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### Warranty Activation

[www.AFLglobal.com/Register](http://www.AFLglobal.com/Register)

### AFL's Customer Portal - Direct

[content.AFLglobal.com/Direct.html](http://content.AFLglobal.com/Direct.html)

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## RELEASE HIGHLIGHTS

**NEW**



FlowScout® DPPM Downstream PON Power Meter

### FlowScout® DPPM Downstream PON Power Meter

AFL's FlowScout DPPM is a Downstream PON Power Meter designed to automatically detect and simultaneously measure coexistent downstream PON power levels at 1490 nm GPON/EPON and either 1550 nm RF video or 1577 nm XG/XGS/10GEPON.

See section "FlowScout® DPPM Downstream PON Power Meter", page 38

**NEW**



FlowScout OPM8 Optical Power Meter and OLS8 Light Source

### FlowScout® OPM8 Optical Power Meters and OLS8 Light Sources

AFL's FlowScout OPM8 optical power meter and FlowScout OLS8 optical light source represent the next generation of smart optical power meters and optical light sources respectively. Designed on the legacy of the AFL/ Noyes OPM and OLS series, the FlowScout OPM8 and OLS8 provide rapid loss testing with pass/fail results for use in enterprise LAN, data center, PON, and broadband networks.

See section "FlowScout® OPM8 Optical Power Meter and OLS8 Optical Light Source", page 41.

# OTDRs & TROUBLESHOOTERS

## OTDRs & Troubleshooters Selection Guide



Model	Point-to-Point Networks/Fiber Type					FTTx PON				OTDR/Troubleshooter Performance										Integrated Peripherals				Reporting	
	MMF/SMF		SMF			Dark	Live	Test To Splitter	Test Through Splitter	Wavelengths (nm)	Dynamic Range (dB)	Dead Zone EDZ/ ADZ (m)	SmartAuto®	Expert & Real-time	LinkMap®	FlexPress®	Trace View	MPO Switch Control	OLS	Broadband OPM	Dual-λ PON OPM	VFL	FlexReports	iOS & Android FlexApp	Inspection
	Data Center	LAN	Core	Metro	Access																				
<b>FlexScan FS300 Quad OTDR</b>																									
<a href="#">FS300-325</a>	◆	◆	◆	◆	◆	◆	◆	◆	850/1300/1310/1550	29/29/37/35	0.5/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>FlexScan FS200 SM OTDR</b>																									
<a href="#">FS200-60</a>			◆	◆	◆	◆	◆	◆	1650	37	0.8/3.6	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<a href="#">FS200-100</a>				◆	◆	◆	◆	◆	1310/1550	32/30	0.8/3.6	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<a href="#">FS200-300</a>			◆	◆	◆	◆	◆	◆	1310/1550	37/35	0.8/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<a href="#">FS200-303</a>			◆	◆	◆	◆	◆	◆	1310/1550/1625	37/35/37	0.8/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<a href="#">FS200-304</a>			◆	◆	◆	◆	◆	◆	1310/1550/1650	37/35/37	0.8/3.5	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
<b>FlexScan TS100 Troubleshooter</b>																									
<a href="#">TS100-60</a>					◆	◆	◆	◆	1650	Note 'a'	Note 'b'	◆		◆	◆			◆	◆	◆	◆	◆	◆	◆	◆
<a href="#">TS100-70</a>					◆	◆	◆	◆	1650	Note 'a'	Note 'b'	◆		◆	◆			◆	◆	◆	◆	◆	◆	◆	◆

**Notes:**

- a. See TS100 data sheet for measurement range specifications.
- b. See TS100 data sheet for event detection specifications.

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## FS300 Quad OTDR with SmartAuto® and LinkMap®



All-in-one solution that automates test setup, shortens test time, and simplifies results interpretation!

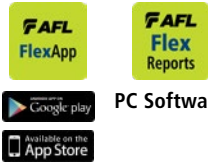
- Wavelengths: MM 850/1300, SM 1310/1550
- Network Type: Point-to-Point and PON up to 1:64
- Dynamic Range: MM  $\geq 29/29$  dB, SM  $\geq 37/35$  dB
- Event Dead Zone:  $\leq 0.8$  m
- Range Settings: MM 250 m to 30 km, SM 250 m to 240 km
- Data Points: Up to 300,000
- Internal Storage: 4 GB ( $>4000$  traces)

The FlexScan FS300 OTDR enables both expert and novice technicians to quickly and accurately locate, identify and measure components and faults on either single-mode or multimode optical networks.

The pocket-sized FlexScan FS300 includes an integrated optical light source, power meter and visual fault locator (VFL). It can be easily coupled with AFL's award-winning FOCIS inspection probes or optical fiber identifiers (OFI) to give technicians everything they need to locate and resolve any optical network issues.

FlexScan SmartAuto tests utilize multi-pulse acquisition to obtain high-resolution without sacrificing measurement range. Test results are clearly displayed on the large 5-inch touchscreen with color-coded LinkMap® icons providing network configuration and pass/fail status at a glance.

Professional reports can be generated using either integrated Print-to-PDF or free Windows-compatible FlexReports Basic Test Results Manager software with 60-day reports trial or optional FlexReports Advanced with full reporting capability. Results can be transferred from FlexScan by USB cable or wirelessly using the free FlexApp (iOS or Android).



PC Software



FlexScan Basic Kit



FlexScan Plus Kit



FlexScan PRO Kit



FlexScan BIPM Kit



FlexScan MPO Kit

## FS300 Quad OTDR with SmartAuto® and LinkMap®

- Quad OTDR (850/1300 nm MM and 1310/1550 nm SM, including FTTH PON test)
- Larger, higher resolution display (5", 800 x 480)
- Gesture-recognition touchscreen (swipe-to-pan, pinch-to-zoom)
- Integrated Print-to-PDF
- Auto-save and auto-send
- User-replaceable, longer life battery

FS300 is available in six kit configurations: Basic, PLUS, PRO, BIPM, SMPO, MMPO.

- All kits include FS300 with AC charger, battery, carry strap, SC/2.5 mm connector adapters, FlexReports SW, quick reference user guide, and carry case
- PLUS Kits add 150 m fiber rings and One-Click Cleaner
- PRO Kits additionally include a FOCIS Flex auto-focusing connector inspection probe

with IEC pass/fail analysis and two adapter tips

- BIPM Kits expand on PRO Kits by adding a bend-insensitive fiber identifier with optical power meter
- SMPO Kits include FS300, single-mode MFS Switch, single-mode 150 m fiber ring (SC/APC to SC/APC), single-mode MPO launch cable (unpinned) to user-selected male (pinned) or female (unpinned) MPO connector, FlexReports Advanced, One-Click Cleaners (single-fiber and MPO), carry case that allows FlexScan, MFS Switch, and fiber rings to be connected, operated in the carry case and remain configured during transport
- MMPO Kits include FS300, multimode MFS Switch, OM3/4/5-compatible 150 m fiber ring (SC to SC), multimode MPO launch cable (unpinned) to user-selected male (pinned) or female (unpinned) MPO connector, FlexReports Advanced, One-Click Cleaners (single fiber and MPO), carry case that allows FlexScan, MFS Switch, and fiber rings to be connected, operated in the carry case and remain configured during transport

## FlexScan FS300 Ordering Information

AFL NO.	OTDR/OLS λ (nm)	PON OTDR	OLS/OPM	BT/Wi-Fi							
FS300-325-[Kit]-PO-W0	850/1300 MM; 1310/1550 SM	◆									
FS300-325-[Kit]-PO-W1 <sup>(a)</sup>	850/1300 MM; 1310/1550 SM	◆		◆							
FS300-325-[Kit]-P1-W0	850/1300 MM; 1310/1550 SM	◆	◆								
FS300-325-[Kit]-P1-W <sup>(a)</sup>	850/1300 MM; 1310/1550 SM	◆	◆	◆							

## FlexScan FS300 Quad OTDR Kit Configuration - [KIT]

[KIT]	FS300 Kit Configuration / Kit Contents
<b>BAS<sup>a</sup></b>	Includes: FS300, soft case, FlexReports Basic software with 60-day Advanced software trial, USB cable
<b>PLUS</b>	Includes: BAS Kit plus 150 m SMF & MMF fiber rings, One-Click Cleaner, upgrade to FlexReports Advanced, user-selected soft or hard carry case
<b>PRO</b>	Includes: PLUS Kit plus FOCIS Flex with two user-selected adapter tips
<b>BIPM</b>	Includes: PRO Kit plus OFI-BIPMe
<b>SMPO</b>	Includes: FS300, SMF MFS Multi-Fiber Switch, SMF 150 m fiber ring (SC/APC to SC/APC), SMF MPO launch cable (unpinned) to user-selected male (pinned) or female (unpinned) MPO connector, FlexReports Advanced, One-Click Cleaners (single-fiber and MPO), carry case that allows FlexScan, MFS Switch, and fiber rings to be connected, operated in the carry case and remain configured during transport
<b>MMPO</b>	Includes: FS300, MMF MFS Multi-Fiber Switch, OM3/4/5-compatible 150 m fiber ring (SC to SC), MMF MPO launch cable (unpinned) to user-selected male (pinned) or female (unpinned) MPO connector, FlexReports Advanced, One-Clicks (single fiber and MPO), carry case that allows FlexScan, MFS Switch, and fiber rings to be connected, operated in the carry case and remain configured during transport

### Notes:

- Test results can be off-loaded via USB cable or transferred wirelessly to the FlexReporter-Cloud (W1 option) using the FlexApp (free iOS or Android) for future reports generation with FlexReports software. FlexReports Advanced provides batch-processing of test results and professional reports generation. FlexReports Basic provides result viewing and a 60-day trail of Advanced license. User can opt to upgrade FlexReports Basic to Advanced after purchase.

## FlexScan FS300 Accessories and Connector Adapters

See sections "FlexScan Series Accessories and Connector Adapters", page 17.

## FlexScan® FS300-325 Order Entry

FS300-325 Basic, Plus, PRO, BIPM Kits Order Entry: **FS300-325-[KIT]-[Pn]-[Wn]-[C]-[CC]-[LNG]-[AC]-[SMFR]-[MMFR]-[TIP]**,

FS300-325 MPO Kits (SMF and MMF) Order Entry: **FS300-325-[MKIT]-P1-[Wn]-[LNG]-[AC]-[MPOC]**, where:

[KIT]	FS300-325 Kit Configuration / Kit Contents
<b>BAS</b>	Includes: FS300, soft case, FlexReports Basic with 60-day Advanced license trial, USB cable <sup>(a)</sup>
<b>PLUS</b>	Includes: BAS Kit plus 150 m SMF & MMF Fiber Rings, One-Click Cleaner, upgrade to FlexReports Advanced, user-selected soft or hard carry case
<b>PRO</b>	Includes: PLUS Kit plus FOCIS Flex with two user-selected adapter tips
<b>BIPM</b>	Includes: PRO Kit plus OFI-BIPMe

[MKIT]	FS300-325 MPO Kit Configuration / Kit Contents
<b>SMPO</b>	Single-mode MPO test Kit (see SMPO Kit details on preceding page)
<b>MMPO</b>	Multimode MPO test Kit (see MMPO Kit details on preceding page)

[Pn]	Light Source (OLS) & Optical Power Meter (OPM)
<b>P0</b>	No OLS, no OPM
<b>P1</b>	850/1300 MM; 1310/1550 SM Source and Power Meter

[Wn]	Bluetooth / Wi-Fi Configuration
<b>W0</b>	No Bluetooth or Wi-Fi
<b>W1<sup>(b)</sup></b>	Includes Wi-Fi and Bluetooth

[C]	OTDR / Source Connector Type
<b>A</b>	APC (recommended)
<b>U</b>	UPC

[CC] <sup>(c)</sup>	Carry Case Option
<b>S1</b>	Large soft case for FlexScan, Fiber Rings, FOCIS Flex, OFI-BIPM, accessories (Plus, PRO, BIPM Kits only)
<b>S2</b>	Standard soft case for FlexScan, Fiber Rings, FOCIS Flex, accessories (Basic, Plus, PRO Kits only)
<b>H1</b>	Hard carry case (Plus, PRO, BIPM Kits only)

### Notes:

- Test results can be off-loaded via USB cable or transferred wirelessly to the FlexReporter-Cloud (W1 option) using the FlexApp for future reports generation with FlexReports software.
- FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via FlexApp for remote reporting using FlexReports.
- Basic Kit always ships with S2 (Standard Soft Case); MPO Kit always ships with MPO-specific soft case.

[LNG]	Language Option
<b>ENG</b>	English
<b>CHS</b>	Chinese Simplified
<b>CHT</b>	Chinese Traditional
<b>CZE</b>	Czech
<b>DEU</b>	German
<b>DNK</b>	Danish
<b>FIN</b>	Finnish
<b>FRA</b>	French
<b>ITA</b>	Italian

[LNG]	Language Option
<b>JPN</b>	Japanese
<b>KOR</b>	Korean
<b>NOR</b>	Norwegian
<b>POL</b>	Polish
<b>POR</b>	Portuguese
<b>SPA</b>	Spanish
<b>TUR</b>	Turkish
<b>VNM</b>	Vietnamese

[AC]	Destination Country	AC Plugs
<b>US</b>	USA	2-pin, US
<b>EU</b>	European Union	2-pin, EU
<b>UK</b>	United Kingdom	3-pin, UK
<b>CN</b>	China, Australia	2-pin, SAA

[MMFR]	150 m OM1 62.5 μm MMF Fiber Ring
<b>Absent</b>	N/A in Basic Kits
<b>USC/UST1</b>	FR-OM1-150-USC-UST
<b>USC/USC1</b>	FR-OM1-150-USC-USC
<b>USC/ULC1</b>	FR-OM1-150-USC-ULC

[MMFR]	150 m OM2 50 μm MMF Fiber Ring
<b>Absent</b>	N/A in Basic Kits
<b>USC/USC2</b>	FR-OM2-150-USC-USC
<b>USC/ULC2</b>	FR-OM2-150-USC-ULC

[MMFR]	150 m OM3/4/5 - Compatible Fiber Ring
<b>Absent</b>	N/A in Basic Kits
<b>USC/UST3</b>	FR-OM3-150-USC-UST
<b>USC/USC3</b>	FR-OM3-150-USC-USC
<b>USC/ULC3</b>	FR-OM3-150-USC-ULC

[SMFR]	150 m SMF Fiber Ring
<b>Absent</b>	N/A in Basic Kits
<b>USC/USC</b>	FR-SMF-150-USC-USC
<b>USC/UFC</b>	FR-SMF-150-USC-UFC
<b>USC/ULC</b>	FR-SMF-150-USC-ULC
<b>USC/UST</b>	FR-SMF-150-USC-UST
<b>ASC/USC</b>	FR-SMF-150-ASC-USC
<b>ASC/UFC</b>	FR-SMF-150-ASC-UFC
<b>ASC/ULC</b>	FR-SMF-150-ASC-ULC
<b>ASC/UST</b>	FR-SMF-150-ASC-UST
<b>ASC/ASC</b>	FR-SMF-150-ASC-ASC
<b>ASC/ALC</b>	FR-SMF-150-ASC-ALC

FOCIS Flex Tips & Cleaning (PRO, BIPM Kits)			
[TIP]	Bulkhead Tip	Ferrule Tip	One-Click
<b>SC</b>	SC/UPC	2.5 mm UPC	2.5 mm
<b>FC</b>	FC/UPC	2.5 mm UPC	2.5 mm
<b>LC</b>	LC/UPC	1.25 mm UPC	1.25 mm
<b>ASC</b>	SC/APC	2.5 mm APC	2.5 mm
<b>AFC</b>	FC/APC	2.5 mm APC	2.5 mm
<b>ALC</b>	LC/APC	1.25 mm APC	1.25 mm
<b>Absent</b>	Option not available in Basic and PLUS Kits		

[MPOC]	MPO Launch Cable Network Connector
<b>F</b>	Female (unpinned) to Female (unpinned)
<b>M</b>	Female (unpinned) to Male (pinned)

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



**Measure fiber attenuation and identify connectors, splices, cable ends & issues such as bends or breaks**

- Wavelengths: 1, 2, or 3 (1310, 1550, 1625, 1650 nm)
- Network Type: Point-to-Point and/or FTTH PON
- Dynamic Range: Up to 37 dB
- Internal Storage: 4 GB (>4000 traces)
- Size: 86 x 160 x 43 mm; Weight: 0.4 kg
- Battery Life: >12 hours, Telcordia test conditions
- Display: Color touchscreen 4.3 in LCD
- Available with field-replaceable Port Saver
- USB, Bluetooth, and Wi-Fi interfaces

The FlexScan FS200 is a family of performance-packed single-mode OTDRs which provide fast, accurate fiber characterization and fault location for point-to-point and FTTH PON networks.

FlexScan FS200 OTDRs automate test setup, simplify results interpretation, and shorten test time, all at an affordable price point. AFL's SmartAuto® mode requires just the push of a button to test the network. Results are clearly displayed on the large touchscreen using color-coded LinkMap® icons that show network configuration and pass/fail status at a glance. Our new FleXpress® mode completes dual-wavelength tests in under 5 seconds – 10 x faster than other OTDRs!

The integrated light source, power meter and VFL, along with an optional connector inspection scope, provide both expert and novice technicians everything they need to locate and resolve optical network issues.

Results can be stored internally, saved to a USB, and uploaded via USB cable, Bluetooth (via FlexApp), or Wi-Fi (via FS200 Wi-Fi Link) for real-time reporting using AFL's free Windows-compatible FlexReports Basic Test Results Manager software with 60-day reports trial or optional FlexReports Advanced with full reporting capability.





FlexScan OTDR



FlexScan Basic Kit



FlexScan Plus Kit



FlexScan PRO Kit



FlexScan MPO Kit

## 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, AFL's FlexScan 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.

FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via iOS or Android FlexApp for remote reporting using FlexReports. The FlexApp is available as a free download from 'iOS App Store' or 'Google play' store.

### FlexScan FS200 Ordering Information

FlexScan FS200 family offers the following models with integrated VFL, two USB ports plus optional source, power meter, Bluetooth® and Wi-Fi communications:

- **FS200-60:** 1650 nm Live PON Troubleshooting OTDR
- **FS200-100:** 1310/1550 Point-to-Point Verification and Troubleshooting OTDR
- **FS200-300:** 1310/1550 PON and Point-to-Point Verification and Troubleshooting OTDR with Flexpress and MPO Switch control
- **FS200-303:** 1310/1550/1625 PON and Point-to-Point Verification and Troubleshooting OTDR with Flexpress and MPO Switch control
- **FS200-304:** 1310/1550/1650 PON and Point-to-Point Verification and Troubleshooting OTDR with Flexpress and MPO Switch control

AFL NO.	OTDR/Source λ (nm)	PON OTDR		OLS/OPM	BT/Wi-Fi								
		Dark	Live										
<b>FS200-60-[Kit]-P1-W1</b>	1650	◆	◆	◆	◆								
<b>FS200-100-[Kit]-P0-W0</b>	1310/1550												
<b>FS200-100-[Kit]-P1-W1</b>	1310/1550			◆	◆								
<b>FS200-300-[Kit]-P0-W1</b>	1310/1550	◆			◆								
<b>FS200-300-[Kit]-P1-W1</b>	1310/1550	◆		◆	◆								
<b>FS200-303-[Kit]-P1-W0</b>	1310/1550/1625	◆	◆	◆									
<b>FS200-303-[Kit]-P1-W1</b>	1310/1550/1625	◆	◆	◆	◆								
<b>FS200-304-[Kit]-P0-W1</b>	1310/1550/1650	◆	◆		◆								
<b>FS200-304-[Kit]-P1-W0</b>	1310/1550/1650	◆	◆	◆									
<b>FS200-304-[Kit]-P1-W1</b>	1310/1550/1650	◆	◆	◆	◆								

### FlexScan FS200 Kit Configuration - [KIT]

[KIT]	FS200 Kit Configuration / Kit Contents
<b>BAS<sup>(a)</sup></b>	Includes: FS200, FlexReports Basic software with 60-day Advanced software trial, USB cable, soft case
<b>PLUS</b>	Includes: BAS Kit plus 150 m SMF Fiber Ring, One-Click Cleaner, upgrade to FlexReports Advanced, soft or hard carry case
<b>PRO</b>	Includes: PLUS Kit plus FOCIS Flex with two user-selected adapter tips
<b>FTTH-PRO</b>	Includes: BAS Kit plus 150 m SC/APC and LC/APC Fiber Rings, FOCIS Flex plus SC/APC & LC/APC bulkhead and ferrule adapters, SC & LC One-Click Cleaners, Port Saver, FlexReports Advanced, soft or hard carry case (FS200-303/304 only)
<b>BIPM</b>	Includes: PRO Kit plus OFI-BIPMe
<b>MPO</b>	Includes: FS200, MFS Multi-Fiber Switch, MPO launch cable, OTDR-to-Switch launch cable, OTDR-to-Switch USB cable, FlexReports Advanced

#### Notes:

- a. Test results can be off-loaded via USB cable or transferred wirelessly to the FlexReporter-Cloud (W1 option) using the FlexApp (free iOS or Android) for future reports generation with FlexReports software. FlexReports Advanced provides batch-processing of test results and professional reports generation. FlexReports Basic provides result viewing and a 60-day trail of Advanced license. User can opt to upgrade FlexReports Basic to Advanced after purchase.

\$250 Minimum Order

## FlexScan® FS200 Order Entry

All kits include a FlexScan FS200 with AC charger, battery, carry strap, SC/2.5 mm connector adapters, FlexReports, USB cable, and carry case.

