

TK1-V2

OLTS (TIER 1) AND OTDR (TIER 2) FIBER CERTIFICATION KIT FOR THE FTB-1 PLATFORM

- An all-in-on OLTS (Tier 1) and OTDR/iOLM (Tier 2) testing solution leveraging the power of FasTes™ and iOLM automated testing.



KEY FEATURES

Lightweight and portable solution designed for field engineers or cell technicians who install, troubleshoot and maintain fiber networks

Ultra-bright 8-inch multitouch screen

Built-in connectivity—choose between gigabit interface, WiFi, Bluetooth and 3G or 4G LTE via USB dongle

Integrated tool combines a visual fault locator, 100% automated inspection probe, broadband power meter and a continuous wave (CW) source mode

Combined singlemode (SM)/multimode (MM) wavelengths (quad model)

APPLICATIONS

FTTx construction

Telecommunications and outside plant networks testing

Data centers

Enterprise structured cabling

OTDR TESTING

Dynamic range up to 46 dB

Event dead zone as low as 0.8 m

iOLM-ready—one-touch multiple acquisitions with clear go/no-go results presented in a straightforward visual format

OLTS TESTING

Unmatched FasTes™ performances—100% automated bidirectional test at two wavelengths under five seconds

Onboard assistant and diagnosis to reduce the risk of reference errors and negative loss

Built-in Encircled-Flux (EF) compliancy as per ANSI/TIA and ISO/IEC

iCERT models to certify multiple industry standards simultaneously

Onboard professional PDF reporting



MaxTester 940/945
Telco OLTS



MaxTester 940/945
Fiber Certifier OLTS



Fiber inspection scope
FIP-400B (WiFi or USB)

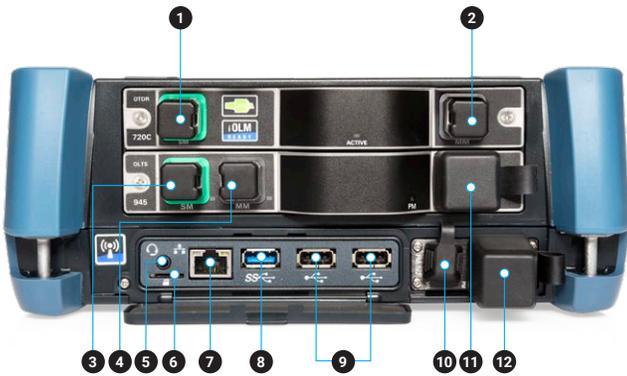


OPTIMIZED PORTABILITY AND POWERFULL TESTING CAPABILITIES

With EXFO's world renowned automated features including FasTesT™ and iOLM, this solution combines more than a decade of know-how and expertise into one truly powerful test instrument. Optimize test routines during construction with EXFO's FasTesT™ automated OLTS (Tier 1) test routine, and test fibers bi-directionally and error free within seconds. Locate faults within networks and fully characterize fibers at the push of a button using EXFO's iOLM automated test routine.



PACKAGED FOR EFFICIENCY



- 1 SM OTDR port
- 2 SM Live or MM OTDR port
- 3 SM OLTS port
- 4 MM OLTS port
- 5 Mic/headset jack
- 6 Micro SD card slot
- 7 1 GigE port
- 8 USB 3.0 port
- 9 Two USB 2.0 ports
- 10 Optional visual fault locator
- 11 OLTS power meter port
- 12 High-power power meter (optional)

CERTIFIER MODELS

The TK1-V2 offers iCERT models for data center and enterprise Tier 1 fiber certification and designed to help installation contractors, network engineers and IT maintenance technicians achieve faster, first-time-right system acceptance.



ONBOARD MULTISTANDARD CERTIFICATION

The iCERT certification tool lets you certify to both cabling and application standards. Simultaneously certify the cabling (i.e. the physical quality of the fiber and its components, such as splices and connectors), as well as the application that the fiber can carry; for instance, IEEE or Fibre Channel.

OLTS TIER 1 BUILT-IN ENCIRCLED FLUX COMPLIANCY

Each TK1-V2 comes with a built-in EF-compliant MM light source. Furthermore, in order to maximize measurement accuracy and avoid invalid results, EXFO designed reference-grade test cords in compliance with ISO/IEC 14763-3 standard requirements.

EXFO's test cords are made from reference-grade connectors, and the fiber used is strictly controlled to ensure proper core size and geometry. For MM testing, this makes it possible to remain within Encircled Flux template limits at the output of the test cord, without the need for an external EF-mode conditioner. These high-quality, reference-grade test cords are less fragile and less expensive than EF-conditioned test cords, helping to reduce your overall equipment cost of ownership.

