

# FIP-400B Fiber Inspection Scope Series

AUTOMATED WiFi & WIRED INSPECTION TOOL WITH EMBEDDED ANALYSIS



Fully automated fiber inspection solution delivering fast and consistent test results for single fiber connectors and also able to inspect multifiber connectors from a single tool. Simplifies the overall process providing accurate and consistent test results, and performing pass/fail assessments quickly and easily.

## KEY FEATURES

- 100% automated for single fiber connectors, one step inspection process
- Screenless operation enabled by pass/fail LED indicator
- On-board connector endface analysis (IEC or custom standards)
- Feature-rich ConnectorMax2 mobile application compatible with Android™ and iOS™ devices<sup>1</sup>
- Full reporting capabilities on mobile devices and EXFO test platforms
- All-day battery life that will never let you down<sup>1</sup>
- MF-ready scopes compatible with single-fiber and automated multi-fiber tips
- Manufacturing automation using REST API available upon request

## RELATED PRODUCTS AND OPTIONS



Fiber inspection scope  
FIP-500



Stand-alone display kit  
TK-MAX-FIP



Cleaning kits



Adapter tips,  
bulkhead adapters

## APPLICATIONS

- Central offices, exchanges and headends
- Data centers
- Wireless (e.g., 5G, FTTA, DAA, small cells)
- Fiber-to-the-home (FTTH)

## SUPPORTED CONNECTORS

- Single-fiber connectors such as SC, LC, FC, ST and others
- MPO, MTP<sup>2</sup>, Q-ODC-12<sup>3</sup>, HMFOC<sup>4</sup>, OptiTip<sup>5</sup> and MT connectors
- Single and dual-row, multi-fiber connectors (12/24 or 16/32)

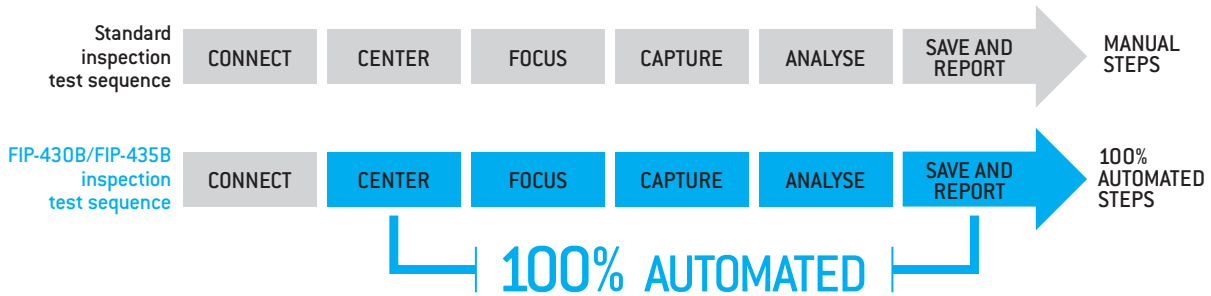
### Notes

- <sup>1</sup> Wireless models FIP-4X5B Series
- <sup>2</sup> MTP is a registered trademark of US Conec Ltd.
- <sup>3</sup> Q-ODC is a registered trademark of HUBER+SUHNER
- <sup>4</sup> HMFOC is a registered trademark of CommScope Inc.
- <sup>5</sup> OptiTip is a registered trademark of Corning Cable Systems

## AUTOMATING THE COMPLETE INSPECTION PROCESS

### Turning fiber inspection into a one-step process

Enabled by its unique automatic focus-adjustment system, the FIP-430B and FIP-435B automates each operation in the test sequence, transforming the critical inspection step into a quick and simple one-step process accessible to technicians of any skill level.



### Automated focus adjustment

Ensures that each connector image is captured at maximum quality for enhanced identification of defects.

### Focus protection

Prevents image capture in the event of improper focus adjustment. This ensures that no performance-affecting defects or residues are ignored in the analysis, thus preventing the reporting of false-positive results.

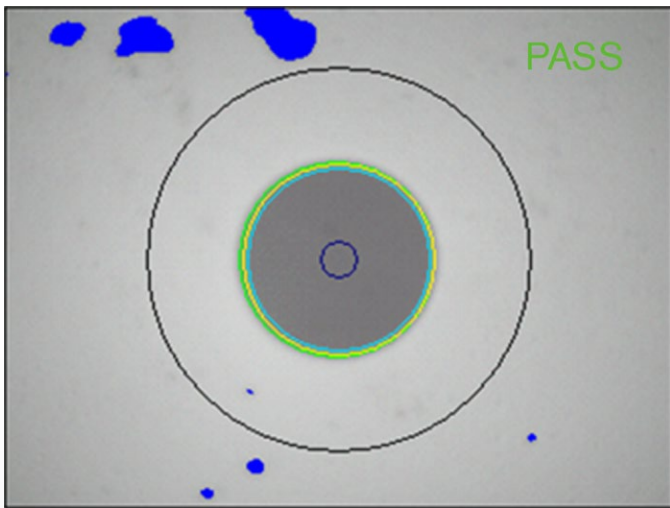


Figure 1. An out-of-focus image can hide critical defects capable of delivering a “pass” verdict.

