

# FIP-500 fiber inspection scope

FOR FULLY AUTOMATED MULTI-FIBER, SINGLE-FIBER AND DUPLEX CONNECTOR INSPECTION

- Fastest inspection in the industry for single-fiber, multi-fiber and duplex connectors, with the most reliable results. Self-contained, fully automated tool for zero-button testing all day without the need to recharge batteries or offload results.



## KEY FEATURES AND BENEFITS

Best-in-class optical performance for accurate and repeatable results

Zero-button inspection: 100% automated from insertion to data saving (auto-detect, auto-brightness, auto-focus, auto-center, auto-capture, auto-analysis, auto-save and auto-reset<sup>a</sup>)

Fastest inspection in the industry (within 10 seconds for MPO-12 from connection to analyzed and saved result) and the ability to select and inspect active fibers only for even faster results

Automatic detection of MPO connector layout up to 4 rows of 8/12/16 fibers

Automated threshold adjustment with SmartTips

Wide array of adapter tips for single-fiber, multi-fiber and duplex connectors (e.g., LC, SC, ST, OptiTap®, OptiTip®, MPO, LC duplex, SN, CS QODC duplex)

Smartphone-grade 2.4-inch color touchscreen

Quick-connect design: quarter-turn click for switching between any tips

On-board connector endface analysis (as per IEC standards)

Test all day without any interruption:

- Long-lasting battery
- Stores up test results locally - 2000 (MPO-12) or 10 000 (single-fiber)

PDF reporting via mobile devices

## APPLICATIONS

Central offices, exchanges and headends

Data centers

Wireless (e.g., 5G, FTTA, DAA, small cells)

Fiber-to-the-home (FTTH)

## RELATED ACCESSORIES



Cleaning kits

## SPOT ON, EVERY TIME.

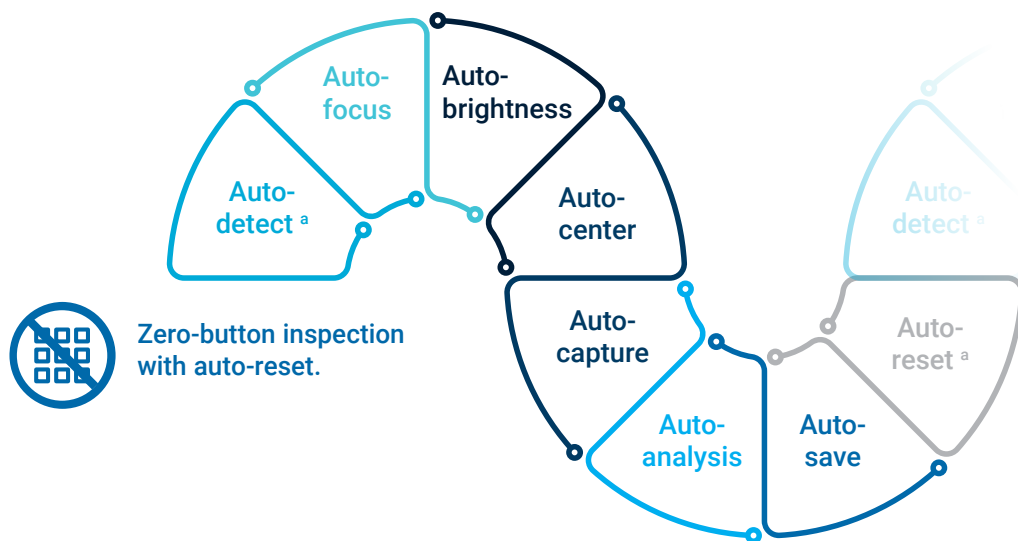
Delivering the most reliable pass/fail results in the industry, the FIP-500 relies on innovative image capture techniques:

- Enhanced illumination technique based on two LEDs.
- Violet LEDs (405-nm light) for better contrast.
- Custom-carved lenses for optimal image quality.
- Dual-core CPU.

This unprecedented visibility of the connector endface translates into optimal accuracy and repeatability.