EXFO's test cords are also color-coded to prevent manipulation errors when they are connected to the test ports and device under test. The user interface displays animated instructions with the same color codes to facilitate the test process.



Color coded test cords

OTDR TIER 2 ENCIRCLED FLUX COMPLIANCY

EXFO recommends using an external launch mode conditioner that is Encircled Flux (EF)-compliant. Use of an external EF-compliant device* such as the SPSB-EF-C30 is a fast and easy way to fix faulty networks.

* For more detailed information about EF compliance, please read the [Encircled Flux Test Solutions specification sheet](#).



SPSB-EF-C30

iOLM | intelligent Optical Link Mapper

iOLM—REMOVING THE COMPLEXITY FROM OTDR TESTING

OTDR testing comes with its load of challenges...



In response to these challenges, EXFO developed a better way to test fiber optics: the iOLM is an OTDR-based application designed to simplify OTDR testing by eliminating the need to configure parameters, and/or analyze and interpret multiple complex OTDR traces. Its advanced algorithms dynamically define the testing parameters, as well as the number of acquisitions that best fit the network under test. By correlating multipulse widths on multiple wavelengths, the iOLM locates and identifies faults with maximum resolution—all at the push of a single button.

How does it work?



Turning traditional OTDR testing into clear, automated, first-time-right results for technicians of any skill level.

<p>Three ways to benefit from the iOLM:</p>	<p>OTDR Combo (Oi Code) Run iOLM and OTDR applications on one unit</p>	<p>Upgrade Add the iOLM software option, even while in the field</p>	<p>iOLM only Order a unit with the iOLM application only</p>
<p>Three iOLM feature value packs:</p>	<p>iOLM Standard Dynamic multipulse acquisition, intelligent trace analysis, map view, diagnosis and SOR trace generation</p>	<p>iOLM Advanced All the features of iOLM, plus additional Advanced features</p>	<p>iOLM Pro All the features of iOLM Advanced, plus additional high-value professional features</p>

Please refer to the [iOLM specification sheet](#) for the complete and most recent description of these value packs.



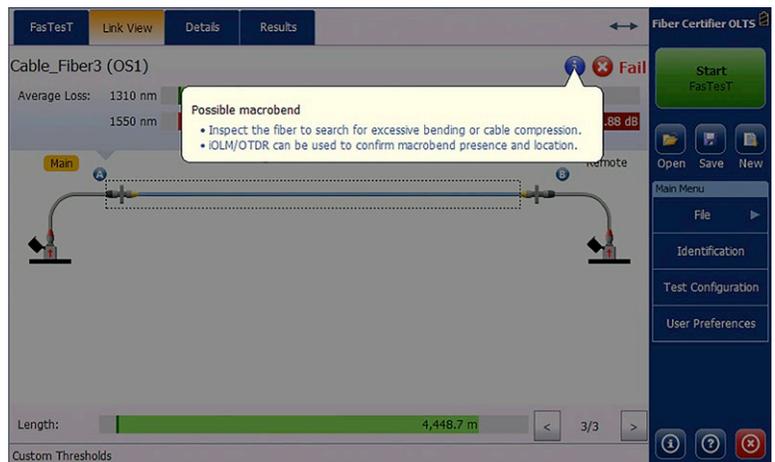
FULL AUTOMATION OF THE OLTS

Test Efficiency

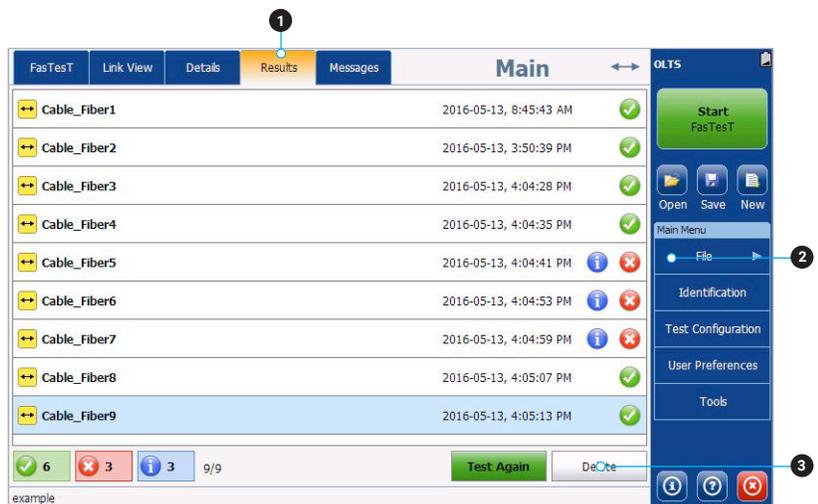
- FasTesT™: acquisition time in less than three seconds
- Online reporting–live from the field
- Maximum simplicity and fast-learning curve with on-board user assistance:
 - **Port LED indicators:** guide the user through the referencing and testing processes. LED indicators show the user on which optical port to connect the fiber and a beep indicates that the connection is established to confirm continuity.
 - **On-board diagnosis:** throughout the referencing and testing processes, the instrument delivers real-time information on the test cord health as well as pass/fail results according to pre-set or custom criteria. When performing testing, the instrument delivers diagnosis about the loss, length and can even identify the presence of a macrobend (refer to side picture).
 - **Margin meters:** indicate the result status as well as the margin according to preset thresholds.
- The OLTS includes a *Test Again* feature allowing the user to re-test bad fibers in three easy steps:
 1. Go back to test results
 2. Quickly and correctly identify the bad fiber by looking at the pass/fail status
 3. Press *Test Again*