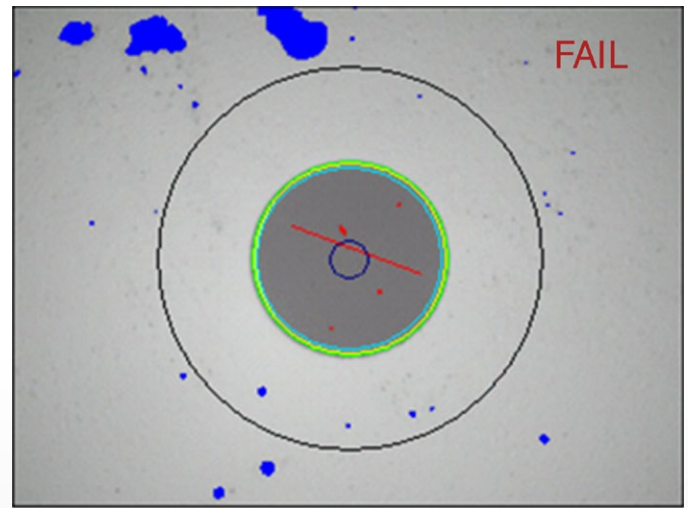


Figure 2. An optimized focus adjustment will ensure that all defects affecting performances are seen.

### Operation modes

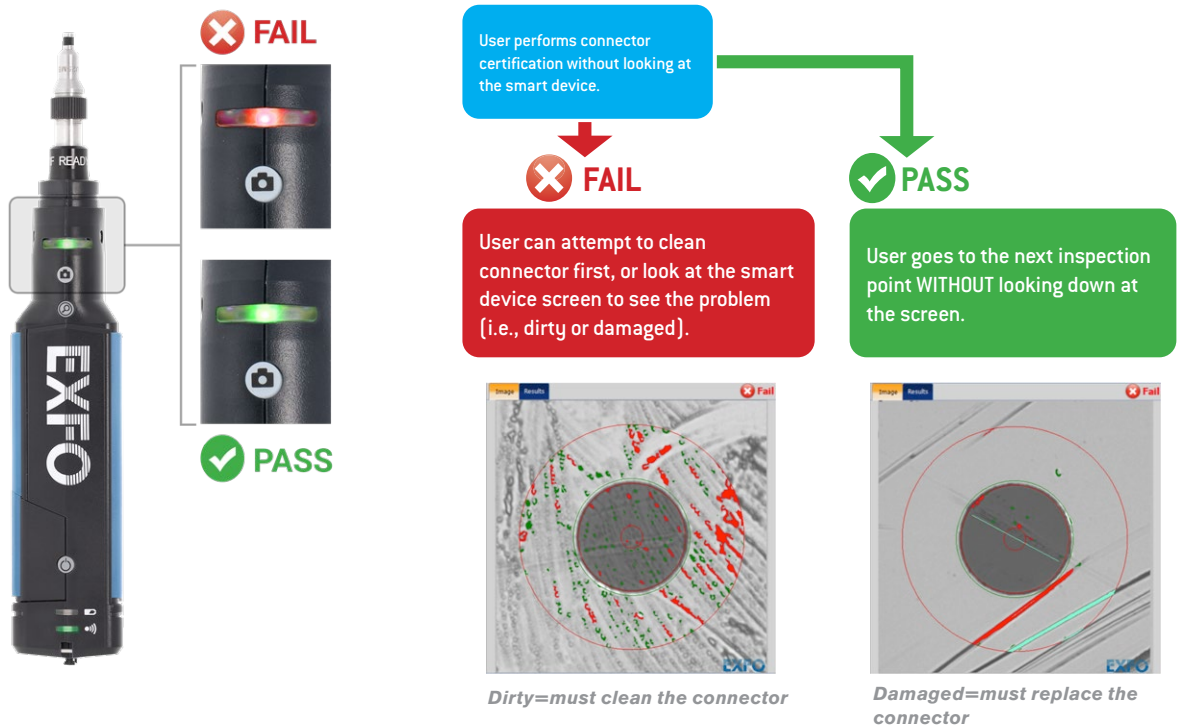
FIP-4X5B Series scopes (FIP-415B/FIP-425B and FIP-435B) are compatible with iOS and Android devices. Live video feed is streamed via WiFi without any wired connection required between the scope and the smart device.

The wireless scope is also compatible with EXFO’s FTB and MaxTester platforms (connected via USB cable or WiFi) as well as ConnectorMax2 software (on a Windows-based PC platform).

FIP-4X0B Series scopes (FIP-410B/FIP-420B and FIP-430B) are USB wired inspection scopes compatible with EXFO’s FTB and MaxTester platforms as well as ConnectorMax2 software (on a Windows-based PC platform).

## SCREENLESS OPERATION

Thanks to the pass/fail LED, users can perform connector certification without having to look back at the smartphone or MaxTester display screen to view the results. Users can simply focus on getting ready for their next inspection and being able to use both hands in the process.



## FIP-400B UNIVERSAL COMPATIBILITY

Thanks to its USB port, the FIP-400B Series is compatible with the entire FTB ecosystem, the MaxTester 700B OTDR Series, MaxTester 940/945 OLTS, the MAX-FIP display, LTB platforms as well as PCs and laptops.



FTB Ecosystem



MaxTester 700B OTDR Series



MaxTester 940/945 OLTS



Stand-alone MAX-FIP display



iOS and Android smartphones and tablets<sup>a</sup>



PC and laptops



LTB platforms

a. FIP-4X5B Series

## GET ACCURATE INSPECTION RESULTS

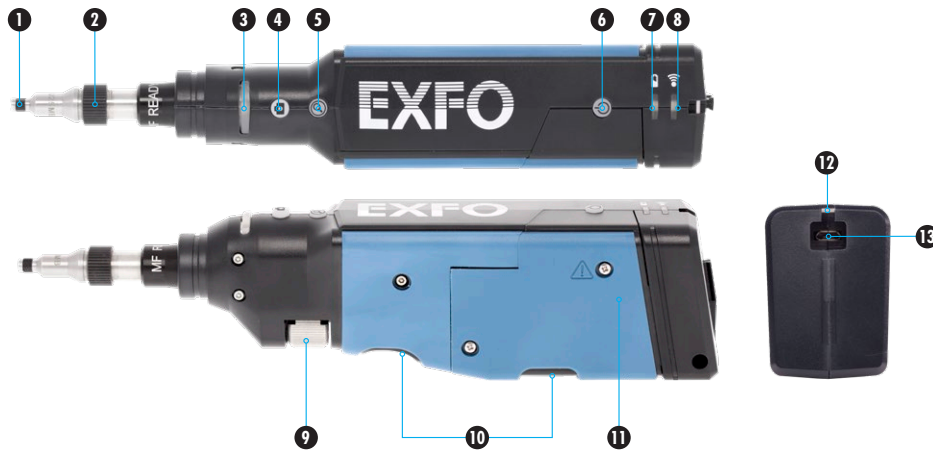
The autofocus feature in the FIP-430B and FIP-435B not only greatly facilitates inspection, but also enables optimized focus adjustment to ensure detection of all defects capable of affecting connector performances.

