



## TEST & INSPECTION

OTDRs & Troubleshooters | Inspection & Cleaning | Optical Loss Testing | Fiber Identification | Test Management & Reporting Software

## Accurate results and excellent customer service define AFL's Test and Inspection equipment

AFL's test and inspection products consistently meet and exceed customer needs. We deliver exceptional fiber optic testing equipment and outstanding service. Our ISO 9001:2008 certification and quality practices ensure you receive excellent products and documentation.

AFL products are designed to provide accurate results every time. They are engineered to endure outside plant environments, and feature intuitive user interfaces that provide quick results without complicated training requirements. Product lines include OTDRs, Inspection and Cleaning, Loss Test Kits, Fiber Identifiers, Test Management and Reporting software.

### OTDRs & Troubleshooters



### Fiber Inspection & Cleaning



### Optical Loss Testing



### Fiber Identification



### Test Management & Reporting Software

# FlexScan® FS300 Quad OTDR with SmartAuto® and LinkMap®

AFL's FlexScan FS300 Quad OTDR is an all-in-one solution for detecting, identifying, locating and resolving single-mode and multimode optical network issues. It is designed for both novice and expert technicians working in a range of environments from data centers to fiber-to-the-home, as well as local and wide area networks. The FlexScan FS300 automates test setup, shortens test time and simplifies results interpretation, improving efficiency and reducing costs.



## FEATURES

- Multimode and Single-mode OTDR, including PON test
- SmartAuto® 1-button automated testing for fast results
- LinkMap® color-coded icons for easy troubleshooting
- Integrated source, power meter and VFL (visual fault locator)

## ORDERING<sup>a, b</sup>

OTDR Performance			PON OTDR	OLS/ OPM	BT / WiFi	AFL NO.
OTDR/Source $\lambda$ (nm)	Dynamic Range (dB)	Dead zone EDZ/ADZ (m)				
850/1300 MM; 1310/1550 SM	29/29/37/36	0.8/3.5	◆			FS300-325-[Kit]-P0-W0
850/1300 MM; 1310/1550 SM	29/29/37/36	0.8/3.5	◆		◆	FS300-325-[Kit]-P0-W1
850/1300 MM; 1310/1550 SM	29/29/37/36	0.8/3.5	◆	◆		FS300-325-[Kit]-P1-W0
850/1300 MM; 1310/1550 SM	29/29/37/36	0.8/3.5	◆	◆	◆	FS300-325-[Kit]-P1-W1

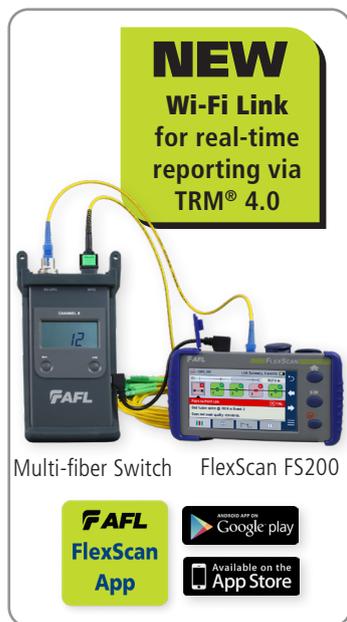
a. Test results can be transferred from FlexScan to TRM® using USB cable, or uploaded via Bluetooth using FlexScan App downloaded from 'iOS App Store' or 'Google play' store.

b. FlexScan FS300 OTDRs are available in [KIT] configurations: Basic, Plus, PRO, BIPM, and MPO.

For details, see FlexScan FS300 product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# FlexScan® FS200 SMF OTDR with SmartAuto®, FleXpress®, and LinkMap®

Combining SmartAuto network-optimized event detection and analysis with its intuitive LinkMap view of the tested network, FS200 OTDRs enable even novice technicians to quickly and easily troubleshoot or fully characterize optical fiber networks. Have dozens of fibers to test? Reduce test time more than 10x, completing dual-wavelength OTDR tests in <5 seconds using new FleXpress fast test! For even faster testing, use FlexScan's new integrated MPO switch control to automate multi-fiber testing.



## FEATURES

- Single, dual or triple wavelength single-mode OTDR
- Easy to understand LinkMap® results with Pass/Fail indications
- Integrated source, power meter, VFL (visual fault locator)

## ORDERING<sup>a, b</sup>

OTDR Performance			PON OTDR		OLS/ OPM	BT / WiFi	FleXpress & MPO Switch	AFL NO.
OTDR/Source λ (nm)	Dynamic Range (dB)	Dead zone EDZ/ADZ (m)	Dark	Live				
1650	37	0.8/3.6	◆	◆			MPO only	FS200-60-[KIT]-P0-W0
1310/1550	32/30	0.8/3.6			◆	◆	MPO only	FS200-100-[KIT]-P1-W1
1310/1550	37/36	0.8/3.5	◆		◆	◆	◆	FS200-300-[KIT]-P1-W1
1310/1550/1625	37/36/37	0.8/3.5	◆	◆	◆	◆	◆	FS200-303-[KIT]-P1-W1
1310/1550/1650	37/36/37	0.8/3.5	◆	◆	◆	◆	◆	FS200-304-[KIT]-P1-W1

- Test results can be transferred from FlexScan to TRM® using USB cable, or uploaded via Bluetooth using FlexScan App downloaded from 'iOS App Store' or 'Google play' store.
- FlexScan FS200 OTDRs are available in [KIT] configurations: Basic, Plus, PRO, BIPM, and MPO. FlexScan OTDRs are available in [KIT] configurations: Basic, Plus, PRO, BIPM, and MPO.