## FAST MPO INSPECTION

Fully automated, the FIP-500 does everything on its own. It enables a truly zero-button inspection, in record time.



## Inspecting an MPO-12?

Simply insert a connector in the FIP-500 and—within 10 seconds—a pass/fail result is automatically obtained without the need for any settings or further manipulation.

## AUTOMATED THRESHOLD ADJUSTMENTS ON THE FIP-500

A great new feature in the latest FIP-500 software release—automatically adjust pass/fail thresholds to the type of connector under test by simply tapping a SmarTip on top of the FIP-500! This remarkable level of automation prevents threshold selection mistakes and makes fiber inspection easier than ever!



a. Auto-detect and auto-reset available in Q1 of calendar year 2022.

# Did you know?

Dirty or damaged connectors remain the no.1 cause of network outages worldwide.

With fiber going deeper everywhere and with the hassles in inspecting single- or multi-fiber connectors removed by the FIP-500, not testing is no longer a viable option.

**LESS HANDLING, MORE DOING.**



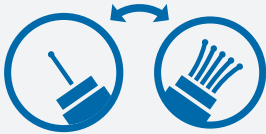
**Smartphone-grade touchscreen**

The FIP-500 has an integrated high-quality capacitive color touchscreen designed to be visible in the full sun or in dark areas, from any angle.



**Connectivity**

The FIP-500 can be connected via Bluetooth® to a smartphone for sharing results.



**Quick-connect tips**

Swap tips in a quarter-turn click, a small but life-changing innovation. No loose parts, not a second wasted. Tip switching can be done with one hand, if needed.



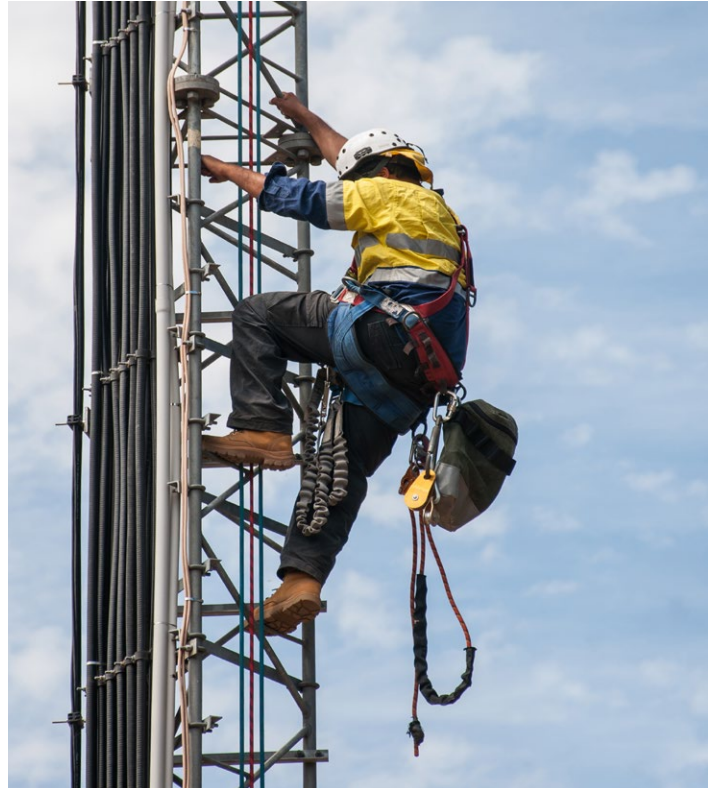
**Intuitive GUI**

Leveraging the capabilities of the touchscreen, the GUI is very user-friendly for any technician, regardless of their experience.



**Integrated flashlight**

Integrated flashlight to illuminate the port under inspection.



**Longer reach**

By design, the FIP-500 provides longer reach and better handling for inspection in dense fiber environments or on top of telecom towers.