The system self-adjusts the image centering to ensure that all inspection zones are visible, and then automatically adjusts the focus to achieve the best optical resolution. Next, the IEC, or custom standard is applied to deliver accurate certification results in a snap. Fussing with image focusing, centering and inaccurate analysis results is now a thing from the past.

## FIP-400B FIBER INSPECTION SCOPE SERIES

- |   |                          |                                    |
|---|--------------------------|------------------------------------|
| 1 Interchangeable adapter tip (FIPT-400-XX) | 6 Power button           | 11 Battery compartment             |
| 2 Retaining nut                             | 7 Battery status LED     | 12 Wrist-strap eyelet              |
| 3 Activity and pass/fail status LED         | 8 WiFi status LED        | 13 Micro-USB port (power/recharge) |
| 4 Image capture control                     | 9 Focus adjustment wheel | 14 USB interface                   |
| 5 Magnification control                     | 10 Finger grip           |                                    |

### Wireless scopes: FIP-4X5B Series



### USB, wired scopes: FIP-4X0B Series





## FAST-TRACKING CONNECTOR INSPECTION

When you outsource your fiber testing, you want to be certain that the technician will apply the best practices and properly certify every connector. Neglecting to do so, at this critical step, will lead to serious, time-consuming problems. The new FIP-400B Series is the result of years of fiber-inspection experience in the field.

### THE FIP-400B'S HASSLE-FREE, AUTOMATIC IMAGE-CENTERING FEATURE SAVES PRECIOUS TIME

**57%**

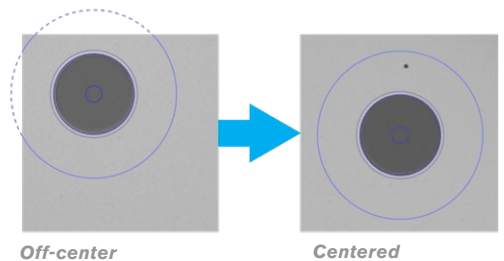
shorter  
inspection  
time

- Save over two hours on a typical FTTH cabinet inspection – 432 fibers
- 14-second inspection time per port (down from 32 seconds)\*
- \$25 000 in potential savings in one year (based on one cabinet inspection per day at a cost of \$50 per hour)

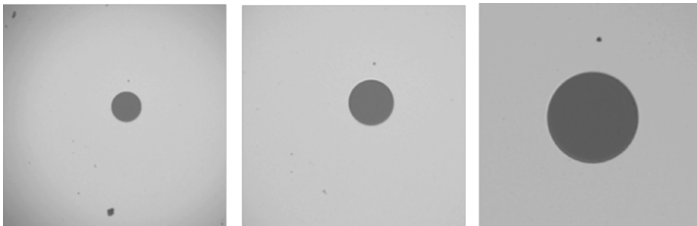
\* Data sourced from EXFO's case study, with calculation based on typical analysis time. Data based on time savings resulting exclusively from the automatic image centering function.

## AUTOMATIC, FIBER IMAGE CENTERING

This function cuts inspection time in half, because it automatically detects the fiber endface and instantly centers the image. The user simply has to focus and capture. This is especially handy when inspecting patch panels and hard-to-reach connectors. It also ensures that users will not miss defects in the critical zones of the connectors.



Hit the bull's-eye, every time.



Low magnification Medium magnification High magnification

## TRIPLE MAGNIFICATION MODE

By optimizing the image size, users get a detailed view of all defects. This series features the only scopes in the industry offering three magnification levels.

## FIP-400B SERIES OF FIBER INSPECTION SCOPES



FEATURES	USB WIRED			WIRELESS		
	Basic FIP-410B	Semi- automated FIP-420B	Fully automated FIP-430B	Fully automated FIP-415B	Semi- automated FIP-425B	Fully automated FIP-435B
Three magnification levels	✓	✓	✓	✓	✓	✓
Image capture	✓	✓	✓	✓	✓	✓
Five-megapixel CMOS capturing device	✓	✓	✓	✓	✓	✓
Automatic fiber image-centering function	X	✓	✓	✓	✓	✓
Automatic focus adjustment	X	X	✓	✓	X	✓
On-board pass/fail analysis	X	✓	✓	X <sup>a</sup>	✓	✓
Pass/fail LED indicator	X	✓	✓	X <sup>a</sup>	✓	✓
WiFi connectivity	X	X	X	✓	✓	✓
Manual scanning for multifiber/MPO connectors	✓	✓	✓	✓	✓	✓
Semi-automated multifiber/MPO inspection	X	✓	✓	✓	✓	✓

a. Pass/fail analysis is field upgradable via software option (it will also activate pass/fail LED indicator)

## SEMI-AUTOMATED MULTI-FIBER INSPECTION

Users can quickly and easily inspect all multiple- and single-row MPO connectors, without missing any fibers or dealing with the hassle of manipulating one or multiple scanning knobs, and while doing it right the first time. The FIP-400-MF uses a trigger to scan all fibers in an efficient way.