FS200-XXX-Basic, Plus, PRO, BIPM Kits Order Entry: **FS200-[MOD]-[KIT]-[PW]-[C]-[CC]-[LNG]-[AC]-[FR]-[TIP]**

FS200-XXX-MPO Kits Order Entry: **FS200-[MOD]-MPO-P1-W1-[C]-[LNG]-[AC]-[MPOC]**

FS200-303/304-FTTH-PRO Kits Order Entry: **FS200-[MOD]-FTTH-PRO-[CC]-[LNG]-[AC]**, where:

[MOD]	FS200 FlexScan OTDR Configuration
<b>60</b>	1650 nm only Live PON Troubleshooting OTDR
<b>100</b>	1310/1550 nm Verification & Troubleshooting OTDR
<b>300</b>	1310/1550 nm Pt-to-Pt and PON Verification & Troubleshooting OTDR
<b>303</b>	1310/1550/1625 nm Pt-to-Pt and PON Verification & Troubleshooting
<b>304</b>	1310/1550/1650 nm Pt-to-Pt and PON Verification & Troubleshooting

[KIT]	FS200 FlexScan Kit Configuration / Kit Contents
<b>BAS</b>	Includes: FS200, FlexReports Basic with 60-day Advanced license trial, USB cable <sup>(a)</sup> , soft case
<b>PLUS</b>	Includes: BAS Kit plus 150 m SMF Fiber Rings, One-Click Cleaner, upgrade to FlexReports Advanced, soft or hard carry case
<b>PRO</b>	Includes: PLUS Kit plus FOCIS Flex with 2 user-selected adapter tips
<b>FTTH-PRO</b>	Includes: BAS Kit plus 150 m SC/APC and LC/APC Fiber Rings, FOCIS Flex plus SC/APC & LC/APC bulkhead and ferrule adapters, SC & LC One-Click Cleaners, Port Saver, FlexReports Advanced, soft or hard carry case (FS200-303/304 only)
<b>BIPM</b>	Includes: PRO Kit plus OFI-BIPMe
<b>MPO</b>	Includes: FS200, MFS Multi-Fiber Switch, MPO launch cable, OTDR-to-Switch launch cable, OTDR-to-Switch USB cable, FlexReports Advanced

[PW]	Power Meter / Wireless Option
<b>P0-W0</b>	No Source, Power Meter, or Bluetooth/Wi-Fi (-100 only)
<b>P0-W1<sup>b</sup></b>	No Source, Power Meter; Includes Bluetooth/Wi-Fi (-300/304)
<b>P1-W0</b>	No Bluetooth/Wi-Fi (-303/304 only); Includes Source, Power Meter
<b>P1-W1<sup>b</sup></b>	Includes Source, Power Meter, Bluetooth/Wi-Fi

[C]	OTDR / Source Connector Type
<b>A</b>	APC (recommended)
<b>U</b>	UPC (available in all models except FS200-60)

[CC] <sup>(c)</sup>	Carry Case Option (PLUS, PRO, FTTH-PRO, BIPM Kits)
<b>S1</b>	Large soft case for FS200, Fiber Ring, FOCIS Flex, OFI-BIPMe, accessories
<b>S2</b>	Medium soft case for FS200, Fiber Ring, FOCIS Flex, accessories
<b>H1</b>	Hard carry case for FS200, Fiber Ring, FOCIS Flex, OFI-BIPMe, accessories

[LNG]	Language Option
<b>ENG</b>	English
<b>CHS</b>	Chinese Simplified
<b>CHT</b>	Chinese Traditional
<b>CZE</b>	Czech
<b>DEU</b>	German
<b>DNK</b>	Danish
<b>FIN</b>	Finnish
<b>FRA</b>	French
<b>ITA</b>	Italian

[LNG]	Language Option
<b>JPN</b>	Japanese
<b>KOR</b>	Korean
<b>NOR</b>	Norwegian
<b>POL</b>	Polish
<b>POR</b>	Portuguese
<b>SPA</b>	Spanish
<b>TUR</b>	Turkish
<b>VNM</b>	Vietnamese

[AC]	Destination Country	AC Plugs
<b>US</b>	USA	2-pin, US
<b>EU</b>	European Union	2-pin, EU
<b>UK</b>	United Kingdom	3-pin, UK
<b>CN</b>	China, Australia	2-pin, SAA

[FR] <sup>d</sup>	150 m SMF Fiber Ring Configuration
<b>Absent</b>	N/A in Basic Kits
<b>USC/USC</b>	FR-SMF-150-USC-USC
<b>USC/UFC</b>	FR-SMF-150-USC-UFC
<b>USC/ULC</b>	FR-SMF-150-USC-ULC
<b>USC/UST</b>	FR-SMF-150-USC-UST
<b>ASC/USC</b>	FR-SMF-150-ASC-USC
<b>ASC/UFC</b>	FR-SMF-150-ASC-UFC
<b>ASC/ULC</b>	FR-SMF-150-ASC-ULC
<b>ASC/UST</b>	FR-SMF-150-ASC-UST
<b>ASC/ASC</b>	FR-SMF-150-ASC-ASC
<b>ASC/ALC</b>	FR-SMF-150-ASC-ALC

[TIP] <sup>e</sup>	FOCIS Flex Tips & Cleaning (PRO only)		
	Bulkhead Tip	Ferrule Tip	One-Click
<b>SC</b>	SC/UPC	2.5 mm UPC	2.5 mm
<b>FC</b>	FC/UPC	2.5 mm UPC	2.5 mm
<b>LC</b>	LC/UPC	1.25 mm UPC	1.25 mm
<b>ASC</b>	SC/APC	2.5 mm APC	2.5 mm
<b>AFC</b>	FC/APC	2.5 mm APC	2.5 mm
<b>ALC</b>	LC/APC	1.25 mm APC	1.25 mm
<b>Absent</b>	Option not available in Basic and PLUS Kits		

[MPOC]	MPO Launch Cable Network Connector
<b>F</b>	Female (unpinned) to Female (unpinned)
<b>M</b>	Female (unpinned) to Male (pinned)

### Notes:

- Results can be transferred from FlexScan OTDR to FlexReports using USB cable, or performed wirelessly (W1 option) after downloading free FlexApp. The FlexApp is available as a free download from 'Google play' or 'App Store'.
- FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via FlexApp for remote reporting using FlexReports.
- Basic Kit always ships with S2 (Medium Soft Case); MPO Kit always ships with MPO-specific soft case.

## FlexScan FS200 Accessories and Connector Adapters

See sections "FlexScan Series Accessories and Connector Adapters", page 17.



## TS100 FTTH PON Troubleshooter



Avoid extended downtime and additional truckrolls with the easy-to-use TS100 designed for frontline technicians

### Specifications

- Wavelengths: 1650 nm filtered live PON Troubleshooter
- Network Type: Point-to-Point and/or FTTH PON
- Integrated GPON/10GPON PON Power Meter
- Test Range: Up to 40 km
- Test Time: Length, Loss, ORL, faults to end or Splitter  $\leq 3$  sec
- Results Storage: 4 GB internal memory
- Size: 86 x 160 x 43 mm and weighs 0.4 kg
- Battery Life: >12 hours, Telcordia test conditions
- Display: 4.3 inch color touchscreen LCD
- Available with field-replaceable Port Saver

AFL's FlexScan TS100 is a family of pocket-sized optical troubleshooters for frontline service technicians to enable them to quickly verify or diagnose GPON, video and XG/XGS-PON or 10GEPON networks.

It features automated setup, ultra-fast fault location, and color-coded icons that enable even novices to diagnose and repair single-mode networks like experts.

TS100 measures downstream PON power, link length, loss, and ORL in under three seconds with the push of a button. Technicians then simply touch any failed measurements to get information on what to do about it.

Test results may be stored internally or externally and easily shared via USB or Bluetooth. AFL's free Windows-compatible FlexReports Basic Test Results Manager software with 60-day reports trial or optional FlexReports Advanced with full reporting capability quickly generates easy-to-understand reports.

Service providers, MSOs, and contractors love FlexScan TS100 because it automates testing, shortens test time, interprets results, and recommends corrective actions - improving the efficiency of their frontline technicians and reducing costs.



FlexScan TS100



PC Software



FlexScan Basic Kit



FlexScan Plus Kit



FlexScan PRO Kit

## 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. The FlexScan TS100 automates testing, shortens test time, interprets results, and recommends corrective actions, improving efficiency of frontline technicians and reducing costs.

Higher performance TS100-70 FlexScans can test through splitters up to 1:64, measure splitter loss and compare it to user-settable min/max loss limits, enabling technicians to detect dirty or damaged connections or macro-bends at the splitter.

The lower cost FlexScan TS100-60 will test to the splitter but not through the splitter. Consequently, it will not detect and report macro-bends or poor connections at the splitter which cause excess loss through the splitter.

TS100s are available with a field-replaceable connector, which accepts tool-free, interchangeable connector adapters. Users are able to replace the connector in the field if damaged when mating dirty or damaged connectors to the TS100. The field-replaceable connector also allows users to convert the Troubleshooter port from APC to UPC or vice versa.

### FlexScan TS100 Ordering Information

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.

AFL NO.	Application	Test λ (nm)	Power Meter			
TS100-60-P2	PON to Splitter & Point-to-Point	1650 nm filtered	Broadband + PON			
TS100-70-P2	PON through Splitter & Point-to-Point	1650 nm filtered	Broadband + PON			

### FlexScan TS100 Kit Configuration - [KIT]

All kits include selected FlexScan TS100 with AC charger, battery, carry strap, SC/2.5 mm connector adapters, FlexReports, USB cable, and soft carry case. PLUS Kits add a 150 m Fiber Ring, One-Click cleaner, and upgrade to FlexReports Advanced software. PRO Kits add a FOCIS Flex auto-focusing connector inspection probe with IEC pass/fail analysis and two adapter tips. TS100s are manufactured with APC connectors.

[KIT]	TS100 Kit Configuration / Kit Contents
BAS <sup>(a)</sup>	Includes: TS100, soft case, FlexReports Basic software with 60-day Advanced software trial , USB cable
PLUS	Includes: BAS Kit plus 150 m Fiber Ring, One-Click Cleaner, upgrade to FlexReports Advanced
PRO	Includes: PLUS Kit plus FOCIS Flex with 2 adapter tips

#### Notes:

- Test results can be off-loaded via USB cable or transferred wirelessly to the FlexReporter-Cloud using the FlexApp (free iOS or Android) for future reports generation with FlexReports software. FlexReports Advanced provides batch-processing of test results and professional reports generation. FlexReports Basic provides result viewing and a 60-day trail of Advanced license. User can opt to upgrade FlexReports Basic to Advanced after purchase.

### FlexScan TS100 Accessories and Connector Adapters

See sections "FlexScan Series Accessories and Connector Adapters", page 17.

## FlexScan® TS100 Order Entry

TS100-[MOD]-[KIT]-[Pn]-[Wn]-[LNG]-[AC]-[FR]-[TIP], where:

[MOD]	TS100 Configuration
60	1650 nm filtered Live PON Troubleshooter; Test to Splitter
70	1650 nm filtered Live PON Troubleshooter; Test through Splitter

[KIT]	TS100 Kit Configuration/Kit Contents
BAS	Includes: TS100, soft case, FlexReports Basic with 60-day Advanced license trial, USB cable <sup>(a)</sup>
PLUS	Includes: BAS Kit plus 150 m Fiber Ring, One-Click Cleaner, FlexReports Advanced
PRO	Includes: PLUS Kit plus FOCIS Flex with 2 adapter tips

[Pn]	Power Meter Option
P2	Broadband Power Meter plus dual-wavelength PON Power Meter for GPON / Video / XG/XGS/10GE PON

[Wn]	Bluetooth Wireless Option
W0	Disabled
W1 <sup>(b)</sup>	Installed and enabled

[LNG]	Language Option
ENG	English
CHS	Chinese Simplified
CHT	Chinese Traditional
CZE	Czech
DEU	German
DNK	Danish
FIN	Finnish
FRA	French

[LNG]	Language Option
ITA	Italian
JPN	Japanese
KOR	Korean
NOR	Norwegian
POL	Polish
POR	Portuguese
SPA	Spanish
TUR	Turkish

[AC]	Destination Country	AC Plugs
US	USA	2-pin, US
EU	European Union	2-pin, EU
UK	United Kingdom	3-pin, UK
CN	China, Australia	2-pin, SAA

[FR1]	150 m SMF Fiber Ring
Absent	N/A in Basic Kits
ASC/USC	FR-SMF-150-ASC-USC
ASC/UFC	FR-SMF-150-ASC-UFC
ASC/ULC	FR-SMF-150-ASC-ULC
ASC/UST	FR-SMF-150-ASC-UST
ASC/ASC	FR-SMF-150-ASC-ASC
ASC/ALC	FR-SMF-150-ASC-ALC

[TIP]	FOCIS Flex Tips & Cleaning (PRO only)
Blank	Option not available in Basic and PLUS Kits
SC	SC/UPC bulkhead tip, 2.5 mm UPC ferrule tip, 2.5 mm One-Click
FC	FC/UPC bulkhead tip, 2.5 mm UPC ferrule tip, 2.5 mm One-Click
LC	LC/UPC bulkhead tip, 1.25 mm UPC ferrule tip, 1.25 mm One-Click
ASC	SC/APC bulkhead tip, 2.5 mm APC ferrule tip, 2.5 mm One-Click
AFC	FC/APC bulkhead tip, 2.5 mm APC ferrule tip, 2.5 mm One-Click
ALC	LC/APC bulkhead tip, 1.25 mm APC ferrule tip, 1.25 mm One-Click

### Notes:

- Results can be transferred from FlexScan to FlexReports using USB cable, or uploaded via Bluetooth using FlexApp downloaded from 'iOS App Store' or 'Google play' store.
- FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via iOS or Android FlexApp for remote reporting using FlexReports.

## Optical Port Saver — Field-replaceable Connector Adapter



2900-58-0002MR

2900-58-0001MR

2900-58-0003MR

2900-58-0004MR

2900-58-0014MR

### Color Bands Legend:

Green = SMF APC

Blue = SMF UPC

Pink = MMF UPC

### Features

- Prevents damage to factory-installed OTDR ferrules
- Allows damaged connectors to be replaced in the field
- Supports APC and UPC ferrules and connectors
- Available for single-mode and multimode OTDR ports
- Available for SMF and 50  $\mu\text{m}$  MMF ports

AFL's Port Saver is a field-replaceable connector that protects FlexScan®-series OTDR's ferrule from damage due to repeated mating.

Protect your OTDR ports from damage due to mating with dirty or damaged launch cables, patch cords, or normal wear-and-tear. Equip your FlexScan FS200/ FS300 OTDRs or FlexScan TS100 Troubleshooter with a field-replaceable connector, which installs in seconds and accepts AFL's tool-free interchangeable SC, LC, FC, and ST connector adapters.

**Replace damaged connectors in the field:** When normal wear-and-tear or poor cleaning practices damage the Port Saver's end-face, replace it in seconds without having to return the OTDR to a service center for an expensive and time-consuming repair.

**Easy to install and cost-effective:** The Port Saver helps you avoid factory replacement of damaged ferrules caused by dirt and debris. Traditional repair time for factory OTDR ferrules can be over 1 week. With the Port Saver, you can simply swap out the damaged Port Saver in the field with a new one saving time and costly shipping charges to the factory. Its easy, quick, and you will be back to testing in about 2 minutes!

Optical Port Savers



2900-58-0001MR



2900-58-0002MR



2900-58-0003MR



2900-58-0004MR



2900-58-0014MR



Fiber Ring, [page 19](#)

FlexScan Series Accessories and Connector Adapters

AFL NO.	Accessories   Description	Compatible With		
		FS200	FS300	TS100
6000-00-0031MR	Cable, USB-micro B, 5 pin, 6 ft <sup>(a)</sup>	◆	◆	◆
4050-00-0931PR	AC charger 100-240 VAC to 5 VDC (specify [AC] option; see 'Order Entry')	◆	◆	◆
1400-05-0230PZ	FlexScan wrist strap	◆	◆	◆
1400-05-0231PZ	FlexScan neck strap, 36"	◆	◆	◆
1400-01-0111PZ	Soft carry case for FS200/TS100 Kits with FOCIS Flex and Fiber Ring	◆		◆
1400-20-0008PZ	Soft carry case for FS200/TS100 Kits with FOCIS Flex, OFI-BIPMe and Fiber Ring	◆		◆
1400-01-0134PZ	Hard carry case for FS200/TS100 Kits with FOCIS Flex, OFI-BIPMe and Fiber Ring	◆		◆
1400-01-0182PZ	Soft Carry Case for FS200 MPO Kit	◆		
1400-20-0006PZ	Soft carry case for FS300 with FOCIS, OFI, Fiber Ring		◆	
1400-01-0177PZ	Hard carry case for FS300 Kits with FOCIS, OFI and Fiber Ring		◆	
1400-20-0001PZ	Soft Carry Case for FS300-325 MPO Kits		◆	
1400-20-0005PZ	Soft carry case for FS300 with FOCIS, & Fiber Ring		◆	
3900-06-0902MR	FS300 extended temperature replacement battery		◆	
4050-00-0935PR	Vehicle charger with USB to barrel adapter cable	◆	◆	◆
6000-00-0034PR	5V USB charging cable (1.5 m), type A to barrel (0.9 X 3.2 X 9 mm)	◆	◆	◆
RPTS-UP-TRM3-1	FlexReports Advanced, one seat, Upgrade from TRM <sup>®</sup> 3 Advanced on USB. Users must have TRM-3 Advanced license	◆	◆	◆
<b>OFI-BIPMe</b> - See "OFI-BIPM & OFI-BIPMe Optical Fiber Identifiers", page 51				
<b>FOCIS Flex</b> - See "FOCIS Flex Fiber Optic Connector Inspection System", page 22				
<b>Fiber Rings</b> - Coiled lengths of multimode or single-mode fiber packaged in compact rings for use as OTDR test cords. See <a href="#">page 19</a>				
<b>Network Simulators</b> - Custom-designed bench top or rack mountable boxes intended to duplicate installed fiber optic networks. See <a href="#">page 18</a>				
<b>TJ-03 Temporary Splice</b> - See "TJ-03 Temporary Splice", page 21.				

Notes:

- Results can be transferred from FlexScan to FlexReports using USB cable, or performed wirelessly after downloading IOS or Android FlexApp from 'iOS App Store' or 'Google play' store.
- OTDR software updates are available for download on the [www.AFLglobal.com](http://www.AFLglobal.com) -> Resources -> Software web page.

AFL NO.	Connector Adapters Description	Test Port	FS200	FS300	TS100
2900-58-0001MR	FlexScan-facing APC female to APC male field-replaceable Port Saver SMF	OTDR/OLS	◆	◆	◆
2900-58-0002MR	FlexScan-facing APC female to UPC male field-replaceable Port Saver SMF	OTDR/OLS	◆	◆	◆
2900-58-0003MR	FlexScan-facing UPC female to APC male field-replaceable Port Saver SMF	OTDR/OLS	◆	◆	◆
2900-58-0004MR	FlexScan-facing UPC female to UPC male field-replaceable Port Saver SMF	OTDR/OLS	◆	◆	◆
2900-58-0014MR	FlexScan-facing UPC female to UPC male field-replaceable Port Saver, 50 μm MMF	OTDR/OLS	◆	◆	◆
2900-50-0002MR	FC	OTDR/OLS	◆	◆	◆
2900-50-0003MR	SC	OTDR/OLS	◆	◆ (incl)	◆
2900-50-0004MR	ST	OTDR/OLS	◆	◆	◆
2900-50-0006MR	LC	OTDR/OLS	◆	◆	◆
2900-50-0011MR	SC/APC	OTDR/OLS	◆ (incl)	◆ (incl)	◆ (incl)
2900-52-0001MR	FC	OPM	◆	◆	
2900-52-0002MR	SC	OPM	◆	◆	
2900-52-0003MR	ST	OPM	◆	◆	
2900-52-0004MR	LC	OPM	◆	◆	
2900-52-0005MR	2.5 mm Universal	OPM	◆ (incl)	◆ (incl)	
2900-52-0006MR	1.25 mm Universal	OPM	◆	◆	
2900-53-0001MR	2.5 mm Universal	FS200 VFL	◆ (incl)		◆ (incl)
2900-53-0002MR	1.25 mm Universal	FS200 VFL	◆		◆
2900-50-0007MR	2.5 mm Universal	FS300 VFL		◆ (incl)	
2900-50-0010MR	1.25 mm Universal	FS300 VFL		◆	

\$250 Minimum Order



MFS- Multi-Fiber Switch

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

Single-mode and multimode Multi-Fiber Switches (MFS) are available to accelerate OTDR testing of MPO-connectorized, multi-fiber cables. OTDR MFS Add-on Kits include (1) MFS with MPO connector, (1) single-fiber Fiber Ring to connect OTDR to the switch, plus (1) MPO Fiber Ring. Select single-mode or multimode. See "Multi-Fiber Switch Models", page 35 for details.

AFL NO.	Contains (ea.)			
	12F MFS Switch	Fiber Ring	MPO Fiber Ring	
<b>MPO-SM-OTDR-ADD</b>	MFS-12-SM-ASC, SM, SC/APC-MPO/APC pinned	SM, 150 m, SC-ASC or ASC-ASC (depending on OTDR connector)	12F, 61 m, MPO/APC-unpinned to MPO	Select pinned or unpinned network MPO connector
<b>MPO-MM-OTDR-ADD</b>	MFS-12-MM-USC, MM, SC/UPC-MPO/UPC pinned	OM3/4/5-compatible, SC-SC, 150 m	12F, 61 m, MPO-unpinned to MPO;	

## MFS Multi-Fiber Switch OTDR Add-on Kit Order Entry

**Multimode OTDR Add-on Kit: MPO-MM-OTDR-ADD-[FRM]** where:

**[FRM]** = multimode MPO fiber ring to connect MPO switch to multimode network under test

UF/UM = MPO/UPC unpinned to MPO/UPC pinned, Type A polarity

UF/UF = MPO/UPC unpinned to MPO/UPC unpinned, Type A polarity

**Note:** Multimode Add-on Kit always includes: 150 m, OM4, SC/UPC to SC/UPC fiber ring to connect multimode OTDR to multimode switch.

**Single-mode OTDR Add-on Kit: MPO-SM-OTDR-ADD-[FR]-[FRM]** where:

**[FR]** = single-mode fiber ring to connect OTDR to MPO Switch; Options:

USC/ASC = SC/UPC to SC/APC for FlexScan OTDRs equipped with SC/UPC single-mode connector

ASC/ASC = SC/APC to SC/APC for FlexScan OTDRs equipped with SC/APC connector

**[FRM]** = single-mode MPO fiber ring to connect MPO Switch to single-mode network under test

AF/AM = MPO/APC unpinned to MPO/APC pinned, Type A polarity

AF/AF = MPO/APC unpinned to MPO/APC unpinned, Type A polarity



NS Bench Top Model



NSR Rack-mountable Model

## Custom-Designed Network Simulators

AFL network simulators are custom-designed bench-top or rack mountable boxes intended to duplicate installed fiber optic networks. Network simulators may be ordered with customer-specified lengths of multimode or single-mode fiber. Events such as connections, fusion splices, and mechanical splices can be added at various points within the fiber to duplicate installed networks. A variety of changeable panel mounted connector types are available. The bench top models can accommodate up to 15 km of fiber and the rack mountable cases can hold up to 100 km of fiber.



Fiber Ring

## OTDR Launch and Receive/Tail Cords - Fiber Rings

To measure the insertion loss of the near-end and/or far-end connection of a fiber optic link, an OTDR requires a launch and/or receive/tail test cord, which essentially are test jumpers that can range from about 150 m to 1 km in length. AFL offers coiled lengths of 50  $\mu$ m and 62.5  $\mu$ m multimode, standard single-mode fiber (G.652) and bend-insensitive fiber (G.657), packaged in compact rings for use as OTDR test cords. Fiber Rings of 150 m of fiber are ideal for premises fiber network test applications. Fiber Rings of 500 m and 1 km of single-mode fiber are designed for broadband, long-haul fiber network test applications and FTTH applications when testing through a splitter.