For details, see FlexScan FS200 product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# FlexScan® TS100 FTTH PON Troubleshooter

AFL's FlexScan TS100 Optical Troubleshooter is an easy-to-use, all-in-one tool for detecting, identifying, locating, and resolving single-mode optical network issues. The TS100 provides auto-configured settings to quickly measure received power, link length, loss, ORL and detect events with the push of a button. Results are displayed within seconds using color-coded LinkMap® icons for easy analysis. All TS100s include an integrated Light Source, Broadband and Dual-wavelength PON Power Meter, Visual Fault Locator (VFL), USB and optional Bluetooth interfaces. The Light Source generates CW, Wave ID and fiber-identifying tones, while the Power Meter automatically detects Wave ID and tones



FlexScan TS100

## FEATURES

- Locate faults in <3 seconds with the press of a button
- Displays link length, loss, ORL, and Pass/Fail results
- Single-ended test reduces time and cost
- Rugged, lightweight, hand-held for field use

## ORDERING<sup>a, b</sup>

APPLICATION	TEST $\lambda$ (nm)	POWER METER	AFL NO.
PON to Splitter & Point-to-Point	1650 nm filtered	Broadband + PON	TS100-60-[Kit]-P2
PON through Splitter & Point-to-Point	1650 nm filtered	Broadband + PON	TS100-70-[Kit]-P2
PON through Splitter & Point-to-Point	1625 nm filtered w/ 1650 nm blocking filter	Broadband + PON	TS100-75-[Kit]-P2

a. Test results can be transferred from FlexScan to TRM® using USB cable, or uploaded via Bluetooth using FlexScan App downloaded from 'iOS App Store' or 'Google play' store.

b. FlexScan TS100 Optical Troubleshooters are available in [KIT] configurations: Basic, Plus, PRO.

For details, see FlexScan TS100 product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# Multi-fiber Switch



AFL's Multi-fiber Switch enables the testing of 12-fiber cables without the need to use a breakout cable. The switch allows you to utilize a single piece of test equipment to seamlessly cycle through all of the fibers in a connector regardless of polarity without having to disconnect and reconnect your test equipment making the testing of your network more efficient, saving you both time and money. AFL's Multi-fiber Switch is compatible with your existing OTDR, OLTS and Certification equipment.

## ORDERING

DESCRIPTION	AFL NO.
Multi-fiber Switch, 12 fibers SM, APC-SC, MPO fiber ring (non-pinned), soft case	MFS-12-SM-ASC-FR
Multi-fiber Switch, 12 fibers SM, APC-SC, soft case	MFS-12-SM-ASC
Multi-fiber Switch, 12 fibers SM, UPC-SC, soft case	MFS-12-SM-USC
Multi-fiber Switch, 12 fibers MM, UPC-SC, soft case	MFS-12-MM-USC

## MFS Multi-fiber Switch OTDR Add-on Kit

The switch allows you to utilize a single piece of test equipment to seamlessly cycle through all of A single-mode Multi-fiber Switch can be used to accelerate OTDR testing of MPO-connectorized, multi-fiber cables. The Add-on kit includes (1) single-mode MFS with MPO/APC connector, (1) SC-SC fiber ring to connect a ROGUE OTDR to the switch, and (1) MPO/APC fiber ring.

CONTAINS (ea.)			AFL NO.
12F MFS SWITCH	FIBER RING	MPO FIBER RING	
(1) MFS-12-SM-ASC SM, SC/UPC-MPO/APC	(1) SM, SC-SC, 150 m	(1) 12F, MPO/APC to MPO APC unpinned, 30 m	MPO-SM-OTDR-ADD

# FOCIS Flex Fiber Optic Connector Inspection System

FOCIS Flex makes connector inspection simple, fast, and convenient. With the press of a single button, FOCIS Flex auto-focuses, captures and centers the end-face image, applies Pass/Fail rules, displays image and Pass/Fail results, saves results internally and/or wirelessly transfers data to a paired FlexScan OTDR or a smart device. It is fast, small, and easy to use to enable 100% connector inspection. FOCIS Flex can also be used for OptiTap and MTP/MPO inspections with AFL adapters. Free FOCIS Flex App (iOS and Android) supports inspection reporting and TRM provides comprehensive reporting capabilities for MPO end-face, individual fiber and single-fiber inspection results.

FOCIS Flex is available in a 'No Wireless' [NW] variant, which removes the Bluetooth and WiFi functionality for use in RF restricted facilities.



