



OTDRs & Troubleshooters | Fiber Inspection & Cleaning | Optical Loss Testing | Fiber Identification



#### **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022

#### INTERNATIONAL SALES AND SERVICE CONTACT INFORMATION

International Contacts Europe, Middle East, Africa

Christian Kraemer Sales Director

Christian.Kraemer@AFLglobal.com

+49 151 6171 6838

Australia Daniel Rose

Sales Manager

Daniel.Rose@AFLglobal.com

+61 0416 652 742

Europe, Africa Ané Nel

Regional Sales Manager Ane.Nel@AFLglobal.com

+44 79082 70007

New Zealand Henk Schoeman Country Manager

Henk.Schoeman@AFLglobal.com

+64 9 927 7140 Cell: +621 0289 8548 Middle East Ahmed El Sakaty Regional Sales Manager

Ahmed.ElSakaty@AFLglobal.com

+20 1006 451 523

APAC Alex Wong

Regional Sales Manager Alex.Wong@AFLglobal.com

(65) 6370 2236 Cell: (65) 9233 6541

Mexico, Central America, Caribbean

Joseph Kennedy

Joseph.Kennedy@AFLglobal.com

(864) 486-7001 Cell: (864) 641-5920

Commercial Support Donald Allard

Commercial Manager

Donald.Allard@AFLglobal.com

+1 (603) 783-7175 Cell: +1 (603) 520-2454

Technical Support AFLtesttechsupport@AFLglobal.com

+1 (800-) 235-3423 (Option 3)

Sales Support https://www.AFLglobal.com/Contact/AFL-Sales-Team.aspx

Sales@AFLglobal.com

+1 (800-) 235-3423 (Option 4)

Purchase Orders, Quote, RMA SPBCustomerPO@AFLglobal.com

Service Request AFLEquipmentService@AFLglobal.com

AFL Test & Inspection web www.AFLglobal.com/Test

Warranty Activation www.AFLglobal.com/Register

AFL's Customer Portal - Direct content.AFLglobal.com/Direct.html





January 17, 2022

#### **TABLE OF CONTENTS**

Release Highlights	. 5
OTDRs & TROUBLESHOOTERS	. 6
OTDRs and Troubleshooters Selection Guide	. 7
FlexScan® OTDRs	. 8
FS300 Quad OTDR with SmartAuto® and LinkMap®	8
FS200 SMF OTDR with SmartAuto®, FleXpress® and LinkMap®	11
TS100 FTTH PON Troubleshooter	14
Field-replaceable Connector Adapters	17
FlexScan® FS200, FS300, and TS100 Accessories and Connector	
Adapters	
MFS Multi-Fiber Switch OTDR Add-on Kit	
Custom-Designed Network Simulators	
FTTx PON Simulator Kits	
OTDR Launch and Receive/Tail Cords - Fiber Rings	
FASTConnect® for Bare Fiber Termination	
TJ-03 Temporary Splice	22
FIBER INSPECTION & CLEANING	. 23
FOCIS Flex Fiber Optic Connector Inspection System	25
FOCIS Series and DFS1 Adapter Tips	
FOCIS Flex Accessories	
FOCIS Lightning® Multi-Fiber Optic Connector Inspection System	
FOCIS Lightning® Accessories	
FOCIS Lightning Adapter Tips	
FOCIS Duel® Fiber Optic Connector Inspection System	32
FOCIS Duel® Accessories	33
FOCIS Duel Adapter Tips	33
FOCIS WiFi2™ Fiber Optic Connector Inspection System	34
FOCIS WiFi2 Accessories	35
FOCIS WiFi2 Tips	35
OFS300 Microscope for Connectors on Patch Cords	
OFS300 Accessories	
Cleaning Supplies	. 37
AFL-CleanDisplay-1	
Wall/Rack Mountable Field Portable Cleaning Kits	
Field Portable Duffle Bag Cleaning Kits	
FCP3 Easy-Access Cleaning Kit	
FCC2 Cleaning Fluid and CCT Cleaning Sticks	
Cletop Cassette Cleaners	
Cletop (ACT) Cleaning Sticks	
One-Click® Cleaners	
NEOCLEAN Fiber Connector Cleaning Tools	41

Optical Grade Cleaning Wipes	41
OPTICAL LOSS TESTING	42
ROGUE® OLTS Certifier	44
Mobile App for ROGUE® OLTS Certifier	44
ROGUE® Hardware and Accessories	45
Connector Adapters for ROGUE Module Test Ports	45
Encircled Flux (EF) Reference Grade Test Cords	45
Multi-Fiber Switch Certification Add-on Kits	46
Multi-Fiber Switch Models	46
FlowScout PON Optical Power Meter	
FlowScout Included Accessories	
Optical Loss Test Kits (SLP, SMLP, and CK Series)	
Encircled Flux (EF) Compliant Test Kit and Light Source	
Encircled Flux (EF) Reference Grade Test Cords	
LED and Laser Light Sources (OLS and CSS1 Series)	
OLS AC Power Supply	
Optical Power Meters (OPM and CSM1 Series)	
OPM Accessories	52
FIBER IDENTIFICATION	53
MFIS Multi-Fiber Identification System	54
MFIS Ordering	54
MFIS Accessories	54
OFI-BIPM & OFI-BIPMe Optical Fiber Identifiers	56
OFI-BIPM/-BIPMe Power Meter Port Adapters	56
OFI- 200D and OFI-400 Optical Fiber Identifiers	56
OFI-200D and OFI-400 Accessories	
VFI4 Visual Fault Identifier	
VFI4 Accessories	
MT Tracer (12-fiber VFI and Display)	58
Test Management and Reporting Software	59
aeRos® Cloud-based Test Management and Reporting	59
TRM® 2.0/3.0 Test Results Manager	
Adapter Caps & Accessories	
Adapter Caps for OPM Ports and OFS300-200	
Adapter Caps for OFS300-200 Only	
Test Jumpers	
Mating Adapters	
Mandrels for Multimode Link Testing	
Return Loss Test Sets Accessories	

#### **Test & Inspection**



#### **Buyer's Guide**

January 17, 2022

#### **TABLE OF CONTENTS**

Power Supply Cords for AC Chargers	61
Accessories for Discontinued Products	62
Calibration Services	64
Calibration and Repair Facilities	65
Extended Warranty Options	66
Terms and Conditions	67
Changes in the current revision. January 2022.	68





January 17, 2022

#### **RELEASE HIGHLIGHTS**



#### FlowScout PON Optical Power Meter

AFL's FlowScout PON Power Meter identifies, measures, and qualifies both downstream and upstream signal levels in FTTx PON networks. It is perfect for technicians responsible for activating and maintaining networks carrying a mix of GPON/EPON, video, and next gen PON (XG/XGS-PON, 10GEPON) wavelengths.

Unlike competing through-mode PON Power Meters, AFL's FlowScout requires no setup. Technicians simply plug in the fiber under test to see results displayed in seconds on the large color touchscreen. Storage and reporting options are included to verify and document results from the field.

FlowScout's rugged design makes it perfect for outside plant environments where it can be dropped, get dirty or even wet. And because it is so easy to use, FlowScout requires little, if any, training.

See "FlowScout PON Optical Power Meter" on page 48.



#### **VFI4 Visual Fault Identifier**

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

See section "VFI4 Visual Fault Identifier" on page 58.