### Fiber Rings Part Number Order Entry

#### Single Fiber (SM or MM) Fiber Rings

**AFL NO.** = [FR]-[FFF]-[LLLL]-[CC1]-[CC2], where:

[FR] = Fiber Ring (single fiber)

[FFF] = Fiber Type

SMF = Single-mode (G.652)

BIF = Bend Insensitive (G.657)

OM1 = 62.5  $\mu$ m multimode

OM2 = 50  $\mu$ m multimode

OM3 = 50  $\mu$ m laser optimized

OM4 = 50  $\mu$ m laser optimized

[LLLL] = Fiber Length (meters)

150 = 150 m (492 ft)

500 = 500 m (1640 ft)

1000 = 1000 m (3280 ft)

[CC1] = Connector Configuration OTDR end (see below)

[CC2] = Connector Configuration Network end (see below)

#### MPO-terminated Multi-Fiber (SM or MM) Fiber Rings

**AFL NO.** = [FRM1]-[FF]-[LLLL]-[P]-[MC1]-[MC2], where:

[FRM1] = MPO-terminated 12-fiber fiber ring

[FF] = Fiber Type

S2 = Standard single-mode (G.652)

M4 = OM4 50  $\mu$ m laser optimized

[LLLL] = Fiber Length (meters)

61 = 61 m (200 ft)

[P] = Polarity

A = Type A polarity (straight through, fiber 1 to fiber 1)

B = Type B polarity (fiber 1 to fiber 12)

[MC1], [MC2] = MPO Connector (OTDR end, Network end, respectively)

AF = APC, female (unpinned)

AM = APC, male (pinned)

UF = UPC, female (unpinned)

UM = UPC, male (pinned)

### Supported Single Fiber Multimode Fiber Ring Configurations

Connector Type		Standard MM Fiber Rings		Special Order MM Fiber Rings <sup>(a)</sup>	
ID	Description	CC1	CC2	CC1	CC2
USC	SC/UPC	◆	◆		
ULC	LC/UPC		◆	◆	◆
UFC	FC/UPC		◆	◆	◆
UST	ST/UPC		◆	◆	◆
UE2	E2000/UPC		Special Order <sup>a</sup>		

#### Notes:

- Contact AFL for special order fiber rings. Not all combinations of lengths and connectors are supported. Minimum Order Qty of 10.
- Contact AFL for other special order configurations of MPO-terminated multi-fiber single-mode or multimode fiber rings. Minimum Order Qty of 10.

### Supported Single Fiber Single-mode Fiber Ring Configurations

Connector Type		Standard SM Fiber Rings		Special Order SM Fiber Rings <sup>(a)</sup>	
ID	Description	CC1	CC2	CC1	CC2
USC	SC/UPC	◆	◆		
ASC	SC/APC	◆	◆		
ULC	LC/UPC		◆	◆	◆
ALC	LC/APC		◆	◆	◆
UFC	FC/UPC		◆	◆	◆
AFC	FC/APC		◆	◆	◆
UST	ST/UPC		◆	◆	◆
UE2	E2000/UPC		Special Order <sup>a</sup>		◆
AE2	E2000/APC		Special Order <sup>a</sup>		◆
OTA	OptiTap APC		Special Order <sup>a</sup>		



## Fiber Rings Ordering Information

### Standard SMF Fiber Rings

AFL NO.	Description	Price
FR-SMF-150-CC1-CC2	Fiber Ring, 150 m, G.652 SMF, CC1-CC2	
FR-SMF-500-CC1-CC2	Fiber Ring, 500 m, G.652 SMF, CC1-CC2	
FR-SMF-1000-CC1-CC2	Fiber Ring, 1000 m, G.652 SMF, CC1-CC2	

### Special Order SMF Fiber Rings<sup>a</sup>

AFL NO.	Description	Price
FR-SMF-150-CC1-CC2	Fiber Ring, 150 m, G.652 SMF, CC1-CC2	
FR-SMF-500-CC1-CC2	Fiber Ring, 500 m, G.652 SMF, CC1-CC2	
FR-SMF-1000-CC1-CC2	Fiber Ring, 1000 m, G.652 SMF, CC1-CC2	
FR-BIF-150-CC1-CC2	Fiber Ring, 150 m, G.657.A2 BIF, CC1-CC2	
FR-BIF-500-CC1-CC2	Fiber Ring, 500 m, G.657.A2 BIF, CC1-CC2	
FR-BIF-1000-CC1-CC2	Fiber Ring, 1000 m, G.657.A2 BIF, CC1-CC2	

### Standard OM1, OM2, OM3, OM4 Multimode Fiber Rings

AFL NO.	Description	Price
FR-OM1-150-CC1-CC2	Fiber Ring, 150 m, OM1 (62.5 mm) MMF, CC1-CC2	
FR-OM2-150-CC1-CC2	Fiber Ring, 150 m, OM2 (50 mm) MMF, CC1-CC2	
FR-OM3-150-CC1-CC2	Fiber Ring, 150 m, OM3 (50 mm laser-optimized) MMF, CC1-CC2	
FR-OM4-150-CC1-CC2	Fiber Ring, 150 m, OM4 (50 mm laser-optimized) MMF, CC1-CC2	

### Special Order OM1, OM2, OM3, OM4 Multimode Fiber Rings<sup>a</sup>

AFL NO.	Description	Price
FR-OM1-150-CC1-CC2	Fiber Ring, 150 m, OM1 (62.5 mm) MMF, CC1-CC2	
FR-OM2-150-CC1-CC2	Fiber Ring, 150 m, OM2 (50 mm) MMF, CC1-CC2	
FR-OM3-150-CC1-CC2	Fiber Ring, 150 m, OM3 (50 mm laser-optimized) MMF, CC1-CC2	
FR-OM4-150-CC1-CC2	Fiber Ring, 150 m, OM4 (50 mm laser-optimized) MMF, CC1-CC2	

### Standard MPO-terminated Multi-fiber Single-mode and Multimode Fiber Rings<sup>b</sup>

AFL NO.	Description	Price
FRM1-S2-61-A-AF-AF	MPO Fiber Ring, 61 m (200 ft), G.652 SMF, Type A, APC unpinned to APC unpinned	
FRM1-S2-61-A-AF-AM	MPO Fiber Ring, 61 m (200 ft), G.652 SMF, Type A, APC unpinned to APC pinned	
FRM1-M4-61-A-UF-UF	MPO Fiber Ring, 61 m (200 ft), OM4 MMF, Type A, UPC unpinned to UPC unpinned	
FRM1-M4-61-A-UF-UM	MPO Fiber Ring, 61 m (200 ft), OM4 MMF, Type A, UPC unpinned to UPC pinned	

#### Notes:

- Contact AFL for special order fiber rings. Not all combinations of lengths and connectors are supported. Minimum Order Qty of 10.
- Contact AFL for other special order configurations of MPO-terminated multi-fiber single-mode or multimode fiber rings. Minimum Order Qty of 10.



## FASTConnect®



### FASTConnect® for Bare Fiber Termination

Suitable for either permanent connection or as a bare fiber termination for OTDR testing, FASTConnect connectors may be used to terminate single-mode or multimode fiber (OM1, OM2, OM3/4-compatible) with SC, SC/APC, LC, ST connectors. Termination requires simple, familiar strip, clean, and cleave process. Each FASTConnect adapter may be reused up to 3 times.

**FASTConnect Order Entry: FAST-[C]-[FT]-[Q]** where:

[C]	Connector Type
SC	SC/UPC for 900 µm buffered fiber
ST	ST/UPC for 900 µm buffered fiber
LC	LC/UPC for 900 µm buffered fiber
SC48	SC/APC for 4.8 mm single-mode cable

[FT]	Fiber Type
MM50	50 µm OM2, UPC ferrule
MM50L	50 µm OM3/4-compatible, UPC ferrule
MM62.5	62.5 µm OM1, UPC ferrule
SM	Single-mode, UPC end
SMAU	Single-mode, APC ferrule with flat-cleaved fiber stub (SC48 only)

[Q]	Quantity
6	Package of 6
100	Package of 100

### FASTConnect Ordering

AFL NO.	Description	[Q]TY 6 price for [C]onconnector			[Q]TY 100 price for [C]onconnector		
		SC	LC	ST	SC	LC	ST
FAST-[C]-MM50-[Q]	50 µm OM2, UPC ferrule						
FAST-[C]-MM50L-[Q]	50 µm OM3/4-compatible, UPC ferrule						
FAST-[C]-MM62.5-[Q]	62.5 µm OM1, UPC ferrule						
FAST-[C]-SM-[Q]	Single-mode, UPC ferrule						
FAST-[C]-SMAU-[Q]	Single-mode, APC ferrule with flat-cleaved fiber stub						

### TJ-03 Temporary Splice

**Only available to customers in North America!**

The TJ-03 is a temporary mechanical fiber splice for fiber and cable connections to test equipment such as OTDRs or fiber optic cable reels. The TJ-03 uses a precision ceramic V-groove to align up to 12 fibers simultaneously. The fibers are prepared for joining by using standard mass fusion fiber preparation tools (fiber holders, hot jacket stripper, and cleaver.) Using the TJ-03 with an OTDR equipped with an optical switch provides rapid one button optical tests of 12 fibers.



TJ-03 Temporary Splice

AFL NO.	Description
S012772	TJ-03 Temporary Splice Kit includes: (1 pair) FH-50-12 fiber holders, CT-30 cleaver, HJS-02 hot jacket stripper, ADC-09 AC adapter for HJS-02, ACC-09 power cord
S010456	TJ-03 Temporary Splice (without fiber preparation tools)

# FIBER OPTIC INSPECTION

## FOCIS Flex Fiber Optic Connector Inspection System



FOCIS Flex

FOCIS Flex is self-contained fiber connector inspection probe. Its innovative, ultrafast auto-focusing system auto-centers, captures and analyzes the optical fiber end-face, displaying "Pass/Fail" results on the built-in screen in one push of a button. Results can be transferred wirelessly to smart devices or FlexScan® OTDRs. The FOCIS Flex offers built-in pass/fail analysis to updated IEC 61300-3-35, IPC, AT&T or user set criteria. The device can also be used for OptiTap and MTP/MPO inspections with AFL adapters. AFL's free Windows-compatible FlexReports Basic Test Results Manager software with a 60-day reports trial or optional FlexReports Advanced with full reporting capability quickly generates easy-to-understand connector inspection reports including images and pass/fail results. Free FlexApp (iOS and Android) supports inspection reporting and FlexReports provides comprehensive reporting capabilities for single-fiber inspection results. FOCIS Flex is available in a 'No Wireless' [NW] variant, which removes the Bluetooth and Wi-Fi functionality for use in RF restricted facilities.

### FOCIS Flex Connector Inspection Kits

Each FOCIS Flex Kit includes: FOCIS Flex probe with wrist strap and dust cap, FlexReports-Basic software with 60-day reporting trial, AC charger with country-specific plug, USB cable, quick reference guide, and soft carry case with strap.



PC Software

AFL NO.	Description								
	Contains (ea.)								Functionality
	FOCIS Flex	AC Charger	UPC Tips		APC Tips		One-Click Cleaner	Soft Carry Case	BT/Wi-Fi
Bulkhead			Ferrule	Bulkhead	Ferrule				
FOCIS-FLX-P4XN	1	1					1		◆
FOCIS-FLX-P4XU	1	1	1	1			1	1	◆
FOCIS-FLX-P4XA	1	1			1	1	1	1	◆
FOCIS-FLX-P4XUA	1	1	1	1	1	1	1	1	◆
FOCIS-FLX-NW-P4XN	1	1						1	
FOCIS-FLX-NW-P4XU	1	1	1	1			1	1	
FOCIS-FLX-NW-P4XA	1	1			1	1	1	1	
RPTS-UP-KITS-1	Software: FlexReports Advanced. Provides Professional Test Reports for use with AFL instruments. For use only at time of purchase with any kit.								

### FOCIS Flex Order Entry – FOCIS-FLX-[NW]-P4X[K]-[PLUG]-[TIP], where:

[NW]	Wireless Option
Absent	Includes wireless
NW	No Wireless

[K]	Kit Type
N	No adapter tips
U	UPC adapter tips
A	APC adapter tips
UA	UPC and APC adapter tips

[PLUG]	Country-specific AC power plug
US	United States
UK	United Kingdom
EU	European Union
CN	China, Australia

Kit Type [K]	[TIP]	User-selected Adapter Tips and One-Click Cleaner				
		Bulkhead Adapter Tips	Tip ID	Ferrule Adapter Tips	Tip ID	One-Click Cleaner
U	SC	SC/UPC	SC	Universal 2.5 mm UPC	U25	2.5 mm
	FC	FC/UPC	FC	Universal 2.5 mm UPC	U25	2.5 mm
	ST	ST/UPC	ST	Universal 2.5 mm UPC	U25	2.5 mm
	LC	LC/UPC	LC	Universal 1.25 mm UPC	U125	1.25 mm
A	SC	SC/APC	XASC	Universal 2.5 mm APC	A25	2.5 mm
	FC	FC/APC	XAFC	Universal 2.5 mm APC	A25	2.5 mm
	LC	LC/APC	XALC	Universal 1.25 mm APC	A125	1.25 mm
UA	SC	SC/UPC	SC	Universal 2.5 mm UPC	U25	2.5 mm
		SC/APC	XASC	Universal 2.5 mm APC	A25	
	FC	FC/UPC	FC	Universal 2.5 mm UPC	U25	2.5 mm
		FC/APC	XAFC	Universal 2.5 mm APC	A25	
LC	LC/UPC	LC	Universal 1.25 mm UPC	U125	1.25 mm	
	LC/APC	XALC	Universal 1.25 mm APC	A125		



FlexScan® & FOCIS Flex



Smart Device & FOCIS Flex

\$250 Minimum Order



6000-00-0034PR



1410-02-0228PZ



FFLX-01-SC



FFLX-4S-ALC



FFLX-4S-ALC3



FFLX-01-ULCE

## FOCIS Flex Accessories

AFL NO.	Description
1400-01-0107MZ	Soft carry case with strap
1400-05-0230PZ	Wrist strap
3900-04-0008ME	Battery, 3.6V, NiMH, rechargeable
4050-00-0931PR	FOCIS Flex2 AC charger. Select power plug option [PLUG] when ordering (see "FOCIS Flex Order Entry", page 22).
4050-00-0030USMR	US power plug for AC charger
4050-00-0030UKMR	UK power plug for AC charger
4050-00-0030EUMR	EU power plug for AC charger
4050-00-0030SAAMR	CN power plug for AC charger
6000-00-0031MR	USB – Micro-B cable, 5 pin, 6'
8800-02-0074MZ	Dust cap for the Inspection Port
4050-00-0935PR	Vehicle charger, 12 VDC to 5 VDC @2A
6000-00-0034PR	5V USB charging cable (1.5 m), type A to barrel (0.9 x 3.2 x 9 mm)
1410-02-0228PZ	Rubber boot for FOCIS Flex, FOCIS Lightning, FOCIS Duel

## FOCIS Series Inspection Adapter Tips

Inspection Adapter Tips for FOCIS Duel Port 1, FOCIS Flex, and FOCIS WiFi2

AFL NO.	Description	Tip ID
FFLX-01-SC	SC/UPC bulkhead	SC
FFLX-01-FC	FC/UPC bulkhead	FC
FFLX-01-ST	ST/UPC bulkhead	ST
FFLX-01-LC	LC/UPC bulkhead	LC
FFLX-01-U25	Universal 2.5 mm, UPC ferrule	U25
FFLX-01-A25	Universal 2.5 mm, APC ferrule	A25
FFLX-01-U125	Universal 1.25 mm, UPC ferrule	U125
FFLX-01-A125	Universal 1.25 mm, APC ferrule	A125
FFLX-01-ULCE	Extended LC UPC adapter tip	ULCE
FFLX-01-EXTS46	FOCIS adapter extension tube, straight, 46 mm	
FFLX-01-EXTS80	FOCIS adapter extension tube, straight, 80 mm	
FFLX-4S-ASC	SC/APC bulkhead adapter tip, quad-slotted	XASC

AFL NO.	Description	Tip ID
FFLX-4S-AFC	FC/APC bulkhead adapter tip, quad-slotted	XAFC
FFLX-4S-ALC	LC/APC bulkhead adapter tip, quad-slotted, internal prism	XALC
FFLX-4S-ALC3	Extended LC APC bulkhead adapter tip, quad-slotted	ALC3
FFLX-4S-E2K	E2000/PC bulkhead adapter tip, quad-slotted (~60 mm)	E2K
FFLX-4S-AE2K	E2000/APC bulkhead adapter tip	AE2K
FFLX-4S-OTA	OptiTap (SC/APC) bulkhead adapter tip, quad-slotted	OTA
FFLX-4S-DCU	MDC/UPC adapter tip, quad-slotted	DCU
FFLX-4S-SNU	SN/UPC adapter tip, quad-slotted	SNU
FFLX-4S-DCA	MDC/APC adapter tip, quad-slotted	DCA
FFLX-4S-LC6U	NG4 UPC bulkhead adapter	LC6U
FFLX-4S-LC6A	NG4 APC bulkhead adapter	LC6A
FFLX-4S-EVA	Evolv Bulkhead Adapter Tip, Quad-Slotted	EVA

\$250 Minimum Order



## DFS1 Inspection Adapter Tips



DFS1-00-0001MR



DFS1-00-0002MR



DFS1-00-0003MR



DFS1-00-00062MR



DFS1-00-00060MR



DFS1-00-00041MR



DFS1-00-00050MR

AFL NO.	Description	Tip ID	
<b>PC Ferrule Connector Adapter Tips</b>			
DFS1-00-0001MR	Universal 1.25 mm	U125	
DFS1-00-0002MR	Universal 2.5 mm	U25	
DFS1-00-0005MR	Universal 2.0 mm	U20	
DFS1-00-0006MR	Universal 1.6 mm (for termini)	T16M	
DFS1-00-0008MR	ELIO 1.25 mm	E12M	
DFS1-00-0009MR	SMA 905	SMA	
DFS1-00-0038MR	Slim 1.25 mm (for LuxCis and termini)	T12M	
DFS1-00-0039MR	Slim 2.5 mm (for ELIO and termini)	T25M	
<b>SC/PC and FC/PC Bulkhead Adapter Tips</b>			
DFS1-00-0003MR	SC/PC and FC/PC	FS	
DFS1-00-0012MR	Long (~150 mm) extended tip for SC/PC and FC/PC bulkhead adapter	FS	
DFS1-00-0013MR	60° angled tip for SC/PC and FC/PC bulkhead adapter	FS, A6A	
<b>LC/PC/UPC Bulkhead Adapter Tips</b>			
DFS1-00-0022MR	60° angled tip for LC/PC bulkhead adapter	LC, A6	
DFS1-00-0059MR	Short (~60 mm) extended tip for LC PC/UPC bulkhead	LCP-S	
DFS1-00-0062MR	LC/UPC female style adapter tip	LCM	
<b>ODC Bulkhead Adapter Tips</b>			
DFS1-00-0065MR	Guide and socket tip for ODC-2 bulkhead connectors	ODC-2	
DFS1-00-0066MR	Guide and socket tip for QODC-2 bulkhead connectors	Q-ODC-2	
DFS1-00-0067MR	Guide and socket tip for ODC-4 bulkhead connectors	ODC-4	
<b>MU/PC Bulkhead Adapter Tip</b>			
DFS1-00-0026MR	MU/PC bulkhead adapter tip	MU	
<b>MTP/MPO Multi-fiber Adapter Tips (ferrule and bulkhead)</b>			
DFS1-00-0060MR	Multi-row base for MTP/PC ferrule and bulkhead adapter extended tip	MTP <sup>(a), (b)</sup>	
DFS1-00-0041MR	Adapter tip for MPO-12 PC bulkhead; Requires single- or multi-row base	MTP <sup>(b)</sup>	
DFS1-00-0058MR	Adapter tip for MPO-16 PC bulkhead; Requires single- or multi-row base	MTP16 <sup>(b)</sup>	
DFS1-01-0012MR	Adapter tip for MPO-12 APC bulkhead; Requires single- or multi-row base	MTPA <sup>(b)</sup>	
DFS1-01-0015MR	Adapter tip for MPO-16 APC bulkhead; Requires single- or multi-row base	MTPA16 <sup>(b)</sup>	
DFS1-00-0037MR	Kit: Single-row base and extended MPO-12 PC bulkhead adapter tip	MTP <sup>(a), (b)</sup>	
DFS1-00-0042MR	Kit: Single-row base and MTP plus MTPA (MPO-12 PC and MPO-12 APC) bulkhead adapter tips	MTP, MTPA <sup>(a), (b)</sup>	

AFL NO.	Description	Tip ID	
DFS1-00-0050MR	Kit: Multi-row base and MTP (MPO-12 PC) bulkhead adapter tip	MTP <sup>a, b</sup>	
DFS1-01-0010MR	Kit: Single-row base and MTPA (MPO-12 APC) bulkhead adapter tip	MTPA <sup>a, b</sup>	
<b>Miscellaneous Adapter Tips</b>			
DFS1-00-0056MR	Universal 60 degrees angled extended adapter tip	A6A, U-A6	
DFS1-00-0031MR	LEMO 2.0 mm bulkhead	LEMO	
DFS1-00-0033MR	2.0 mm termini bulkhead	T20F	
DFS1-00-0034MR	1.6 mm termini bulkhead	T16F	
DFS1-00-0036MR	ELIO 1.25 mm bulkhead	E12F	
DFS1-00-0046MR	SMA 905 bulkhead	SMAF <sup>c</sup>	
DFS1-00-0048MR	TFOCA II ferrule and bulkhead adapter guide only	TFO-G	
DFS1-00-0049MR	TFOCA II ferrule and bulkhead adapter tip only	TFO-U	
DFS1-00-0057MR	Adapter for Viavi/Westover tips and FOCIS Flex probe	WOA	
<b>APC Tips</b>			
DFS1-01-0006MR	60° angled tip for SC/APC bulkhead	A6A	
DFS1-01-0013MR	Single-row base with OptiTip® APC bulkhead and ferrule adapter tips	OTIPA	

### Notes:

- MTP extended tip marking includes S/N since these have moving parts.
- Base plus tip is required to inspect MPO/MTP connectors. All MPO/MTP connectors are inspected through bulkhead adapter.
- Requires FFLX-01-EXT46 extension for use with FOCIS Flex.

\$250 Minimum Order

## FOCIS Lightning<sup>®</sup>2 Multi-Fiber Optic Connector Inspection System



**FOCIS Lightning2 focuses, captures, analyzes all fibers in the MPO/MPT end-face with a click of a button!**

### Specifications

- Field of View Multi Fibers Live: 3200 x 4800  $\mu\text{m}$
- Field of View Single Fiber Live: 1314 x 2144  $\mu\text{m}$
- Display: 3,5, color TFT LCD touch screen, 320 x 480
- Pass/Fail Analysis: IEC 61300-3-35, , user
- File Formats: 640 x 480 pixels JPG, GIF
- Storage Capacity: 10,000 files
- Battery: 8 hours, Li-Pol, user-replaceable

FOCIS Lightning2 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 and Bluetooth<sup>®</sup>.

FOCIS Lightning2 fits in the palm of your hand and easily inspects hard-to-reach MPO datacenter connection panels. Its large 3.4" color LCD touchscreen easily allows viewing of MPO and single fiber ferrules. The high-resolution display and improved zoom capability will enable quick, advanced fiber analysis and inspection.

