FIP-500



MPO cleaning kits

### APPLICATIONS

- Data centers
- Central offices
- Headends

### ON-BOARD CERTIFICATION STANDARDS

#### Network standards

- 40GBASE-SR4
- 100G-PSM4 2.0
- 100GBASE-SR4
- 100GBASE-SR2
- 200GBASE-DR4
- 200GBASE-SR4
- 400GBASE-DR4
- 400GBASE-SR4.2
- 400GBASE-SR8
- 128GFC-PSM4
- 128GFC-SW4
- 256GFC-SW4

#### Cabling standards

- ISO/IEC 14763-3:2014
- TIA568.3-D (inside plant)
- TIA-568.3-D (outside plant)
- EN50173:2011



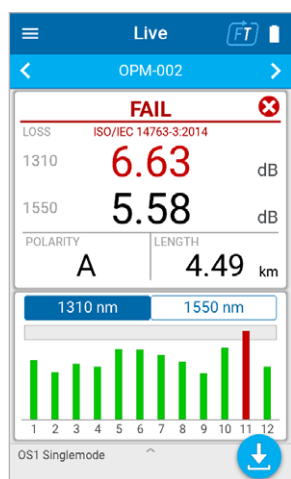
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## FasTesT™: MPO TESTING MADE SIMPLE AND FAST

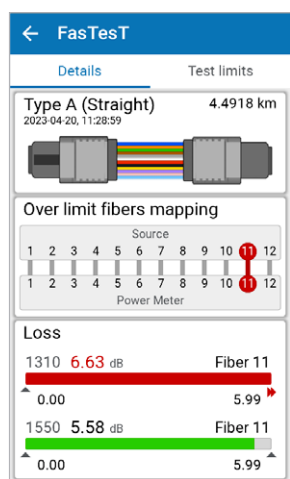
The PXM/LXM combo is an MPO tester designed to efficiently qualify a large number of MPO links. It tests MPO-12 cables at 2 wavelengths in just 1 second, the fastest test time in the industry. The FasTesT feature provides loss per channel at the 2 selected wavelengths, as well as the length and polarity type of the link under test automatically when continuity is detected.

## COMPREHENSIVE PASS/FAIL RESULTS COMBINED ON ONE PAGE

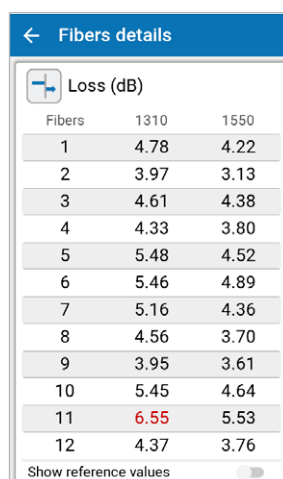
- Global pass/fail status and pass/fail per fiber with length measurement
- Insertion loss per wavelength
- Polarity type (A, B, C or U) with graphical representation
- Pass/fail on actual polarity type versus expected polarity type
- Full details available on FasTesT results and fiber results page



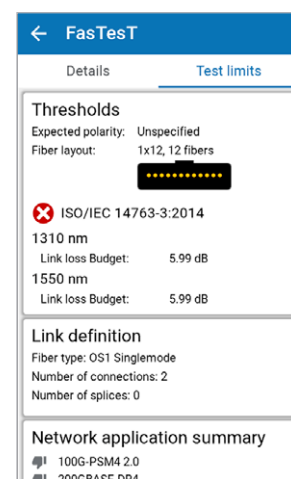
Power meter main screen



FasTesT details



Fiber details



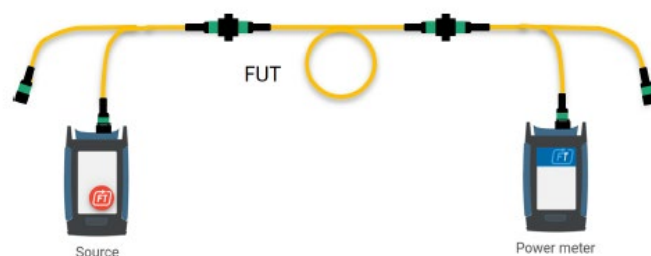
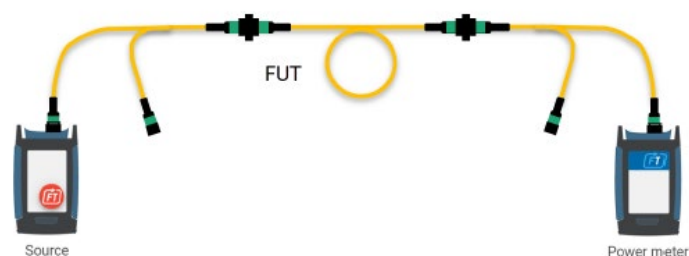
Pass/fail thresholds according to fibers layout selection

## IN-LINE VISUAL FAULT LOCATORS

The LXM light source includes a VFL that is in-line on the same port as the MPO source itself. Combining those two features on the same port makes them convenient to use. The VFL can trace a fiber right to the other end of the link so that the technician on the other end can easily find the MPO port to which they need to connect the PXM. The VFL also makes it easy to locate macrobends or breaks in the fiber.