## ORDERING<sup>a, b</sup>

DESCRIPTION	AFL NO.
FOCIS Flex, no tips	FOCIS-FLX-P4XN
FOCIS Flex, UPC bulkhead and UPC ferrule tips (1 ea), One-Click Cleaner	FOCIS-FLX-P4XU
FOCIS Flex, APC bulkhead and APC ferrule tips (1 ea), One-Click Cleaner	FOCIS-FLX-P4XA
FOCIS Flex, UPC & APC bulkhead and UPC & APC ferrule tips (1 ea), One-Click Cleaner	FOCIS-FLX-P4XUA
FOCIS Flex, no tips, no BT or WiFi wireless functionality	FOCIS-FLX-NW-P4XN
FOCIS Flex, UPC bulkhead and UPC ferrule tips (1 ea), One-Click cleaner, no BT or WiFi	FOCIS-FLX-NW-P4XU
FOCIS Flex, APC bulkhead and APC ferrule tips (1 ea), One-Click cleaner, no BT or WiFi	FOCIS-FLX-NW-P4XA

a. Each FOCIS Flex Kit includes: FOCIS Flex probe with wrist strap and dust cap, TRM<sup>®</sup> Basic Test Results Manager software, AC charger with country-specific plug, USB cable, quick reference guide, and soft carry case with strap.

b. Free FOCIS Flex App is available from 'iOS App Store' or 'Google play' store.

For details, see FOCIS Flex product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# FOCIS Lightning Multi-Fiber Optic Connector Inspection System

FOCIS Lightning is a compact self-contained inspection probe that captures and displays the entire MPO end-face image in less than two seconds. One button provides auto-focusing, centering, and Pass/Fail analysis at the connector and individual fiber level. It can complete a 24-fiber MPO inspection task in less than 15 seconds. Results can be easily shared via USB, WiFi, and Bluetooth®. Free FOCIS Flex App (iOS and Android) supports inspection reporting and TRM provides comprehensive reporting capabilities for MPO end-face, individual fiber and single-fiber inspection results. FOCIS Lightning is available in a 'No Wireless' [NW] variant, which removes the Bluetooth and WiFi functionality for use in RF restricted facilities.



## ORDERING<sup>a, b</sup>

CONTAINS (ea.)										AFL NO.
GBULKHEAD ADAPTER TIPS					MPO ADAPTERS		ONE-CLICK CLEANER			
UPC MPO		APC MPO		SFA	MPO-12	MPO-16	MPO-12	MPO-16		
M12U	MPOU	M12A	MPOA							
										FOCIS-LTNG-N
1	1				1	1	1	1		FOCIS-LTNG-U
		1			1		1			FOCIS-LTNG-A
1	1	1			1	1	1	1		FOCIS-LTNG-UA
	1		1	1	1	1	1	1		FOCIS-LTNG-UASF

- a. Each FOCIS Lightning Kit includes: FOCIS Lightning probe with wrist strap and dust cap, AC charger with country-specific plug, USB cable, quick reference guide, and Easy Access carry case.
- b. Free FOCIS Flex App is available from 'iOS App Store' or 'Google play' store.

For details, see FOCIS Lightning product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# FOCIS Duel Fiber Optic Connector Inspection System

FOCIS Duel is an ultra-compact dual-port inspection scope for fiber optic connectors that uses liquid lens technology for fast auto-focus, centering and Pass/Fail analysis on two ports. This enables users to inspect both connectors in a mated connection without having to change adapter tips. Free FOCIS Flex App (iOS and Android) supports inspection reporting and TRM provides comprehensive reporting capabilities for MPO end-face, individual fiber and single-fiber inspection results.

FOCIS Duel is available in a 'No Wireless' [NW] variant, which removes the Bluetooth and WiFi functionality for use in RF restricted facilities.



## ORDERING<sup>a,b</sup>

FOCIS DUEL	CONTAINS (ea.)				ONE-CLICK CLEANER	AFL NO.
	UPC TIPS		APC TIPS			
	BULKHEAD	FERRULE	BULKHEAD	FERRULE		
1						FOCIS-DUEL-N
1	1	1			1	FOCIS-DUEL-U
1			1	1	1	FOCIS-DUEL-A
1	1	1	1	1	1	FOCIS-DUEL-UA

a. Each FOCIS Duel Kit includes: FOCIS Duel probe with wrist strap and dust cap, TRM<sup>®</sup> Basic Test Results Manager software, AC charger with country-specific plug, USB cable, quick reference guide, and soft carry case with strap.

b. Free FOCIS Flex App is available from 'iOS App Store' or 'Google play' store.

For details, see FOCIS Duel product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# FOCIS WiFi2 Fiber Optic Connector Inspection System

FOCIS WiFi2 is an ergonomic Fiber Optic Connector Inspection System that, when paired with an iOS or Android smart device, provides fast and accurate IEC/IPC/AT&T compliant and user-defined pass/fail end-face cleanliness analysis. Free of charge iOS and Android companion apps support a comprehensive and user-friendly feature set. FOCIS WiFi2™ App is available via Google play or Apple Store.



**Pass/fail results in seconds:** With the press of a single button, FOCIS WiFi2 auto-focuses, captures, centers and analyzes the end-face image to industry standard IEC 61300-3-35 (2015), IPC-8497-1, AT&T TP-76461 and user-defined criteria.