Test results can be shared using the FlexReporter software suite. Designed for speed and simplicity, FlexReporter enables you to generate clear and easy-to-read reports quickly and easily.

Put the speed and power of fiber inspection in your hands with the FOCIS Lightning2. Contact your AFL representative to schedule a demo or get more information.



FOCIS Lightning2



PC Software

## FOCIS Lightning®2 Multi-Fiber Optic Connector Inspection System

FOCIS Lightning2 is a compact, ultrafast MPO/MTP® connector inspection system engineered to dramatically simplify and streamline connector inspection. With its large, easy-to-use touchscreen and intuitive operations, FOCIS Lightning2 enables service providers, enterprises and data center operators to efficiently inspect and validate their fiber connectivity. It performs IEC-compliant auto-analysis up to 100 times faster than legacy mechanical scanning methods. FOCIS Lightning2 captures up/down key orientation, and supports all fiber configurations up to two rows with sixteen fibers per row. Individual fiber images, pass/fail auto analysis overlays, and zone table data are available for viewing on the large integrated color touch screen. Free FlexApp (iOS and Android) supports inspection reporting and FlexReports Basic Test Results Manager software with 60-day reports trial or optional FlexReports Advanced with full reporting capability provides comprehensive reporting capabilities for MPO end-face, individual fiber and single-fiber inspection results.

### FOCIS Lightning2 Connector Inspection Kits

Each FOCIS Lightning2 Kit includes: FOCIS Lightning probe with wrist strap and dust cap, USB data/power cable and charger with country-specific plug, quick reference guide, and Easy Access carry case.

FOCIS Lightning2 is available in a 'No Wireless' [NW] variant, which removes the Bluetooth and WiFi functionality for use in RF restricted facilities.

AFL NO.	Contains (ea.)										
	FOCIS Lightning2 Probe	Data/ Power Cable	Bulkhead Adapter Tips					Alignment Sleeves		One-Click Cleaner	
			UPC MPO		APC MPO		SFC	MPO-12	MPO-16	MPO-12	MPO-16
M12U	MPOU	M12A	MPOA								
FOCIS-LT2-N	1	1									
FOCIS-LT2-U	1	1	1	1				1	1	1	1
FOCIS-LT2-A	1	1			1			1		1	
FOCIS-LT2-UA	1	1	1	1	1			1	1	1	1
FOCIS-LT2-UASF	1	1		1		1	1	1	1	1	1
FOCIS-LT2-NW-N	1	1									
FOCIS-LT2-NW-U	1	1	1	1				1	1	1	1
FOCIS-LT2-NW-A	1	1			1			1		1	
FOCIS-LT2-NW-UA	1	1	1	1	1			1	1	1	1
FOCIS-LT2-NW-UASF	1	1		1		1	1	1	1	1	1
RPTS-UP-KITS-1	<b>Software:</b> FlexReports Advanced. Provides Professional Test Reports for use with AFL instruments. For use only at time of purchase with any kit.										

### FOCIS Lightning2 Order Entry – FOCIS–LT2-[NW]-[K]-[PLUG], where

[NW]	Wireless Option
Absent	Includes wireless
NW	No Wireless

[K]	Kit Type
N	No MPO adapter tips
U	UPC MPO adapter tips
A	APC MPO adapter tips
UA	UPC and APC MPO adapter tips
UASF	UPC and APC MPO adapter tips, single fiber adapter

[PLUG]	Country-specific AC power plug
US	United States
UK	United Kingdom
EU	European Union
CN	China, Australia

Kit Type [K]	Contains (ea.)			
	Bulkhead Adapter Tips	Tip ID	MPO Adapters (for patch cords)	One-Click Cleaner
U	MPO-12 (with key)	M12U	MPO-12 opposed	MPO-12
	MPO-12 / MPO-16 (without key)	MPOU	MPO-16 opposed	MPO-16
A	MPO-12 (with key)	M12A	MPO-12 opposed	MPO-12
	MPO-12 / MPO-16 (without key)	MPOU	MPO-12 opposed	MPO-16
UA	MPO-12 (with key)	M12A	MPO-12 opposed	MPO-12
	MPO-12 / MPO-16 (without key)	MPOU	MPO-12 opposed	MPO-16
UASF	MPO-12 / MPO-16 (without key)	MPOU	MPO-16 opposed	MPO-16
	MPO-12 / MPO-16 (without key)	MPOA	MPO-12 opposed	MPO-12
	Single Fiber Adapter	SFC	MPO-16 opposed	

\$250 Minimum Order



1400-01-0172PZ  
(example)



6000-00-0034PR



1410-02-0228PZ

## FOCIS Lightning®2 / FOCIS Lightning Accessories

AFL NO.	Description	FLTNG2	FLTNG	
1400-01-0172PZ	Easy Access carry case	◆	◆	
1400-05-0230PZ	Wrist strap	◆	◆	
3900-04-0008ME	Battery, 3.6V, NiMH, rechargeable		◆	
3900-06-0005MR	Battery Pack, 3.6V, Li-Pol, rechargeable	◆		
4050-00-0034MR	AC adapter. Select power plug option [PLUG] when ordering. See "FOCIS Lightning2 Order Entry", page 26	◆		
4050-00-0931PR	AC charger for FOCIS Lightning. Select power plug option [PLUG] when ordering		◆	
4050-00-0030USMR	US power plug for AC adapter/ charger	◆	◆	
4050-00-0030UKMR	UK power plug for AC adapter/charger	◆	◆	
4050-00-0030EUMR	EU power plug for AC adapter/charger	◆	◆	
4050-00-0030SAAMR	CN power plug for AC adapter/charger	◆	◆	
6000-00-0036MR	USB-A to USB-C Charge and Data Transfer Cable	◆		
6000-00-0031MR	USB – Micro-B cable, 5 pin, 6'		◆	
8800-02-0283MZ	FOCIS Lightning2 replacement dust cap	◆		
8800-02-0083MZ	FOCIS Lightning replacement dust cap		◆	
1400-01-0024MZ	Small tackle box	◆	◆	
6000-00-0034PR	5V USB charging cable (1.5 m), type A to barrel (0.9 X 3.2 X 9 mm)		◆	
MPO Mating Adapters	See section "Mating Adapters for both MMF and SMF testing", page 57			



FLTNG-01-M12A



FLTNG-01-MPOU



FLTNG-01-M12U



FLTNG-01-SFA

## FOCIS Lightning2 / FOCIS Lightning Adapter Tips

AFL NO.	Description	Tip ID	
FLTNG-01-M12A	Adapter tip for MPO-12/24 APC bulkhead (with key)	M12A	
FLTNG-01-M12U	Adapter tip for MPO-12/24 UPC bulkhead (with key)	M12U	
FLTNG-01-M16U	Adapter tip for MPO-16/32 UPC bulkhead (with key)	M16U	
FLTNG-01-MPU	Universal adapter tip for MPO-12/16/24/32 UPC bulkhead (partial key)	MPU	
FLTNG-01-MPOA	Adapter tip for MPO-12/16/24/32 APC bulkhead (no key)	MPOA	
FLTNG-01-MPOU	Adapter tip for MPO-12/16/24/32 UPC bulkhead (no key)	MPOU	
FLTNG-01-MAC	Adapter Tip for MPO-12/16/24/32 APC connector (with key)	MAC	
FLTNG-01-MUC	Adapter Tip for MPO-12/16/24/32 UPC connector (with key)	MUC	
FLTNG-01-OPTM	Adapter Tip for OptiTip male (pinned) connector	OPTM	
FLTNG-01-OPTF	Adapter Tip for OptiTip female (unpinned) connector	OPTF	
FLTNG-01-SFA	SFA Coupler for most 'FFLX' single fiber connector adapter tips - FOCIS Lightning only	SFA	
FLTNG2-01-SFC	SFA Coupler for most 'FFLX' single fiber connector adapter tips - FOCIS Lightning2 only	SFC	
FLTNG-01-ALCM	Extended adapter tip for LC/APC bulkhead	ALCM	
FLTNG-01-ULCM	Extended adapter tip for LC/UPC bulkhead	ULCM	
FLTNG-01-MPE	MPO extender barrel	MPE	
FLTNG-01-HSAS	Adapter tip for Q-ODC-12 APC pinned (male) hardened connectors	HSAS	
FLTNG-01-HSAP	Adapter tip for Q-ODC-12 APC unpinned (female) hardened connectors	HSAP	
FLTNG2-01-LVU	Adapter tip for Large Field of View – UPC MPO - FOCIS Lightning2 only	LVU	
FLTNG-01-MMCA	Adapter Tip for MMC APC connector patchords	MMCA	



## FIBER OPTIC CLEANING

### AFL-CleanDisplay-1



1400-01-0183PZ

AFL offers a custom display to showcase our most popular connector cleaning products. This display features 3 tier shelves and attention-grabbing product images. The display accommodates a variety of products and enables easy grab-and-go purchases. Overall Width x Height x Depth: 11.5" x 15.3" x 8.1"

AFL NO.	Description
1400-01-0183PZ	Empty three-tiered custom-printed acrylic display
AFL-CleanDisplay-1	Display and a selection of our top selling wet and dry cleaning supplies

### Wall/Rack Mountable Field Portable Cleaning Kits



AFL-CleanDisplay-1

Wall/rack mountable field portable cleaning kits offer a complete selection of fiber optic cleaning products for field cleaning of connector end-faces in fiber frames, adapters, and on jumpers. Each kit consists of a wall or rack mountable carry case, FCC2 cleaning fluid, and color-coded instructions. Each stick is double-ended, designed for two (2) cleans.

AFL NO.	CCTS-25-0900MZ for FC, SC, ST QTY=40, BLUE	CCTS-12-0900MZ for LC, MU QTY=40, GREEN	CCTP-25-0900MZ for all connectors QTY=20, YELLOW	Cletop SB
FCP1-00-0901	1		2	1
FCP1-00-0914	2	1	1	1

### Field Portable Duffel Bag Cleaning Kits



FCP1 Kit

FCP2 Kits offer a selection of optical cleaning products for field cleaning of connector end-faces in a convenient duffel bag style carry case.

AFL NO.	Contains (1 ea.)
FCP2-10-0900	FCC2 cleaning fluid, FiberWipes, Clestop-SB, SC and LC One-Clicks, Debris Destroyer, Duffel Bag
FCP2-00-0901	FCC2 cleaning fluid, FiberWipes, Clestop-SB, SC and LC One-Clicks, Debris Destroyer, MPO One-Click, Duffel Bag
FCPR-10-0900	Refill for FCP2-10-0900 Kit (no duffel bag). Includes FCC2 cleaning fluid, FiberWipes, Clestop-SB, SC and LC One-Clicks, Debris Destroyer.

### FCP3 Easy-Access Cleaning Kit



FCP2-10-0900



FCP3-00-0901

AFL NO.	Description
FCP3-00-0900	<b>Basic Easy-Access Cleaning Kit.</b> Includes: <ul style="list-style-type: none"> <li>FCC2 Fiber Connector Cleaner And Preparation Fluid (can)</li> <li>FCC3 Debris Destroyer Fiber Optic Cleaning Pen</li> <li>CCTS-12 (for 1.25 mm ferrule) and CCTS-25 (for 2.5 mm ferrule) Connector Cleaning Tips</li> <li>Clestop-SB, White Tape</li> <li>One-Click Cleaners (SC, LC/MU, Ultra 2.5, MPO/MTP)</li> <li>Soft Carry Case</li> </ul>
FCP3-00-0901	<b>Enterprise Easy-Access Cleaning Kit.</b> Includes: <ul style="list-style-type: none"> <li>FCC2 Fiber Connector Cleaner And Preparation Fluid (can)</li> <li>FCC3 Debris Destroyer Fiber Optic Cleaning Pen</li> <li>CCTS-12 (for 1.25 mm ferrule) and CCTS-25 (for 2.5 mm ferrule) Connector Cleaning Tips</li> <li>Clestop-SB, White Tape</li> <li>One-Click Cleaners (Duplex LC, LC/MU, Ultra 2.5, MPO/MTP)</li> <li>Soft Carry Case</li> </ul>





FCC2 in 3 oz/85 g Can



FCC3 Debris Destroyer



CCT Cleaning Tips

## FCC2 Cleaning Fluid and CCT Cleaning Sticks

### FCC2 Enhanced Formula Fiber Connector Cleaner and Preparation Fluid

The FCC2 Enhanced Formula Fiber Optic Cleaning and Preparation Fluid is a non-flammable, environmentally safe, residue free solvent engineered to easily remove contaminants from fiber optic end-faces and bare fiber. The FCC2 is not hazardous and not regulated for all modes of transportation and shipping including air-cargo. For best results, use CCT cleaning sticks with FCC2 fluid!

AFL NO.	Description	
<b>FCC2-00-0902</b>	Enhanced Formula, (3 oz/85 g) Fiber Connector Cleaner and Preparation Fluid (1 can)	
<b>FCC2-00-0903</b>	Enhanced Formula, (3 oz/85 g) Fiber Connector Cleaner and Preparation Fluid (case of 12 cans)	
<b>FCC3-00-PEN1</b>	Debris Destroyer™ - Fiber Optic Cleaning Pen (1 pen)	

### CCT Connector Cleaning Tips

CCT Connector Cleaning Tips are molded cleaning tips that trap contamination and wick cleaning solvents away from connector end-faces. These tips use a molded, sintered polymer that is both porous and pliable, conforming to virtually any fiber end-face polish geometry while trapping and absorbing contaminants. CCT Tips are intended for cleaning the ferrule end-faces in adapters and sockets, as well as the exposed ferrules and termini of jumpers. Available in double-ended or single-ended design.

AFL NO.	Description	Tube Color	Sticks QTY	
<b>Connector Cleaning Tips - Double-ended</b>				
<b>CCTP-25-0900MZ</b>	For exposed 2.5 mm, 2.0 mm, 1.6 mm, 1.25 mm ferrules and termini (FC, SC, ST, LC, MU, etc., jumpers, male MIL T 29504/14 for MIL C 28876 and MIL T 29504/04 for MIL C 38999)	<b>Yellow</b>	20	
<b>CCTS-25-0900MZ</b>	For 2.5 mm ferrule in adapters or sockets (SC, FC, ST, etc. in adapters)	<b>Blue</b>	40	
<b>CCTS-12-0900MZ</b>	For 1.25 mm ferrule in adapters or sockets (LC, MU, etc., in adapters)	<b>Green</b>	40	
<b>CCTS-16-0900MZ</b>	For MT-RJ connectors and 2.0 mm and 1.6 mm termini in sockets (female MIL T 29504/15 for MIL C 28876 and MIL T 29504/05 for MIL C 38999, MT-RJ both jumpers and adapters)	<b>Orange</b>	40	
<b>CCT Tips are available in bulk packs of single-ended sticks. Packs of 50 sticks packaged in boxes of 6 packs (300 sticks).</b>				
<b>CCTP-25-0910MZ</b>	For exposed 2.5 mm, 2.0 mm, 1.6 mm, 1.25 mm ferrules and termini (FC, SC, ST, LC, MU, etc., jumpers, male MIL T 29504/14 for MIL C 28876 and MIL T 29504/04 for MIL C 38999)	<b>Yellow</b>	300	
<b>CCTS-12-0910MZ</b>	For 1.25 mm ferrule in adapters or sockets (LC, MU, etc., in adapters)	<b>Green</b>	300	
<b>CCTX-MT-0910MZ</b>	For Biconic and MT ferrule connectors both jumpers and in adapters (Biconic, MTP, MPO, MPX, etc.)	<b>Pink</b>	300	



Cletop -SB



Replacement Tape  
Type S



Cletop Type A



Cletop Type B



Cletop Type A and B  
top view



Cletop (ACT) Sticks

## Cletop Cassette Cleaners

- **Cletop series:** Original version.
- **Cletop-S series:** Second generation cleaner with improved ergonomics and tape maintenance.
- **Type A and -SA:** Designed for single 2.5 mm ferrules (SC, FC, ST, and D4).
- **Type B and -SB:** Cleans SC, SC2, FC, ST, DIN, D4, MU, LC, MT, MPO/MTP without pins, MT-RJ without pins.

AFL NO.	Description	
<b>Cletop -S Series</b>		
8500-10-0020MZ	Cletop-SA with Blue Tape	
8500-10-0029MZ	Cletop-SB with Blue Tape	
8500-10-0016MZ	Cletop-SB with White Tape	
8500-10-0021MZ	Replacement Tape, Type S - Blue	
8500-10-0017MZ	Replacement Tape, Type S - White	
8500-10-0046MZ	Cletop-SB White Tape (box of 5 cleaners, 8500-10-0016MZ)	
8500-10-0047MZ	Replacement Tape, Type S-White (box of 6 tapes, 8500-10-0017MZ)	
8500-10-0041MZ	Replacement Tape, Type S-Blue (box of 6 tapes, 8500-10-0021MZ)	
<b>Cletop Original Series</b>		
8500-10-0027MZ	Cletop Type A with Blue Tape	
8500-10-0011MZ	Cletop Type A with White Tape	
8500-10-0028MZ	Cletop Type B with Blue Tape	
8500-10-0014MZ	Cletop Type B with White Tape	
8500-10-0033MZ	Cletop for MPO/MTP with pins (White Tape)	
8500-10-0012MZ	Replacement Tape, Type A and B - Blue	
8500-10-0015MZ	Replacement Tape, Type A and B - White	
8500-10-0042MZ	Replacement Tape, Type A and B - Blue (box of 6 tapes, 8500-10-0012MZ)	

## Cletop (ACT) Cleaning Sticks

AFL NO.	Description	
8500-10-0024MZ	<b>ACT-01</b> 2.5 mm single-ended sticks (box of 200 - 40 bags of 5 sticks per bag). For FC, SC, ST, and D4.	
8500-10-0023MZ	<b>ACT-03</b> 2.0 mm single-ended sticks (box of 200 - 40 bags of 5 sticks per bag). For Military and High Definition Video (LEMO).	
8500-10-0030MZ	2.0/2.5 mm double-ended sticks (box of 100 - 100 bags of 1 stick per bag). For Military and High Definition Video (LEMO).	

# One-Click® Cleaners

U.S. Patent Numbers 7,212,719 and 8,087,118

## One-Click® Cleaner MMC

### Features

- Cleans high-density, low-insertion-loss pinned or unpinned MMC connectors
- Patented single-action cleaning in a small ergonomic design
- Precise mechanical action delivers consistent cleaning results
- Automatic tape advance ensures each clean is performed with fresh cleaning tape



Designed to clean Very Small Form Factor (VSFF) MMC multi-fiber connectors used in Data Centers and other high density optical networks, the new One-Click Cleaner MMC is a revolutionary push-type cleaner, which simplifies cleaning of the ferrule end-face of both MMC exposed connectors and connectors in adapters.

**Ease of use** — With its patented push-action cleaning, the One-Click Cleaner MMC removes dirt, dust, and contaminants with just one click. Its straightforward use requires no training. Simply insert and click to clean MMC connectors

**Maximized efficiency** — By utilizing the one-click design, technicians can speed through the cleaning process. No manual wipes or wet solvents are needed. The mechanical push action instantly advances the optical grade cleaning tape while the cleaning tip is rotated to ensure the MMC end-face is effectively, but gently, cleaned.

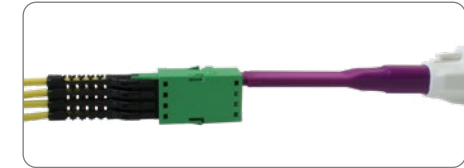
**Increased uptime** — With the move to next-gen VSFF data-center connectivity, it is essential to maintain connections for optimal performance. Using the specialized One-Click Cleaner MMC, technicians can clean MMC-16 and MMC-24 connectors easily and effectively in 1/2 the time as traditional methods leading to reliable signal transmission and extended lifespan of the connector.