Optimized Test Sequence

- **Real-time continuity feature:** The main and remote units emit visual and audible signals to let the technicians on both ends know that a connection has been established on the specific fiber under test. This also allows the technicians to start the test right away, saving time on each fiber tested.
- **Text messaging capabilities:** Allows users to send text messages through the fiber under test faster than other test sets in the industry.



On-board diagnosis helps the technician take proper action



See results clearly and test again easily

- 1 Results tab lists all the fibers tested in a cable
- 2 Pass/Fail status indicated under Results
- 3 Test Again button allows re-testing a "failed fiber" using the same settings



FULLY AUTOMATED FIBER INSPECTION SCOPE

Neglecting to clean, inspect and certify connectors can lead to serious, time-consuming problems accounting for up to 80% of network failures.

With its two full-fledged units, the TK1-V2 lets you certify connectors at both ends of the fiber, in the same workflow as the Tier-1 certification. Accordingly, it is now easy to include connector certification in your regular method of procedures without compromising the efficiency of your technicians. You'll no longer leave any stones unturned or any connectors uninspected!

Years of experience in the field has given EXFO the insight and expertise to re-engineer a truly unique and innovative fiber inspection probe that greatly simplifies and speeds up this critical step.

Housing a unique automatic focus-adjustment system, the FIP-400B automates each operation in the connector endface inspection sequence. The result: **fiber inspection is now a quick, one-step process that can be performed by technicians of all skill levels.**

Automated models

The FIP-500: wireless, autonomous and fully automated scope featuring the fastest inspection in the industry for both multi-fiber and single-fiber connectors. All-day testing without the need to recharge batteries or offload results.

The FIP-435B: connected to EXFO platforms or your smart device, this fully automated wireless scope enables connector certification in one step. View and store results on your EXFO platform or smart device.

The FIP-430B: fully automated inspection scope featuring USB wired connectivity to PC and EXFO platforms.

Semi-automated and manual models

The FIP-420B: semi-automated scope featuring a manual focus adjustment. USB wired connectivity to PC and EXFO platforms.

The FIP-410B: basic inspection features for manual inspection. USB wired connectivity to PC and EXFO platforms.

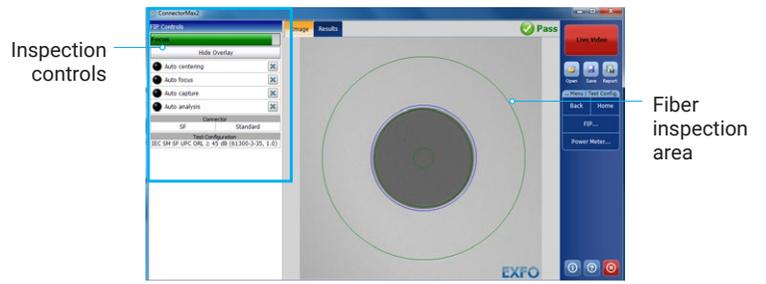


FEATURES	USB WIRED			WIRELESS	AUTONOMOUS
	FIP-410B	FIP-420B	FIP-430B	FIP-435B	FIP-500
Image capture	•	•	•	•	•
Five-megapixel CMOS capturing device	•	•	•	•	•
Automatic fiber image-centering function and focus adjustment		•	•	•	•
Automatic fiber image-focus adjustment			•	•	•
On-board pass/fail analysis		•	•	•	•
Pass/fail LED indicator		•	•	•	•
USB connectivity to an EXFO platform or PC	•	•	•	•	
Wireless connectivity to an EXFO platform or PC				•	
Wireless connectivity to a smartphone				•	•
Semi-automated multifiber / MPO inspection	•	•	•	•	
Fully automated multifiber / MPO inspection					•
On-board touch screen and data storage					•
SmartTips with automated thresholds and quick-connect mechanism					•

For more information, visit www.EXFO.com/fiberinspection.