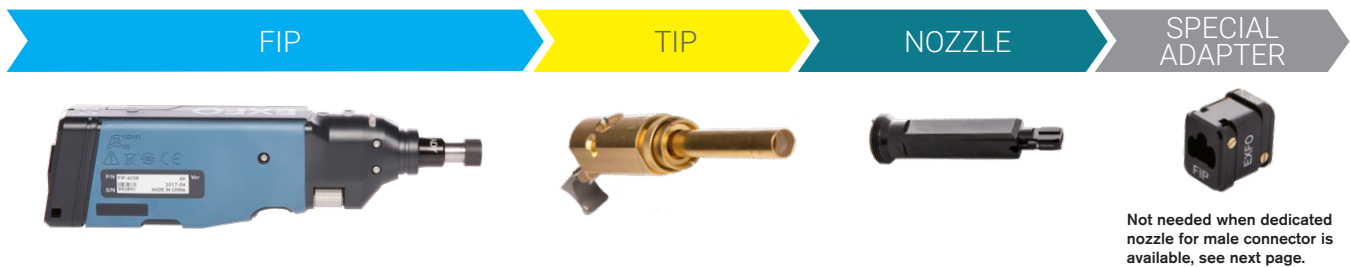
These features make it possible to inspect densely populated panels without having to disturb adjacent fibers that may be carrying information. Users can easily operate this instrument with just one hand—it's automated and fumble-free fiber inspection.

## COMPATIBLE WITH VARIOUS SINGLE-FIBER AND MULTI-FIBER CONNECTORS

EXFO offers multiple patchcord tips and bulkhead adapters for both single fiber and multifiber applications.

These tips and adapters are built to fit a wide range of fiber connector types and designs that may be encountered in the field including FC, SC, LC, ST for UPC and APC or FTTH/FTTA connectors. The MPO tip is compatible with single and dual-row multifiber connectors regardless of the connector type.

For further information, please refer to our tip adapter guide.



Thanks to its removable nozzle, the solution can easily and quickly be adapted to various multifiber connector models:

- APC or UPC polishing type
- 12-fiber-row ferrule type for 12-24 fiber connectors
- 16-fiber-row ferrule type for 16-32 fiber connectors

Applications also include Q-ODC-12<sup>®</sup>, OptiTip<sup>®</sup> and HMFOC<sup>®</sup> connectors.

Simply swap tips for an easy transition from single to multi-fiber using the same MF-ready inspection scope.



Watch it in action: [MPOvideo](#)

## AUTOMATIC PASS/FAIL CONNECTOR CERTIFICATION

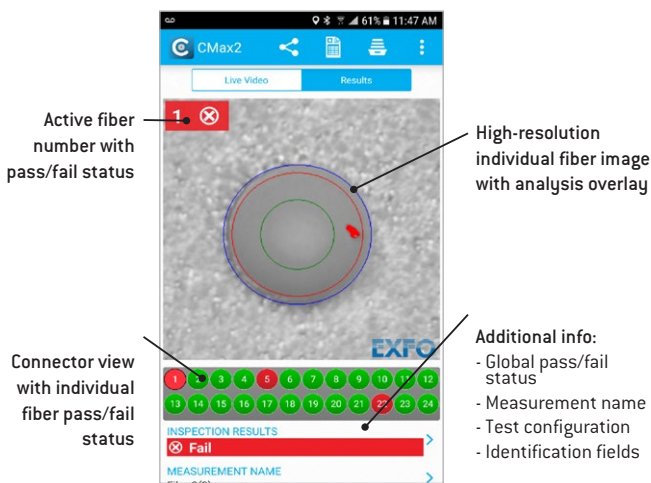
Thanks to its onboard advanced software algorithm, ConnectorMax2 performs automated pass/fail analysis within seconds and ensures that no fibers are skipped.

- No need to follow fibers and count them manually: interface will number each fiber automatically and assess the pass/fail status of the entire connector as well as each individual fiber.

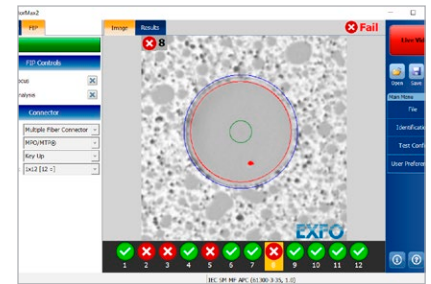
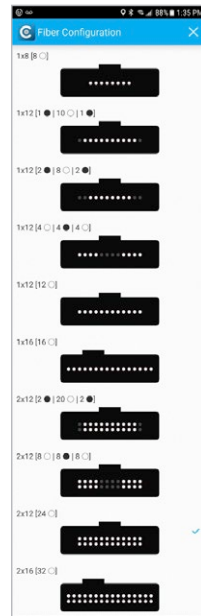
EXFO's interface enables a quick assessment of the entire multifiber connector in a single view.

- Access single fiber as well as the entire connector pass/fail status all at once by means of a simple interface without providing fail status that could result from unused or missing fibers.
- Quickly navigate through individual high-resolution fiber images on demand by selecting fibers in the connector view or simply by swiping over the fiber image.

