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 [a])

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 SmarTips

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

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a. Auto-detect and auto-reset available in Q1 of calendar year 2022.
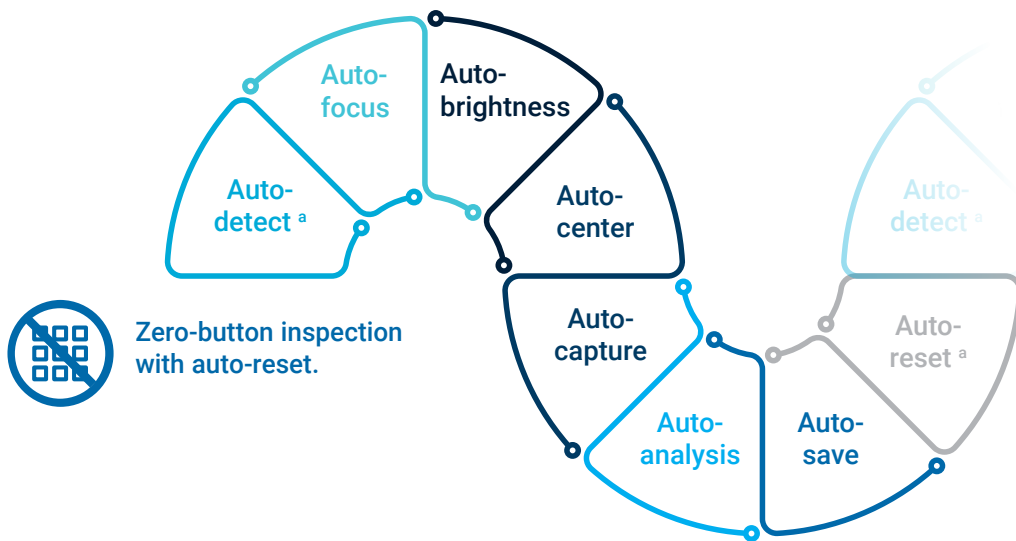
SPOT ON, EVERY TIME.

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.

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.

FAST MPO INSPECTION

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

Auto-focus
Auto-brightness
Auto-detect [a]
Auto-center
Auto-capture
Auto-analysis
Auto-save
Auto-reset [a]
Auto-detect [a]

Zero-button inspection with auto-reset.

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!

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

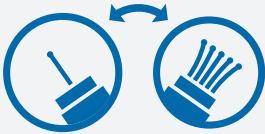# LESS HANDLING, MORE DOING.

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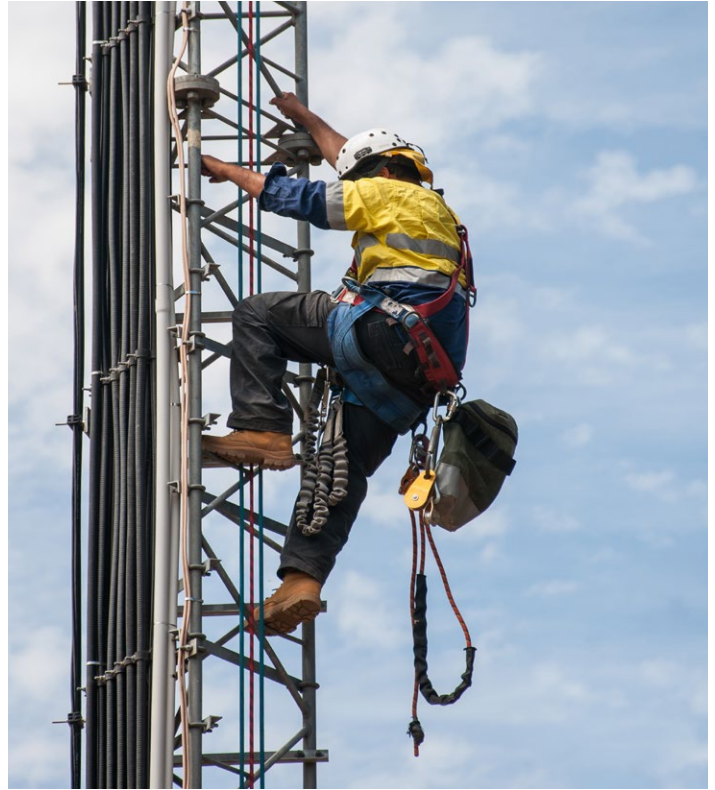
Intuitive GUI
Leveraging the capabilities of the touchscreen, the GUI is very user-friendly for any technician, regardless of their experience.

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.
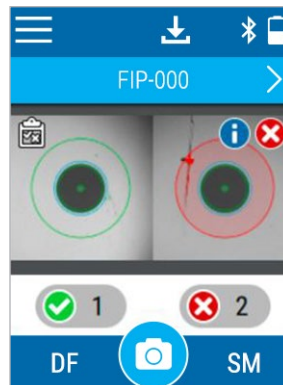
Integrated flashlight
Integrated flashlight to illuminate the port under inspection.

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.

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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.

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PRODUCT OVERVIEW

1. Power button
2. Battery led status
3. Optical head (to switch between multi-fiber and single-fiber)
4. Interchangeable tip to fit multi-fiber connector
5. Trigger (for optional use)
6. Dual-function LED:
   • Pass/Fail status
   • White flashlight to illuminate the port under inspection
7. Quick-connect mechanism to attach optical head and tip
8. Touchscreen
9. Protective bumper around screen
10. Bumper material with texture on the handle to ensure good grip
11. Hook for wrist strap
12. USB C port for recharge
13. Interchangeable tip to fit single-fiber connector

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SPECIFICATIONS

End-to-end inspection and analysis time [a]	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 [b]
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 $^3/_4$ in x 9 $^1/_{16}$ in x 2 $^5/_{16}$ in)
Reach [c]		99 mm (3 $^{15}/_{16}$ in)
Weight [d]		580 g (1.28 lb)
Temperature	Operating Storage	−10 °C to 40 °C (14 °F to 104 °F) −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

GP-2300 GP-2269 GP-2227 GP-2299 GP-2302

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).

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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[a]
1 = Supports interchangeable optical heads

Optical head[b]
OHMF = Multi-fiber optical head
OHSF = Single-fiber optical head

Multi-fiber tips[c]
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)[d]
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)[d]
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 that 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.

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