POWERFUL CONNECTOR ENDFACE IMAGE VIEWING AND ANALYSIS SOFTWARE

- Automatic pass/fail analysis of the connector endfaces
- Lightning-fast results in seconds with simple one-touch operation
- Complete test reports for future referencing
- Stores images and results for record-keeping



Fast track data post-processing with FastReporter2

Optical test-data analysis involves various challenges, whether for loss, OTDR and iOLM testing, or connector inspection. Designed for off-line analysis, EXFO's FastReporter 2 offers reliable data and report management in a user-friendly environment. This unit packs all the essentials to boost efficiency and productivity for all your optical tests.



CHALLENGE NO. 1 | EDITING MULTIPLE MEASUREMENT FILES

Close your jobs faster

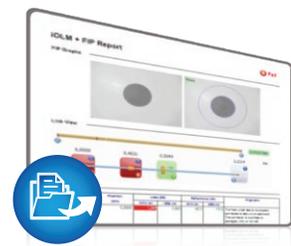
Measurements often require extra processing in order to perform proper analysis, and ultimately document and report jobs appropriately. FastReporter 2 includes a series of powerful tools that automate repetitive operations on an unlimited number of files via batch operations.



CHALLENGE NO. 2 | ANALYZING MULTIPLE MEASUREMENT FILES

Wrong limits? Simply recertify

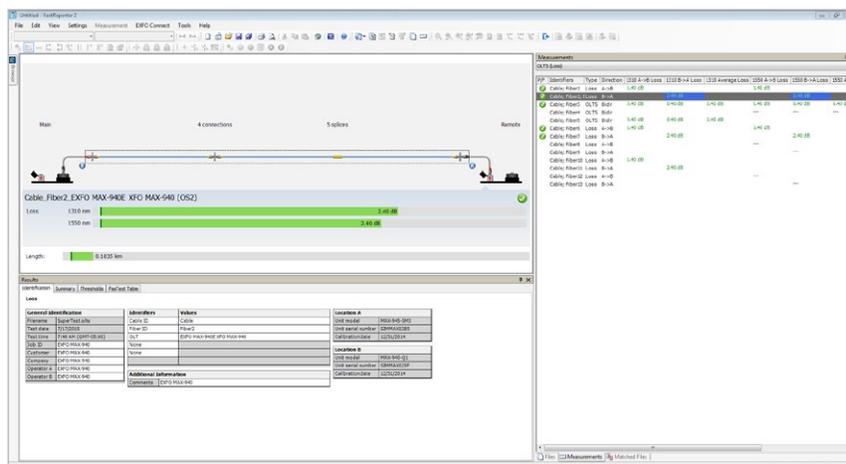
Setting up the wrong limits by selecting the wrong standard or the wrong project is no longer an issue. FastReporter 2 allows you to reset the limits and re-analyze the results to obtain the certification that you need. Instead of redoing tests, you can move on to other projects.



CHALLENGE NO. 3 | DOCUMENTING YOUR WORK

Create your report fast and like a pro

FastReporter 2 generates professional, customized reports containing all test measurements under multiple formats (PDF, HTML and XLS). Your customer can now easily see and validate the quality of your work.



SPECIFICATIONS FOR FTB-940/945 TELCO OLTS (NETWORK SERVICE PROVIDER MODELS)

POWER METER SPECIFICATIONS^a

Detector type	InGaAs
Uncertainty ^b	±(5 % + 32 pW)
Measurement range (dBm)	5 to -75
Calibrated wavelengths (nm)	850, 1270, 1290, 1300, 1310, 1330, 1350, 1370, 1383, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625, 1650
Tone detection (Hz)	270/330/1000/2000

SOURCE SPECIFICATIONS^a

Output power (dBm) ^c	MM (850 nm/1300 nm): -25 SM1 (1310 nm/1550 nm): 2.5 SM3 (1310 nm/1550 nm/1625 nm): 1 / -1 / -5 SM4 (1310 nm/1490 nm/1550 nm): 1 / -5 / -1
Output power stability (dB)	±0.05 over 8 h
Spectral width (FWHM) (nm)	850 nm: 30 to 60 1300 nm: 100 to 150