# **OTDRs & TROUBLESHOOTERS**



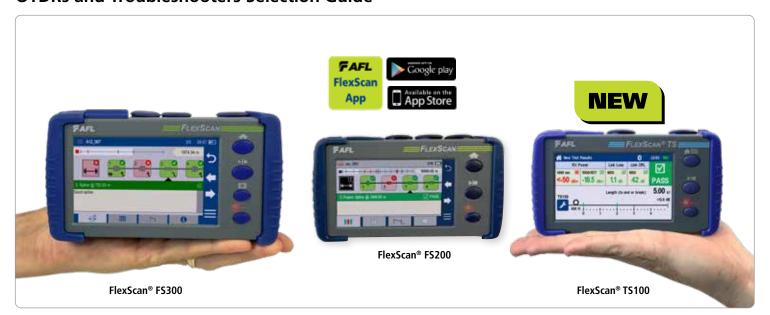


#### **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022

#### **OTDRs and Troubleshooters Selection Guide**



		Point- twork			pe		FTTx	PON		ОТ	OTDR/Troubleshooter Performance						Integ Periph			Reporting					
	MMF	/SMF		SMF			SN	/IF																Арр	
Model	Data Center	LAN	Core	Metro	Access	Dark	Live	Test To Splitter	<b>Test Through Splitter</b>	Wavelengths (nm)	Dynamic Range (dB)	Dead zone EDZ/ ADZ (m)	SmartAuto®	Expert & Real-time	LinkMap <sup>®</sup>	FleXpress <sup>®</sup>	Trace View	MPO Switch Control	OLS	Broadband OPM	Dual-λ PON OPM	VFL	TRM <sup>®</sup> 3.0	iOS & Android FlexScan	Inspection
FlexScan FS30	00 Qua	d OTC	R				,																		
FS300-325	•	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	850/1300/1310/1550	29/29/37/36	0.5/3.5	•	<b>♦</b>	•		<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	•	•
FlexScan FS20	00 SM	OTDR																							
FS200-50B				<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>		1550	28	1.0/6.0	•	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	•	•
FS200-60				<b>♦</b>	<b>♦</b>	<b>♦</b>	•	<b>♦</b>	<b>♦</b>	1650	37	0.8/3.6	•	•	•		<b>♦</b>	<b>♦</b>		•		<b>♦</b>	<b>*</b>	<b>♦</b>	•
FS200-100				<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>		1310/1550	32/30	0.8/3.6	•	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	•	•
FS200-300			•	•	<b>♦</b>	•		<b>♦</b>	<b>♦</b>	1310/1550	37/36	0.8/3.5	•	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	•	<b>*</b>	•
FS200-303			<b>♦</b>	<b>♦</b>	<b>♦</b>	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	1310/1550/1625	37/36/37	0.8/3.5	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>♦</b>	•	•
FS200-304			<b>♦</b>	<b>♦</b>	<b>♦</b>	•	•	<b>♦</b>	<b>♦</b>	1310/1550/1650	37/36/37	0.8/3.5	•	•	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>		<b>♦</b>	<b>*</b>	•	<b>♦</b>
FlexScan TS10	00 Troເ	ıblesh	oote	r																					
TS100-60					<b>♦</b>	•	•	<b>♦</b>		1650	Note 'a'	Note 'b'	•		•	<b>♦</b>			<b>♦</b>	P1c	P2 <sup>d</sup>	<b>♦</b>	<b>♦</b>	•	•
TS100-70					•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	1650	Note 'a'	Note 'b'	•		<b>♦</b>	<b>♦</b>			•	P1c	P2 <sup>d</sup>	<b>♦</b>	<b>♦</b>	<b>♦</b>	•

#### Notes

- a. See TS100 data sheet for measurement range specifications.
- b. See TS100 data sheet for event detection specifications.
- c. P1 = Broadband Power Meter option for TS100.
- d. P2 = Dual-wavelength + Broadband PON Power Meter option for TS100.



# FlexScan FS300 Quad OTDR

#### Easily Locate and Resolve Optical Network Faults



Award-winning all-in-one solution that automates test setup, shortens test time and simplifies results interpretation.

#### **Specifications**

Wavelengths: MM 850/1300, SM 1310/1550

Network Type: Point-to-Point and PON up to 1:64

• Dynamic Range: MM ≥29/29 dB, SM ≥37/36 dB

Event Dead Zone: ≤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 (≥1,000 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 locater (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 the included Windows-compatible TRM® 3.0 Test Results Manager software. Results can be transferred from FlexScan by USB cable or wirelessly using the free FlexScan App.







January 17, 2022









FlexScan Basic Kit



FlexScan Plus Kit



FlexScan PRO Kit



FlexScan BIPM Kit



FlexScan MPO Kit

#### FLEXSCAN® OTDRS

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

All the benefits of FlexScan PLUS...

- Quad OTDR (850/1300 multimode and 1310/1550 single-mode, 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

FlexScan FS300 models are available in six kit configurations: Basic, PLUS, PRO, BIPM, SMPO, and MMPO.

- All kits include FS300 with AC charger, battery, carry strap, SC/2.5 mm connector adapters, TRM® 3.0, 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, TRM 3.0 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, TRM 3.0 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

FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via iOS or Android FlexScan App for remote reporting using TRM 3.0. The FlexScan App is available as a free download from 'iOS App Store' or 'Google play' store.

		PON	OLS/	BT/			
AFL NO.	OTDR/OLS $\lambda$ (nm)	OTDR	OPM	Wi-Fi			
FS300-325-[Kit]-P0-W0	850/1300 MM; 1310/1550 SM	<b>♦</b>					
FS300-325-[Kit]-P0-W1	850/1300 MM; 1310/1550 SM	<b>♦</b>		<b>♦</b>			
FS300-325-[Kit]-P1-W0	850/1300 MM; 1310/1550 SM	<b>♦</b>	<b>♦</b>				
FS300-325-[Kit]-P1-W1	850/1300 MM; 1310/1550 SM	<b>♦</b>	<b>♦</b>	<b>♦</b>			

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

[KIT]	FS300 Kit Configuration/Kit Contents
BAS	Includes: FS300, soft case, TRM® 3.0 Basic, USB cable <sup>a</sup>
PLUS	Includes: BAS kit plus 150 m SMF & MMF fiber rings, One-Click Cleaner, upgrade to TRM 3.0 Advanced, user-selected soft or hard carry case
PRO	Includes: PLUS kit plus FOCIS Flex with two user-selected adapter tips
BIPM	Includes: PRO kit plus OFI-BIPMe
SMPO	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, TRM 3.0 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
ММРО	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, TRM 3.0 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

#### Notes

a. Results can be transferred from FlexScan OTDR to TRM 3.0 using USB cable, or performed wirelessly (W1 option) after downloading free iOS or Android FlexScan App from 'iOS App Store' or 'Google play' store.

#### FlexScan FS300 Accessories and Connector Adapters

See sections "FlexScan® FS200, FS300, and TS100 Accessories and Connector Adapters" on page 18.