**Untethered operation:** App-based report generator with results/reports that can be shared by email. With rechargeable battery and convenient pass/fail LED feedback, FOCIS WiFi2 can be used autonomously.

**Wide range of adapter tips:** Interchangeable adapter tips support single and multi-fiber connector inspection for a wide range of patch cords and bulkhead-mounted connectors having either PC/UPC or APC polished end-faces; compatible with all FOCIS Flex adapter tips.

## ORDERING

DESCRIPTION	AFL NO.
FOCIS WiFi2, soft carry case, AC charger, with NO tips or One-Click cleaner	FOCIS-WIFI2-N
FOCIS WiFi2, soft carry case, AC charger, user-selected: (2) UPC ferrule & bulkhead adapter tips and (1) One-Click cleaner	FOCIS-WIFI2-U
FOCIS WiFi2, soft carry case, AC charger, user-selected: (2) APC ferrule & bulkhead adapter tips and (1) One-Click cleaner	FOCIS-WIFI2-A
FOCIS WiFi2, soft carry case, AC charger, user-selected: (2) UPC and (2) APC ferrule & bulkhead adapter tips and (1) One-Click cleaner	FOCIS-WIFI2-UA

For details, see FOCIS WiFi2 product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# Fiber Optic Cleaning Solutions

AFL fiber optic cleaning products enable network technicians and other staff to safely and effectively clean fiber optic connectors, dramatically decreasing network outage and downtime. For details, see our “Fiber Optic Cleaning and Inspection” catalog or visit [www.AFLglobal.com](http://www.AFLglobal.com).



## ORDERING

DESCRIPTION	AFL NO.
One-Click Cleaner SC, ST, FC (500+ cleans)	8500-05-0001MZ
One-Click Cleaner MU/LC (500+ cleans)	8500-05-0002MZ
One-Click Cleaner Mini-100 SC, ST, FC (100+ cleans)	8500-05-0005MZ
One-Click Cleaner Mini-100 MU/LC (100+ cleans)	8500-05-0006MZ
One-Click Cleaner Mini-500 SC, ST, FC (500 cleans)	8500-05-0009MZ
One-Click Cleaner Mini-500 MU/LC (500 cleans)	8500-05-0010MZ
One-Click Cleaner Ultra 2.5 SC, ST, FC (enlarged cleaning)	8500-05-0007MZ
One-Click Cleaner ODC (outdoor connector)	8500-05-0004MZ
One-Click Cleaner D-LC, Duplex LC (500+ cleans X2)	8500-05-0008MZ
One-Click Cleaner MPO (500 cleans)	8500-05-0030MZ
One-Click Cleaner SC, ST, FC (box of 5 units)	8500-05-0021MZ
One-Click Cleaner MU/LC (box of 5 units)	8500-05-0022MZ
One-Click Cleaner Mini-100 SC, ST, FC (box of 5 units)	8500-05-0025MZ
One-Click Cleaner Mini-100 MU/LC (box of 5 units)	8500-05-0026MZ
One-Click Cleaner Ultra 2.5 SC, ST, FC (box of 5 units)	8500-05-0027MZ
Cletop –SB with White Tape	8500-10-0016MZ
Replacement Tape Type S - White	8500-10-0017MZ

# ROGUE® OLTS Certifier

AFL's ROGUE OLTS Certifier measures insertion loss, return loss, and length bi-directionally to industry standards on both multimode and single-mode networks. ROGUE OLTS Certifier is offered as a matched pair of units, with each unit featuring 4 test ports. Two of the ports combine a light source and power meter to enable bi-directional testing on single or dual fibers. The other two ports are a dedicated power meter and a visual fault identifier (VFI) to help troubleshoot networks.



## FEATURES

- Bi-directional testing on up to 2 fibers at once
- 12-fiber MPO certification with optional Multi-Fiber switch (MFS)
- Reporting with TRM® PC software and optional cloud-based workflow integration with aeRos®

## APPLICATIONS

- Certify Tier 1 networks to industry standards
- Test LAN structured cabling and data center networks with single fiber (LC, SC, FC, ST) and multi-fiber (MTP/MPO) connectivity
- Document network installations

## ORDERING

DESCRIPTION	CONTAINS (two of each)	AFL NO.
ROGUE OLTS Certifier kit with cB1 Base, Quad SM/MM	ROGUE cB1 Base, Quad SM/MM Module, battery, AC charger, adjustable carry strap, carry case	RGK-CERT01
ROGUE OLTS Certifier kit with cB1 Base, Dual SM ports	ROGUE cB1 Base, Dual Ports SM Module, battery, AC charger, adjustable carry strap, carry case	RGK-CERT03
ROGUE OLTS Certifier kit with iB1 Base, Quad SM/MM	ROGUE iB1 Base, Quad SM/MM Module, battery, AC charger, adjustable carry strap, carry case	RGK-CERT01B1
ROGUE OLTS Certifier kit with iB1 Base, Dual SM ports	ROGUE iB1 Base, Dual Ports SM Module, battery, AC charger, adjustable carry strap, carry case	RGK-CERT03B1

**Note:** Each ROGUE OLTS Certifier kit includes two (2) of each: ROGUE cB1 or iB1 Base, kit-specific ROGUE Modules, battery, AC charger, carry strap, carry case. Each ROGUE OLTS Certifier kit includes (1) One-Click Cleaner SC/2.5 mm, (1) One-Click Cleaner LC/1.25 mm, switchable test port adapters and test accessories.