FAS TESTM LOSS/LENGTH SPECIFICATIONS^a

Testing speed ^c	FasTesT TM Simplex: 3 seconds (two wavelengths, bidirectional, automated, IL + fiber length) FasTesT TM Simplex: 6 seconds (three wavelengths, bidirectional, automated, IL + ORL + fiber length)	
Wavelengths (nm) ^c	MM (LED) 850 ± 20 1300 ± 20	SM (Laser) 1310 ± 20 1490 ± 10 1550 ± 20 1625 ± 10
Launch condition ^d	Encircled Flux (EF) compliancy guaranteed at 50/125 µm MM source port. Within TIA-526-14-B, ISO/IEC 14763-3 and IEC 61280-4-1 EF template limits at the end of an EXFO reference-grade 50/125 µm test cord.	
Loss range (dB) ^e	MM: 20 SM Simplex: 45 SM Duplex: 50	
Length measurement range (km) ^f	MM: 20 SM: 200	
Length measurement uncertainty ^c	Duplex: ±(0.5 m + 0.5 % x length) Simplex: ±(1 m + 0.5 % x length)	
ORL measurement range (dB) ^{c, g}	50	
ORL measurement uncertainty (dB) ^{c, g, h}	±1	

LASER SAFETY



- All specifications valid at 23 °C ± 1 °C and 1550 nm, on batteries and after 15 minutes of warm up, unless otherwise specified.
- Uncertainty is valid at calibration conditions.
- Typical.
- Measured at 850 nm with SC connector.
- Typical value, at 850 nm for MM and 1550 nm for SM.
- At 1300 nm for MM and 1550 nm for SM.
- ORL measurement available on MAX-945 singlemode wavelengths only.
- No discrete reflectance greater than -65 dB. Up to 45 dB.

SPECIFICATIONS FOR FTB-940/945 FIBER CERTIFIER OLTS (ENTERPRISE MODELS)

POWER METER SPECIFICATIONS ^a	
Input connector	Interchangeable adapter (LC, SC or FC) ^b
Detector type	InGaAs
Uncertainty ^c	±(5 % + 32 pW)
Measurement range (dBm)	5 to -75
Calibrated wavelengths (nm)	8850, 1270, 1290, 1300, 1310, 1330, 1350, 1370, 1383, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610, 1625, 1650
Tone detection (Hz)	270/330/1000/2000

SOURCE SPECIFICATIONS	
Output power (dBm) ^d	MM: -25 SM: 2.5
Output power stability (dB)	±0.05 over 8 h
Spectral width (FWHM) (nm)	850 nm: 30 to 60 1300 nm: 100 to 150

FAS TES™ LOSS/LENGTH SPECIFICATIONS ^a	
Testing speed ^d	FasTes™ Duplex: 3 seconds (two wavelengths, one direction, automated, IL + fiber length) FasTes™ Simplex: 5 seconds (two wavelengths, bidirectional, automated, IL + ORL + fiber length)
Input/Output connectors	Interchangeable adapter (LC, SC or FC) ^b
Wavelengths (nm) ^d	MM (LED) SM (Laser) 850 ± 20 1310 ± 20 1300 ± 20 1550 ± 20
Launch condition ^e	EF compliancy guaranteed at MM source port Within TIA-526-14-B, ISO/IEC 14763-3 and IEC 61280-4-1 Encircled Flux template limits at the end of an EXFO reference-grade 50/125 µm test cord
Length measurement range (km)	MM: 20 ^f SM: 200
Length measurement uncertainty ^{d,g}	±(0.5 m + 0.5 % x length)
ORL measurement range (dB) ^{d,h}	50
ORL measurement uncertainty (dB) ^{d,h,i}	±1



- a. At 23 °C ± 1 °C and 1550 nm, on batteries and after 15 minutes of warm up, unless specified otherwise.
- b. Specifications are provided with FC type connectors.
- c. Uncertainty is valid at calibration conditions.
- d. Typical.
- e. Measured at 850 nm with SC connector.
- f. At 1300 nm.
- g. In duplex.
- h. ORL measurement available on MAX-945 singlemode wavelengths only.
- i. No discrete reflectance greater than -65 dB. Up to 45 dB.