January 17, 2022

#### 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
BAS	Includes: FS300, soft case, TRM® 3.0 Basic, USB cableª
PLUS	Includes: BAS kit plus 150 m SMF & MMF Fiber Rings, One-Click Cleaner, upgrade to TRM 3.0 Advanced, user-selected soft or hard carry case
PRO	Includes: PLUS kit plus FOCIS Flex with two user-selected adapter tips
BIPM	Includes: PRO kit plus OFI-BIPMe
[MKIT]	FS300-325 MPO Kit Configuration / Kit Contents
SMPO	Single-mode MPO test kit (see SMPO Kit details on preceding page)

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

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

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

[C]	OTDR / Source Connector Type
Α	APC (recommended)
U	UPC

[CC]c	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)
H1	Hard carry case (Plus, PRO, BIPM Kits only)

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

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

[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

[SMFR]	150 m SMF Fiber Ring
Absent	N/A in Basic kits
USC/USC	FR-SMF-150-USC-USC
USC/UFC	FR-SMF-150-USC-UFC
USC/ULC	FR-SMF-150-USC-ULC
USC/UST	FR-SMF-150-USC-UST
USC/ASC	FR-SMF-150-USC-ASC
USC/AFC	FR-SMF-150-USC-AFC
USC/ALC	FR-SMF-150-USC-ALC
USC/UE2	FR-SMF-150-USC-UE2
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/AFC	FR-SMF-150-ASC-AFC
ASC/ALC	FR-SMF-150-ASC-ALC
ASC/AE2	FR-SMF-150-ASC-AE2

[MMFR]	150 m OM1 62.5 µm MMF Fiber Ring
Absent	N/A in Basic kits
USC/UST1	FR-OM1-150-USC-UST
USC/USC1	FR-OM1-150-USC-USC
USC/ULC1	FR-OM1-150-USC-ULC
USC/UFC1	FR-OM1-150-USC-UFC

[MMFR]	150 m OM2 50 µm MMF Fiber Ring
Absent	N/A in Basic kits
USC/UST2	FR-OM2-150-USC-UST
USC/USC2	FR-OM2-150-USC-USC
USC/ULC2	FR-OM2-150-USC-ULC
USC/UFC2	FR-OM2-150-USC-UFC

[MMFR]	150 m OM3/4/5 - Compatible Fiber Ring
Absent	N/A in Basic kits
USC/UST3	FR-OM3-150-USC-UST
USC/USC3	FR-OM3-150-USC-USC
USC/ULC3	FR-OM3-150-USC-ULC
USC/UFC3	FR-OM3-150-USC-UFC

[TIP]	FOCIS Flex Tips and Cleaning (PRO, BI, BIPM Kits only)
Absent	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

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

#### Notes

- a. Results can be transferred from FlexScan OTDR to TRM® 3.0 using USB cable, or performed wirelessly (W1 option) after downloading free iOS or Android FlexScan App. The FlexScan App is available as a free download from 'iOS App Store' or 'Google play' store.
- b. FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via FlexScan App for remote reporting using TRM 3.0.
- Basic kit always ships with S1 (Standard Soft Case); MPO kit always ships with MPOspecific soft case.



# FlexScan® FS200

#### Award Winning Pocket-Sized Singlemode OTDR



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

#### **Specifications**

- Wavelengths: Single, dual, triple (1310, 1550, 1650 nm)
- Network Type: Point-to-Point and/or FTTH PON
- Dynamic Range: Up to 37 dB
- Internal Storage: 4 GB (>1000 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 singlemode 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 may be stored internally or externally and easily shared via USB or Bluetooth. Included Windows-compatible TRM® 3.0 Test Results Manager software quickly generates easy-to-understand reports. The results used for TRM reports can be transferred from FlexScan by USB cable or wirelessly via the FlexScan App.







January 17, 2022

# ----

FlexScan OTDR









FlexScan Basic Kit



FlexScan Plus Kit



FlexScan PRO Kit



FlexScan MPO Kit

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

#### FleXpress Free Upgrade Introductory Offer

Combining SmartAuto network-optimized event detection and analysis with its intuitive LinkMap view of the tested network, AFI'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 FlexScan App for remote reporting using TRM® 3.0. The FlexScan App is available as a free download from 'iOS App Store' or 'Google play' store.

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

- FS200-50B: 1550 nm Point-to-Point Troubleshooting OTDR
- 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

		PON	OTDR					
AFL NO.	OTDR/Source λ (nm)	Dark	Live	OLS/OPM	BT/Wi-Fi			
FS200-50B-[Kit]-P0-W0	1550							
FS200-60-[Kit]-P0-W0	1650	•	<b>*</b>					
FS200-100-[Kit]-P0-W0	1310/1550							
FS200-100-[Kit]-P1-W1	1310/1550			<b>♦</b>	<b>♦</b>			
FS200-300-[Kit]-P0-W1	1310/1550	<b>♦</b>			<b>♦</b>			
FS200-300-[Kit]-P1-W1	1310/1550	<b>♦</b>		<b>♦</b>	<b>♦</b>			
FS200-303-[Kit]-P1-W0	1310/1550/1625	<b>♦</b>	<b>*</b>	•				
FS200-303-[Kit]-P1-W1	1310/1550/1625	<b>♦</b>	<b>♦</b>	<b>*</b>	<b>*</b>			
FS200-304-[Kit]-P0-W1	1310/1550/1650	<b>♦</b>	<b>*</b>		<b>*</b>			
FS200-304-[Kit]-P1-W0	1310/1550/1650	<b>♦</b>	<b>♦</b>	<b>♦</b>				
FS200-304-[Kit]-P1-W1	1310/1550/1650	<b>♦</b>	<b>*</b>	•	<b>*</b>			

#### FlexScan FS200 Kit Configuration - [KIT]

[KIT]	FS200 Kit Configuration / Kit Contents	
BAS	Includes: FS200, TRM® 3.0 Basic, USB cableª, soft case	
PLUS	Includes: BAS Kit plus 150 m SMF Fiber Ring, One-Click Cleaner, upgrade to TRM 3.0 Advanced, soft or hard carry case	
PRO	Includes: PLUS Kit plus FOCIS Flex with two user-selected adapter tips	
FTTH-PRO	Includes: BAS kit plus 150 m SC/APC & LC/APC SMF Fiber Rings, SC & LC One-Click Cleaners, Port Saver, TRM 3.0 Advanced, soft or hard	
	carry case	
BIPM	Includes: PRO Kit plus OFI-BIPMe	
МРО	Includes: FS200, MFS Multi-Fiber Switch, MPO launch cable, OTDR-to-Switch launch cable, OTDR-to-Switch USB cable, TRM 3.0 Advanced	

#### Notes:

a. Results can be transferred from FlexScan OTDR to TRM 3.0 using USB cable, or performed wirelessly (W1 option) after downloading free iOS or Android FlexScan App from 'iOS App Store' or 'Google play' store.

#### FlexScan FS200 Accessories and Connector Adapters

See sections "FlexScan® FS200, FS300, and TS100 Accessories and Connector Adapters" on page 18.