AFL NO.	Description	# of Cleans		
8500-05-MMC16	One-Click Cleaner MMC for MMC-16 Connectors	500+		
8500-05-MMC24	One-Click Cleaner MMC for MMC-24 Connectors	500+		

- Consistent cleaning results**  
Automatic tape advance ensures each clean is performed with fresh cleaning tape
- 500+ cleans**  
Over 500 cleans in both One-Click Cleaner MMC-16 or MMC-24 versions.
- Extended nozzle**  
Easy reach for dense MMC connectors
- Ergonomic design**  
One-handed operation makes cleaning quick and easy
- Must-have tool for field use**  
A favorite of field technicians for its ease of use, durability, effectiveness, and small size



Cleaning MMC-16 connector on jumper



Cleaning MMC-16 connector in adapters

\$250 Minimum Order

## One-Click® Cleaners

U.S. Patent Numbers 7,212,719 and 8,087,118

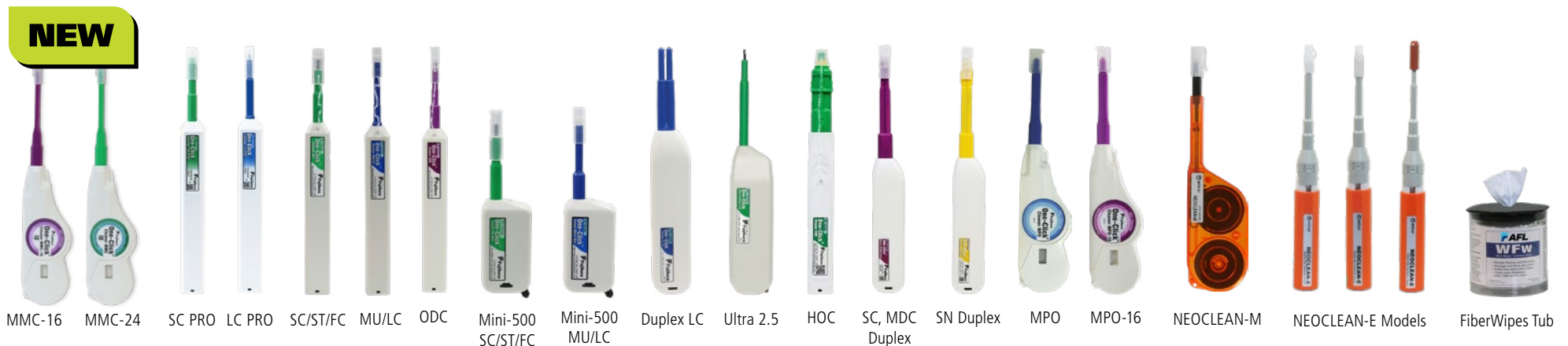
AFL NO.	Description	Number of Cleans	QTY		
8500-05-0001MZ	One-Click Cleaner SC, ST, FC	500+	1		
8500-05-0002MZ	One-Click Cleaner MU/LC	500+	1		
8500-05-0004MZ	One-Click Cleaner ODC, outdoor connector	500+	1		
8500-05-0005MZ	One-Click Cleaner Mini-100 SC, ST, FC	100+	1		
8500-05-0006MZ	One-Click Mini-100 MU/LC	100+	1		
8500-05-0009MZ	One-Click Cleaner Mini-500 SC, ST, FC	500+	1		
8500-05-0010MZ	One-Click Cleaner Mini-500 MU/LC	500+	1		
8500-05-0007MZ	One-Click Ultra Cleaner 2.5 (enlarged cleaning) SC, ST, FC	2 x 500+	1		
8500-05-0008MZ	One-Click Cleaner D-LC, Duplex LC (2 x 500+ cleans)	500+	1		
8500-05-0030MZ	One-Click Cleaner MPO (500+ cleans)	500+	1		
8500-05-0013MZ	One-Click Cleaner MPO-16	500+	1		
8500-05-0014MZ	One-Click Cleaner M20, 2.0 mm ferrule	500+	1		
8500-05-0015MZ	One-Click Cleaner CS, MDC Duplex	500+	1		
8500-05-0016MZ	One-Click Cleaner SN Duplex	500+	1		
8500-05-0018MZ	One-Click Cleaner HOC, Hardened Optic Connectors	500+	1		
8500-05-PRO-SC	One-Click Cleaner SC PRO	775+	1		
8500-05-PRO-LC	One-Click Cleaner LC PRO	775+	1		
8500-05-MMC16	One-Click Cleaner MMC for MMC-16 Connectors	500+	1		
8500-05-MMC24	One-Click Cleaner MMC for MMC-24 Connectors	500+	1		
8500-05-0021MZ	One-Click Cleaner SC, ST, FC (box of 5 units)	5 x 500+	5		
8500-05-0022MZ	One-Click Cleaner MU/LC (box of 5 units)	5 x 500+	5		
8500-05-0025MZ	One-Click Cleaner Mini-100 SC, ST, FC (box of 5 units)	5 x 500+	5		
8500-05-0026MZ	One-Click Cleaner Mini-100 MU/LC (box of 5 units)	5 x 500+	5		
8500-05-0027MZ	One-Click Ultra Cleaner 2.5 SC, ST, FC (box of 5 units)	5 x 500+	5		
8500-05-0023MZ	One-Click Cleaner MPO-16 (box of 5 units)	5 x 500+	5		

## NEOCLEAN Fiber Connector Cleaning Tools

AFL NO.	Description	# Of Cleans		
8500-15-0900MZ	NEOCLEAN-E1 for MU and LC connectors with UPC/APC polishes	750+		
8500-15-0901MZ	NEOCLEAN-E2 for SC and FC connectors with UPC/APC polishes and OptiTap connectors	750+		
8500-15-0902MZ	NEOCLEAN-E3 for SC, ST, FC, E2000 with UPC/APC polishes and OptiTap connectors	750+		
8500-15-0909MZ	NEOCLEAN-M for MPO/MTP® connectors	600+		

## Optical Grade Cleaning Wipes

AFL NO.	Description		
9000-03-0025MZ	FiberWipes™ - 90 optical quality wipes per tub, (1 tub)		
9000-03-0026MZ	FiberWipes - 90 optical quality wipes per tub (1 case of 24 tubs)		



\$250 Minimum Order

## OPTICAL LOSS TESTING

### ROGUE® OLTS Certifier

**Only available to customers in North America, Central America and the Caribbean, and the Middle East!**

- Each ROGUE OLTS Certifier Kit includes two (2) of each: ROGUE 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.



iB1 Base with Module



iB1 Base with Module



AFL NO.	ROGUE OLTS Certifier Kit	Contains (ea.)						
		ROGUE Base	ROGUE Modules		Mating Adapters	Test Port Adapters		
		iB1	Quad SM/MM	Dual Engine SM	SC	OLS SC	OPM SC	LC
<b>RGK-CERT01B1</b>	Quad SM/MM	2	2		2	2	2	2
<b>RGK-CERT03B1</b>	Dual Engine SM	2		2	2	4	2	2

**ROGUE OLTS Certifier Kit Order Entry – RGK-CERT[KIT]-[C], where:**

[KIT]	ROGUE OLTS Certifier Kit Type/Contents
<b>01B1</b>	(2) iB1 Base, (2) Quad SM/MM OLTS Certifier Module, adapters, One-Click Cleaner
<b>03B1</b>	(2) iB1 Base, (2) Dual Engine SM OLTS Certifier Module, adapters, One-Click Cleaner

[C]	Single-mode Connector Type
<b>U</b>	UPC
<b>A</b>	APC

### Mobile App for ROGUE OLTS Certifier

Android Apps are available as free downloads from Google Play to configure, control and access results from ROGUE OLTS Certifier.

Mobile App	Android Google Play
<b>ROGUE TURBO OLTS Certifier</b>	Available

\$250 Minimum Order



ROGUE iB1 Base



OLTS Certifier Module

## ROGUE® Hardware and Accessories

AFL NO.	Description	Contains
<b>RGK-OLTS03B1</b>	ROGUE OLTS Kit with iB1 Base	(1) ROGUE iB1 Base, (1) Dual Engine SM Module, (2) SM reference cords (1) battery, (1) AC charger, (1) adjustable carry strap
<b>RG-B01</b>	ROGUE iB1, Intelligent Base	(1) ROGUE iB1 Base, (1) battery, (1) AC charger, (1) adjustable carry strap
<b>RG-1100-Q01</b>	ROGUE OLTS Certifier Quad Module	(1) Quad Module; test port adapters: (2) SC for OLS port, (1) SC and (1) LC for OPM port
<b>RG-1100-S01-D</b>	ROGUE OLTS Certifier SM Module	(1) SM Module; test port adapters (2) SC for OLS port, (1) SC and (1) LC for OPM port
<b>5400-00-0200</b>	ORL Referencing Mandrel	(1) Mandrel
<b>8400-00-0066MZ</b>	SC UPC Terminator for ORL Reference	(1) Terminator
<b>8400-00-0048MZ</b>	FC UPC Terminator for ORL Reference	(1) Terminator
<b>RGA-STRAP-01</b>	ROGUE Adjustable Carry Strap	(1) Strap
<b>4050-00-0918PR</b>	AC charger for ROGUE iB1 Base	(1) AC charger, (specify power cord, see <a href="#">page 57</a> , Table 1)

## Connector Adapters for ROGUE Module Test Ports

**Note:** ROGUE modules are shipped with SC adapter installed on OLS ports and universal 2.5 mm adapters installed on OPM and VFL ports.

AFL NO.	Connector Adapter Type	Test Port Usage
<b>2900-50-0002MR</b>	FC	OLS
<b>2900-50-0003MR</b>	SC	OLS
<b>2900-50-0004MR</b>	ST	OLS
<b>2900-50-0006MR</b>	LC	OLS
<b>2900-52-0001MR</b>	FC	OPM
<b>2900-52-0002MR</b>	SC	OPM
<b>2900-52-0003MR</b>	ST	OPM
<b>2900-52-0004MR</b>	LC	OPM
<b>2900-52-0005MR</b>	2.5 mm Universal	OPM
<b>2900-52-0006MR</b>	1.25 mm Universal	OPM
<b>2900-50-0007MR</b>	2.5 mm Universal	VFL
<b>2900-50-0010MR</b>	1.25 mm Universal	VFL

Connector Adapters for ROGUE OLTS Certifier Module Test Ports



2900-50-0003MR



2900-52-0005MR



2900-50-0007MR

## Encircled Flux (EF) Reference Grade Test Cords

Encircled Flux (EF) requirements (IEC 61280-1-4 and TIA-568-14-B) specify multimode launch conditions at the end of an EF qualified Reference Grade Test Cord (RGTC). Thus, compliance to EF standards requires both, a light source with EF compliant optics and a RGTC. AFL offers RGTCs with a range of connector options. RGTCs are qualified in one direction and marked accordingly (input/output). AFL Reference Grade Test Cords use 50 µm OM4 fiber, red jacketing, and come in 2-meter length. Red jacketing used to distinguish RGTCs from standard multimode fiber jumpers.

AFL NO.	Connectors	
8700-04-0001MR	FC to FC	
8700-04-0002MR	FC to SC	
8700-04-0003MR	FC to LC	
8700-04-0004MR	FC to ST	
8700-04-0005MR	SC to FC	
8700-04-0006MR	SC to SC	
8700-04-0007MR	SC to LC	
8700-04-0008MR	SC to ST	
8700-04-0028MR	LC to LC	

## Multi-Fiber Switch Models

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. Multi-Fiber Switch is compatible with your OLTS Certification equipment.

Model	Fiber Type	Wavelength Range	Insertion Loss	Optical Return Loss (ORL)	Power
MFS-12-SM	Single-mode	1270 – 1670 nm	2.8 dB typ.; 3.3 dB max.	50 dB min	Li-Ion, USB
MFS-12-MM	OM4 multimode	800 – 1320 nm	1.8 dB typ.; 2.3 dB max.	Not specified	Li-Ion, USB

AFL NO.	Description	
MFS-12-SM-ASC-FR	Multi-Fiber Switch, 12 fibers SM, APC–SC, MPO Fiber Ring (pinned or non-pinned), soft case	
MFS-12-SM-ASC	Multi-Fiber Switch, 12 fibers SM, APC–SC, soft case	
MFS-12-SM-USC	Multi-Fiber Switch, 12 fibers SM, UPC–SC, soft case	
MFS-12-MM-USC	Multi-Fiber Switch, 12 fibers MM, UPC–SC, soft case	



MFS- Multi-Fiber Switch



MFS in Carry Holster



## FlowScout® SE100 Single-Ended Test Set



FlowScout SE100 with 1430 nm Wavelength Optical Reflector

### Features

- Verifies fiber continuity and insertion loss at 1430 nm from a single end
- Excess reflection (low ORL) detection at 1550 nm
- Live fiber detection and reporting
- Built-in optical continuous wave (CW) reflectometer
- Combines light source and power meter into a single unit

AFL's FlowScout SE100 is designed to verify fiber continuity and measure insertion loss to the end of fibers terminated with AFL's 1430 nm Wavelength Optical Reflectors. When a reflector is detected, the FlowScout SE100 immediately reports its presence (confirming continuity to the reflector) and measures insertion loss to the reflector at 1430 nm wavelength. The reflector is near-transparent to PON and other wavelengths, allowing it to remain installed during network operation.

**Reduce cost:** Combining an optical light source and power meter into one low-cost test set, the FlowScout SE100 enables a single technician to verify continuity and measure insertion loss, reducing equipment costs by over 38% and labor costs by over 50%.

**Shorten test time and eliminate setup errors:** Traditional two-ended testing requires equipment configuration and test coordination. FlowScout SE100 eliminates time-consuming setup and technician coordination time. It also speeds up testing by reducing visits to subscriber premises, demarcation points, and cell tower climbs.

**Enhance customer experience:** The FlowScout SE100 eliminates the need for onsite troubleshooting of FTTH drop issues. All testing can be completed from a distribution panel or splitter, eliminating technician time at the subscriber premises and overcoming scheduling and access challenges for both subscribers and service providers.

**Increase technician safety:** Repeated tower climbs for troubleshooting FTTH fibers are eliminated by using the FlowScout SE100 to test from the ground to optical reflectors installed at the Radio Unit.

**Ensure integrity of test results:** FlowScout SE100 alerts the user when excess reflection or a live signal is present on the tested network. Reflection issues from damaged, open, mismatched, or dirty connectors often result in poor network performance. FlowScout SE100 immediately alerts the user and displays ORL when excess reflection is present.

**Complements subscriber-installed ONT initiatives:** Reducing the need for FTTH premises visits, the FlowScout SE100 solution supports service provider goals to reduce costs by adopting a subscriber self-install ONT methodology.





## FlowScout® SE100 Single-Ended Test Set

AFL's FlowScout SE100 is designed to verify fiber continuity and measure insertion loss to the end of fibers terminated with AFL's 1430 nm Wavelength Optical Reflectors. When a reflector is detected, the FlowScout SE100 immediately measures insertion loss to the reflector at 1430 nm wavelength. The reflector is near-transparent to PON and other wavelengths, allowing it to remain installed during network operation.

FlowScout SE100 kit includes the FlowScout SE100 test set, SC/APC to SC/APC patch cord to connect to network under test, reference 1430 nm Wavelength Optical Reflector, wrist strap, and Quick Reference Guide in a convenient soft carry case.

AFL NO.	Description		
SE100-00-0901PR	FlowScout SE100 Single-Ended Test Set Kit	Wavelength	1430 and 1550 nm
		Measurement Range	>10 dB one-way fiber loss (ORL ≥25 dB @1550 nm); >6 dB one-way fiber loss (ORL ≤15 dB @1550 nm)
		Detection Range	Reflector detected / not detected up to 20 km (18 mi) with optical loss ≤9 dB at 1430 & 1550 nm and 1550 nm ORL ≥25 dB

## FlowScout SE100 Accessories

AFL NO.	Description
<b>Accessories Included with SE100-00-0901PR Kit</b>	
8700-03-1430MZ	1430 nm Wavelength Optical Reflector, SC/APC, female-to-male, plug type
8800-00-0072PR	Universal flip-top dust cap for UCI outputs
8700-00-0218MR	Single-mode test jumper, SC/APC to SC/APC, conical ferrule, 2 m, 3 mm jacketed
1400-05-0230PZ	Wrist strap
1400-01-0107MZ	Soft carry case with strap
<b>Additional Optional Accessories</b>	
6000-00-0031MR	USB – Micro-B cable, 5 pin, 6 ft
4050-00-0034MR	AC Adapter. <b>AFL ships one power plug (of customer choice) along with the order. Please select one out of the four plugs listed below.</b> <ul style="list-style-type: none"> <li>4050-00-0030EUMR EU Power Plug for AC charger</li> <li>4050-00-0030USMR US power plug for AC charger</li> <li>4050-00-0030SAAMR CN/AUS power plug for AC charger</li> <li>4050-00-0030UKMR UK power plug for AC charger</li> </ul>
2900-50-0011MR	SC/APC adapter for optical port
2900-58-0001MR	FlowScout SE100-facing APC female to APC male field-replaceable Port Saver SMF
8500-05-0009MZ	One-Click Cleaner Mini-500 SC, ST, FC; 500+ cleans



## 1430 nm Wavelength Optical Reflector

AFL's 1430 nm Wavelength Optical Reflector is used in conjunction with test devices, such as AFL's FlowScout SE100 continuity and insertion loss test set. It uses Fiber Bragg Grating technology to support testing over the wavelength range around 1430 nm. With the reflector used at one end of a fiber under test, a technician can verify fiber continuity and measure insertion loss to the reflector using the FlowScout SE100.

AFL NO.	Description
<b>Accessories Included with SE100-00-0901PR Kit</b>	
8700-03-1430MZ	1430 nm Wavelength Optical Reflector, SC/APC, female-to-male, plug type

## FlowScout® DPPM Downstream PON Power Meter



### Features

- Measures coexistent downstream PON power levels
- GPON/EPON and RF Video or XG/XGS/10GEPON
- Single port for PON and broadband wavelengths
- Evaluates pass/fail against ITU or user-set min/max limits
- Includes broadband power meter with CW, Tone, and Wave ID
- Internal storage for 4000 test results
- Download results via USB, Bluetooth, and free FlexApp
- Reporting with AFL's FlexReporter™ software suite
- Field-replaceable connector adapters

AFL's FlowScout DPPM is a Downstream PON Power Meter designed to automatically detect and simultaneously measure coexistent downstream PON power levels at 1490 nm GPON/EPON and either 1550 nm RF video or 1577 nm XG/XGS/10GEPON.

**Intuitive interface for easy operation:** The FlowScout DPPM features a large color touchscreen with a simple icon-driven user interface that displays measured power levels with color-coded pass/fail indications. Measured power levels may be automatically evaluated as pass/fail against ITU-T or user-set min/max limits. The FlowScout DPPM uses a single port to automatically detect PON and broadband wavelengths.

**Wave ID for reduced test time and errors:** The FlowScout DPPM includes a broadband power meter for power and insertion loss measurements. Additional wavelengths can be measured using a companion CW or Wave ID source. When a Wave ID source is used, the power measurement process automatically synchronizes to source wavelengths, reducing test time and eliminating wavelength setting errors. The broadband power meter also automatically detects and reports the presence of 270 Hz, 330 Hz, 1 kHz and 2kHz fiber-identifying tones.

**Full reporting capabilities:** Measured power levels, pass/fail limits and status can be stored in internal memory for download via USB. Test results may be uploaded for subsequent analysis, editing, and reports generation with FlexReports PC software.

**Efficient and durable:** Rugged and ergonomic, the hand-held FlowScout DPPM power meter includes IP54 weather protection for working in many conditions. It provides up to 180 hours of continuous operation from its rechargeable battery and can also be used while charging from the included AC adapter. A variety of field-replaceable output adapters support multiple connector styles.

Basic kits include the FlowScout DPPM PON Power Meter and a quick reference guide in a convenient soft carry case.

Available November 1, 2024

**NEW**



## FlowScout® DPPM Downstream PON Power Meter

The FlowScout DPPM Downstream PON Power Meter kit includes rechargeable batteries, SC/APC adapter cap, two SC/APC-SC/APC jumpers, USB-A to USB-C cable for charging and data transfer, AC plug, and carry case. Quick reference guide is available at [www.AFLglobal.com](http://www.AFLglobal.com).

AFL NO.	Description
<b>DPPM-100-0902PR</b>	Includes: DPPM Downstream PON Power Meter, SC/APC connector adapter, AC charger, quick reference guide, and soft carry case
<b>Included Accessories</b>	
<b>2900-52-0002MR</b>	SC adapter
<b>8800-00-0072PR</b>	Universal flip-top dust cap for UCI outputs
<b>4050-00-0036MR</b>	AC charger, USB-A, 90-264VAC, 5V 2.5A. Comes with interchangeable US, UK, EU, and CN/AUS power plugs for AC charger.
<b>6000-00-0036MR</b>	USB-A to USB-C charge and data transfer cable
<b>1400-01-0107MZ</b>	Soft carry case with strap

### Accessories

AFL NO.	Description
<b>2900-52-0001MR</b>	FC connector adapter
<b>2900-52-0002MR</b>	SC connector adapter
<b>2900-52-0003MR</b>	ST connector adapter
<b>2900-52-0004MR</b>	LC connector adapter
<b>8800-00-0072PR</b>	Universal flip-top dust cap for UCI outputs
<b>1400-05-0230PZ</b>	Wrist strap
<b>4050-00-0036MR</b>	AC charger, USB-A, 90-264VAC, 5V 2.5A. Comes with interchangeable US, UK, EU, and CN/AUS power plugs for AC charger.
<b>6000-00-0036MR</b>	USB-A to USB-C charge and data transfer cable
<b>8500-05-0009MZ</b>	One-Click Cleaner Mini-500 SC, ST, FC, 500+ cleans
<b>1400-01-0107MZ</b>	Soft carry case with strap

\$250 Minimum Order

Available November 1, 2024



## FlowScout® Through-Mode PON Power Meter

FlowScout Through-Mode PON power meter is designed to meet the demands of the outside plant environment. It easily withstands the one-meter drop test and has splash resistant controls that are easy to use, even with gloves on. A range of field-swappable output adapters support multiple connector styles and enables access for easy cleaning. The efficient design provides long test time from rechargeable Li-Polymer battery. The File Management system allows technicians to organize test results into multiple files and transfer stored results via USB to a PC for analyzing, generating reports, and printing. QR code feature can easily collect and transfer test data via any smart devices. Fully N.I.S.T. traceable.

AFL NO.	Description					
TPPM-XG	FlowScout Through-Mode PON Power Meter XGPON/XGSPON	Upstream	Wavelength	1270 nm	1310 nm	
			Measurement Range	-30 to +13 dBm	-30 to +13 dBm	
		Downstream	Wavelength	1490 nm	1550 nm	1577 nm
			Measurement Range	-50 to +13 dBm	-35 to +26 dBm	-50 to +17 dBm



### FlowScout Included Accessories

AFL NO.	Description		
8700-00-0090MR	(2) SC/APC to SC/APC Test Jumpers, 2 m		
6000-00-0036MR	USB-A to USB-C Charge and Data Transfer Cable		
8500-05-0009MZ	One-Click Cleaner Mini-500 SC, ST, FC; 500+ cleans		
4050-00-0034MR	AC Adapter		
<b>AFL ships one power plug (of customer choice) along with the order. Please select one out of the four plugs listed below.</b>			
4050-00-0030EUMR	EU Power Plug for AC charger		
4050-00-0030USMR	US power plug for AC charger		
4050-00-0030SAAMR	CN/AUS power plug for AC charger		
4050-00-0030UKMR	UK power plug for AC charger		

\$250 Minimum Order

**NEW**

## FlowScout® OPM8 Optical Power Meter and OLS8 Optical Light Source

Available in August, 2024!

AFL's FlowScout OPM8 optical power meter and FlowScout OLS8 optical light source represent the next generation of smart optical power meters and optical light sources respectively. Designed on the legacy of the AFL/Noyes OPM and OLS series, the FlowScout OPM8 and OLS8 provide rapid loss testing with pass/fail results for use in enterprise LAN, data center, PON, and broadband networks.

**Intuitive operation:** With a simple to use interface based on a color touchscreen, fiber technicians can quickly set-up, test, validate, and document installed fiber plant, as well as provide power measurements. The FlowScout OPM8 measures power levels and automatically evaluates them against user-set min/max limits. The large color touchscreen displays detected power levels with color-coded pass/fail indications.

### Features

- Large color touchscreen with icon-driven user interface
- Rapid pass/fail analysis based on user-set limits
- Wave ID functionality for accuracy and reduced test time
- Rugged design backed by industry-best 5-year warranty
- Internal test results storage
- Reports generation via OPM8 using AFL's FlexReporter™ Suite

**Wave ID for reduced test time and errors:** When used with a Wave ID light source, such as the FlowScout OLS8, the power meter automatically synchronizes to source wavelengths, reducing test time and eliminating wavelength setting errors. The broadband power meter also automatically detects and reports the presence of 270 Hz, 330 Hz, 1 kHz, and 2 kHz fiber identifying tones.

**Full reporting capabilities:** Measured power levels, pass/fail limits and status can be stored in internal memory for download via USB. Test results may be uploaded for subsequent analysis, editing, and reports generation with FlexReports PC software.

### Reports Generation via OPM8 Using AFL's FlexReporter™ Suite



### Product Highlights



**Icon-driven Interface**



**Comprehensive Reporting**



**Handheld**



**Battery Operated**



**USB Power Port / Software Upgrades**

#### Field-replaceable output adapter

Field-replaceable output adapters to support multiple connector styles.

#### Large color display

Large color touchscreen, visible in direct sunlight, displays a simple to use user interface.

#### Rapid pass/fail analysis

Measured power levels automatically evaluated against user-set min/max limits.

#### Durable design for field use

Rugged design backed by an industry-best 5-year warranty.



\$250 Minimum Order

**NEW**



## FlowScout® OPM8 Optical Power Meters

The FlowScout OPM8 optical power meter represents the next generation of smart optical power meters. Built from the legacy of AFL/Noyes OPMs, the FlowScout OPM8 provides rapid loss testing with pass/fail results for use in enterprise LAN, data center, PON, and broadband networks.

**Intuitive operation:** With a simple to use interface based on a color touchscreen, fiber technicians can quickly set-up, test, validate, and document installed fiber plant, as well as provide power measurements. The FlowScout OPM8 measures power levels and automatically evaluates them against user-set min/max limits. The large color touchscreen displays detected power levels with color-coded pass/fail indications.