# ROGUE® OLTS Certifier



## ROGUE Hardware and Accessories

DESCRIPTION	AFL NO.
ROGUE OLTS with cB1 Base; contains ROGUE cB1 Base, Dual Ports SM Module, battery, AC charger, adjustable carry strap	RGK-OLTS03
ROGUE OLTS with iB1 Base; contains ROGUE iB1 Base, Dual Ports SM Module, battery, AC charger, adjustable carry strap	RGK-OLTS03B1
ROGUE cB1, Compact Base; contains ROGUE cB1 Base, battery, AC charger, adjustable carry strap	RG-C01
ROGUE iB1, Intelligent Base; contains ROGUE iB1 Base, battery, AC charger, adjustable carry strap	RG-B01
ROGUE OLTS Certifier Quad Module; contains Quad Module; test port adapters: (2) SC for OLS port, SC and LC for OPM port	RG-1100-Q01
ROGUE OLTS Certifier SM Module; contains SM Module; test port adapters (2) SC for OLS port, SC and LC for OPM port	RG-1100-S01-D
ROGUE cB1 Base Kickstand	RGA-STND-01
ROGUE Kit Carry Case	RGA-CASE-01
ORL Referencing Mandrel	5400-00-0200
Adjustable Carry Strap	RGA-STRAP-01
AC charger for cB1 Base	4050-00-0132PR
AC charger for iB1 Base	4050-00-0918PR
Reference cable, SC/UPC-LC/UPC, SMF28E/E+, 2 m	8700-00-0081
Reference cable, SC/APC-LC/UPC, SMF, 2 m	8700-00-0050
Reference grade cable, SC/UPC-LC/UPC, MMF, 50 μm, OM4, 2 mm, Red, 2 m	8700-04-0007MR

# FlowScout™ PON Optical Power Meter

US Patent 9,602,200 and US Patent 10,771,153

FlowScout PON optical power meter identifies, measures, and qualifies both downstream and upstream signal levels in FTTx PON networks. It is perfect for technicians responsible for activating and maintaining networks carrying a mix of GPON/EPON, video, and next gen PON (XG/XGS-PON, 10GEPON) wavelengths. FlowScout requires no setup! Technicians simply plug in the fiber under test to see results displayed in seconds on the large color touchscreen. Storage and reporting options are included to verify and document results from the field. FlowScout's rugged design makes it perfect for outside plant environments where it can be dropped, get dirty or even wet.



## FEATURES

- Detects multiple wavelengths automatically - NO setup required!
- Detects GPON, XGS-PON, and Video signals all at once
- Rugged and water resistant, IP54 rating
- Field-swappable connector adapters

## APPLICATIONS

- Detects and measures PON upstream and downstream signals
- PON network activation
- BPON, EPON, GPON, 10G-EPON, XG-PON, XGS-PON, Video network verification and troubleshooting
- Evaluate PON power level Pass/Fail based on limits

## ORDERING

DESCRIPTION	AFL NO.
FlowScout PON Power Meter XGPON/XGSPON	TPPM-XG

For details, see FlowScout product profile at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test).

# Optical Loss Test Kits

AFL offers a variety of light sources and power meters combined into single-mode (SLP) and single-mode/multimode (SMLP) test kits. Sources with Wave ID transmit two or more wavelengths simultaneously decreasing test time and reducing user errors when used with Wave ID power meter. Kits include in-unit storage of test results and TRM® 2.0 reporting software, which enables technicians to organize test data, apply test rules for Pass/Fail analysis, and build custom test reports using industry accepted templates.



## ORDERING

FIBER TYPE	LOSS MEASUREMENTS (nm)	DYNAMIC RANGE (dB)	SET REF.	AUTO DUAL $\lambda$ TEST	PC S/W	METER	SOURCE	AFL NO.
SM	1310, 1550	70 <sup>b</sup>	◆	◆	◆	OPM5-3D	OLS2-DUAL	SLP5-6
SM	1310, 1490, 1550	45 <sup>b</sup>	◆	◆	◆	OPM5-4D	OLS7-FTTH	SLP5-FTTH
MM, SM	850, 1300 1310, 1550	40 @850/1300 nm <sup>a</sup> 60 @1310/1550 nm <sup>b</sup>	◆	◆	◆	OPM5-2D	OLS4	SMLP5-5
MM	850, 1300	40 <sup>a</sup>				CSM1-3	CSS1-MM	CKM-3
SM	1310, 1550	70 @1310/1550 nm				CSM1-3	CSS1-SM	CKS-3
MM, SM	850, 1300 1310, 1550	40 @850/1300 nm <sup>a</sup> 60 @1310/1550 nm <sup>b</sup>				CSM1-3	CSS1-MM CSS1-SM	CKSM-2

Notes:

- a. On 62.5/125  $\mu$ m multimode fiber.
- b. On 9/125  $\mu$ m single-mode fiber.