January 17, 2022

#### FlexScan® FS200 Order Entry

All kits include a FlexScan FS200 with AC charger, battery, carry strap, SC/2.5 mm connector adapters, TRM® 3.0, 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
50	1550 nm only Troubleshooting OTDR
60	1650 nm only Live PON Troubleshooting OTDR
100	1310/1550 nm Verification and Troubleshooting OTDR
300	1310/1550 Pt-to-Pt and PON Verification and Troubleshooting OTDR
303	1310/1550/1625 Pt-to-Pt and PON Verification and Troubleshooting OTDR
304	1310/1550/1650 Pt-to-Pt and PON Verification and Troubleshooting OTDR

[KIT]	FS200 FlexScan Kit Configuration / Kit Contents			
BAS	Includes: FS200, TRM 3.0 Basic, USB cable <sup>a</sup> , soft case			
PLUS	Includes: BAS kit plus 150 m SMF Fiber Rings, One-Click Cleaner, upgrade to TRM 3.0 Advanced, soft or hard carry case			
PRO	Includes: PLUS kit plus FOCIS Flex with two user-selected adapter tips			
FTTH- PRO	Includes: BAS kit plus 150 m SC/APC and LC/APC SMF Fiber Rings, SC & LC One-Click Cleaners, Port Saver, TRM 3.0 Advanced, soft or hard carry case (FS200-303/304 only)			
BIPM	Includes: PRO kit plus OFI-BIPMe			
МРО	Includes FlexScan, MFS Switch, MPO launch cable, OTDR-to-Switch launch cable, OTDR-to-Switch USB cable			

[PW]	Power Meter / Wireless Option			
P0-W0	No Source, Power Meter, or Bluetooth/Wi-Fi (-50B/60/100 only)			
P0-W1 <sup>b</sup>	No Source, Power Meter; Includes Bluetooth/Wi-Fi (FS200-300/304)			
P1-W0	No Bluetooth/Wi-Fi (FS200-303/304 only); Includes Source, Power Meter			
P1-W1 <sup>b</sup>	Includes Source, Power Meter, Bluetooth/Wi-Fi (all models except -50B)			

[C]	OTDR / Source Connector Type	
Α	APC (recommended)	
U	UPC	

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

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

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

[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

[FR] <sup>d</sup>	150 m SMF Fiber Ring Configuration	
Absent	N/A in Basic kits	
USC/USC	FR-SMF-150-USC-USC	
USC/UFC	FR-SMF-150-USC-UFC	
USC/ULC	FR-SMF-150-USC-ULC	
USC/UST	FR-SMF-150-USC-UST	
USC/ASC	FR-SMF-150-USC-ASC	
USC/AFC	FR-SMF-150-USC-AFC	
USC/ALC	FR-SMF-150-USC-ALC	
USC/UE2	FR-SMF-150-USC-UE2	
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/AFC	FR-SMF-150-ASC-AFC	
ASC/ALC	FR-SMF-150-ASC-ALC	
ASC/AE2	FR-SMF-150-ASC-AE2	

[TIP]e	FOCIS Flex Tips and Cleaning (PRO only)		
Absent	Option not available in Basic and PLUS kits		
SC	SC/UPC bulkhead tip, 2.5 mm UPC ferrule tip, 2.5 mm cleaning		
FC	FC/UPC bulkhead tip, 2.5 mm UPC ferrule tip, 2.5 mm cleaning		
LC	LC/UPC bulkhead tip, 1.25 mm UPC ferrule tip, 1.25 mm cleaning		
ASC	SC/APC bulkhead tip, 2.5 mm APC ferrule tip, 2.5 mm cleaning		
AFC	FC/APC bulkhead tip, 2.5 mm APC ferrule tip, 2.5 mm cleaning		
ALC	LC/APC bulkhead tip, 1.25 mm APC ferrule tip, 1.25 mm cleaning		

[MPOC]	MPO Launch Cable Network Connector	
F	emale (unpinned) to Female (unpinned)	
M	Female (unpinned) to Male (pinned)	

#### Notes:

- a. Results can be transferred from FlexScan OTDR to TRM® 3.0 using USB cable, or performed wirelessly (W1 option) after downloading free FlexScan App. The FlexScan App is available as a free download from 'Google play' or 'App Store'.
- b. FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via FlexScan App for remote reporting using TRM 3.0.
- Basic kit always ships with S2 (Medium Soft Case); MPO kit always ships with MPOspecific soft case.



# FlexScan® TS100

#### One-Touch 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 ≤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. The included Windows-compatible TRM® 3.0 Test Results Manager software 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.





#### **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022

# NEW



FlexScan TS100







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.

All TS100s include an integrated Light Source, user-selected Broadband or optional Dual-wavelength 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-P1	PON to Splitter & Point-to-Point		Broadband		
TS100-60-P2		1650 nm filtered	Broadband + PON		
TS100-70-P1	PON through Splitter & Point-to-Point	1650 IIII IIItered	Broadband		
TS100-70-P2			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, TRM® 3.0, USB cable, and soft carry case. PLUS kits add a 150 m Fiber Ring, One-Click cleaner, and upgrade to TRM 3.0 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	Includes: TS100, soft case, TRM 3.0 Basic, USB cable <sup>a</sup>
PLUS	Includes: BAS kit plus 150 m Fiber Ring, One-Click Cleaner, upgrade to TRM 3.0 Advanced
PRO	Includes: PLUS kit plus FOCIS Flex with 2 adapter tips

#### Notes:

a. Results can be transferred from FlexScan to TRM 3.0 using USB cable, or uploaded via Bluetooth using IOS or Android FlexScan App downloaded from 'iOS App Store' or 'Google play' store.

#### FlexScan TS100 Accessories and Connector Adapters

See sections "FlexScan® FS200, FS300, and TS100 Accessories and Connector Adapters" on page 18.





January 17, 2022

#### FlexScan® TS100 Order Entry

 $\label{total conditions} \textbf{TS100-[MOD]-[KIT]-[Pn]-[Wn]-[LNG]-[AC]-[FR]-[TIP]} \ \text{where:}$ 

[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, TRM 3.0 Basic, USB cable <sup>a</sup>				
PLUS	Includes.: BAS kit plus 150 m Fiber Ring, One-Click Cleaner, TRM 3.0 Advanced				
PRO	Includes: PLUS kit plus FOCIS Flex with 2 adapter tips				

[Pn]	Power Meter Option
P1	Broadband Power Meter
P2	Dual-wavelength Power Meter for GPON / Video / XG/XGS/10GEPON

[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

	1
[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
USC/USC	FR-SMF-150-USC-USC
USC/UFC	FR-SMF-150-USC-UFC
USC/ULC	FR-SMF-150-USC-ULC
USC/UST	FR-SMF-150-USC-UST
USC/ASC	FR-SMF-150-USC-ASC
USC/AFC	FR-SMF-150-USC-AFC
USC/ALC	FR-SMF-150-USC-ALC
USC/UE2	FR-SMF-150-USC-UE2
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/AFC	FR-SMF-150-ASC-AFC
ASC/ALC	FR-SMF-150-ASC-ALC
ASC/AE2	FR-SMF-150-ASC-AE2

[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:

- a. Results can be transferred from FlexScan to TRM® 3.0 using USB cable, or uploaded via Bluetooth using FlexScan App downloaded from 'iOS App Store' or 'Google play' store.
- b. FlexScans equipped with Bluetooth option (W1) support Bluetooth transfer of results via iOS or Android FlexScan App for remote reporting using TRM 3.0.



# Optical Ferrule Port Saver

#### Field-Replaceable OTDR Connector



Tired of expensive and time-consuming OTDR connector replacement? — Port Saver prevents ferrule damage and reduces equipment downtime!

#### **Features**

- Prevents damage to factory-installed OTDR ferrules
- Allows damaged connectors to be replaced in the field
- Supports APC and UPC ferrules and connectors

AFL's new 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 or patch cords or normal wear-and-tear. Equip your FlexScan FS200 or FS300 OTDR or 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.