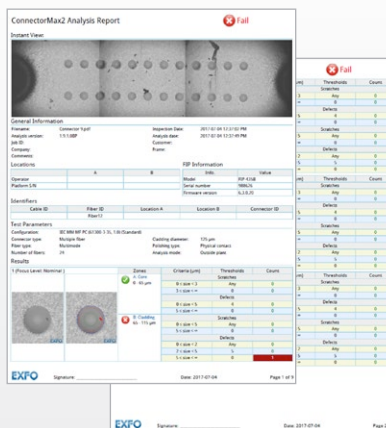
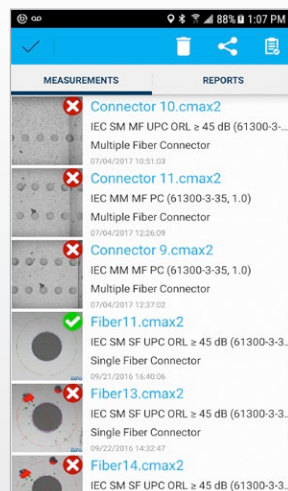
ConnectorMax supports various fiber configurations within multifiber connectors. This feature speeds up the inspection and analysis process by skipping unused fiber locations.



- Additional info:
- Global pass/fail status
  - Measurement name
  - Test configuration
  - Identification fields



ConnectorMax includes complete documentation capabilities, accessible in the palm of your hand from your mobile device. You can archive your results as well as easily create and share reports within seconds.



## MAX-FIP TEST UNIT

The MAX-FIP features the largest screen in the industry, providing the highest magnification level for precise viewing of even the smallest defects on fiber endfaces. Its bright 7-in touchscreen ensures fast and easy operation of the instrument.

MAX-FIP kit can also be equipped with a power meter and visual fault locator (plug-and-play options).

## MAX-FIP KEY FEATURES

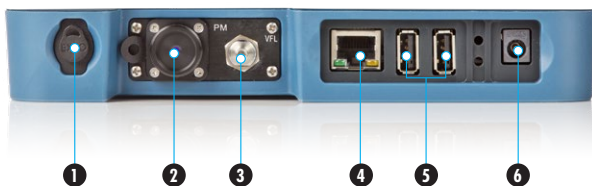
- Bright, 7-in touchscreen display
- Rugged, compact tablet-inspired form factor
- Power meter and visual fault locator (VFL) (plug-and-play options)
- Full-day, rechargeable Li-ion battery
- WiFi and Bluetooth connectivity (plug-and-play options)



The power meter and VFL piece are offered as an easy-to-install option on the MAX-FIP display that's as simple as removing four screws.

## PACKAGED FOR EFFICIENCY

- |                               |   |
|-------------------------------|---|
| 1 Stylus                      | 6 AC adapter  |
| 2 Power meter                 | 7 Home/switch application and screen capture (hold) |
| 3 Visual fault location       | 8 Power on/off/standby                              |
| 4 10/100 Mbit/s Ethernet port | 9 Battery LED status                                |
| 5 Two USB 2.0 ports           |   |



## EXTENSIVE STORAGE CAPABILITY

The MAX-FIP standard 2 GB internal memory offers extensive storage of up to 4000 fiber certification results, and is expandable using USB memory sticks, optional WiFi and Bluetooth capability for cloud-based storage, and wireless FIP-425/FIP-435B connectivity.



## BEST-IN-CLASS AUTONOMY

Take full advantage of the MAX-FIP's amazing eight-hour battery operation that never lets you down, and enables you to complete full-day jobs without having to recharge the unit. Also, save money by not having to pay expensive battery replacement costs associated with other handheld inspection kits on the market operating on standard alkaline batteries.

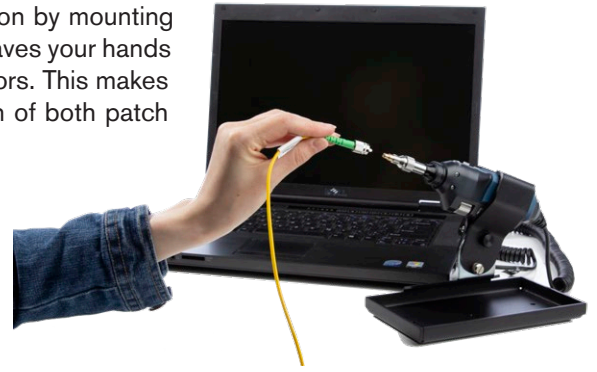




## VERSATILE BENCHTOP SOLUTION FOR LABS AND MANUFACTURING

The FIP-430B can be quickly transformed into a benchtop inspection solution by mounting the scope on a desktop support stand (GP-2182, sold as accessory). This leaves your hands free for repetitive manipulations and inspection of fiber jumpers and connectors. This makes the FIP-430B scope a handy solution for the production floor for inspection of both patch cords and bulkheads.

- Stable hold and rugged design
- Adjustable angle up to 7 different positions
- Allows male and female connector inspection using the same tool
- Quick release handle
- Manufacturing automation using REST API available upon request



Inspecting and analyzing fiber connector endfaces has never been easier with this digital fiber inspection scope.

## BRING IT EVERYWHERE WITH THE BELT HOLSTER (OPTIONAL)

### GP-2224\*

The perfect accessory to carry:

- 1 x FIP-415B/FIP-425B/435B unit
- 2 x IBC cleaner tools
- A selection of fiber inspection tips
- Smartphone
- FLS-140 VFL (or pen)

\*Accessories not included.



## HANDS-FREE UTILITY BAG (OPTIONAL)

To help optimize your test process and get maximum performance from your MAX-FIP solution, EXFO offers a hands-free utility bag that ensures secure, hands-free operation of the unit when you are working with fibers, connectors and inspection tools.



## MAX-FIP HOOK SUPPORT (OPTIONAL)

The MAX-FIP hook support is an optional accessory that fits any type of fiber cabinet door perfectly, enabling hands-free operation for easier and faster fiber manipulation during the connector certification test process.



Using the optional GP-2176 hook for the MAX-FIP.