**Wave ID for reduced test time and errors:** When used with a Wave ID light source, such as the FlowScout OLS8, the power meter automatically synchronizes to source wavelengths, reducing test time and eliminating wavelength setting errors. The broadband power meter also automatically detects and reports the presence of 270 Hz, 330 Hz, 1 kHz, and 2 kHz fiber identifying tones.

**Full reporting capability:** Project setup, measured power levels, pass/fail limits and status can be stored in internal memory for download via USB to FlexReporter™.

**Versatile and efficient:** Rugged, ergonomic, and backed by an industry-best 5-year warranty.

### All Models Key Features:

- All models feature project setup and save, and pass/fail analysis
- Measurement units: insertion loss in dB; power measurements in dBm
- Multiple test tone detection for fibre identification: 270 Hz, 330 Hz, 1 kHz, and 2 kHz tone
- For a list of all available adapter caps, see page "FlowScout OPM8 and OLS8 Adapter Caps", page 44.

Model	AFL NO. <sup>(a,b)</sup>	Calibrated Wavelengths (nm)										Detector Type	Measurement Range (dBm)			
		850	980	1270	1300	1310	1490	1550	1577	1610	1625					
OPM8-L	OPM8-SP3-[Kit]	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	InGaAs	+10 to -70		
OPM8-H	OPM8-SP4-[Kit]	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	InGaAs	+26 to -50		

### FlowScout OPM8 Kit Configuration - [KIT]

[KIT]	OPM8 Kit Configuration / Kit Contents
BAS <sup>(c)</sup>	Includes: OPM8, soft case, FlexReports Basic software with 60-day FlexReports Power software trial, USB cable
PLUS	Includes: BAS Kit plus upgrade to FlexReports Power

### Notes

- FlowScout OPM8 is equipped with 2.5 mm universal adapter. Additional OPM8 adapters may be ordered separately.
- FlowScout OPM8 optical power meters use a common calibration point for 1300 nm (multimode) and 1310 nm (single-mode).
- Test results can be off-loaded via USB cable to FlexReports Basic, which provides result viewing and a 60-day trail of the FlexReports Power license. User can opt to upgrade FlexReports Basic to FlexReports Power after purchase. FlexReports Power provides professional reports generation for AFL power meters.

### FlowScout OPM8 Included Accessories

AFL NO.	Description	
6000-00-0036MR	USB-A to USB-C Charge and Data Transfer Cable	
4050-00-0034MR	AC Adapter	
<b>AFL ships one power plug (of customer choice) along with the order. Please select one out of the four plugs listed below.</b>		
4050-00-0030EUMR	EU Power Plug for AC charger	
4050-00-0030USMR	US power plug for AC charger	
4050-00-0030SAAMR	CN/AUS power plug for AC charger	
4050-00-0030UKMR	UK power plug for AC charger	

\$250 Minimum Order

**NEW**



## FlowScout® OLS8 Optical Light Sources

AFL's FlowScout OLS8 optical light source represents the next generation of smart optical light sources. Built on the legacy of AFL/Noyes OLS series optical light sources, the FlowScout OLS8 provides a stable and accurate light source for use in enterprise LAN, data center, PON, and broadband networks.

**Wave ID for reduced test time and errors:** In the Wave ID mode, the OLS8 encodes each wavelength with a unique Wave ID code. When used with a Wave ID capable power meter, such as OPM8, the pair can test up to three wavelengths simultaneously reducing test time and eliminating wavelength-setting errors. The light source also offers CW mode (continuous output - no encoding) and supports test Tone generation (270 Hz, 330 Hz, 1 kHz, 2 kHz) to assist in troubleshooting.

**Multiple options available:** Single-mode dual (1310/1550 nm), Quad (850/1300 and 1310/1550 nm) and FTTx (1310/1490/1550 nm).

Model	AFL NO.	Output Wavelengths (nm)					Output Ports	Emitter Type <sup>(a)</sup>	Output Power (nominal, dBm)	Stability
		850	1300	1310	1490	1550				
OLS8-SM Dual	OLS8-SL2-BAS			◆		◆	1	Laser	-1	± 0.05 dB/1 hr
OLS8-Quad	OLS8-SL4-BAS	◆	◆	◆		◆	2	LED Laser	-20 @850 &1300 nm -1 @1310 & 1550 nm	± 0.05 dB/1 hr
OLS8-SM XGS	OLS8-SL7-BAS			◆	◆	◆	1	Laser	-1	± 0.05 dB/1 hr

**Notes:**

All Laser output powers are specified into 9/125 µm single-mode fiber.

a. Safety: Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2014.

### FlowScout OLS8 Included Accessories

AFL NO.	Description
6000-00-0036MR	USB-A to USB-C Charge and Data Transfer Cable
4050-00-0034MR	AC Adapter
<b>AFL ships one power plug (of customer choice) along with the order. Please select one out of the four plugs listed below.</b>	
4050-00-0030EUMR	EU Power Plug for AC charger
4050-00-0030USMR	US power plug for AC charger
4050-00-0030SAAMR	CN/AUS power plug for AC charger
4050-00-0030UKMR	UK power plug for AC charger

\$250 Minimum Order



**NEW**



## FlowScout® OLS8 and OPM8 Optical Loss Test Kits

- All SLP8/SMLP8 test kits include an optical power meter, optical light source, adapter cap, quick reference guide, and carry case.
- All OPM8 models are equipped with 2.5 mm universal adapter caps. If additional caps are required, they can be ordered separately, see "FlowScout OPM8 and OLS8 Adapter Caps", page 44.
- All OLS8 models are equipped with SC adapter caps. If additional caps are required, they can be ordered separately, see "FlowScout OPM8 and OLS8 Adapter Caps", page 44.
- For Encircled Flux Options for multimode testing see "Encircled Flux (EF) Compliant Test Kit and Light Source", page 45.

AFL NO.	Power Meter	Light Source	Fiber Type	Loss Measurements (nm)					Dynamic Range (dB)		
				850	1300	1310	1490	1550			
SLP8-02-[KIT]	OPM8-L	OLS8-SM Dual	SM			◆		◆	69 <sup>(b)</sup>		
SLP8-07-[KIT]	OPM8-H	OLS8-SM XGS	SM			◆	◆	◆	49 <sup>(b)</sup>		
SMLP8-04-[KIT]	OPM8-L	OLS8-QUAD	MM SM	◆	◆	◆		◆	40 @850/1300 nm <sup>(a)</sup> 69 @1310/1550 nm <sup>(b)</sup>		

### FlowScout OPM8 and OLS8 Kit Configuration - [KIT]

[KIT]	OPM8 Kit Configuration / Kit Contents
<b>BAS<sup>(c)</sup></b>	Includes: OPM8, OLS8, soft case, FlexReports Basic software with 60-day FlexReports Power software trial, USB cable
<b>PLUS</b>	Includes: BAS Kit plus upgrade to FlexReports Power

**Notes:**

- On 50/125 µm multimode fiber.
- On 9/125 µm single-mode fiber.
- Test results can be off-loaded via USB cable to FlexReports Basic, which provides result viewing and a 60-day trail of the FlexReports Power license. User can opt to upgrade FlexReports Basic to FlexReports Power after purchase. FlexReports Power provides professional reports generation for AFL power meters.

### FlowScout OPM8 and OLS8 Adapter Caps

AFL NO.	Connector Adapter Type	Usage Test Port Usage	
2900-63-0002MR	2.5 mm Universal	OPM8	
2900-63-0001MR	1.25 mm Universal		
2900-63-0003MR	SC		
2900-63-0006MR	FC		
2900-63-0005MR	ST®		
2900-63-0004MR	LC simplex		
2900-63-0007MR	SC	OLS8	
2900-63-0010MR	FC		
2900-63-0009MR	ST®		
2900-63-0008MR	LC simplex		

\$250 Minimum Order

**5 YEAR WARRANTY**



## 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 test sets. It is important to note IEC 61280-1-4 and TIA-568-14-B, specify EF multimode launch conditions at the end of an EF qualified Reference Grade Test Cord (RGTC) – not directly out source test port. EF compliance requires an EF source and RGTC used together.

### 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 µm receive test cord

**Single-mode Test Port:** Light Source with two 9/125 µm test cords (launch/receive)

AFL NO.	Power Meter	Light Source	WL - λ (nm)	Dynamic Range (dB)	Available Connectors <sup>a</sup>		Included 2-meter Test Cords	
					Source Port	Test Cord	Launch (µm)	Receive (µm)
SMLP5-5-EF-XX-YY	OPM5-2D	OLS4-EF	850, 1300 1310, 1550	40 @850/1300 nm 60 @1310/1550 nm	FC, SC	FC, SC, ST, LC	MM: RGTC, 50/125 SM: 9/125	MM: 50/125 SM: 9/125

#### Notes:

- a. Select one of the available connector options for the Source Port (FC, SC) and Test Cord (FC, SC, ST, LC) to insure you receive the proper test cords.
- b. See section "Encircled Flux (EF) Reference Grade Test Cords" (below) to order additional Reference Grade Test Cords (RGTC).

### EF compliant light source

Afl offers OLS4 light source with designed in Encircled Flux (EF) optics supplied with EF qualified Reference Grade Test Cords (RGTC). Specify RGTC connectors at time of order. OLS4 EF is supplied with one multimode RGTC and one standard 9/125 µm single-mode test cord.

AFL NO.	Wavelengths	Test Cords Included
OLS4-EF-XX-YY	MM 850/1300 nm; SM 1310/1550 nm	(1) RGTC, 50 µm, MM, 2-meter; (1) 9/125 µm, SM, 2-meter

#### Notes:

- c. Select one of the available options for the Source Port UCI adapter style (FC, SC) and Output Connector of RGTC (FC, SC, ST, LC) to insure you receive the proper test cords.
- d. See section "Encircled Flux (EF) Reference Grade Test Cords" (below) to order additional Reference Grade Test Cords (RGTC).

## Encircled Flux (EF) Reference Grade Test Cords

Encircled Flux (EF) requirements (IEC 61280-1-4 and TIA-568-14-B) specify multimode launch conditions at the end of an EF qualified Reference Grade Test Cord (RGTC). Thus, compliance to EF standards requires both, a light source with EF compliant optics and a RGTC. AFL offers RGTCs with a range of connector options. RGTCs are qualified in one direction and marked accordingly (input/output). AFL Reference Grade Test Cords use 50 µm OM4 fiber, red jacketing, and come in 2-meter length. Red jacketing used to distinguish RGTCs from standard multimode fiber jumpers.

AFL NO.	Connectors
8700-04-0001MR	FC to FC
8700-04-0002MR	FC to SC
8700-04-0003MR	FC to LC
8700-04-0004MR	FC to ST
8700-04-0005MR	SC to FC

AFL NO.	Connectors
8700-04-0006MR	SC to SC
8700-04-0007MR	SC to LC
8700-04-0008MR	SC to ST
8700-04-0028MR	LC to LC

\$250 Minimum Order

**5 YEAR WARRANTY**



OLS1-DUAL



OLS2-DUAL



OLS4



OLS7



CSS1-SM

## LED and Laser Light Sources (OLS and CSS1 Series)

Encircled Flux Options for multimode testing. See "Encircled Flux (EF) Compliant Test Kit and Light Source", page 45

AC chargers are available (ordered separately), see table below.

Model	AFL NO.	Connector	Output Wavelengths (nm)						Output Ports	Emitter Type <sup>(a)</sup>	Output Power (nominal, dBm)	Stability	Wave ID Transmit	Power	Price
			850	1300	1310	1490	1550	1625							
OLS1-DUAL	LS1D-30-0900PR	ST							1	LED	-20	± 0.1 dB/8 hrs	◆	(2) AA, AC	
	LS1D-30-0901PR	SC	◆	◆											
	LS1D-30-0903PR	FC													
	LS1D-30-0904PR	LC													
OLS2-DUAL	LS2D-20-0900PR	FC						1	Laser	0 <sup>b</sup>	± 0.05 dB/1 hr	◆	(2) AA, AC		
	LS2D-20-0902PR	ST			◆		◆								
	LS2D-20-0904PR	SC													
	LS2D-20-0906PR	LC													
OLS4	OLS4-10-0900PR	SC						2	LED, Laser	-20 @850 &1300 nm 0 @1310 & 1550 nm	± 0.05 dB/1 hr	◆	(2) AA, AC		
	OLS4-10-0901PR	ST	◆	◆	◆		◆								
	OLS4-10-0904PR	FC													
	OLS4-10-0905PR	LC													
OLS7-3	OLS7-10-0901PR	FC						1	Laser	-5	± 0.05 dB/1 hr	◆	(2) AA, AC		
	OLS7-10-0902PR	SC			◆		◆								
	OLS7-10-0903PR	LC					◆								
	OLS7-10-0904PR	ST													
OLS7-FTTH	OLS7-11-0901PR	FC						1	Laser	-5	± 0.05 dB/1 hr	◆	(2) AA, AC		
	OLS7-11-0902PR	SC			◆		◆								
	OLS7-11-0903PR	LC					◆								
	OLS7-11-0904PR	ST													
CSS1-MM	CSS1-01-0902PR	SC	◆	◆				1	LED	-20	± 0.1 dB/1 hr		(2) AA		
CSS1-SM	CSS1-10-0901PR	FC						1	Laser	0	± 0.05 dB/1 hr		(2) AA		
	CSS1-10-0902PR	SC			◆		◆								
	CSS1-10-0903PR	LC													
	CSS1-10-0904PR	ST													

**Notes:**

All Laser output powers are specified into 9/125 μm single-mode fiber.

- a. Safety: Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03.
- b. Adjustable 2 dB.

**OLS AC Power Supply**

AFL NO.	Description	OLS1-DUAL	OLS2-DUAL	OLS4	OLS7
4050-00-0919PR	100-240 VAC to 9 VDC, (specify power cord, see page 57, Table 2)	◆	◆	◆	◆

\$250 Minimum Order

## Connector Adapters (D models starting February 2006)

AFL NO.	Description	OLS1-DUAL	OLS2-DUAL	OLS4	OLS7	CSS1-SM	
2900-50-0002MR	FC adapter	◆	◆	◆	◆	◆	
2900-50-0003MR	SC adapter	◆	◆	◆	◆	◆	
2900-50-0004MR	ST adapter	◆	◆	◆	◆	◆	
2900-50-0006MR	LC adapter	◆	◆	◆	◆	◆	
8800-00-0072PR	Universal flip-top dust cap for UCI outputs	◆	◆	◆	◆		

**5 YEAR  
WARRANTY**



OPM4



OPM5



CSM1

## Optical Power Meters (OPM and CSM1 Series)

### All Models Key Features:

- All models feature 'Set Reference' functionality
- Measurement units: insertion loss in dB; power measurements in dBm,  $\mu$ W
- Multiple test tone detection for fibre identification: 270 Hz, 330 Hz, 1 kHz, and 2 kHz tone
- For a list of all available adapter caps, see [page 56](#).

### OPM5 Models:

- OPM5 models include TRM<sup>®</sup> 3 PC Reporting software (Basic License).

Model	AFL Number <sup>a</sup>	Calibrated Wavelengths (nm)										Detector Type	Measurement Range (dBm)	Power	Features		
		650	660	780	850	980	1300	1310 <sup>b</sup>	1490	1550	1625				PC S/W	Wave ID	
OPM4-1D	OPM4-31-0900PR	◆	◆	◆	◆							Silicon	+6 to -70	(2) AA, USB		◆	
OPM4-2D	OPM4-32-0900PR				◆		◆	◆	◆	◆		Germanium	+6 to -60	(2) AA, USB		◆	
OPM4-3D	OPM4-33-0900PR				◆		◆	◆	◆	◆		InGaAs	+10 to -75	(2) AA, USB		◆	
OPM4-4D	OPM4-34-0900PR				◆	◆	◆	◆	◆	◆		InGaAs	+26 to -50	(2) AA, USB		◆	
OPM5-2D	OPM5-32-0900PR				◆		◆	◆	◆	◆		Germanium	+6 to -60	(2) AA, USB	USB	◆	
OPM5-3D	OPM5-33-0900PR				◆		◆	◆	◆	◆		InGaAs	+10 to -75	(2) AA, USB	USB	◆	
OPM5-4D	OPM5-34-0900PR				◆	◆	◆	◆	◆	◆		InGaAs	+26 to -50	(2) AA, USB	USB	◆	
CSM1-3	CSM1-03-0900PR				◆		◆	◆	◆	◆		InGaAs	+6 to -70	(2) AA			
CSM1-4	CSM1-04-0900PR				◆	◆	◆	◆	◆	◆		InGaAs	+26 to -50	(2) AA			

### Notes:

- a. Please specify Adapter Cap option at time of ordering: 2.5 mm, 1.25 mm, FC, ST, SC, or LC. One per order!
- b. Optical Power Meters use a common calibration point for 1300 nm (multimode) and 1310 nm (single-mode).

### OPM Accessories

AFL NO.	Description	OPM4D	OPM5D	
6000-00-0024MR	USB Cable: PC (USB-A) to OPM (USB-MINI B): <ul style="list-style-type: none"> <li>• Connect OPM to PC for data upload to TRM<sup>®</sup> 3</li> <li>• External Power for OPM (when used with customer supplied USB-A power source)</li> </ul> <b>Note:</b> OPM/OLS don't charge any rechargeable batteries!	External power only	Connect to PC and external power	

\$250 Minimum Order

**5 YEAR WARRANTY**



SLP5-6



SMLP5-5



CKSM-2

## Optical Loss Test Kits (SLP, SMLP, and CK Series)

For Encircled Flux Options for multimode testing see "Encircled Flux (EF) Compliant Test Kit and Light Source", page 45.

Specify one source/adaptor cap connector type when ordering. All test kits include an optical power meter, optical light source, adaptor cap, user's guide, and carry case. Additional adaptor caps may be ordered separately (see [page 56](#)). For available AC chargers see [page 46](#). SLP and SMLP5 kits also include mandrel, USB cable, and TRM® 3 Test Results Manager trace analysis/reporting and certification or OPM loss reporting PC software (Basic License).

Model	AFL NO.	Connector	Power Meter	Light Source	Fiber Type	Loss Measurements (nm)					Dynamic Range (dB)	Features			Price
						850	1300	1310	1490	1550		Set Ref	PC S/W	Auto Dual λ Test	
SLP5-6	SLP5-30-0904PR	ST	OPM5-3D	OLS2D	SM			◆		◆	70 <sup>b</sup>	◆	◆	◆	
	SLP5-30-0905PR	SC													
	SLP5-30-0906PR	FC													
	SLP5-30-0907PR	LC													
SLP5-FTTH	SLP5-11-0910PR	FC	OPM5-4D	OLS7-FTTH	SM			◆	◆	◆	45 <sup>b</sup>	◆	◆	◆	
	SLP5-11-0911PR	SC													
	SLP5-11-0912PR	ST													
	SLP5-11-0913PR	LC													
SMLP5-5	SMLP5-55-0902PR	LC	OPM5-2D	OLS4	MM						40 @850/1300 nm <sup>a</sup>	◆	◆	◆	
	SMLP5-55-0907PR	SC			SM	◆	◆	◆	◆	◆					◆
	SMLP5-55-0908PR	ST													
	SMLP5-55-0909PR	FC													
CKM-2	CKM2-00-0902PR	SC	CSM1-3	CSS1-MM	MM	◆	◆				40 <sup>a</sup>	◆			
CKS-3	CKS3-00-0901PR	FC	CSM1-3	CSS1-SM	SM			◆		◆	70 @1310/1550 nm	◆			
	CKS3-00-0902PR	SC													
CKSM-2	CKD2-00-0902PR	SC	CSM1-3	CSS1-MM	MM	◆	◆	◆		◆	40 @850/1300 nm <sup>a</sup>	◆			
		SC		CSS1-SM	SM					◆			60 @1310/1550 nm <sup>b</sup>		

**Notes:**

- a. On 62.5/125 μm multimode fiber.
- b. On 9/125 μm single-mode fiber.

\$250 Minimum Order

## FIBER IDENTIFICATION

### 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.



MFT Multi-Fiber Tracer



MFI Multi-Fiber Identifier



MFP Multi-Fiber Power Meter

MFT Multi-Fiber Tracer	Wavelength	Output Power	Connector Type	Power
MFT	1550 nm ±20 nm	+3 dBm ±1 dB peak into 9/125 µm fiber	MTP®/MPO/APC (unpinned) 12-fiber	2 X AA
MFI Multi-Fiber Identifier	Calibrated Fiber Size and Wavelength	Data Detection Range	Working Fiber Size	Power
MFI	250 µm @1550 nm (SMF-28/28E) ribbon fiber	+2 to -35 dBm	250 µm ribbon fiber	2 X AAA
MFP Multi-Fiber Power Meter	Calibrated Wavelength	Tone Detection	Measurement Range	Power
MFP	Fiber ID mode: 1550 nm OPM mode: 850, 1300, 1310, 1490, 1550, 1625 nm	270 Hz, 330 Hz, 1 kHz, 2 kHz	Fiber ID mode: +10 to -35 dBm OPM mode: +10 to -75 dBm	2 X AA

### MFIS Ordering

AFL NO.	Includes						Soft Carry Case
	Multi-Fiber Tester			Accessories			
	MFT Tracer	MFI Identifier	MFP Power Meter	12-fiber Cable	One-Clicks		
MFTI-12-BAS	◆	◆		◆	◆	◆	
MFTP1-12-BAS	◆		◆	◆	◆	◆	
MFTIP1-12-BAS	◆	◆	◆	◆	◆	◆	
MF11-00-0900MR		◆					
MFP1-12-0900MR			◆				

MFIS Kits Order Entry: **MFTI-12-BAS-[C]**

**MFTP1-12-BAS-[C]**

**MFTIP1-12-BAS-[C]**

[C]	Cable type
ASC	MPO to 12-fiber SC/APC fan-out cable, One-Click Cleaner MPO, One-Click Cleaner Mini-100 SC, ST, FC
USC	MPO to 12-fiber SC/UPC fan-out cable, One-Click Cleaner MPO, One-Click Cleaner Mini-100 SC, ST, FC
ULC	MPO to 12-fiber LC/UPC fan-out cable, One-Click Cleaner MPO, One-Click Cleaner Mini-100 LC/MU

### MFIS Accessories

AFL NO.	Description
8700-00-0198MR	Cable, MPO/APC(M)-SC/APC, 12-fiber, SM, fan-out, 3 meters
8700-00-0200MR	Cable, MPO/APC (M) - SC/UPC, 12-fiber, SM, fan-out, 3 meters
8700-00-0201MR	Cable, MPO/APC (M) - LC/UPC, 12-fiber, SM, fan-out, 3 meters
8500-05-0005MZ	One-Click Cleaner Mini-100 SC, ST, FC (100+ cleans)
8500-05-0006MZ	One-Click Mini-100 MU/LC (100+ cleans)
8500-05-0030MZ	One-Click Cleaner MPO (500+ cleans)

## OFI-BIPM & OFI-BIPMe Optical Fiber Identifiers



### Specifications

- Insertion Loss: 0.2 dB @1310 nm
- Detection Sensitivity: -64 dBm @1310 nm, 250  $\mu$ m fiber
- Detect up to four tones: 270Hz, 330Hz, 1KHz, and 2KHz
- Power Measurement: +10 to -73 dBm @1550 nm, 250  $\mu$ m fiber
- Power Supply: 2 x AA batteries; 1.2 to 1.5 V DC
- Battery Life: 8 hours
- Dimensions (W x H x D): 5.0 x 11.5 x 21.2 cm (1.9 x 4.5 x 8.3 in)
- Weight: 230 g (8.1 oz) including battery

AFL's OFI-BIPMe is an easy-to-use hand-held device that determines if a fiber is live, the transmission direction, carrying up to four tones, and the relative core power. Its best-in-breed sensitivity makes it the only OFI that works on bend insensitive fiber and in a bright sunlight.