Contact your local AFL representative to learn more about the Field-Replaceable OTDR Connector.







January 17, 2022

#### NEW

Field-replaceable connector adapters



2900-58-0001MR



900-58-0002M



2900-58-0003MR



2900-58-0004MR



Fiber Ring, page 20



NS Bench Top Model, page 19



NSR Rack-mountable Model, page 19

#### FlexScan® FS200, FS300, and TS100 Accessories and Connector Adapters

		Compatible With			
FL NO. Accessories   Description		FS200	FS300	TS100	
<b>000-00-0031MR</b> Cable, USB-micro B, 5 pin, 6 ft <sup>a</sup>	Cable, USB-micro B, 5 pin, 6 ft <sup>a</sup>				
<b>050-00-0931PR</b> AC charger 100-240 VAC to 5 VDC (specify [AC] option; see 'Order Entry')	AC charger 100-240 VAC to 5 VDC (specify [AC] option; see 'Order Entry')				
400-05-0230PZ FlexScan wrist strap	FlexScan wrist strap				
<b>400-05-0231PZ</b> FlexScan neck strap, 36"		•	•	•	
400-01-0111PZ Soft carry case for FS200/TS100 kits with FOCIS Flex and Fiber Ring		•		•	
400-01-0128PZ Soft carry case for FS200/TS100 kits with FOCIS Flex, OFI-BIPMe and Fiber Ring		•		•	
400-01-0134PZ Hard carry case for FS200/TS100 kits with FOCIS Flex, OFI-BIPMe and Fiber Ring		•		•	
400-01-0167PZ Soft carry case for FS300 with FOCIS, OFI and Fiber Ring			<b>*</b>		
400-01-0177PZ Hard carry case for FS300 kits with FOCIS, OFI and Fiber Ring			•		
<b>400-20-0001PZ</b> Soft Carry Case for FS300-325 MPO kits			<b>*</b>		
400-20-0002PZ Soft carry case for FS300 with FOCIS, and Fiber Ring			•		
900-06-0902MR FS300 extended temperature replacement battery			<b>*</b>		
<b>050-00-0033MR</b> Vehicle charger, 12VDC to 5VDC @2A		<b>♦</b>	<b>♦</b>	•	
<b>000-00-0034PR</b> 5V USB charging cable (1.5 m), type A to barrel (0.9 X 3.2 X 9 mm)		•	<b>♦</b>	•	
RM3-UPGRADE TRM® 3.0 upgrade from Basic to Advanced software		•	<b>*</b>	•	
FL NO. Connector Adapters Description	Test Port	FS200	FS300	TS100	
900-58-0001MR FlexScan-facing APC female to APC male field-replaceable Port Saver connector	OTDR/OLS	•	<b>*</b>	<b>*</b>	
900-58-0002MR FlexScan-facing APC female to UPC male field-replaceable Port Saver connector	OTDR/OLS	•	<b>♦</b>	•	
900-58-0003MR FlexScan-facing UPC female to APC male field-replaceable Port Saver connector	OTDR/OLS	•	<b>*</b>	•	
900-58-0004MR FlexScan-facing UPC female to UPC male field-replaceable Port Saver connector	OTDR/OLS	<b>*</b>	<b>*</b>	•	
900-50-0002MR FC	OTDR/OLS	•	<b>*</b>	•	
900-50-0003MR SC	OTDR/OLS	•	◆ (incl)	•	
900-50-0004MR ST	OTDR/OLS	•	<b>*</b>	•	
900-50-0006MR LC	OTDR/OLS	•	<b>*</b>	•	
<b>900-50-0011MR</b> SC/APC	OTDR/OLS	◆ (incl)	♦ (incl)	◆ (incl)	
900-52-0001MR FC	OPM	•	<b>♦</b>		
900-52-0002MR SC	OPM	•	<b>*</b>		
900-52-0003MR ST	OPM	•	<b>*</b>		
900-52-0004MR LC	OPM	•	<b>*</b>		
<b>900-52-0005MR</b> 2.5 mm Universal	OPM	◆ (incl)	◆ (incl)		
<b>900-52-0006MR</b> 1.25 mm Universal	OPM	•	<b>*</b>		
<b>900-53-0001MR</b> 2.5 mm Universal	FS200 VFL	◆ (incl)		◆ (incl)	
<b>900-53-0002MR</b> 1.25 mm Universal	FS200 VFL	•		•	
<b>900-50-0007MR</b> 2.5 mm Universal	FS300 VFL		◆ (incl)		
<b>900-50-0010MR</b> 1.25 mm Universal			•		
FI-BIPMe See "OFI-BIPM & OFI-BIPMe Optical Fiber Identifiers" on page 56					
OCIS Flex See "FOCIS Flex Fiber Optic Connector Inspection System" on page 25					
<b>iber Rings</b> Coiled lengths of multimode or single-mode fiber packaged in compact rings for	use as OTDR	test cords.	See page	20	
letwork Simulators - Custom-designed bench top or rack mountable boxes intended to duplicate in	stalled fiber o	ptic netwo	rks. See pa	age 19	
J-03 Temporary Splice - See "TJ-03 Temporary Splice" on page 22.					

#### Notes

- a. Results can be transferred from FlexScan to TRM using USB cable, or performed wirelessly after downloading IOS or Android FlexScan App from 'iOS App Store' or 'Google play' store.
- b. OTDR software updates are available for download on the <u>www.AFLglobal.com -> Resources -> Software</u> web page.





January 17, 2022



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 section "Multi-Fiber Switch Models" on page 46 for MFS details.

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

#### 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.



FTTx PON Simulator Kit

#### **FTTx PON Simulator Kits**

The FTTx PON Simulator Kit is designed to simulate a wide variety of FTTx PON architectures. It is field-configurable to implement both single splitter and distributed splitter PONs.

This field-portable kit may be used for lab or table-top FTTx PON demonstration, evaluation, and testing applications. The FTTx PON Simulator Kit is designed for a variety of users and applications, including network designers, fiber optic installation teams and trainers, equipment manufacturers, and sales engineers.

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





January 17, 2022



#### 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 μm and 62.5 μm 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 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 µm 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 Single-mode Fiber Ring Configurations**

Connector Type		Standard SMF Fiber Rings		Special Order SMF Fiber Rings <sup>a</sup>		
ID	Description	CC1	CC2	CC1	CC2	
USC	SC/UPC	<b>•</b>	<b>*</b>			
ASC	SC/APC	<b>*</b>	<b>*</b>			
ULC	LC/UPC		<b>*</b>	<b>*</b>	<b>*</b>	
ALC	LC/APC		<b>*</b>	<b>*</b>	<b>*</b>	
UFC	FC/UPC		<b>*</b>	<b>*</b>	<b>*</b>	
AFC	FC/APC		<b>*</b>	<b>*</b>	<b>•</b>	
UST	ST/UPC		<b>♦</b>	<b>*</b>	<b>*</b>	
UE2	E2000/UPC		Special Ordera		<b>*</b>	
AE2	E2000/APC		Special Order <sup>a</sup>		<b>*</b>	
OTA	OptiTap APC		Special Ordera			
TRD	TRIDENT APC		Special Ordera			