# Encircled Flux (EF) Compliant Test Kit and Light Source

Since adoption by the IEC, Encircled Flux (EF) multimode launch requirements are increasingly specified into fiber loss testing job requirements. Meeting EF specification requires technicians use EF qualified sources and test sets. It is important to note IEC 61280-1-4 and TIA-568-14-B Ed. 2.0 specify EF multimode launch conditions at the end of an EF qualified Reference Grade Test Cord (RGTC), not directly out source test port. Thus, EF compliance requires an EF Light Source and RGTC used together.



SMLP5-5-EF test Kit

AFL EF compliant loss test kit

Multimode Test Port: Light Source with designed in Encircled Flux (EF) optics paired with one EF qualified RGTC; 50/125  $\mu\text{m}$  receive test cord

Single-mode Test Port: Light Source with two 9/125  $\mu\text{m}$  test cords (launch/receive)

## TEST KIT ORDERING

FIBER TYPE	DYNAMIC RANGE (dB) @ $\lambda$ (nm)	AVAILABLE CONNECTORS		INCLUDED 2-METER TEST CORDS		POWER METER	LIGHT SOURCE	AFL NO.
		SOURCE PORT	TEST CORD	LAUNCH ( $\mu\text{m}$ )	RECEIVE ( $\mu\text{m}$ )			
MM	40 @850/1300	FC, SC	FC, SC, ST, LC	MM: RGTC, 50/125	MM: 50/125	OPM5-2D	OLS4-EF	SMLP5-5-EF
SM	60 @1310/1550			SM: 9/125	SM: 9/125			

## LIGHT SOURCE ORDERING

WAVELENGTHS (nm)	OUTPUT PORTS	EMITTER TYPE	OUTPUT POWER (dBm)	STABILITY	AFL NO.
850, 1300, 1310, 1550	MM, SM	LED, Laser	-20 (MM port), 0 (SM port)	$\pm 0.05$ dB/1 hr	OLS4-EF

## LED and Laser Light Sources

AFL offers a full range of light sources for testing single-mode and/or multimode fiber networks. Sources with Wave ID transmit two or more wavelengths simultaneously decreasing test time and reducing user errors when used with AFL Wave ID power meters.



OLS4 Integrated LED/Laser Source

### Encircled Flux (EF) Compliant Light Sources

- Standard multimode light source used with AFL Encircled Flux Mode Controller (ordered separately)
- Order EF mode conditioner with part number 8700-06-000#MR to select different connector type.

### ORDERING

WAVELENGTHS (nm)	OUTPUT PORTS	EMITTER TYPE	OUTPUT POWER	STABILITY	WAVE ID	TONE OUTPUT	AFL NO.
850, 1300	(1): MM	LED	-20 dBm	± 0.1 dB/8 hrs		N/A	OLS1-DUAL
1310, 1550	(1): SM	Laser	0 dBm	± 0.05 dB/1 hr	◆	270, 330 Hz, 1, 2 kHz	OLS2-DUAL
850, 1300	(1): MM	LED	-20 dBm	± 0.05 dB/1 hr	◆	N/A	OLS4
1310, 1550	(1): SM	Laser	0 dBm			2 kHz	
1310, 1550, 1625	(1): SM	Laser	-5 dBm	± 0.05 dB/1 hr	◆	270, 330 Hz, 1, 2 kHz	OLS7-3
1310, 1490, 1550	(1): SM	Laser	-5 dBm	± 0.05 dB/1 hr	◆	270, 330 Hz, 1, 2 kHz	OLS7-FTTH
850, 1300	(1): MM	LED	-20 dBm	± 0.1 dB/1 hr		N/A	CSS1-MM
1310, 1550	(1): SM	Laser	0 dBm	± 0.05 dB/1 hr		270, 330 Hz, 1, 2 kHz	CSS1-SM

# Optical Power Meters

AFL offers a full range of optical power meters to support FTtx deployments, fiber network testing and certification, and basic power measurements. Backed by industry leading 5-year product warranties, these are the quality products you can trust.



## ORDERING

CALIBRATED WAVELENGTHS (nm)	DETECTOR TYPE	MEASUREMENT RANGE (dBm)	WAVE ID	tone <sup>a</sup>	REF. SET	DATA SAVE	PC S/W	AFL NO.
650, 660, 780, 850	Silicon	+6 to -70	◆	◆	◆			OPM4-1D
850, 1300, 1310, 1490, 1550	Germanium	+6 to -60	◆	◆	◆			OPM4-2D
850, 1300, 1310, 1490, 1550, 1625	InGaAs	+10 to -75	◆	◆	◆			OPM4-3D
850, 980, 1300, 1310, 1490, 1550, 1625	InGaAs	+26 to -50	◆	◆	◆			OPM4-4D
850, 1300, 1310, 1490, 1550	Germanium	+6 to -60	◆	◆	◆	◆	◆	OPM5-2D
850, 1300, 1310, 1490, 1550, 1625	InGaAs	+10 to -75	◆	◆	◆	◆	◆	OPM5-3D
850, 980, 1300, 1310, 1490, 1550, 1625	InGaAs	+26 to -50	◆	◆	◆	◆	◆	OPM5-4D
850, 1300, 1310, 1490, 1550, 1625	InGaAs	+6 to -70		◆	◆			CSM1-3
850, 980, 1310, 1490, 1550, 1625	InGaAs	+26 to -50		◆	◆			CSM1-4

a. 270 Hz, 330 Hz, 1 kHz, and 2 kHz Tone detection

# MFIS Multi-Fiber Identification System

MFIS Multi-Fiber Identification System is an award-winning, innovative product family to help users verify network construction quickly, accurately and efficiently. MFIS provides 100% multi-fiber network continuity assurance and senior management peace-of-mind.