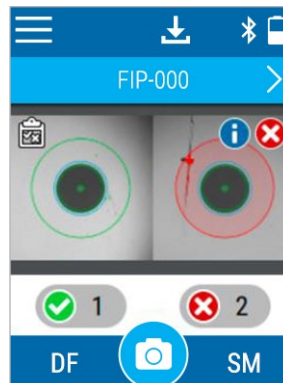


**WiFi software updates**

WiFi connectivity for easy software updates without the need to connect to any external device.

**THE ONLY FIBER INSPECTION SCOPE THAT SUPPORTS DUPLEX CONNECTORS**

Once you update your FIP-500's software, it will support simultaneous inspection of the two ferrules of duplex connectors such as LC duplex, SN and CS QODC duplex. Support for more connectors is on the way.



## TEST ALL DAY WITH LOTS OF BATTERY LIFE AND MEMORY



### Long battery life

The FIP-500 is powered by a lithium-polymer rechargeable battery which can support a full day of continuous use.



### High storage capacity

With an internal memory that can save up to 2000 MPO test results or 10 000 single-fiber test results, there is no need to stop and offload results. Bluetooth connectivity ensures that results can be shared easily.

These features, added to an ergonomic hand grip, all come together in helping the technician to close jobs all day without any interruption. This battery life and memory space combo is unique in the industry, and will give field teams equipped with the FIP-500 yet another solid advantage on the competition.

## COST OF OWNERSHIP

The FIP 500 was designed to make connector inspection easier, faster, and cheaper, so it pays for itself sooner.



### No training required

Zero-button, fully automated inspection combined to an intuitive GUI makes it easy for any technician to make the most of the FIP-500, without training.



### Fewer tips and no loose parts

By default, the FIP-500 provides a longer reach than regular tips, reducing the overall number of tips that a technician needs to carry around. The simple yet innovative quarter-turn mechanism used to fasten tips means that there are no loose parts that can easily be lost while changing tips.



### Field-replaceable batteries

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



### Future-proof

The FIP-500 supports the inspection of MPO connectors with up to 4 rows by default. Regular software updates will enable new features.



### Warranty

Comes with a 3-year warranty and EXFO's proven durability.

## PRINT YOUR OWN BENCHTOP STAND

Scan this QR code to download the CAD files and procedure to print your own support.



## PRODUCT OVERVIEW

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 Power button</li> <li>2 Battery led status</li> <li>3 Optical head (to switch between multi-fiber and single-fiber)</li> <li>4 Interchangeable tip to fit multi-fiber connector</li> <li>5 Trigger (for optional use)</li> <li>6 Dual-function LED:             <ul style="list-style-type: none"> <li>• Pass/Fail status</li> <li>• White flashlight to illuminate the port under inspection</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>7 Quick-connect mechanism to attach optical head and tip</li> <li>8 Touchscreen</li> <li>9 Protective bumper around screen</li> <li>10 Bumper material with texture on the handle to ensure good grip</li> <li>11 Hook for wrist strap</li> <li>12 USB C port for recharge</li> <li>13 Interchangeable tip to fit single-fiber connector</li> </ul> |
|---|--|



## SPECIFICATIONS

End-to-end inspection and analysis time <sup>a</sup>	MPO-12: 10 s MPO-24: 15 s Single-fiber: 4 s
Field of view	Multi-fiber: 1.9 mm x 4.8 mm Single-fiber: 0.75 mm x 0.75 mm
Camera sensor	2 sensors of 5 megapixel
Light source	2 violet LEDs at 415 ±15 nm
Lighting technique	Coaxial, pulsed
Display	2.4 in IPS color LCD 166 dpi + capacitive touchscreen
CPU	1.4 GHz dual core
Connectivity	Bluetooth® and WiFi
Battery type	Lithium-ion polymer (Li-Po) rechargeable battery
Autonomy	11 hours <sup>b</sup>
Connector	USB-C
Local storage capability	Multi-fiber: 2000 measurements Single-fiber: 10 000 measurements