## FIP-400B SPECIFICATIONS

WiFi FIBER INSPECTION SCOPE SPECIFICATIONS (FIP-4X5B) <sup>b</sup>	
Size (H x W x D)	55 mm x 39 mm x 207 mm (2 <sup>3</sup> / <sub>16</sub> in x 1 <sup>1</sup> / <sub>2</sub> in x 8 <sup>1</sup> / <sub>8</sub> in) <sup>c</sup>
Weight	0.3 kg (0.66 lb)
Resolution	0.55 µm
Camera sensor	Five-megapixel CMOS
Visual detection capability <sup>h</sup>	<1 µm
Field of view <sup>h</sup>	304 µm x 304 µm (high magnification) 608 µm x 608 µm (mid magnification) 912 µm x 912 µm (low magnification)
Light source	Blue LED
Lighting technique	Coaxial
Capture button	Available on all models
Magnification button	Available on all models
Digital magnification	Three levels
Connector	Micro USB
Connectivity	WiFi 802.11g
Frequency band	2.4 GHz
Smart device OS compatibility <sup>d</sup>	Android 4.4 and above, iOS 9 and above
Power	1 x removable battery
Autonomy <sup>e</sup>	FIP-415B: ≥8 hours FIP-425B: ≥10 hours FIP-435B: ≥8 hours
Recharge time <sup>f</sup>	≤ 4 h
Distance range <sup>g</sup>	2.5 m (8.2 ft)

USB FIBER INSPECTION SCOPE SPECIFICATIONS (FIP-4X0B) <sup>b</sup>	
Size (H x W x D)	47 mm x 42 mm x 162 mm (1 <sup>7</sup> / <sub>8</sub> in x 6 <sup>1</sup> / <sub>8</sub> in x 2 in)
Weight	0.3 kg (0.66 lb)
Resolution	0.55 µm
Camera sensor	Five-megapixel CMOS
Visual detection capability	<1 µm
Field of view	304 µm x 304 µm (high magnification) 608 µm x 608 µm (mid magnification) 912 µm x 912 µm (low magnification)
Light source	Blue LED
Lighting technique	Coaxial
Capture button	Available on all models
Magnification button	Available on all models
Digital magnification	Three levels
Connector	Minimum USB 2.0

a. -20 °C to 60 °C (-4 °F to 140 °F) with the battery pack.

b. Typical.

c. Measurement excluding tip and including strain relief.

d. Software is qualified with Google Nexus, Apple iPhone and Apple iPad devices. Other models are not guaranteed to be 100% compatible.

e. One (1) test per minute. The scope remains in live mode for 20 seconds during each test.

f. Using USB AC Adapter. When scope is in use the recharge time may take longer.

g. WiFi interferences and physical obstacles may affect distance range.

h. Single fiber connector mode.



GP-2175



FIPT-BOX



GP-3108



GP-2225



GP-2226



GP-2227

### FIP-400B INCLUDED ACCESSORIES

FIP-410B/420B/430B (USB wired scope)		FIP-415B/FIP-425B/FIP-435B (wireless scope)	
Video inspection scope, bulkhead and patchcord tips		Video inspection scope, bulkhead and patchcord tips	
ConnectorMax 2 software		ConnectorMax 2 software	
FIPT-BOX	Compartmentalized plastic case for tips	FIPT-BOX	Compartmentalized plastic case for tips
GP-3108	Soft pouch	GP-3108	Soft pouch
GP-2175	Protective cap and cord assembly	GP-2175	Protective cap and cord assembly
		GP-2225	USB to Micro USB cable
		GP-2226	Rechargeable battery (quantity: one)
		GP-2227	USB AC adapter

### GENERAL SPECIFICATIONS

Temperature operating	Unit powered by batteries: -10 °C to 40 °C (14 °F to 104 °F) Unit connected to USB adapter: 0 °C to 40 °C (32 °F to 104 °F)
Temperature storage	Unit without batteries: -40 °C to 70 °C (-40 °F to 158 °F) Unit with batteries: -20 °C to 60 °C (-4 °F to 140 °F)
Relative humidity	Unit: 0% to 95% non-condensing USB Adapter: 5% to 95% non-condensing for storage. 8% to 90% for operating temperature

### MAX-FIP SPECIFICATIONS

#### MAX-FIP OPTIONAL ACCESSORIES

GP-302	USB mouse	GP-2177	Hands-free bag for MAX-FIP
GP-1008	VFL adapter (2.5 mm to 1.25 mm)	GP-2178	Right-angle USB adapter cable for MAX-FIP (USB male to USB female)
GP-2001	USB keyboard	GP-2205	DC vehicle battery-charging adapter (12 V)
GP-2016	10-foot RJ45 LAN cable	GP-10-072	Semi-rigid carrying case
GP-2144	USB 16G microdrive	GP-10-061	Soft carrying case
GP-2176	Hook for MAX-FIP		



GP-302



GP-1008



GP-2001



GP-2016



GP-2144



GP-2176



GP-2177



GP-2178



GP-2205



GP-10-072



GP-10-061

### BUILT-IN POWER METER SPECIFICATIONS (GeX) (optional) <sup>a</sup>

Calibrated wavelengths (nm)	850, 1300, 1310, 1490, 1550, 1625, 1650
Power range (dBm) <sup>b</sup>	27 to -50
Uncertainty (%) <sup>c</sup>	±5 % ± 10 nW
Display resolution (dB)	0.01 = max to -40 dBm 0.1 = -40 dBm to -50 dBm
Automatic offset nulling range <sup>b, d</sup>	Max power to -34 dBm
Tone detection (Hz)	270/330/1000/2000

### VISUAL FAULT LOCATOR (VFL) (optional)

Laser, 650 nm ± 10 nm
CW/Modulate 1 Hz
Typical P <sub>out</sub> in 62.5/125 μm: > -1.5 dBm (0.7 mW)
Laser safety: Class 2