## FEATURES

- Easy to use
- Powered by common batteries
- One-hand operation
- Hand-held and lightweight
- Three-year calibration interval

## APPLICATIONS

- Multi-fiber network continuity assurance
- Various fan-out connectors for easy application
- Optimized for use on 250  $\mu$ m, 900  $\mu$ m, & ribbon fiber
- Fiber identification on both Power Meter and MFI
- Multi-fiber network for FTTx deployment

## ORDERING

DESCRIPTION	AFL NO.
Multi-Fiber Identifier, no case	MF11-00-0900MR
Multi-Fiber Power Meter, no case	MFP1-12-0900MR
Multi-Fiber Tracer & Identifier with soft case	MFTI-12-BAS
Multi-Fiber Tracer & Power Meter with soft case	MFTP1-12-BAS
Multi-Fiber Tracer, Identifier, and Power Meter with soft case	MFTIP1-12-BAS
ACCESSORIES	
Cable, MPO/APC(M)-SC/APC, 12-fiber, SM, fan-out, 3 meters	8700-00-0198MR
Cable, MPO/APC (M) - SC/UPC, 12-fiber, SM, fan-out, 3 meters	8700-00-0200MR
Cable, MPO/APC (M) - LC/UPC, 12-fiber, SM, fan-out, 3 meters	8700-00-0201MR
One-Click Cleaner Mini-100 SC, ST, FC (100+ cleans)	8500-05-0005MZ
One-Click Mini-100 MU/LC (100+ cleans)	8500-05-0006MZ
One-Click Cleaner MPO (500+ cleans)	8500-05-0030MZ

# Visual Fault Identifier aeRos

Visual Fault Identifiers (VFI) use powerful red lasers to trace and troubleshoot single-mode or multimode optical fiber links. VFI is an ideal tool for locating a large number of defects that occur at connection points in and around fiber cabinets which are hidden in an OTDR's "blind-spot" or dead-zone. AFL offers VFI units for both single-ferrule and multi-ferrule connector styles.



## VFI4 and VFI4-Low VISUAL FAULT IDENTIFIERS

- Identify sharp bends or breaks in fibers
- Identify poorly mated connectors
- Verify AFL's FASTConnect® connector installation
- Identify and trace fibers during activation and installation

## MT TRACER

- Essential tool for ribbon cable testing
- Multi-fiber VFI with 12 separately controlled lasers
- Verify connectivity of a 12-fiber ribbon cable
- Confirm polarity in seconds

## SPECIFICATIONS

PRODUCT	WAVELENGTH	OUTPUT POWER	EMITTER	CONNECTOR	POWER
VFI4	650 nm	5 mW, 2 Hz, CW	Laser <sup>a</sup>	Universal 2.5 mm	(1) AA
VFI4-L	650 nm	1 mW, 2 Hz, CW	Laser <sup>b</sup>	Universal 2.5 mm; Optional 1.25 mm	(1) AA
MT Tracer	650 nm	1 mW, 2 Hz or CW	Laser	MTP®	(2) AA

a. Safety: Class IIIa FDA 21 CFR 1040.10 and 1040.11, Class 3R IEC 60825-1:2007-03.

b. Safety: Class II FDA 21 CFR 1040.10 and 1040.11, Class 2 IEC 60825-1:2007-03.



## ORDERING

PRODUCT	DESCRIPTION	AFL NO.
VFI4	VFI4 with 2.5 mm and 1.25 mm adapters	VFI4-01-0900PR
VFI4-L	VFI4 with 2.5 adapter	VFI4-02-0900PR
MT Tracer	MT Tracer Kit: MT Tracer Source, MT Tracer Display, and carry case	TRCR-90-0900

## Optical Fiber Identifiers

**5 YEAR WARRANTY**



OFI-200 and OFI-400x Models

**OFI-200 - Optical Fiber Identifier:** Detects optical signals sent through single-mode fiber without disrupting traffic, differentiates traffic from 2 kHz tones, indicates traffic direction.

**OFI-400 - Enhanced OFI:** Adds LCD display of power. Designed for use with a wide range of single-mode fibers including 250  $\mu\text{m}$  (bare) coated, 900  $\mu\text{m}$  buffered and ribbon fibers or 2 mm and 3 mm jacketed fibers.

**OFI-400C - Optimized for Jacketed Fiber:** Functionally equivalent to the OFI-400 but designed specifically for use with 2 mm or 3 mm jacketed single-mode fibers.