SPECIFICATIONS FOR OTDRS

Refer to the individual OTDR spec sheets for details:

[FTB-720C access OTDR](#)

[FTB-730C PON FTTx MDU OTDR](#)

[FTB-735C metro PON FTTx MDU OTDR](#)

[FTB-750C metro longhaul OTDR](#)

ORDERING INFORMATION—NETWORK SERVICE PROVIDER MODELS

TK1-V2-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX

Display

S1 = Standard display
S2 = Enhanced display for outdoor use

WiFi/Bluetooth option

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

Memory

64G = 64 GB internal memory (flash)

Power meter

00 = Without power meter
PM2X = Power meter; GeX detector
VPM2X = VFL and power meter; GeX detector

Power meter 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-54B = SC: SC/PC, SC/SPC, SC/UPC, SC/APC
FOA-78 = Radiall EC
FOA-96B = E-2000/APC
FOA-98 = LC
FOA-99 = MU

Inspection probe models^b

00 = Without inspection probe
FP410B = Digital video inspection probe
Triple magnification
FP420B = Analysis digital video inspection probe
Automated pass/fail analysis
Triple magnification
Autocentering
FP425B = Wireless digital video inspection probe^c
Automated pass/fail analysis
Triple magnification
Autocentering
FP430B = Automated analysis digital video inspection probe
Automated focus
Automated pass/fail analysis
Triple magnification
Autocentering
FP435B = Wireless analysis digital video inspection probe^c
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

Extra FIP-400B tips^d**Bulkhead tips**

FIPT-400-FC-APC = FCAPC tip for bulkhead adapter
FIPT-400-FC-SC = FC and SC tip for bulkhead adapter^e
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^f
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^g
FIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC^f

Multifiber tips^g

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 multirow UPC tip for bulkhead adapter
FIPT-400-MTP-MTRA = MTP/MPO multirow 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, 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
FIPT-400-MTP-MTR-K = MTP/MPO multirow APC and UPC tip for bulkhead adapter^g

Example: TK1-V2-S1-RF-64G-PM2X-FOA-12-FP420B-APC-FIPT-400-FC-APC-IPT-FTB-720C-Q1-Oi-IADV-EA-EUI-28-FTB-940-SM1-EA-EUI-89

OLTS connector^l

EI-EUI-28 = UPC/DIN 47256^k
EI-EUI-89 = UPC/FC narrow key^l
EI-EUI-90 = UPC/ST^k
EI-EUI-91 = UPC/SC^l
EI-EUI-95 = UPC/E-2000^k
EI-EUI-98 = UPC/LC^l
EA-EUI-28 = APC/DIN 47256^k
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-95 = APC/E-2000^k
EA-EUI-98 = APC/LC

OLTS

FTB-940-SM1 = IL and length measurement SM 1310/1550 nm
FTB-945-SM1 = IL, length and ORL measurement SM 1310/1550 nm
FTB-945-SM3 = IL, length and ORL measurement SM 1310/1550/1625 nm
FTB-945-SM4 = IL, length and ORL measurement SM 1310/1490/1550 nm
FTB-945-iCERT-Q1-QUAD = Quad
Port 1: 850/1300 nm IL and length measurement
Port 2: 1310/1550 nm IL, length and ORL measurement

OTDR connector

EA-EUI-28 = APC/DIN 47256
EA-EUI-89 = APC/FC narrow key
EA-EUI-91 = APC/SC
EA-EUI-95 = APC/E-2000
EA-EUI-98 = APC/LC
EI connectors = See section on last page

iOLM software optionⁱ

00 = iOLM standard
iADV = iOLM advanced
iPRO = iOLM pro
iLOOP = iOLM loopback mode
iCERT = iOLM Tier 2 certification

Base software

OTDR = Enables OTDR application only
iOLM = Enables iOLM application only
Oi = Enables OTDR and iOLM applications

OTDR

FTB-720C-SM1-XX = SM 1310/1550 nm
FTB-720C-SM2 = SM
Port 1: 1310/1550 nm
Port 2: Filtered 1625 nm for live fiber testing
FTB-720C-Q1 = MM
Port 1: 850/1300 nm
Port 2: SM hardware ready and field upgradable to 1310/1550 nm
FTB-720C-Q1-QUAD = Quad
Port 1: 850/1300 nm
Port 2: 1310/1550 nm
FTB-730C-SM1 = SM 1310/1550 nm
FTB-730C-SM2 = SM
Port 1: 1310/1550 nm
Port 2: Filtered 1625 nm for live fiber testing
FTB-730C-SM3 = SM 1310/1550/1625 nm
FTB-730C-SM8 = SM
Port 1: 1310/1550 nm
Port 2: Filtered 1625 nm for live fiber testing
FTB-730C-SM6 = SM, filtered 1625 nm for live fiber testing
FTB-730C-SM7 = SM, filtered 1650 nm for live fiber testing
FTB-735C-SM1 = SM 1310/1550 nm
FTB-735C-SM2 = SM
Port 1: 1310/1550 nm
Port 2: Filtered 1625 nm for live fiber testing
FTB-735C-SM3 = SM 1310/1550/1625 nm
FTB-735C-SM4 = SM 1310/1490/1550 nm
FTB-750C-SM1 = SM 1310/1550 nm
FTB-750C-SM3 = SM 1310/1550/1625 nm