## MPO-24 TESTING

While MPO-12 is the most common multifiber connector, MPO-24 is growing in popularity. The PXM/LXM OLTS can be used to test MPO-24 fibers with two MPO-24 to MPO-12 "Y" adapter cords. Fibers 1 through 12 are tested simultaneously, then the PXM/LXM OLTS is moved to the other cable in the adapter to test fibers 13-24. The results can later be combined in FastReporter 3.



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### Hybrid contactless connector

The PXM power meter contains a hybrid contactless connector that can accommodate both APC and UPC connectors, thus supporting multimode and singlemode link testing. This large core detector allows the PXM to give precise measurements with low uncertainty.



### Field-replaceable batteries

The battery is field-replaceable, so there's no need to send it back to the factory when the battery reaches the end of its lifecycle (counted in years).



### Long battery life

The PXM and LXM are powered by lithium-ion rechargeable batteries that can support 8 hours of continuous use.



### 4-inch color touchscreen

The PXM and LXM have integrated high-quality color touchscreens designed to be visible in full sun or dark areas, from any angle.

## FastReporter Reporting

Measurements made by the PXM power meter when measuring either power or loss can be processed in FastReporter post-processing PC software to generate reports.



### 3-year calibration

Cut costs related to factory returns and downtime.

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## SPECIFICATIONS

### PXM POWER METER SPECIFICATIONS<sup>c</sup>

Optical connector	Contactless MPO-12 male (pinned) supporting both APC and UPC. Connector with protective shutter.
Detector type	InGaAs
Power measurement range (dBm)	5 to -45
Power uncertainty (dB) <sup>a</sup>	±0.35
Linearity (dB) <sup>b</sup>	±0.1
Display resolution (dB)	0.01
Wavelength measurement range (nm)	850 to 1550
Calibrated wavelengths (nm)	850, 1300, 1310, 1550
Tone detection	270 Hz, 330 Hz, 1 kHz, 2 kHz
Auto-wavelength recognition and switching <sup>c</sup>	Yes
Length measurement	Up to 25 km depending on conditions with single mode and 1 km with multimode
Warm up time (s)	0
Storage capacity	10,000 measurements at two wavelengths
Warranty (years)	3
Calibration interval (years)	3

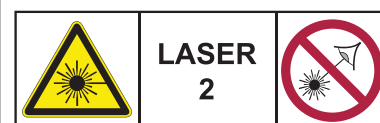
### LXM LIGHT SOURCE SPECIFICATIONS<sup>d</sup>

	LXM-SM1 (singlemode)	LXM-MM1 (multimode) <sup>g</sup>
Optical connector	APC MPO-12 male (pinned). Connector with protective shutter.	UPC MPO-12 male (pinned). Connector with protective shutter.
Source wavelengths (LED source) (nm) <sup>e</sup>	1310 ± 20 1550 ± 20	850 ± 25 1300 ± 20
Output power (dBm)	≥ -13/ ≥ -13	≥ -33/ ≥ -33
Stability (8 h) (dB) <sup>f</sup>	±0.1	±0.1
Warmup time (minutes)	15	15
Tone generation	270 Hz, 330 Hz, 1 kHz, 2 kHz	270 Hz, 330 Hz, 1 kHz, 2 kHz
Warranty (years)	3	3
Calibration interval (years)	3	3

### IN-LINE VFL SPECIFICATIONS (included on each LXM light source)<sup>h</sup>

Laser type (nm) <sup>e</sup>	635 ± 10
Modulation	CW, 1 Hz, 4 Hz
Typical power output (mW)	≤ 1
Laser safety	IEC 60825-1: Class 1

### LASER SAFETY



IEC 60825-1:  
Class 2

a. For calibrated wavelengths.

b. For the range -5 dBm to -40 dBm.

c. When used with an LXM MPO light source in FasTesT mode.

d. At 23 °C ± 2 °C.

e. Typical.

f. After a 15-minute warm-up.

g. Preliminary version.

h. VFL is only on certain channels not all 12.