**OFI-400HP - High Power Applications:** Designed for use where high levels of optical power are present. When display reaches +23 dBm (200 mW) or greater, the OFI-400HP displays “High” warning indication.

FIBER COATING TYPE	INSERTION LOSS (dB)		TONE (Hz)	POWER	AFL NO.
	@1310 (nm)	@1550 (nm)			
250 & 900 $\mu\text{m}$ , ribbon, 2 & 3 mm jacketed	0.6	2.5	2 kHz	9V	OFI-200D
2 & 3 mm jacketed	1.0	2.8	270, 330 Hz; 1, 2 kHz	(2) AAA	OFI-400C
250 & 900 $\mu\text{m}$ , ribbon, 2 or 3 mm jacketed	0.6	2.5	270, 330 Hz; 1, 2 kHz	(2) AAA	OFI-400
2 & 3 mm jacketed	0.2 - 0.5	0.8 - 1.3	270, 330 Hz; 1, 2 kHz	(2) AAA	OFI-400HP



OFI-BIPM and OFI-BIPMe

**Only available to customers in North and Central America, Caribbean, China, Vietnam and Malaysia!**

**OFI-BIPM/-BIPMe:** Full featured OFI includes a touch screen, positive stop trigger, an integrated optical power meter, and several easy to select options. The OFI-BIPM/-BIPMe can be used with any SM fiber including bend insensitive fiber, bare fibers, ribbons and up to 3 mm jackets and most MM fibers.

FIBER COATING TYPE	DETECTABLE SIGNALS	POWER	AFL NO.
MM fiber, 0.25 mm SM and SM ribbon fiber (up to 12 ribbon) 1.1 /1.5 /1.7 /2.0 /3.0 mm SM jacketed fiber	CW, Traffic or 270 Hz/1 kHz/2 kHz	(2) AA	OFI-BIPM
	CW, Traffic or 270Hz/330Hz/1kHz/2kHz		OFI-BIPMe

# TRM<sup>®</sup> Test Results Manager



TRM Test Results Manager is a Windows-compatible PC software, which provides comprehensive OTDR trace, connector inspection, and optical loss test results analysis and reporting. Designed for use with AFL test and inspection products, TRM is available in Basic and Advanced versions.

## ORDERING

AFL NO.	DESCRIPTION
<b>TRM 2.0 (for use with M-series OTDRs, OPM4/5)</b>	
TRM-00-0900PR	TRM 2.0 with Basic License (OTDR Trace/OLTS Viewer, Batch Editor and Reports), USB delivery
TRM-01-0900PR	TRM 2.0 with Basic License (OTDR Trace/OLTS Viewer, Batch Editor and Reports), email delivery
TRM-00-0910PR	TRM 2.0 with Advanced License (TRM 2.0 Basic plus Advanced Analysis), USB delivery
TRM-01-0910PR	TRM 2.0 with Advanced License (TRM 2.0 Basic plus Advanced Analysis), email delivery
TRM-00-0920PR	TRM 2.0 upgrade from Basic to Advanced License, USB delivery
TRM-01-0920PR	TRM 2.0 upgrade from Basic to Advanced License, email delivery
<b>TRM 3.0 (for use with FlexScan OTDRs, FOCIS family products)</b>	
TRM3-BASIC	TRM 3.0 with Basic License (OTDR Trace/OLTS Viewer, Batch Editor and Reports), USB delivery
TRM3-BA-EMAIL	TRM 3.0 with Basic License (OTDR Trace/OLTS Viewer, Batch Editor and Reports), email delivery
TRM3-ADVANCED	TRM 3.0 with Advanced License (TRM 3.0 Basic plus Advanced Analysis), USB delivery
TRM3-AD-EMAIL	TRM 3.0 with Advanced License (TRM 3.0 Basic plus Advanced Analysis), email delivery
TRM3-UPGRADE	TRM 3.0 upgrade from Basic to Advanced License, USB delivery
TRM3-UP-EMAIL	TRM 3.0 upgrade from Basic to Advanced License, email delivery

## Accessories

AFL offers an extensive array of fiber optic test and inspection accessories, cleaning supplies, and test reporting software.

- OTDR launch and receive/tail cords - fiber rings
- Custom-designed network simulators
- Encircled Flux (EF) reference grade test cords
- Mandrels for multimode link testing
- Connector adapters for fiber optic testers
- Adapter tips for inspection products
- Multimode test jumpers (62.5/125  $\mu\text{m}$  - 2 meters)
- Single-mode test jumpers (9/125  $\mu\text{m}$  - 2 meters)
- Mating adapters (bulkheads)
- Power supplies and cords
- TRM<sup>®</sup> Test Results Manager PC software
- And much more at [www.Aflglobal.com/Test](http://www.Aflglobal.com/Test)

For more information about AFL's OTDRs, Certification Test Kits, Loss Test Sets, Inspection Systems, Cleaning Solutions and Accessories contact us at **(800) 325-3423** or online at [www.AFLglobal.com/Test](http://www.AFLglobal.com/Test)



# AFL



[www.AFLglobal.com](http://www.AFLglobal.com) or (800) 235-3423

LC-01005 Revision 2022.04.15  
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