## GENERAL SPECIFICATIONS

Size (H x W x D)	196 mm x 230 mm x 59 mm (7 <sup>3</sup> / <sub>4</sub> in x 9 <sup>1</sup> / <sub>16</sub> in x 2 <sup>5</sup> / <sub>16</sub> in)
Reach <sup>c</sup>	99 mm (3 <sup>15</sup> / <sub>16</sub> in)
Weight <sup>d</sup>	580 g (1.28 lb)
Temperature	Operating: -10 °C to 40 °C (14 °F to 104 °F) Storage: -20 °C to 60 °C (-4 °F to 140 °F)
Humidity range	0 % to 95 % non-condensing
Supported languages	English, French, Simplified Chinese, German, Spanish, Korean and Japanese



## ACCESSORIES (INCLUDED)

GP-2300	Protective cap and cord assembly
GP-2269	USB-A to USB-C cable (for charging only—no data transfer)
GP-2227	USB AC adapter (includes interchangeable plugs for Australia, Europe, North America and UK)

## ACCESSORIES (SOLD SEPARATELY OR INCLUDED WITH KITS)

GP-10-071	Small size soft carrying case
GP-2299	Compartmented plastic case for STIP and optical heads
GP-2302	Belt holster to carry FIP-500 and tips

a. Typical.

b. Typical. Measured in eco mode – backlight 35% – Bluetooth/WiFi off.

c. From FIP-500 body to the extremity of the adapter tip.

d. FIP-500 weight including optical head for multi-fiber (OHMF) and MPO UPC tip (STIP-MPO-U). Excluding the protective cap (GP-2300).

**ORDERING INFORMATION**

**FIP-500-KIT-XX**

**FIP-500 kits**

- 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)
- 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)
- FIP-500-kit-3 = MPO UPC and APC inspection  
Includes FIP-500-1 with interchangeable multi-fiber optical head (OHMF), MPO/UPC SmarTip (STIP-MPO-U), MPO/APC SmarTip (STIP-MPO-A) and soft carrying case (GP-10-071)

**FIP-500-XX-XX-XX-XX-XX**

**Configuration**<sup>a</sup>

1 = Supports interchangeable optical heads

**Optical head**<sup>b</sup>

OHMF = Multi-fiber optical head  
OHSF = Single-fiber optical head

**Multi-fiber tips**<sup>c</sup>

STIP-MPO-U = MPO/UPC SmarTip  
STIP-MPO-A = MPO/APC SmarTip  
STIP-MPO-A-KL = Keyless MPO/APC SmarTip  
STIP-OTIP-A = OptiTip/APC SmarTip  
STIP-QODC-12-U = QODC-12/UPC SmarTip  
STIP-QODC-12-A = QODC-12/APC SmarTip

**Single-fiber tips (cord)**<sup>d</sup>

STIP-U2.5-U = SmarTip for universal 2.5 mm, UPC patchcord  
STIP-U2.5-A = SmarTip for universal 2.5 mm, APC patchcord  
STIP-U1.25-U = SmarTip for universal 1.25 mm, UPC patchcord  
STIP-U1.25-A = SmarTip for universal 1.25 mm, APC patchcord

**Single-fiber tips (bulkhead)**<sup>d</sup>

STIP-SFADP-400 = FIP-500 adapter to support FIPT-400 single fiber tips  
STIP-LC-A = SmarTip for LC/APC bulkhead connector  
STIP-LC-U = SmarTip for LC/UPC bulkhead connector  
STIP-SC-FC-U = SmarTip for SC/UPC and FC/UPC bulkhead connector  
STIP-SC-A = SmarTip for SC/APC bulkhead connector  
STIP-OTAP-A = SmarTip for OptiTap bulkhead connector

Example: FIP-500-1-OHMF-OHSF-STIP-MPO-U-STIP-MPO-A-STIP-U2.5-A-STIP-U2.5-U

- a. More than one optical head or SmarTip can be ordered together with the FIP-500.
- b. Both optical heads can be purchased together.
- c. Multi-fiber optical head required.
- d. Single-fiber optical head required.

**EXFO headquarters** T +1 418 683-0211 **Toll-free** +1 800 663-3936 (USA and Canada)

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