Software option

00 = Without any software option
IPT = Ping and traceroute functionalities
EXpert-VoIP = RTP-based call testing software application, including packet loss analysis, jitter measurement and complete voice quality metrics
EXpert-IP = IP/Ethernet test suite, with tests including FTP performance, HTTP availability, VLAN scan, LAN discovery, ping, traceroute and IP/Ethernet port statistics (license for a single platform)
EXpert-IPTV = IPTV test suite
EXpert-TPP-Bundle = Triple-play bundle for voice, video and data testing; includes EXpert IP Test Tools, EXpert IPTV Test Tools, EXpert VoIP Test Tools and EXpert SIP
EXpert-SIP = SIP call-signaling support^h
EXpert-SCCP = SCCP call-signaling support^h
EXpert-H.323 = H.323 call-signaling support^h
EXpert-H.248 = H.248/Megaco call-signaling support^h
FR2-PL = FastReporter 2 software
Fiber characterization package
FR2-PL-LB = FastReporter 2 software
Fiber characterization package and iOLM Loopback mode

a. Available if power meter is selected.

b. Includes ConnectorMax2 software.

c. Requires RF capability (WiFi and Bluetooth hardware option).

d. 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 for more information.

e. Included when UPC base tips are selected.

f. Included when APC base tips are selected.

g. Includes a bulkhead adapter for patchcord inspection.

h. Available if EXpert VoIP selected.

i. Please refer to the [iOLM specification sheet](#) for the complete and most recent description of these value packs.

j. Connector adapters are the same on SM source ports, MM source ports and power meter ports. MM connectors are always UPC.

k. Not available for iCERT and FTB-945 models.

l. For FTB-945 model, a hybrid REF grade test cord will be supplied when an EI (UPC) interface is required on the SM port. See EI section in this document.

ORDERING INFORMATION—ENTERPRISE MODELS

TK1-V2-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX-XX

Display

- S1 = Standard display
- S2 = Enhanced display for outdoor use

WiFi/Bluetooth option

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

Memory

- 64G = 64 GB internal memory (flash)

Power meter

- 00 = Without power meter
- PM2X = Power meter; GeX detector
- VPM2X = VFL and power meter; GeX detector

Power meter 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-54B = SC: SC/PC, SC/SPC, SC/UPC, SC/APC
- FOA-78 = Radial EC
- FOA-96B = E-2000/APC
- FOA-98 = LC
- FOA-99 = MU

Inspection probe models^b

- 00 = Without inspection probe
- FP410B = Digital video inspection probe
 - Triple magnification
- FP420B = Analysis digital video inspection probe
 - Automated pass/fail analysis
 - Triple magnification
 - Autocentering
- FP425B = Wireless digital video inspection probe^c
 - Automated pass/fail analysis
 - Triple magnification
 - Autocentering
- FP430B = Automated analysis digital video inspection probe
 - Automated focus
 - Automated pass/fail analysis
 - Triple magnification
 - Autocentering
- FP435B = Wireless analysis digital video inspection probe^c
 - 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

Extra FIPT-400B tips^d**Bulkhead tips**

- FIPT-400-FC-APC = FC/APC tip for bulkhead adapter
- FIPT-400-FC-SC = FC and SC tip for bulkhead adapter^e
- 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^f
- 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^g
- FIPT-400-U25MA = Universal patchcord tip for 2.5 mm ferrules APC^g

Multifiber tips^g

- 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 multirow UPC tip for bulkhead adapter
- FIPT-400-MTP-MTRA = MTP/MPO multirow 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, 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
- FIPT-400-MTP-MTR-K = MTP/MPO multirow APC and UPC tip for bulkhead adapter^h

OLTS connector^j

- EI-EUI-89 = UPC/FC narrow key^k
- EI-EUI-91 = UPC/SC^k
- EI-EUI-98 = UPC/LC^k
- EA-EUI-89 = APC/FC narrow key
- EA-EUI-91 = APC/SC
- EA-EUI-98 = APC/LC

OLTS certifier

- FTB-940-iCERT-SM1 = Certification, IL and length measurement SM 1310/1550 nm
- FTB-940-iCERT-Q1 = Quad ready
 - Port 1: 850/1300 nm IL and length measurement
 - Port 2: SM hardware ready and field upgradable to 1310/1550 nm

FTB-940-iCERT-Q1-QUAD

- Quad
 - Port 1: 850/1300 nm IL and length measurement
 - Port 2: 1310/1550 nm IL and length measurement