A favorite of technicians in the field, OFI-BIPMe has a universal head which means there are no adapters to change or lose. The slim front profile makes checking tightly packed fibers easier and the positive-stop trigger ensures the perfect amount of pressure is applied every time.

The OFI-BIPMe is nicknamed the "job saver" because it eliminates the possibility of unplugging a live fiber and interrupting service to customers which could cause expensive network outages. And its ergonomic design has been described as stunning.





OFI-BIPM



OFI-BIPMe

## OFI-BIPM & OFI-BIPMe Optical Fiber Identifiers

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

The OFI-BIPM/-BIPMe optical fiber identifier is an easy-to-use tool that determines if a fiber is live, the transmission direction, and the relative core power on standard and bend-insensitive single-mode and multimode fibers. Its positive-stop trigger mechanism provides the right amount of pressure every time to assure proper detection, while keeping loss to a minimum. This ensures that traffic will not be interrupted and the fiber will not be damaged. Our full featured OFI-BIPM/-BIPMe includes a touch screen, an integrated optical power meter, and several easy-to-select options. The OFI-BIPM/-BIPMe includes carry case, batteries, and user's guide.

Model	Fiber Type	Wavelength Range	Power	Detectable Signals
<b>OFI-BIPM</b>	MM fiber, 0.25 mm SM and SM ribbon fiber (up to 12 ribbon)	900-1700 nm	(2) AA	CW, Traffic or 270 Hz, 1 kHz, 2 kHz
<b>OFI-BIPMe</b>	1.1 / 1.5 / 1.7 / 2.0 / 3.0 mm SM jacketed fiber	900-1700 nm	(2) AA	CW, Traffic or 270 Hz, 330 Hz, 1 kHz, 2 kHz

## OFI-BIPM/-BIPMe Power Meter Port Adapters

AFL NO.	Adapter Type	Test Port
<b>BIPM-00-FC</b>	FC	OPM (power meter)
<b>BIPM-00-SC</b>	SC	OPM (power meter)
<b>BIPM-00-ST</b>	ST	OPM (power meter)
<b>BIPM-00-LC</b>	LC	OPM (power meter)
<b>BIPM-00-25</b>	2.5 Universal	OPM (power meter)

## OFI-200D and OFI-400 Optical Fiber Identifiers

All OFI models include carry case, batteries, and user's guide.



OFI-200D

OFI-400

Model	Fiber Coating Type (recommended)	Wavelength Range (nm)	Insertion Loss (dB) @		Power	Tone (Hz)				Traffic Direction
			1310 (nm)	1550 (nm)		270	330	1000	2000	
<b>OFI-200D</b>	250 µm, 900 µm, ribbon, 2 mm or 3 mm	800 - 1700	0.6	2.5	9V				◆	◆
<b>OFI-400</b>		800 - 1700	0.6	2.5	(2) AAA	◆	◆	◆	◆	◆
<b>OFI-400C</b>	2 mm or 3 mm jacketed	800 - 1700	1.0	2.8	(2) AAA	◆	◆	◆	◆	◆
<b>OFI-400HP</b>	2 mm or 3 mm jacketed	800 - 1700	0.2 to 0.5	0.8 to 1.3	(2) AAA	◆	◆	◆	◆	◆

## OFI-200D and OFI-400 Accessories

AFL NO.	Test Port
<b>OFI1-10-0102PR</b>	OFI 200D and OFI-400 plunger, head
<b>OFI1-10-0216PR</b>	OFI 200D and OFI-400 plunger cover

## VFI4 Visual Fault Identifiers



Visualize defects in your single-mode and multimode fiber optic cables with the press of a button!

### Specifications

- Wavelength: 650 nm  $\pm$ 15 nm
- Modulation: 2 Hz or CW selected
- Output Power: VFI4 model - 5 mW (maximum)  
VFI4-L model - 1 mW (maximum)
- Power 1 AA battery, VFI4 model - <30 hours (flash mode)  
VFI4-L model - <50 hours (flash mode)
- Size (H x W x D) 7.9 x 4.7 x 2.2 cm (3.1 x 1.8 x 0.8 in)
- Weight 43 g (1.5 oz)

Visual Fault Identifiers (VFIs), or Visual Fault Locators (VFLs), are used to inject visible light energy into a fiber. AFL's compact VFI4 injects high-powered red-laser light to provide exceptional brightness and range for locating sharp bends, breaks, faulty connectors, and other faults.

The VFI4 is about the size of an automotive key-fob and packs a powerful Class 3R red laser with a 10 km range. It is powered by one universally available AA battery which will last for more than 30 hours in flashing mode for VFI4 model and up to 50 hours for VFI4-L model.

The VFI4 features a 2.5 mm universal adapter that accepts PC and angled FC, SC, ST, etc. connectors. There is an option for 1.25 mm universal adapter for LC and MU connectors.

Built with the quality you expect from AFL, a leading global supplier of passive fiber optic components for over 30 years, the VFI4 can easily handle the rigors of the field test environment.

Contact your local AFL representative to learn more about the VFI4 and other essential tools for installing, activating and maintaining fiber optic networks.



VFI4



VFI4-L

## VFI4 Visual Fault Identifiers

Now a low power version is also available!

AFL's compact VFI4 injects high-powered red-laser light to provide exceptional brightness and range for locating defects in single-mode and multimode fibers. During installation and activation, the VFI4 is used for quick continuity checks, fiber tracing, splice verification, and Pass/Fail validation for mechanical connectors. The VFI4 is also an essential troubleshooting tool to find sharp bends, breaks, faulty connectors, and other defects that "leak" light - enabling technicians to quickly spot them. The rugged VFI4 is designed for the rigors of real-life field testing. It has a range of up to 10 km, fits on a key-chain, and features extensions that protect the red-laser port. It has both CW and pulsating modes and is powered by a single AA battery for up to 30 hours of operation for VFI4 model and up to 50 hours for VFI4-L model.

Model	Wavelength	Output Power (into single-mode fiber)	Emitter Type	Connector Type	Power
VFI4	650 nm	5 mW, 2 Hz, CW	Laser <sup>a</sup>	Universal 2.5 mm; 1.25 mm	1 x AA
VFI4-L	650 nm	1 mW, 2 Hz, CW	Laser <sup>b</sup>	Universal 2.5 mm; Optional 1.25 mm	1 x AA

### Notes:

- Safety: Class IIIa FDA 21 CFR 1040.10 and 1040.11, Class 3R IEC 60825-1:2007-03.
- Safety: Class II FDA 21 CFR 1040.10 and 1040.11, Class 2 IEC 60825-1:2007-03.

AFL NO.	Description
VFI4-01-0900PR	VFI4 with 2.5 mm and 1.25 mm adapters
VFI4-02-0900PR	VFI4-L, with 2.5 mm adapter

## VFI4 Accessories

The VFI4 uses one-piece thread-on adapters with a captivated alignment sleeve. For replacements, use part numbers 2900-50-0013MR and 2900-50-0012MR.

AFL NO.	Description
2900-50-0013MR	2.5 mm Universal adapter for VFI port
2900-50-0012MR	1.25 mm Universal adapter for VFI port



MT Tracer Kit

## MT Tracer (12-fiber VFI and Display)

The MT Tracer Kit includes an MT Tracer Source, MT Tracer Display, and carry case. The MT Tracer Source, which may be used as a multifiber Visual Fault Identifiers provides 12 separately controlled visible lasers. The MT Tracer Display uses passive optics to show the light received on each fiber being traced. The MT Tracer can illuminate a selected fiber or automatically sequence through all 12 fibers. When used together, the MT Tracer Source and Display provide a fast way to trace (verify connectivity) a 12-fiber link. Both Source and Display are equipped with male (pinned) 12-fiber MTP<sup>®</sup> connectors.

Model	Wavelength	Output Power (into SMF)	Emitter Type*	Connector Type	Power
MT Tracer Source	650 nm	1 mW, 2 Hz or CW	Laser	MTP <sup>®</sup>	2 AA (40 hours)

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

AFL NO.	Model	Description
TRCR-90-0900	MT Tracer Kit	MT Tracer Source, MT Tracer Display, and carry case
TRCR-20-0900	MT Tracer Source	MT Tracer Source
TRCR-10-0900	MT Tracer Display	Provides eye-safe viewing of visible light

## REPORTING SOFTWARE



### Reporting and analyzing field test data has never been easier!

- Single software platform supporting AFL test and inspection testers
- Wireless field upload of test data using the FlexApp mobile App
- Results viewing, editing, reporting using the FlexReports PC software
- Simple 3-step configuration and extremely fast cloud-based reporting
- Comprehensive Bi-directional OTDR, OLTS, and Inspection reporting capability
- PDF and Excel report formats
- Simple report navigation with hyperlinked test reports
- Report flexibility and customization with Report Wizard configurations

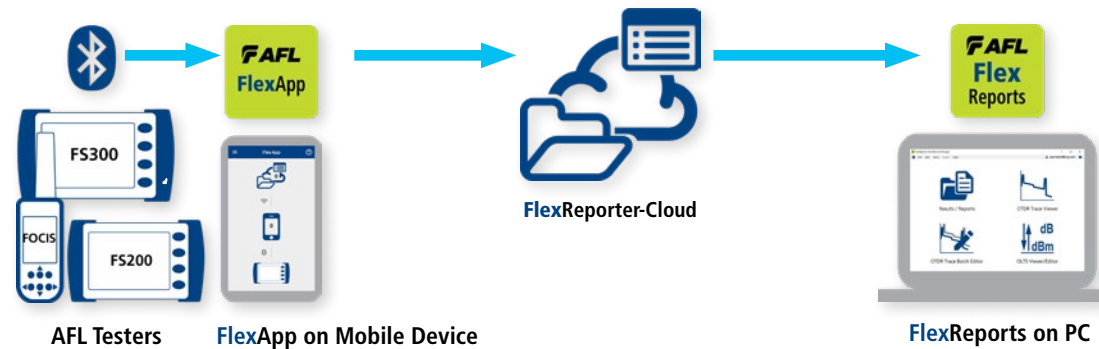
AFL's FlexReporter™ software suite is an all-in-one viewer, test data transfer, analysis, and cloud-based reporting tool designed for use with AFL fiber optic test and inspection products. Designed for speed and simplicity, FlexReporter enables you to generate clear and easy-to-read reports quickly and easily.

FlexReporter includes FlexApp for mobile sharing of field test results and FlexReports for generating clear and ultra-quick reports for large or small fiber projects. While reporting from the field, technicians benefit from FlexApp's auto-sync technology and a single App regardless of which AFL's test or inspection device is used.

FlexReports is the fastest cloud reporting engine available and can deliver large fiber reports in under 3 minutes. Its clean interface and large icons enable reports to be generated and viewed quickly and smoothly. View and analyze Bi-directional OTDR traces, loss or certification results, fiber end-face inspection results, and batch-edit OTDR traces uploaded from all AFL FlexScans and FOCIS inspection devices.

Available in either Basic or Advanced versions, reporting and analyzing field test results has never been easier.

## FlexReporter Software Suite



Bi-directional OTDR reporting



Excel Report format

**FlexReporter Software Suite** is a cloud-based reporting platform that provides tools for wireless test data transfer and cloud-enabled reporting for AFL test and inspection products. FlexReporter combines FlexApp - a mobile App that wirelessly transfer test results to Reporter-Cloud and cloud-based, extremely fast reports generator - FlexReports PC software. The FlexReporter suite was developed to make the complicated task of reporting faster, simpler, and easy-to-use.

**FlexReports PC software** is integrated with the cloud to provide remote results download and a 3-click fast cloud-based reporting tool. The FlexReports mobile companion FlexApp provides on-site wireless cloud upload and sharing of test results from AFL OTDRs and Inspection products. FlexReports is a Windows®-compatible PC software that is available in Basic and Advanced versions.

**FlexReports Basic** enables users to quickly view and analyze results. It provides for simple single fiber OTDR and OLTS reports and includes a 60-day Advanced Reporter and batch editor license trial.

### Basic and Advanced Software Comparison

FlexReports Features	Basic License	Advanced License
OTDR Trace Viewer, OLTS Viewer/Editor	◆	◆
OTDR Trace Analysis with the Bi-directional and Macrobend analysis	◆	◆
OTDR Add/Delete events from the Trace Viewer	◆	◆
Single Fiber reporting for OTDR and OLTS results	◆	◆
60-Day Reporting and Batch Editor License Trial	◆	
Download of test results stored in the FlexReporter cloud		◆
Reports Wizard, compatible with TRM		◆
3-click reporting using new fast FlexReporter cloud report service		◆
Bi-directional OTDR, OLTS, Inspection reports		◆
Hyperlinked PDF test reports with clear Pass/Fail indicators		◆
PDF and Excel format OTDR reports		◆
Batch editing of OTDR .SOR files for renaming results, correcting Pass/Fail limits and launch cable settings		◆

**FlexReports Advanced** is a full featured reporting and post processing solution for generation of professional Bi-directional OTDR, OLTS, and Inspection reports using industry standards. It offers a full featured Batch Edit functionality for updating OTDR pass/fail limits and correcting OTDR events. FlexReports supports AFL FlexScan OTDRs, FOCIS connector inspection products, OPM power meters, and OLTS products.

**FlexApp** is a mobile Android and iOS App that supports AFL's FlexScan OTDRs and FOCIS connector inspection products (FOCIS Flex, FOCIS Lightning). FlexApp wirelessly transfers test results from any FlexScan OTDR or FOCIS inspection probe directly to FlexReporter-Cloud for analysis, editing, and reports generation with FlexReports PC software. FlexApp features "print-to-PDF" functionality and supports FlexScan FS200 OTDR firmware auto updates.

### Ordering

AFL NO.	Description
RPTS-AD-USB-1	FlexReports Advanced, one seat license on USB
RPTS-UP-TRM3-1	FlexReports Advanced, one seat, Upgrade from TRM® 3 Advanced on USB. Users must have TRM-3 Advanced license
FlexReports Basic	FlexReports Basic, available for download on AFL Software Resources website
FlexApp	FlexApp data transfer mobile App, available on Google Play and Apple App Store

\$250 Minimum Order



## TRM® 3 Test Results Manager

TRM Test Results Manager, a PC-based software, provides comprehensive test results (OTDR trace, connector inspection, optical loss) test results analysis and reporting. Designed for use with AFL test and inspection products, TRM is available in Basic and Advanced versions. TRM Basic allows technicians to quickly view test results, analyze OTDR traces, view loss or certification results, batch-edit OTDR traces and create acceptance reports conforming to industry guidelines. Reports can be generated showing dual wavelength traces and event tables, end-face image, event map and loss data for each fiber. Users can apply pass/fail thresholds to OTDR events and OLTS measurement; create and apply application rules per industry standards. The OTDR Batch editor allows user to edit and analyze multiple trace files simultaneously. TRM Advanced software includes all Basic software features and adds bi-directional OTDR trace averaging, macroband detection, and export of .SOR files to .CSV file format. Users may download a TRM full working version (Basic plus Advanced features) and try it for 30 days. Once the evaluation period ends, users will need to acquire TRM Basic or TRM Advanced software to continue to use TRM Test Results Manager.

### Ordering (for use with OPM5 Power Meters)

AFL NO.	Description
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

## ADAPTER CAPS & ACCESSORIES

### Adapter Caps for OPM Ports and OFS300-200

Standard thread-on adapter caps are used to mate non-angled and angled single-fiber and dual-fiber connectors to optical ports on OPM/CSM and OFS300-200C products.

AFL NO.	Description
8800-00-0214	2.5 mm Universal (accepts FC, SC, and ST ferrules)
8800-00-0224	1.25 mm Universal (accepts LC and MU ferrules)
8800-00-0200	FC
8800-00-0209	SC
8800-00-0202	ST®
8800-00-0225	LC simplex only
8800-00-0273PR	LC duplex only <sup>a</sup>
8800-00-0221	E2000
8800-00-0203	SMA

#### Notes:

- When it is used on OPM, it's recommended for single-mode testing only. The loss measured with this adapter can be up to 1 dB.
- For Inspecting backplane and duplex connectors with 1.25 mm ferrules such as LC and MU. Not recommended for measuring optical power.

### Adapter Caps for OFS300-200 Only

**Note: Do not use the following adapter caps with our optical power meters or other test sets to measure optical power!**

AFL NO.	Description
8800-00-0218	Angled FC
8800-00-0233	MTP®/MPO flat ferrule (0°), typically MM
8800-00-0236	1.25 mm open Universal <sup>b</sup>
8800-00-0219	2.5 mm open Universal.(accepts SC duplex, OptiTap)
8800-00-0248	2.0 mm ferrule (pin)
8800-00-0226	MU simplex
8800-00-0219	2.5 mm open Universal.(accepts SC duplex, OptiTap)
8800-00-0230	MT-RJ (A side only)
8800-00-0231	MT-RJ (A side or B side)

## Test Jumpers

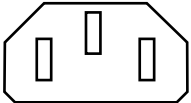
AFL NO.	Description
<b>Multimode Test Jumpers (62.5/125 µm - 2 meters)</b>	
8700-00-0053MR	SC/SC
8700-00-0045	SC/ST
8700-00-0003	ST/ST
<b>Single-mode Test Jumpers (9/125 µm - 2 meters)</b>	
8700-00-0005	FC/FC
8700-00-0016	FC/ST
8700-00-0017	ST/ST
8700-00-0018	SC/SC, G.657) BIF
8700-00-0021	FC/SC
8700-00-0022	SC/ST
8700-00-0032	FC/APC-FC/UPC
8700-00-0033	SC/APC-FC/UPC
8700-00-0034	SC/APC-SC/UPC
8700-00-0046	LC/SC
8700-00-0192MR	SC/SC
<b>MPO Test Jumpers</b>	
8700-00-0156MR	MPO(F)-MPO(F), APC, SM, type A, 2 meters
8700-00-0158MR	MPO(M)-MPO(F), APC, SM, type A, 2 meters
8700-00-0159MR	MPO(F)-MPO(F), APC, SM, type B, 2 meters
8700-00-0167MR	MPO(M)-MPO(M), APC, SM, type A, 300 mm
8700-00-0168MR	MPO(M)-MPO(M), APC, SM, type B, 300 mm

## Power Supply Cords for AC Chargers

3-Conductor Power Cords (for C, CS, FLX, M, OFL Series and FTS, OLT55, OLS1-1C/2C, T400/500B, VFS2, VOA5)

Please specify power cord type (country) when ordering an AC charger. One power cord is included with each AC charger at no charge. Additional power cords may be purchased separately.

Table 1

AFL NO.	Country	Image	Description
6000-00-0001MR	USA		IEC320, 115V, Type K
6000-00-0012MR	Euro		IEC320, 250V, Type B
6000-00-0015MR	UK		IEC320, 250V, Type D
6000-00-0016MR	Australia, China		IEC320, 250V, Type C
6000-00-0017MR	Denmark		IEC320, 250V, Type E
6000-00-0018MR	Japan		IEC320, 125V, Type M
6000-00-0019MR	Swiss		IEC320, 250V, Type L
6000-00-0020MR	Italy		IEC320, 250V, Type I
6000-00-0021MR	Israel		IEC320, 250V, Type H
6000-00-0022MR	India		IEC320, 250V, Type G

## Mating Adapters for both MMF and SMF testing

AFL NO.	Description
8400-00-0083MR	LC/LC, Simplex
8400-00-0004MR	FC/FC
8400-00-0020	ST/ST
8400-00-0029MR	SC/FC
8400-00-0045MR	SC/SC
8400-00-0054	SC/ST
8400-00-0093MR	MPO-12, key-up/key-up (aligned notch)
8400-00-0094MR	MPO-12, key-up/key-down (opposed notch)
8400-00-0105PR	MPO-16, key-up/key-up (aligned notch)
8400-00-0106PR	MPO-16, key-up/key-down (opposed notch)

## Mandrels for Multimode Link Testing

Mandrels are used to meet the transmit jumper mandrel-wrap requirements of TIA/EIA-568 B.3 (Section 7.1) when testing multimode links using an LED source.

AFL NO.	Description
5400-00-0201PZ	Mandrel, 62.5 µm fiber, 3 mm jacket
5400-00-0202PZ	Mandrel, 50 µm fiber, 3 mm jacket
5400-00-0900PZ	Two mandrels: 62.5 & 50 µm fiber, 3 mm jacket

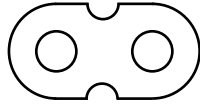
## Return Loss Test Sets Accessories

AFL NO.	Description
2475-20-0001MZ	Index Matching Block, simplifies tests (5-pack)

## 2-Conductor Power Cords (for OLS1-DUAL, OLS2-DUAL, OLS4, and OLS7)

Please specify power cord type (country) when ordering an AC charger. One power cord is included with each AC charger at no charge. Additional power cords may be purchased separately.