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## GENERAL SPECIFICATIONS

Display	4-in touchscreen
Display type	Color display with capacitive touchscreen
Dimensions	171 mm × 93 mm × 48 mm (6 <sup>3</sup> / <sub>4</sub> in x 3 <sup>11</sup> / <sub>16</sub> in x 1 <sup>7</sup> / <sub>8</sub> in)
Weight (with battery)	0.5 kg (1 lb)
Interfaces	Bluetooth 5.1 with BLE
Data sharing	Via USB interface to PC (reporting via FastReporter 3)
Test speed	Loss and polarity measurement for MPO-12 cable at 2 wavelengths in 1 second
Temperature	Operating Storage
	-10 °C to 45 °C (14 °F to 113 °F) -40 °C to 60 °C (-40 °F to 140 °F)



GP-3151



GP-10-061



GP-2249



GP-153



GP-3157



GP-3198



GP-3199



GP-3150



FIP-500

## ACCESSORIES

<b>Carrying pouches and cases</b>	GP-3151	Soft pouch
	GP-10-061	Medium soft carrying case • Can contain a pair of PXM and LXM with related accessories and test cords
<b>Cleaning kits</b>	GP-2249	MPO cleaning supplies including: • ½ size QbE™ cube (qty: 1) • MX cleaning pen (qty: 1) • IBC™ brand cleaner for 1.25 mm connectors (qty: 1) • IBC™ brand cleaner for 2.5 mm connectors (qty: 1) • IBC™ brand cleaner for MPO style connectors (qty: 1)
	GP-153	IBC™ brand cleaner for MPO style connectors
<b>MPO test cord kits</b>	MPO-12-SM-TJ-KIT1	Singlemode MPO-12 test jumper kit • Covers pinned and unpinned configurations Includes: • TJ-B92F-12-92F MPO-12 singlemode test jumper APC connectors unpinned/unpinned (qty: 2) • TJ-B92F-12-92M MPO-12 singlemode test jumper APC connectors pinned/unpinned (qty: 2) • TJ-B92M-12-92M-A MPO-12 singlemode adapter cord test jumper APC connectors pinned/pinned (qty: 1) • RAC-MPO-12-TypeA MPO-12 bulkhead type A: opposite key (key up to key down) (qty: 3)
<b>Wrist strap</b>	GP-3157	Wrist strap
<b>Power adapters</b>	GP-3199	USB AC adapter
	GP-3198	USB-C to USB-C cable
<b>Battery</b>	GP-3150	Battery (qty: 1)
<b>FIP-500 for SM APC</b>	FIP-500-kit-2	MPO APC inspection Includes FIP-500-1 with interchangeable multi-fiber optical head (OHMF), MPO/APC SmarTip (STIP-MPO-A) and soft carrying case (GP-10-071)
<b>FIP-500 for MM UPC</b>	FIP-500-kit-1	MPO UPC inspection Includes FIP-500-1 with interchangeable multi-fiber optical head (OHMF), MPO/UPC SmarTip (STIP-MPO-U) and soft carrying case (GP-10-071)



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## ORDERING INFORMATION

## PXM (MPO power meter)

**Model** ■ **PXM**  
PXM = Multi-fiber power meter

## LXM (MPO light source)

**Configuration** ■ **LXM-XX**  
SM1 = Singlemode multi-fiber light source 1310/1550 nm  
MM1 = Multimode multi-fiber light source 850/1300 nm

Example: LXM-SM1

TK-PXM-LXM-SM1:  
MPO singlemode Tier-1 certification kit



PXM



LXM-SM1



MPO-12-SM-TJ-KIT1



GP-10-061

## ORDERING INFORMATION (KIT)

TK-PXM-LXM-SM1:  
MPO singlemode Tier-1 certification kit

## Includes:

- PXM: multi-fiber power meter
- LXM-SM1: singlemode multi-fiber light source 1310/1550 nm
- MPO-12-SM-TJ-KIT1: singlemode MPO-12 test jumper kit
- GP-10-061: medium soft carrying case

TK-PXM-LXM-MM1:  
MPO multimode Tier-1 certification kit

## Includes:

- PXM: multi-fiber power meter
- LXM-MM1: mode multi-fiber light source 1310/1550 nm
- MPO-12-MM-TJ-KIT1: multimode MPO-12 test jumper kit
- GP-10-061: medium soft carrying case

TK-PXM-LXM-Quad:  
MPO singlemode and multimode Tier-1 certification kit

## Includes:

- PXM: multi-fiber power meter
- LXM-SM1: singlemode multi-fiber light source 1310/1550 nm
- LXM-MM1: mode multi-fiber light source 850/1300 nm
- MPO-12-SM-TJ-KIT1: singlemode MPO-12 test jumper kit
- MPO-12-MM-TJ-KIT1: multimode MPO-12 test jumper kit
- GP-10-061: medium soft carrying case

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