FTB-945-iCERT-Q1-QUAD

- Quad
 - Port 1: 850/1300 nm IL and length measurement
 - Port 2: 1310/1550 nm IL, length and ORL measurement

OTDR connector

- EA-EUI-28 = APC/DIN 47256
- EA-EUI-89 = APC/FC narrow key
- EA-EUI-91 = APC/SC
- EA-EUI-95 = APC/E-2000
- EA-EUI-98 = APC/LC
- EI connectors = See section on next page

iOLM software optionⁱ

- 00 = iOLM standard
- iADV = iOLM advanced
- iPRO = iOLM pro
- iLOOP = iOLM loopback mode
- iCERT = iOLM Tier 2 certification

Base software

- OTDR = Enables OTDR application only
- iOLM = Enables iOLM application only
- Oi = Enables OTDR and iOLM applications

OTDR

- FTB-720C-Q1 = MM OTDR module
 - Port 1: 850/1300 nm, 27/29 dB (50/125 and 62.5/125 μm)
 - Port 2: SM hardware ready and field upgradable to 1310/1550 nm
- FTB-720C-Q1-QUAD = Quad OTDR module
 - Port 1: 850/1300 nm, 27/29 dB (50/125 and 62.5/125 μm)
 - Port 2: 1310/1550 nm, 36/35 dB (9/125 μm)

Software option

- 00 = Without any software option
- IP = Ping and traceroute functionalities
- EXpert-VoIP = RTP-based call testing software application, including packet loss analysis, jitter measurement and complete voice quality metrics
- EXpert-IP = IP/Ethernet test suite, with tests including FTP performance, HTTP availability, VLAN scan, LAN discovery, ping, traceroute and IP/Ethernet port statistics (license for a single platform)
- EXpert-IPTV = IPTV test suite
- EXpert-TPP-Bundle = Triple-play bundle for voice, video and data testing; includes EXpert IP Test Tools, EXpert IPTV Test Tools, EXpert VoIP Test Tools and EXpert SIP
- EXpert-SIP = SIP call-signaling support^h
- EXpert-SCCP = SCCP call-signaling support^h
- EXpert-H.323 = H.323 call-signaling support^h
- EXpert-H.248 = H.248/Megaco call-signaling support^h
- FR2-PL = FastReporter 2 software
 - Fiber characterization package
- FR2-PL-LB = FastReporter 2 software
 - Fiber characterization package and iOLM Loopback mode

Example: TK1-V2-S1-RF-64G-PM2X-FOA-12-FP420B-APC-FIPT-400-FC-APC-IPT-FTB-720C-Q1-Oi-iADV-EA-EUI-28-FTB-940-iCERT-SM1-EA-EUI-89

a. Available if power meter is selected.

b. Includes ConnectorMax2 software.

c. Requires RF capability (WiFi and Bluetooth hardware option).

d. 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 for more information.

e. Included when UPC base tips are selected.

f. Included when APC base tips are selected.

g. Includes a bulkhead adapter for patchcord inspection.

h. Available if EXpert VoIP selected.

i. Please refer to the [iOLM specification sheet](#) for the complete and most recent description of these value packs.

j. Connector adapters are the same on SM source ports, MM source ports and power meter ports. MM connectors are always UPC.

k. For FTB-945 model, a hybrid REF grade test cord will be supplied when an EI (UPC) interface is required on the SM port. See EI section in this document.

EI AND EA CONNECTORS



To maximize the performance of your FTBx-945 ORL measurements, APC connectors are mandatory on the SM port. These connectors generate lower reflectance, which is a critical parameter that affects performance for ORL measurement. APC connectors provide better performance than UPC connectors, thereby improving testing efficiency.

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 ordering part number. Additional connectors available are the EI-EUI-76 (UPC/HMS-10/AG) and EI-EUI-90 (UPC/ST).

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

EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to www.EXFO.com/contact.

For the most recent patent marking information, please visit www.EXFO.com/patent. EXFO is certified ISO 9001 and attests to the quality of these products. EXFO has made every effort to ensure that the information contained in this specification sheet is accurate. However, we accept no responsibility for any errors or omissions, and we reserve the right to modify design, characteristics and products at any time without obligation. Units of measurement in this document conform to SI standards and practices. In addition, all of EXFO's manufactured products are compliant with the European Union's WEEE directive. For more information, please visit www.EXFO.com/recycle. **Contact EXFO for prices and availability or to obtain the phone number of your local EXFO distributor.**

For the most recent version of this spec sheet, please go to www.EXFO.com/specs.

In case of discrepancy, the web version takes precedence over any printed literature.