#### **Test & Inspection**



#### **Buyer's Guide**

January 17, 2022

#### **Supported Single Fiber Multimode Fiber Ring Configurations**

Connector Type		Standard MM	1F Fiber Rings	Special Order M	ial Order MMF Fiber Rings <sup>a</sup>	
ID	Description	CC1	CC2	CC1	CC2	
USC	SC/UPC	<b>♦</b>	<b>•</b>			
ULC	LC/UPC		<b>*</b>	<b>*</b>	<b>•</b>	
UFC	FC/UPC		<b>*</b>	<b>*</b>	<b>•</b>	
UST	ST/UPC		<b>*</b>	<b>*</b>	<b>•</b>	
UE2	E2000/UPC		Special Ordera			

#### **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 a

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:

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



January 17, 2022

#### **FAST**Connect®

#### **FASTConnect® for Bare Fiber Termination**



Suitable for either permanent connection or as a bare fiber termination for OTDR testing, AFL's FASTConnect connectors may be used to terminate single-mode or multimode fiber (OM1, OM2 or OM3/4-compatible) with SC, SC/APC, LC, or ST connectors. Termination requires simple, familiar strip, clean and cleave process. Index-matching gel provides for a low-loss, low reflectance connection. 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**

		[Q]TY 6 price for [C]onnector			[Q]TY 100 price for [C]onnector			
AFL NO.	Description	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

#### 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 in conjunction with an OTDR equipped with an optical switch provides rapid one button optical tests of 12 fibers. **Note:** TJ-03 Temporary Splice and TJ-03 Temporary Splice Kit ship from the AFL Splicer Division in Spartanburg, SC.

AFL NO.	Description	
S012772	<b>TJ-03 Temporary Splice Kit</b> 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 INSPECTION & CLEANING





## **FOCIS Flex**

#### Simple, Fast Fiber Optic Connector Inspection



#### **Specifications**

- Field of View (Live): 710 x 860 μm
- Field of View (Captured): Fully Zoomed In: 180 x 195 μm
- Display: 2.4", TFT, 240 x 320 with brightness control
- Pass/Fail Analysis: IEC 61300-3-35, IPC, user-defined
- File Format: 648 x 480 pixel JPG & GIF
- Storage Capacity: 10,000 images & results
- Battery: 8 hours, rechargeable NiMH

Research has shown that dirty and damaged connectors cause up to 85% of network failures. Taking less than 2 seconds to inspect each end-face is time well spent.

FOCIS Flex is an ultra-compact Fiber Optic Connector Inspection scope with liquid lens technology for fast auto-focus, centering and PASS/FAIL analysis. The integrated display eliminates awkward tethering and the small form factor makes inspection in tight places easier. The unit can store up to 10,000 images locally or easily share them via USB, WiFi and Bluetooth®.

FOCIS Flex offers a wide range of interchangeable adapter tips for both single-fiber and multi-fiber connectors. Available kits include TRM® 3.0, AFL's Test Results Manager software, to generate connector inspection reports including images and pass/fail results.

FOCIS Flex's self-contained compact design and fast one-button operation makes it a top choice of technicians installing and troubleshooting optical networks.





#### **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022

**FOCIS Flex** 



Coogle play





FlexScan® & FOCIS Flex



Sm. Device & FOCIS Flex

#### **FOCIS Flex Fiber Optic Connector Inspection System**

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. All FOCIS Flex kits include TRM® 3.0, Test Results Manager software to prepare and print or save connector inspection reports using results uploaded from the FOCIS Flex to a PC. Download the free FOCIS Flex App to archive results and prepare inspection reports using AFL's aeRos cloud-based workflow management software. Free FOCIS Flex App (iOS and Android) supports inspection reporting.

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, TRM 3.0 Basic Test Results Manager software, AC charger with country-specific plug, USB cable, quick reference guide, and soft carry case with strap.

	Description								
	Contains (ea.) Function						Functionality		
	FOCIS	AC	UPC	Tips	APC	Tips	One-Click	Soft Carry	
AFL NO.	Flex	Charger	Bulkhead	Ferrule	Bulkhead	Ferrule	Cleaner	Case	BT/Wi-Fi
FOCIS-FLX-P4XN	1	1						1	•
FOCIS-FLX-P4XU	1	1	1	1			1	1	<b>•</b>
FOCIS-FLX-P4XA	1	1			1	1	1	1	<b>*</b>
FOCIS-FLX-P4XUA	1	1	1	1	1	1	1	1	<b>•</b>
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	

#### **FOCIS Flex Order Entry**

[NW] Wireless Option

#### FOCIS-FLX-[NW]-P4X[K]-[PLUG]-[TIP] where:

[1444]	Wilciess option
Absent	Includes wireless
NW	No Wireless
[K]	Kit Type
N	No adapter tips
U	UPC adapter tips
Α	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

	User-selected adapter tips and One-Click Cleaner								
[TIP]	Bulkhead adapter tips	Tip ID	Ferrule adapter tips	Tip ID	One-Click				
	FOCIS-FLX-P4XU Kits								
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				
	F	OCIS-FLX	-P4XA Kits						
SC	SC/APC	ASC	Universal 2.5 mm APC	A25	2.5 mm				
FC	FC/APC	AFC	Universal 2.5 mm APC	A25	2.5 mm				
LC	LC/APC	XALC	Universal 1.25 mm APC	A125	1.25 mm				
	FC	CIS-FLX-	P4XUA Kits						
sc	SC/UPC	SC	Universal 2.5 mm UPC	U25	2.5 mm				
SC	SC/APC	ASC	Universal 2.5 mm APC	A25	2.5 111111				
FC	FC/UPC	FC	Universal 2.5 mm UPC	U25	2.5 mm				
FC	FC/APC	AFC	Universal 2.5 mm APC	A25	2.3 11111				
LC	LC/UPC	LC	Universal 1.25 mm UPC	U125	1 25 mm				
LC	LC/APC	XALC	Universal 1.25 mm APC	A125	1.25 mm				

Example: FOCIS-FLX-P4XA-US-SC indicates FOCIS Flex with US AC plug, 2.5 mm APC ferrule adapter, SC/APC bulkhead adapter, 2.5 mm One-Click Cleaner.





January 17, 2022

#### **FOCIS Series and DFS1 Adapter Tips**

Following table identifies commonly required adapter tips. Other adapter tips available. Consult factory for additional adapter tips and prices.