### LASER SAFETY (for optional VFL on MAX-FIP)



## ConnectorMax 2 SOFTWARE

The following minimum requirements must be met in order to install and run ConnectorMax 2 on a computer:

### PC OPERATING SYSTEM COMPATIBILITY AND REQUIREMENTS

System requirements	Minimum requirements Windows 7 (32 bit and 64 bit)	Minimum requirements Windows 8 (32 bit and 64 bit)	Minimum requirements Windows 10 (32 bit and 64 bit)
Processor	Pentium (1.6 GHz or higher recommended)	Pentium (1.6 GHz or higher recommended)	Pentium (2 GHz or faster)
RAM	512 MB (2 GB recommended)	1 GB for 32; 2 GB for 64 (2 GB or more recommended)	2 GB for 32; 4 GB for 64
Disk space	40 MB	40 MB	40 MB
Other	Latest version of .NET Framework 3.5 DirectX 9.0; USB 2.0, minimum	Desktop applications supported	Desktop applications supported

At 23 °C ± 1 °C, 1550 nm and FC connector. Battery-operated after 20-minute warm-up.

a. Typical.

b. At calibration conditions.

c. For ±0.05 dB, from 10 °C to 30 °C.



**ORDERING INFORMATION**

Single fiber and multifiber configuration

**FIP-4XXB-XX-FIPT-400-MF-MPO-XX-XX**

**Wi-Fi and USB inspection scope model<sup>a</sup>**

FIP-415B<sup>e</sup> = Wireless analysis digital video inspection scope  
Automated focus  
Triple magnification  
Autocentering

FIP-425B = Wireless analysis digital video inspection scope  
Automated pass/fail analysis  
Triple magnification  
Autocentering

FIP-435B = Wireless analysis digital video inspection scope  
Automated focus  
Automated pass/fail analysis  
Triple magnification  
Autocentering

FIP-410B = Digital video inspection scope  
Triple magnification

FIP-420B = Analysis digital video inspection scope  
Automated pass/fail analysis  
Triple magnification

FIP-430B = Automated analysis digital video inspection scope  
Automated focus  
Automated pass/fail analysis  
Triple magnification

**Base tips**

APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC

UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

**Extra FIP-400B tips<sup>b</sup>**

**Bulkhead tips**

FIPT-400-FC-APC = FCAPC tip for bulkhead adapter  
FIPT-400-FC-SC = FC and SC tip for bulkhead adapter<sup>c</sup>  
FIPT-400-LC = LC tip for bulkhead adapters  
FIPT-400-LC-APC = LC/APC tip for bulkhead adapter  
FIPT-400-MU = MU tip for bulkhead adapters  
FIPT-400-SC-APC = SC APC tip for bulkhead adapter<sup>d</sup>  
FIPT-400-SC-UPC = SC UPC tip for bulkhead adapter  
FIPT-400-ST = ST tip for bulkhead adapter

**Patchcord tips**

FIPT-400-U12M = Universal patchcord tip for 1.25 mm ferrules  
FIPT-400-U12MA = Universal patchcord tip for 1.25 mm ferrules APC  
FIPT-400-U16M = Universal patchcord tip for 1.6 mm ferrules  
FIPT-400-U20M2 = Universal patchcord tip for 2.0 mm ferrules (D4, Lemo)  
FIPT-400-U25M = Universal patchcord tip for 2.5 mm ferrules<sup>c</sup>  
FIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC<sup>d</sup>

**Tip kits**

FIPT-400-LC-K = LC tip kit including: FIPT-400-LC: LC tip for bulkhead adapters, FIPT-400-LC-APC: LC/APC tip for bulkhead adapter, FIPT-400-U12M: Universal patchcord tip for 1.25 mm ferrules, FIPT-400-U12MA: Universal patchcord tip for 1.25 mm ferrules APC  
FIPT-400-LC-K-APC = LC tip kit including: FIPT-400-LC-APC: LC/APC tip for bulkhead adapter and FIPT-400-U12MA: Universal patchcord tip for 1.25 mm ferrules APC  
FIPT-400-LC-K-UPC = LC tip kit including: FIPT-400-LC: LC tip for bulkhead adapters and FIPT-400-U12M: Universal patchcord tip for 1.25 mm ferrules

**Automated multifiber tips**

FIPT-400-MF-MPO-UPC = For MPO/UPC connectors 12-24 fibers  
Includes: FIPT-400-MPO-BLK and FIPT-400-NZ-MPO  
FIPT-400-MF-MPO-APC = For MPO/APC connectors 12-24 fibers  
Includes: FIPT-400-MPO-BLK and FIPT-400-NZ-MPO-APC  
FIPT-400-MF-MPO-X = For MPO/APC connectors 16-32 fibers  
Includes: FIPT-MPO-X-BLK and FIPT-NZ-MPO-X

**Extra nozzle for FIPT-400-MF tip**

FIPT-400-NZ-MPO = For MPO/UPC connectors 12-24 fibers  
FIPT-400-NZ-MPO-APC = For MPO/APC connectors 12-24 fibers  
FIPT-400-NZ-MPO-X = For MPO/UPC connectors 16-32 fibers  
FIPT-400-NZ-OTIP-APC = For OptiTip/APC connectors male and female  
FIPT-400-NZ-QODC-12 = For Q-ODC-12/UPC connectors male and female  
FIPT-400-NZ-QODC-12-APC = For Q-ODC-12/APC connectors male and female

Example when ordering scope with single fiber (SF) tip: FIP-425B-APC-FIPT-400-FC-SC-FIPT-400-U25M

Example when ordering scope with MPO and SF tips: FIP-435B-APC-FIPT-400-MF-MPO-APC-FIPT-400-U25M

a. ConnectorMax2 Mobile software available on the App Store and Google Play™.

b. This list represents a selection of fiber inspection tips that covers the most common connectors and applications but does not reflect all the tips available. EXFO offers a wide range of inspection tips, bulkhead adaptors and kits to cover many more connector types and different applications. Please contact your local EXFO sales representative or visit [www.EXFO.com/FIPTips](http://www.EXFO.com/FIPTips) for more information.

c. Included when UPC base tips are selected.

d. Included when APC base tips are selected.

e. Pass/fail analysis is field upgradable via software option.