Table 2

AFL NO.	Country	Image	Description
6000-12-0001MR	USA		IEC 320-C7, Type N
6000-12-0002MR	Euro		IEC 320-C7, Type A
6000-12-0003MR	UK		IEC-320-C7, Type D
6000-12-0004MR	Australia, China		IEC-320-C7, Type P
6000-12-0005MR	India		IEC-320-C7, Type G
6000-12-0006MR	Japan		IEC-320-C7, Type M



## ACCESSORIES FOR DISCONTINUED PRODUCTS

AFL NO.	Description	Model
<b>C850 OTDR, C840 and C880 Accessories and Connector Adapters</b>		
4050-00-0122PR	Vehicle charger/supply, 18 V, 6.7 A, 120 W	
4050-00-0918PR	AC charger 100-240 VAC to 18 VDC (*)	
4050-30-0005MR	C850 Li-Ion battery charger 90-260 VAC (b)	
3900-05-0001PE	C840, C880 Li-Ion battery	
6000-00-0027MR	Cable, USB-MINI B (connect to PC)	
TRM-00-0920PR	TRM® 2.0 software upgrade, Basic to Advanced	
8800-00-0072PR	Universal flip-top dust cap for UCI outputs	
2900-50-0002MR	FC adapter for OTDR/OLS port	<b>C850, C840, C880</b>
2900-50-0003MR	SC adapter for OTDR/OLS port	
2900-50-0004MR	ST adapter for OTDR/OLS port	
2900-50-0006MR	LC adapter for OTDR/OLS port	
8800-00-0200	FC adapter for OPM port	<b>C850</b>
8800-00-0209	SC adapter for OPM port	
8800-00-0202	ST® adapter for OPM port	
8800-00-0225	LC adapter for OPM port	
8800-00-0214	2.5 mm adapter for OPM port	
8800-00-0224	1.25 mm adapter for OPM port	
2900-53-0001MR	2.5 mm adapter for VFL port	
2900-53-0002MR	1.25 mm adapter for VFL port	
2900-52-0001MR	FC adapter for OPM port	
2900-52-0002MR	SC adapter for OPM port	
2900-52-0003MR	ST adapter for OPM port	<b>C840, C880</b>
2900-52-0004MR	LC adapter for OPM port	
2900-52-0005MR	2.5 mm Universal adapter for OPM port	
2900-52-0006MR	1.25 mm Universal for OPM port	
2900-50-0007MR	2.5 mm Universal adapter for VFL port	
2900-50-0010MR	1.25 mm Universal adapter for VFL port	
<b>CS260*, FLX380, OFL250, OFL280 Series Accessories and Connector Adapters</b>		
6000-00-0024MR	Cable, USB-MINI B (connect to PC)	
4050-00-0927PR	AC charger 100-240 VAC to 15 VDC (*)	
4050-30-0005MR	Li-Ion battery charger 90-260 VAC (b)	
3900-05-0003ME	Li-Ion battery pack	
TRM-00-0920PR	TRM® 2.0 upgrade from Basic to Advanced	
2900-50-0002MR	FC adapter for OTDR/OLS port	
2900-50-0003MR	SC adapter for OTDR/OLS port	

### Notes:

- a. Specify power cord, see [page 57](#), Table 1.
- b. Specify power cord, see [page 57](#), Table 2

AFL NO.	Description	Model
2900-50-0004MR	ST adapter for OTDR/OLS port	
2900-50-0006MR	LC adapter for OTDR/OLS port	
2900-50-0011MR	SC/APC adapter for OTDR/OLS port	
2900-52-0001MR	FC adapter for OPM port	
2900-52-0002MR	SC adapter for OPM port	
2900-52-0003MR	ST adapter for OPM port	
2900-52-0004MR	LC adapter for OPM port	
2900-52-0005MR	2.5 mm Universal adapter for OPM port	
2900-52-0006MR	1.25 mm Universal adapter for OPM port	
2900-53-0001MR	2.5 mm Universal adapter for VFL port	
2900-53-0002MR	1.25 mm Universal adapter for VFL port	
8800-00-0072PR	Universal flip-top dust cap for UCI outputs	

### FOCIS Duel Adapter Tips

FOCIS Due Port 1 uses both the APC adapter tips listed below as well as the full set of adapter tips qualified for FOCIS Flex and FOCIS WiFi2, see "FOCIS Series Inspection Adapter Tips", [page 23](#). The Port 2 of FOCIS Duel uses very specific tips (listed below) used only for Port 2 of FOCIS Duel.

AFL NO.	Port	Description	Tip ID
FFLX-4S-ASC	1	SC/APC bulkhead adapter tip, quad-slotted	XASC
FFLX-4S-AFC	1	FC/APC bulkhead adapter tip, quad-slotted	X AFC
FFLX-4S-ALC	1	LC/APC bulkhead adapter tip, quad-slotted	XALC
FDUO-01-ULC	2	LC/UPC ferrule adapter tip, single-slotted female "click-in"	SULC
FDUO-01-ALC	2	LC/APC ferrule adapter tip, single-slotted female "click-in"	SALC
FDUO-01-USC	2	SC/UPC ferrule adapter tip, single-slotted female "click-in"	SUSC
FDUO-01-ASC	2	SC/APC ferrule adapter tip, single-slotted female "click-in"	SASC
FDUO-01-U125	2	Universal 1.25 mm UPC ferrule adapter tip, single-slotted	U1
FDUO-01-A125	2	Universal 1.25 mm APC ferrule adapter tip, single-slotted	A1
FDUO-01-U25	2	Universal 2.5 mm UPC ferrule adapter tip, single-slotted	U2
FDUO-01-A25	2	Universal 2.5 mm APC ferrule adapter tip, single-slotted	A2

### FOCIS Duel Accessories

1400-01-0172PZ	Easy Access carry case
1400-05-0230PZ	Wrist strap
3900-04-0008ME	Battery, 3.6V, NiMH, rechargeable
4050-00-0931PR	AC charger. Select power plug option.
4050-00-0030USMR	US power plug for AC charger
4050-00-0030UKMR	UK power plug for AC charger

## Accessories for Discontinued Products

AFL NO.	Description	Model	
<b>FOCIS Duel Accessories</b>			
4050-00-0030EUMR	EU power plug for AC charger		
4050-00-0030SAAMR	CN power plug for AC charger		
6000-00-0031MR	USB – Micro-B cable, 5 pin, 6 ft		
8800-02-0074MZ	Dust cap for the Inspection Port 1		
8800-02-0082MZ	Dust cap for the Inspection Port 2		
8800-02-0280MR	Dust cap for the LC (both UPC and APC) adapter tips; Port 2		
8800-02-0281MR	Dust cap for the SC (UPC / APC) adapter tips; Inspection Port 2		
6000-00-0034PR	5V USB charging cable (1.5 m), type A to barrel (0.9 X 3.2 X 9 mm)		
1410-02-0228PZ	Rubber boot for FOCIS Flex, FOCIS Lightning, FOCIS Duel		
<b>FOCIS WiFi2 Accessories &amp; Adapter Tips</b>			
1400-01-0172PZ	Easy Access carry case		
1400-05-0230PZ	Wrist strap		
8800-02-0074MZ	Dust cap for the Inspection Port		
4050-00-0931PR	AC charger. Select power plug option		
4050-00-0030USMR	US power plug for AC charger		
4050-00-0030UKMR	UK power plug for AC charger		
4050-00-0030EUMR	EU power plug for AC charger		
4050-00-0030SAAMR	SAA power plug for AC charger		
6000-00-0034PR	5V USB charging cable (1.5 m), type A to barrel (0.9 X 3.2 X 9 mm)		
See section "FOCIS Series Inspection Adapter Tips", page 23.			
<b>M210e/M310/M700/M710 OTDR Accessories and Connector Adapters</b>			
4050-00-0918PR	AC charger*, 100-240 VAC to 18 VDC	M210e,	
4050-00-0122PR	Vehicle charger, 18 V, 6.7 A, 120 W	M310,	
8800-00-0072PR	Flip-top dust cap for UCI outputs	M700,	
TRM-00-0920PR	TRM 2.0 upgrade to Advanced software	M710	
8800-00-0072PR	Flip-top dust cap for UCI outputs		
1400-01-0075PZ	Hard carry case	M210e,	
3900-05-0001PE	Li-Ion battery		
6000-00-0024MR	Cable, USB-MINI B (connect to PC)		
1400-01-0067	Soft Case	M310	
1400-01-0082PZ	Soft carry case	M700, M710	
4050-30-0005MR	Li-Ion battery charger 90-260 VAC (*)		
6000-00-0027MR	Cable, USB-MINI B (connect to PC)		

AFL NO.	Description	Model	
2900-50-0002MR	FC adapter for OTDR port	M210e,	
2900-50-0003MR	SC adapter for OTDR port	M310,	
2900-50-0004MR	ST adapter for OTDR port	M700,	
2900-50-0006MR	LC adapter for OTDR port	M710	
2900-50-0011MR	SC/APC adapter for OTDR port	M710	
2900-52-0001MR	FC adapter for OPM port	M210e,	
2900-52-0002MR	SC adapter for OPM port		
2900-52-0003MR	ST adapter for OPM port		
2900-52-0004MR	LC adapter for OPM port		
2900-52-0005MR	2.5 mm Universal for OPM port		
2900-52-0006MR	1.25 mm Universal for OPM port		
2900-50-0007MR	2.5 mm Universal for VFL port		
2900-50-0010MR	1.25 mm Universal for VFL port	M310	
8800-00-0200	FC adapter for OPM port	M700,	
8800-00-0209	SC adapter for OPM port		
8800-00-0202	ST adapter for OPM port		
8800-00-0225	LC adapter for OPM port		
8800-00-0214	2.5 mm Universal for OPM port		
8800-00-0224	1.25 mm Universal or OPM port		
2900-53-0001MR	2.5 mm Universal adapter for VFL port		
2900-53-0002MR	1.25 mm Universal adapter for VFL port		
<b>OFS300 Microscope Accessories and Adapter Caps</b>			
1400-01-0055	Soft Carry case		
1400-01-0025PZ	Holster		
2900-10-0001	Tripod Stand (table top)		
8800-00-0214	2.5 mm Universal (accepts FC, SC, and ST ferrules)		
8800-00-0224	1.25 mm Universal (accepts LC and MU ferrules)		
8800-00-0200	FC		
8800-00-0209	SC		
8800-00-0202	ST®		
8800-00-0225	LC simplex only		
8800-00-0273PR	LC duplex only <sup>(b)</sup>		
8800-00-0221	E2000		
8800-00-0226	MU simplex		

### Notes:

- Specify power cord, see [page 57](#), Table 1.
- When it is used on OPM, it's recommended for single-mode testing only. The loss measured with this adapter can be up to 1 dB.
- Specify power cord, see [page 57](#), Table 2.

## Accessories for Discontinued Products

AFL NO.	Description	Model
8800-00-0219	2.5 mm open Universal <sup>(a)</sup> (accepts SC duplex, OptiTap)	
8800-00-0230	MT-RJ (A side only)	
8800-00-0231	MT-RJ (A side or B side)	
8800-00-0203	SMA	
8800-00-0211	DIN 47256	
8800-00-0218	Angled FC	
8800-00-0233	MTP <sup>®</sup> /MPO flat ferrule (0°), typically MM	
8800-00-0236	1.25 mm open Universal	
8800-00-0219	2.5 mm open Universal (accepts SC duplex, OptiTap)	
8800-00-0248	2.0 mm ferrule (pin)	
8800-00-0223	1.0 mm bare fiber (plastic)	
<b>SVA1 Accessories and Connector Adapters</b>		
2900-50-0002MR	FC adapter	
2900-50-0003MR	SC adapter	
2900-50-0004MR	ST adapter	
2900-50-0006MR	LC adapter	
8800-00-0072PR	Universal flip-top dust cap for UCI outputs	

## CALIBRATION SERVICES

Servicing your valuable AFL Test & Inspection Equipment at authorized AFL calibration facilities ensures you are getting the most out of your equipment and it is performing accurately. In keeping with ISO certification guidelines, AFL recommends the following calibration intervals for AFL Test & Inspection Equipment products:

- 3-year Calibration Interval for OPM, CSM1, OLS, CSS1, and OFI products
- 1-year Calibration Interval for BI Enhanced Optical Fiber Identifiers - OFI-BI, OFI-BIPM, OFI-BIPM
- 1-year Calibration Interval for all other AFL Test & Inspection Equipment products

Authorized AFL calibration facilities are traceable to the National Institute of Standards and Technology or equivalent.

Category	Model	
<b>OTDRs, FlexTesters</b>	C850*	
	FlexScan® TS100, FS300, FS200-60/-300/-100/-303/-304 without OLS/OPM	
	FlexScan TS100, FS300, FS200-60/-300/-100/-303/-304 with OLS/OPM	
	FLX380*, M210*, M210e*, M310, M710, OFL280*, OFL250*, RG-2100	
<b>OTDR and Certification Kits</b>	C860*	
<b>Certification and Loss/Return Loss Kits (Pairs)</b>	C840*, C880*	
<b>ROGUE® OLTS Certifier Kits (Pairs)</b>	RGK-CERTxx, RGK-CERTxxB1	
<b>ROGUE OLTS Certifier Modules</b>	RG-1100-xxx	
<b>FlowScout PON Power Meter</b>	TPPM-XG	
<b>Power Meters</b>	CSM1, OPM, MFP	
<b>Light Sources</b>	CSS1, OLS (except OLS1-2C* and OLS1-1C*), MFT	
<b>Light Sources - Encircled Flux (EF) Compliant</b>	OLS1-DL-EF, OLS4-EF	
<b>Optical Fiber Identifiers</b>	OFI, MFI	
<b>BI Enhanced Optical Fiber Identifiers</b>	OFI-BI, OFI-BIPM, OFI-BIPMe	

### Notes:

1. \*This product is supported for calibration service only. Repair service is no longer supported on this product due of the lack of availability of the components needed to make repairs. This product must be in fully functional condition in order to be calibrated. Any of these products that are sent in for calibration that are not in good working condition will be charged an evaluation fee and sent back to the customer without calibration.
2. The following products are no longer supported for repair or calibration:
  - OTDRs: CS260, FLX380-1xx, M100, M200, M600, M650, M700, OFL100, OFL200,
  - Inspection products VFS1, VFS2, DFD1, VFD2
  - Fiber Identification: OFI-FTTx, HiLite/VFI3, VFI2
  - Optical Light Sources (OLS): OLTS2, OLTS3, OLT4, OLTS5, OLS6, OLS3
  - Optical Power Meters (OPM): OPM3, OPM4-FTTx, OPM6
  - Optical Loss Testing: Turbo 500, T400, ORL3, ORL3B, T50B
  - Miscellaneous: FTS, FTS1, FTS3, VOA4, VOA5, VOA6, VOA-SM, WSP, TACT1

## Calibration and Repair Facilities

AFL has an authorized calibration/repair facility for AFL products in the USA, Europe and Asia Pacific. Please contact customer service for a return authorization number prior to sending your AFL test equipment in for repair or calibration.

Fujikura Europe LTD is an Authorized European Repair and Calibration facility for AFL Test and Inspection products and should be contacted directly for service.

Fujikura Asia LTD is an Authorized Asia Pacific Calibration facility for AFL Test and Inspection products and should be contacted directly for product calibrations.

### USA

AFL  
Attn: SR#: \_\_\_\_\_  
[Product Service Request Form](#)  
110 Hidden Lake Circle  
Duncan, SC 29334  
(800) 235-3423  
<https://www.aflglobal.com>

### Canada

Simbol Test Systems Inc.  
616 Auguste-Mondoux  
Gatineau QC J9J3K3  
Canada  
(819)770-7771  
[sales@simbol.ca](mailto:sales@simbol.ca)  
<https://simbol.ca>

### Poland

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[service@interlab.pl](mailto:service@interlab.pl)  
<https://www.interlab.pl/service.html>

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[www.tele-grup.ro](http://www.tele-grup.ro)

### Europe

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<http://www.fujikura.co.uk>

### Saudi Arabia

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PO Box 56219  
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Saudi Arabia  
+966 11 2176265  
[asim@brightwires.com.sa](mailto:asim@brightwires.com.sa)  
<http://www.brightwires.com.sa>

### Dubai

Lantern Fiber Electronic Instruments,  
Devices & Equipment Repairing Est.  
(Lantern Fiber)  
M29, New Al Safiya Building (Opposite of  
Abu hail Metro Station)  
Hor Al Anz, Dubai, U.A.E  
+971581102903  
[support@lanternfiber.com](mailto:support@lanternfiber.com)  
[www.lanternfiber.com](http://www.lanternfiber.com)

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438A Alexandra Road, #08-03 Blk A,  
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<http://www.fujikura.com.sg>

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<http://www.bstelekom.com>

### Australia / New Zealand

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+61 3 9737 4209  
[austechservices@aflglobal.com](mailto:austechservices@aflglobal.com)  
<https://www.aflglobal.com>

## Extended Warranty Options

### Standard Warranty

- CSM1, CSS1, OPM, OLS, OFI-200, OFI-400 products are warranted against defective material and workmanship for a period of (5)\* five years from the date of delivery to the end user.
- All other AFL products are warranted against defective material and workmanship for a period of (1) one year from the date of delivery to the end user.
- Any product that is found defective within the warranty period will, at the discretion of AFL, be repaired or replaced. Warranty will be voided if the product has been repaired or altered by other than an authorized AFL product repair facility, if the void sticker has been compromised, or which have been subject to misuse, negligence, or accident. In no case shall AFL liabilities exceed the original purchase price.

\* **Note:** Wear items such as OFI plungers are warranted for a period of (1) one year.

### Extended Warranties for Products Offered with One Year Warranty

	1 - Year Extended Warranty		2 - Year Extended Warranty		4 - Year Extended Warranty	
	Part Number		Part Number		Part Number	
	EW1Y-00-0907		EW2Y-00-0907		EW4Y-00-0907	
	EW1Y-00-0906		EW2Y-00-0906		EW4Y-00-0906	
	EW1Y-00-0905		EW2Y-00-0905		EW4Y-00-0905	
	EW1Y-00-0904		EW2Y-00-0904		EW4Y-00-0904	
	EW1Y-00-0903		EW2Y-00-0903		EW4Y-00-0903	
	EW1Y-00-0902		EW2Y-00-0902		EW4Y-00-0902	
	EW1Y-00-0901		EW2Y-00-0901		EW4Y-00-0901	

Extended warranties add to standard warranty providing complete warranty time period

Example: 1 year standard + 4 years extended = 5 years warranty coverage

## TERMS & CONDITIONS

1. **PRICES:** All prices set forth are suggested selling prices, FOB Duncan, SC for domestic shipments and FCA Duncan, SC for international shipments. All prices and specifications are subject to change without notice. Contact our Sales Department to confirm price and delivery.
2. **ORDER ENTRY:** Minimum order \$250.00.
3. **TERMS OF PAYMENT:** Terms of payment shall be net within thirty (30) days from date of invoice with approved credit.
4. **SHIPMENTS:** When a carrier is not specified, shipment will be made by the best surface-carrier available. RUSH ORDERS will be shipped as authorized. The customer shall bear the risk of in-transit loss or damage.
5. **CANCELLATION:** Unless otherwise agreed, in the event of cancellation, AFL shall be reimbursed for all expenses incurred.
6. **PACKING:** All instruments shall be packed for shipment in accordance with standard commercial practices for protection during shipment and storage.
7. **WARRANTY:**
  - OPM, OLS, OFI-200, OFI-400 products are warranted against defective material and workmanship for a period of (5)\* five years from the date of delivery to the end user.
  - All other AFL products are warranted against defective material and workmanship for a period of (1) one year from the date of delivery to the end user.
  - Any product that is found defective within the warranty period will, at the discretion of AFL, be repaired or replaced. Warranty will be voided if the product has been repaired or altered by other than an authorized AFL product repair facility, if the void sticker has been compromised, or which have been subject to misuse, negligence, or accident. In no case shall AFL liabilities exceed the original purchase price.
  - \* **Note: Wear items such as OFI plungers are warrantied for a period of (1) one year.**
8. **RETURN:** A Return Materials Authorization (RMA) number must be issued to the customer prior to accepting any products for return. Credit will be issued only on current merchandise, in re-saleable condition. Obsolete or discontinued products may not be returned for credit. Any material returned after 30 days of the original invoice date will be subject to a 20% restocking fee. No materials may be returned beyond 6 months from the original invoice date.
9. **REPAIR/CALIBRATION:** All calibration and repair orders are accepted by phone and need to be confirmed by purchase order. When shipping equipment for repair/calibration please include the service request number issued by Customer Service/Technical Support, a complete description of the fault condition, all connector adapters and dust caps to protect the connectors and contact information in case additional information is required. All chemicals should be removed from equipment case before sending in for repair or calibration. Minimum repair evaluation fee \$150.

Some older AFL products are no longer supported or supported for calibration services only. Products supported for calibration services only must be in fully functional condition to be calibrated. Any of these products that are sent in for calibration that are not in good working condition will be charged an evaluation fee and sent back to the customer without calibration.

Upon completion of the service requested, prompt payment is expected. Completed service requests not paid within 60 days of request will be charged an additional storage fee of \$45 per month for each month or portion thereof that payment has not been received.

### Notes:

- Unless otherwise specified all connectors are Ultra Physical Contact (UPC).
- ST is a registered trademark of Lucent Technologies.
- ESCON is a registered trademark of IBM.
- MTP is a registered trademark of US Conec Ltd.
- MPX is a registered trademark of TYCO Electronics Corp.



## REVISION CHANGES HISTORY

October 15, 2024

### New Products and Services

AFL NO.	Description	Page
<b>FlowScout® DPPM Downstream PON Power Meter</b>		
DPPM-100-0902PR	Includes: DPPM Downstream PON Power Meter, SC/APC connector adapter, AC charger, quick reference guide, and soft carry case	39
4050-00-0036MR	AC charger, USB-A, 90-264VAC, 5V 2.5A. Comes with interchangeable US, UK, EU, and CN/AUS power plugs for AC charger.	39

### Removed Products

AFL NO.	Description
PONS-00-0901PZ	Kit includes: (1) FTTx PON splitter box, (4) fiber rings, (3) SC/APC jumpers, (2) hybrid jumpers, (1) PON demo procedure, (1) carry case.

July 15, 2024

### New Products and Services

#### FlowScout® OPM8 Optical Power Meters

Model	AFL NO.	Description	Page
OPM8-L	OPM8-SP3-[Kit]	FlowScout OPM8 Optical Power Meter	40
OPM8-H	OPM8-SP4-[Kit]	FlowScout OPM8 Optical Power Meter	40

#### FlowScout OLS8 Optical Light Sources

Model	AFL NO.	Description	Page
OLS8-SM Dual	OLS8-SL2-BAS	FlowScout OLS8 Optical Light Source	41
OLS8-Quad	OLS8-SL4-BAS	FlowScout OLS8 Optical Light Source	41
OLS8-SM XGS	OLS8-SL7-BAS	FlowScout OLS8 Optical Light Source	41

#### FlowScout OLS8 and OPM8 Optical Loss Test Kits

Model	AFL NO.	Description	Page
SLP8-Dual	SLP8-02-[KIT]	FFlowScout® OLS8 and OPM8 Optical Loss Test Kit	42
SMLP8-Quad	SMLP8-04-[KIT]	FFlowScout® OLS8 and OPM8 Optical Loss Test Kit	42
SLP8-FTTX	SLP8-07-[KIT]	FFlowScout® OLS8 and OPM8 Optical Loss Test Kit	42

## FlowScout OPM8 and OLS8 Adapter Caps

AFL NO.	Connector Adapter Type	Usage Test Port Usage	Page
2900-63-0002MR	2.5 mm Universal	OPM8	42
2900-63-0001MR	1.25 mm Universal		42
2900-63-0003MR	SC		42
2900-63-0006MR	FC		42
2900-63-0005MR	ST®		42
2900-63-0004MR	LC simplex		42
2900-63-0007MR	SC	OLS8	42
2900-63-0010MR	FC		42
2900-63-0009MR	ST®		42
2900-63-0008MR	LC simplex		42

April 15, 2024

## New Products and Services

AFL NO.	Description	Page
<b>FlowScout® SE100 Single-Ended Test Set</b>		
8500-05-MMC16	One-Click Cleaner MMC for MMC-16 Connectors	31
8500-05-MMC24	One-Click Cleaner MMC for MMC-24 Connectors	31

January 25, 2024

Editorial revision to 'New Products and Services, January 15 2024' table below: Corrected SE100-00-0901PR price to be as listed in FlowScout SE100 section on page 36.