DFS1-00-0003MR



DFS1-00-0014MR



DFS1-00-0062MR

AFL NO.	Description	FOCIS	DFS1	Tip ID
PC Ferrule Connecto	•	FOCIS	DEST	ן טו קוז
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
SC/PC and FC/PC Bul	,			
DFS1-00-0003MR	SC/PC and FC/PC		•	FS
DFS1-00-0011MR	Medium (~100 mm) extended tip for SC/PC and FC/PC bulkhead adapter	•	•	FS
DFS1-00-0012MR	Long (~150 mm) extended tip for SC/PC and FC/PC bulkhead adapter	•	•	FS
DFS1-00-0040MR	60° angled tip for SC/PC bulkhead adapter		•	SC, A6
ST/PC Bulkhead Ada		ļ		! ·
DFS1-00-0014MR	ST/PC bulkhead adapter tip	<b>*</b>	<b>*</b>	ST
DFS1-00-0015MR	Short (~60 mm) extended tip for ST/PC bulkhead adapter	•	•	ST
DFS1-00-0016MR	Medium (~100 mm) extended tip for ST/PC bulkhead adapter	•	•	ST
DFS1-00-0017MR	Long (~150 mm) extended tip for ST/PC bulkhead adapter	•	•	ST
DFS1-00-0018MR	60° angled tip for ST/PC bulkhead adapter		<b>♦</b>	ST, A6
LC/PC/UPC Bulkhead	Adapter Tips			
DFS1-00-0004MR	LC/PC		<b>♦</b>	LC
DFS1-00-0020MR	Medium (~100 mm) extended tip for LC/PC bulkhead adapter	<b>*</b>	•	LC
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 adapter	<b>*</b>	<b>♦</b>	LCP-S
DFS1-00-0062MR	LC/UPC female style adapter tip	•	•	LCM
ODC Bulkhead Adap	·			
DFS1-00-0065MR	Guide and socket tip for ODC-2 bulkhead connectors	<b>*</b>	<b>♦</b>	ODC-2
DFS1-00-0066MR	Guide and socket tip for QODC-2 bulkhead connectors	<b>*</b>	•	Q-ODC-2
DFS1-00-0067MR	Guide and socket tip for ODC-4 bulkhead connectors	•	•	ODC-4
MU/PC Bulkhead Ada	apter Tips			
DFS1-00-0026MR	MU/PC bulkhead adapter tip	<b>*</b>	•	MU





January 17, 2022

#### **FOCIS Series and DFS1 Adapter Tips (continued)**



DFS1-00-0060MR



DFS1-00-0041MR



DFS1-00-0050MR



DFS1-01-0016MR

- Jenes and					
AFL NO.	Description	FOCIS	DFS1	Tip ID	
MTP/MPO Multi-fibe	r Adapter Tips (ferrule and bulkhead)				
DFS1-00-0060MR	Multi-row base for MTP/PC ferrule and bulkhead adapter extended tip	<b>•</b>	•	MTP <sup>a, b</sup>	
MPO/MTP Adapter T	ips				
DFS1-00-0041MR	Adapter tip for MPO-12 PC bulkhead; Requires single- or multi-row base	•	•	MTPb	
DFS1-00-0058MR	Adapter tip for MPO-16 PC bulkhead; Requires single- or multi-row base	•	<b>♦</b>	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	•	<b>*</b>	MTPA16 <sup>b</sup>	
MPO/MTP Adapter k	(its - include Base plus Adapter Tip(s)				
DFS1-00-0037MR	Single-row base plus extended MPO-12 PC bulkhead adapter tip	•	•	MTP <sup>a, b</sup>	
DFS1-00-0042MR	Single-row base plus MTP plus MTPA (MPO-12 PC and MPO-12 APC) bulkhead	•	<b>*</b>	MTP,	
	adapter tips			MTPA a, b	
DFS1-00-0050MR	Multi-row base plus MTP (MPO-12 PC) bulkhead adapter tip	•	<b>♦</b>	MTP <sup>a, b</sup>	
DFS1-01-0010MR	Single-row base plus MTPA (MPO-12 APC) bulkhead adapter tip	•	•	MTPA a, b	
Miscellaneous Adap	·				
DFS1-00-0056MR	Universal 60 degrees angled extended adapter tip	<b>♦</b>	<b>*</b>	A6A, U-A6	
DFS1-00-0031MR	LEMO 2.0 mm bulkhead	•	<b>*</b>	LEMO	
DFS1-00-0033MR	2.0 mm termini bulkhead	<b>♦</b>	•	T20F	
DFS1-00-0034MR	1.6 mm termini bulkhead	<b>*</b>	•	T16F	
DFS1-00-0036MR	ELIO 1.25 mm bulkhead	<b>*</b>	•	E12F	
DFS1-00-0046MR	SMA 905 bulkhead	•	<b>♦</b>	SMAF	
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, for DFS1 and FOCIS Flex inspection probe	•	•	WOA	
APC Tips		1		1	
DFS1-01-0001MR	Universal 1.25 mm, APC ferrule		<b>*</b>	U12A	
DFS1-01-0002MR	Universal 2.5 mm, APC ferrule	•	<b>♦</b>	U25A	
DFS1-01-0003MR	SC/APC and FC/APC bulkhead		•	FSA	
DFS1-01-0011MR	SC/APC bulkhead	<b>*</b>	•	SCA	
DFS1-01-0004MR	LC/APC bulkhead		•	LCA	
DFS1-01-0005MR	Short (~60 mm) extended tip for SC/APC bulkhead	•	•	SCAX	
DFS1-01-0006MR	60° angled tip for SC/APC bulkhead		<b>*</b>	A6A	
DFS1-01-0009MR	LX.5/APC bulkhead		•	LXA	
DFS1-01-0013MR	Single-row base with OptiTip® APC bulkhead and connector ferrule adapter tips	•	•	OTIPA	
DFS1-01-0014MR	Short (~60 mm) extended tip for LC/APC bulkhead	•	•	LCA-S	
DFS1-01-0016MR	LC/APC female style	•	•	LCAM	

#### Notes:

- a. MTP extended tip marking includes S/N since these have moving parts.
- b. Base plus tip is required to inspect MPO/MTP connectors. All MPO/MTP connectors are inspected through bulkhead adapter.





January 17, 2022

# - US

FFLX-01-SC



FFLX-4S-ALC



FFLX-01-ULCHD



FFLX-4S-ALC3



**FOCIS Series Adapter Tips (continued)** 

		FOCIS Duel Port 1,						
AFL NO.	Description	FOCIS Flex, FOCIS WiFi2	Tip ID					
FOCIS WiFi2, FOCIS F	FOCIS WiFi2, FOCIS Flex Adapter Tips							
FFLX-01-SC	SC/UPC bulkhead	<b>*</b>	SC					
FFLX-01-FC	FC/UPC bulkhead	<b>♦</b>	FC					
FFLX-01-ST	ST/UPC bulkhead	<b>♦</b>	ST					
FFLX-01-LC	LC/UPC bulkhead	<b>•</b>	LC					
FFLX-01-U25	Universal 2.5 mm, UPC ferrule	<b>•</b>	U25					
FFLX-01-A25	Universal 2.5 mm, APC ferrule	<b>•</b>	A25					
FFLX-01-U125	Universal 1.25 mm, UPC ferrule	<b>♦</b>	U125					
FFLX-01-A125	Universal 1.25 mm, APC ferrule	<b>♦</b>	A125					
FFLX-01-ULCHD	LC/PC/UPC adapter tip for high density distribution trays	<b>♦</b>	LCNGU					
FFLX-01-ULCE	Extended LC UPC Adapter Tip	<b>♦</b>	ULCE					
FFLX-01-EXTS46	FOCIS adapter extension tube, straight, 46 mm	<b>♦</b>						
FFLX-01-EXTS80	FOCIS adapter extension tube, straight, 80 mm	<b>♦</b>						
FFLX-4S-ASC	SC/APC bulkhead adapter tip, quad-slotted	<b>♦</b>	XASC					
FFLX-4S-AFC	FC/APC bulkhead adapter tip, quad-slotted	<b>♦</b>	XAFC					
FFLX-4S-ALC	LC/APC bulkhead adapter tip, quad-slotted, with internal prism	<b>•</b>	XALC					
FFLX-4S-ALC3	Extended LC APC bulkhead adapter tip, quad-slotted	<b>♦</b>	ALC3					
FFLX-4S-E2KA	E2000/APC bulkhead adapter tip, quad-slotted (~60 mm)	<b>•</b>	E2KA					
FFLX-4S-E2K	E2000/PC bulkhead adapter tip, quad-slotted (~60 mm)	<b>•</b>	E2K					
FFLX-4S-OTA	OptiTap (SC/APC) bulkhead adapter tip, quad-slotted	<b>•</b>	OTA					
FFLX-4S-DCU	MDC/UPC adapter tip, quad-slotted	<b>•</b>	DCU					
FFLX-4S-SNU	SN/UPC adapter tip, quad-slotted	<b>♦</b>	SNU					