**ORDERING INFORMATION**

**Stand-alone units**

**MAX-FIP-XX-XX-XX**

**Power meter**

- 00 = Without power meter
- P2X = Power meter; GeX detector
- VP2X = VFL and power meter; GeX detector

**WiFi and Bluetooth**

- 00 = Without RF components
- RF = With RF capability (WiFi and Bluetooth)

**Connector adapter<sup>a</sup>**

- 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/APC
- FOA-98 = LC
- FOA-99 = MU

Example: MAX-FIP-VP2X-FOA-54-RF

a. Available if power meter selected.

**ORDERING INFORMATION**

**Kits**

**TK-MAX-FIP-XX-XX-XX-XX-XX-XX**

**Power meter** ■

- 00 = Without power meter
- P2X = Power meter; GeX detector
- VP2X = VFL and power meter; GeX detector

**Connector adapter** <sup>a</sup> ■

- 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/APC
- FOA-98 = LC
- FOA-99 = MU

**WiFi and Bluetooth** ■

- 00 = Without RF components
- RF = With RF capability (WiFi and Bluetooth)

**Inspection scope model** <sup>b</sup> ■

- FIP-410B = Digital video inspection scope
  - Triple magnification
- FIP-420B = Analysis digital video inspection scope
  - Automated pass/fail analysis
  - Triple magnification
  - Autocentering
- FIP-425B = Wireless analysis digital video inspection scope
  - Automated pass/fail analysis
  - Triple magnification
  - Autocentering
- FIP-430B = Automated analysis digital video inspection scope
  - Automated focus
  - Automated pass/fail analysis
  - Triple magnification
  - Autocentering
- FIP-435B = Wireless analysis digital video inspection scope <sup>f</sup>
  - Automated focus
  - Automated pass/fail analysis
  - Triple magnification
  - Autocentering

**Base tips** ■

- APC = Includes FIPT-400-U25MA and FIPT-400-SC-APC
- UPC = Includes FIPT-400-U25M and FIPT-400-FC-SC

Example: TK-MAX-FIP-VP2X-FOA-54-RF-FIP-420B-UPC-FIPT-400-FC-SC-FIPT-400-U25M

**Extra FIP-400B tips** <sup>c</sup>

**Bulkhead tips**

- FIPT-400-FC-APC = FCAPC tip for bulkhead adapter
- FIPT-400-FC-SC = FC and SC tip for bulkhead adapter <sup>d</sup>
- FIPT-400-LC = LC tip for bulkhead adapters
- FIPT-400-LC-APC = LC/APC tip for bulkhead adapter
- FIPT-400-MU = MU tip for bulkhead adapters
- FIPT-400-SC-APC = SC APC tip for bulkhead adapter <sup>e</sup>
- FIPT-400-SC-UPC = SC UPC tip for bulkhead adapter
- FIPT-400-ST = ST tip for bulkhead adapter

**Patchcord tips**

- FIPT-400-U12M = Universal patchcord tip for 1.25 mm ferrules
- FIPT-400-U12MA = Universal patchcord tip for 1.25 mm ferrules APC
- FIPT-400-U16M = Universal patchcord tip for 1.6 mm ferrules
- FIPT-400-U20M2 = Universal patchcord tip for 2.0 mm ferrules (D4, Lemo)
- FIPT-400-U25M = Universal patchcord tip for 2.5 mm ferrules <sup>d</sup>
- FIPT-400-U25MA = Universal patchcord tip for 2,5 mm ferrules APC <sup>e</sup>

**Multifiber tips**

- FIPT-400-MTP2 = MTP/MPO UPC tip for bulkhead adapter
- FIPT-400-MTPA2 = MTP/MPO APC tip for bulkhead adapter
- FIPT-400-MTP-MTR = MTP/MPO Multi-Row UPC tip for bulkhead adapter
- FIPT-400-MTP-MTRA = MTP/MPO Multi-Row APC tip for bulkhead adapter

**Tip kits**

- FIPT-400-LC-K = LC tip kit including:
  - FIPT-400-LC: LC tip for bulkhead adapters,
  - FIPT-400-LC-APC: LC/APC tip for bulkhead adapter,
  - FIPT-400-U12M: Universal patchcord tip for 1.25 mm ferrules,
  - FIPT-400-U12MA: Universal patchcord tip for 1.25 mm ferrules APC
- FIPT-400-LC-K-APC = LC tip kit including:
  - FIPT-400-LC-APC: LC/APC tip for bulkhead adapter
  - FIPT-400-U12MA: Universal patchcord tip for 1.25 mm ferrules APC
- FIPT-400-LC-K-UPC = LC tip kit including:
  - FIPT-400-LC: LC tip for bulkhead adapters
  - FIPT-400-U12M: Universal patchcord tip for 1.25 mm ferrules

a. Available if power meter selected.

b. Includes ConnectorMax 2 software.

c. This list represents a selection of fiber inspection tips that covers the most common connectors and applications but does not reflect all the tips available. EXFO offers a wide range of inspection tips, bulkhead adaptors and kits to cover many more connector types and different applications. Please contact your local EXFO sales representative or visit [www.EXFO.com/FIPtips](http://www.EXFO.com/FIPtips) for more information.

d. Included when UPC base tips are selected.

e. Included when APC base tips are selected.

f. RF option mandatory and included with this model.

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