#### **FOCIS Flex Accessories**



6000-00-0034PF



1410-02-0228PZ

TOCIS FICK ACCESS		
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" on page 25).	
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	
4050-00-0033MR	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 Lightning®

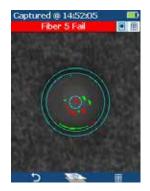
### Ultrafast MPO/MTP® Multi-fiber Connector Inspection

FOCIS Lightning is a self-contained inspection probe that captures the entire MPO end-face image in less than two seconds from power-on. One button provides auto-focusing, centering and pass / fail analysis at the connector and individual fiber level. It can complete a 24-fiber MPO inspection task in less than 15 seconds. Results can be easily shared via USB, WiFi and Bluetooth®.

FOCIS Lightning supports all MPO fiber configurations including Base-8 and Base-10 with key up/key down polarity capture. It can also be used for single-fiber inspection with optional coupler and tips. FOCIS Lightning recently won "Best in Show" at the 2019 BICSI Winter Conference & Exhibition and was rated "superb" by the 2019 Lightwave Innovation Reviews.

#### **Specifications**

- Field of View (Live): 1960 x 4670 μm
- Field of View (per fiber): 130 x 130 μm
- Display: 2.4" color LCD, 320 x 240, 3 zoom levels
- Pass/Fail Analysis: IEC 61300-3-35, IPC, user
- File Formats: 640 x 480 pixel JPG & GIF
- Storage Capacity: 10,000 images & results
- Battery: 8 hours, rechargeable NiMH





FOCIS Lightning focuses, captures and analyzes all fibers in the MPO/MPT end-face with a click of a button.





January 17, 2022

# PAR FOCILIF

FOCIS Lightning







Smart Device Apps

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

FOCIS Lightning is an ultrafast MPO/MTP® connector inspection system with two high resolution image sensors to allow the instantaneous assessment of the full multi-fiber end face surface conditions, including a partial view of the connector pins or holes. IEC compliant auto-analysis can be completed 10 to 100 times faster than legacy mechanical scanning methods. FOCIS Lightning 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 integrated color LCD screen. Free FOCIS Flex App (iOS and Android) supports inspection reporting and provide a conduit to the aeRos® cloud-based workflow management platform.

#### **FOCIS Lightning Connector Inspection Kits**

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

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

					Contain	s (ea.)				
		Bulkhead Adapter Tips								
	FOCIS	UPC	МРО	APC	МРО	SFA	MPO A	dapters	One-Clic	k Cleaner
	Lightning	M12U	MPOU	M12A	MPOA					
AFL NO.	Probe	(keyed)	(no key)	(keyed)	(no key)		MPO-12	MPO-16	MPO-12	MPO-16
FOCIS-LTNG-N	1									
FOCIS-LTNG-U	1	1	1				1	1	1	1
FOCIS-LTNG-A	1			1			1		1	
FOCIS-LTNG-UA	1	1	1	1			1	1	1	1
FOCIS-LTNG-UASF	1		1		1	1	1	1	1	1
FOCIS-LTNG-NW-N	1									
FOCIS-LTNG-NW-U	1	1	1				1	1	1	1
FOCIS-LTNG-NW-A	1			1			1		1	
FOCIS-LTNG-NW-UA	1	1	1	1			1	1	1	1



FlexScan® FOCIS LTNG

#### FOCIS Lightning Order Entry FOCIS—LTNG-[NW]-[K]-[PLUG] where:

**Wireless Option** 

**Absent** Includes wireless

UASF

NW	No Wireless
[K]	Kit type
N	No MPO adapter tips
U	UPC MPO adapter tips
Α	APC MPO adapter tips
UA	UPC and APC MPO adapter tips

UPC and APC MPO adapter tips,

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

single fiber adapter

	Contains (ea.)						
Kit	Bulkhead adapter tips	Tip ID	MPO adapters (for patch cords)	One-Click Cleaner			
U Kit	MPO-12 (with key)	M12U	MPO-12 opposed	MPO-12			
U KIL	MPO-12 / MPO-16 (without key)	MPOU	MPO-16 opposed	MPO-16			
A Kit	MPO-12 (with key)	M12A	MPO-12 opposed	MPO-12			
	MPO-12 (with key)	M12U	MPO-12 opposed	MPO-12			
UA Kit	MPO-12 (with key)	M12A					
	MPO-12 / MPO-16 (without key)	MPOU	MPO-16 opposed	MPO-16			
	MPO-12 / MPO-16 (without key)	MPOU	MPO-12 opposed	MPO-12			
<b>UASF Kit</b>	MPO-12 / MPO-16 (without key)	MPOA					
	Single Fiber Adapter	SFA	MPO-16 opposed	MPO-16			





January 17, 2022



1400-01-0172PZ (example)



6000-00-0034PR



1410-02-0228PZ

# MIZA

FLTNG-01-M12A



FLTNG-01-MPOU



FLTNG-01-M12U



FLTNG-01-SFA

#### **FOCIS Lightning® Accessories**

AFL NO.	Description	
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 [PLUG] when ordering (see "FOCIS Lightning Order Entry" on page 30).	
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'	
8800-02-0083MZ	FOCIS Lightning dust cap	
1400-01-0024MZ	Small tackle box	
4050-00-0033MR	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	
MPO Mating Adapters	See section "Mating Adapters" on page 61	
One-Click leaners MPO	See section "One-Click® Cleaners" on page 40	

#### **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	Coupler for most 'FFLX' single fiber connector adapter tips	SFA	
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	TNG-01-HSAS Adapter tip for Q-ODC-12 APC pinned (male) hardened connectors		
FLTNG-01-HSAP	Adapter tip for Q-ODC-12 APC unpinned (female) hardened connectors	HSAP	





January 17, 2022

FOCIS Due

#### **FOCIS Duel® Fiber Optic Connector Inspection System**

FOCIS Duel is an ultra-compact dual-port inspection scope for fiber optic connectors that uses liquid lens technology for fast auto-focus, centering and Pass/Fail analysis on two ports. This enables users to inspect both connectors in a mated connection without having to change adapter tips.

Free FOCIS Flex App (iOS and Android) provides a comprehensive and user-friendly feature set as well as connectivity with AFL's cloud-based aeRos® workflow automation platform.







#### **FOCIS Duel Connector Inspection Kits**

Each FOCIS Duel Kit includes: FOCIS Duel probe with wrist strap and dust cap, TRM® 3.0 Basic (Test Results Manager software), AC charger with country-specific plug, USB cable, quick reference guide, and soft carry case with strap.

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



FlexScan® & FOCIS Duel

		Contains (ea.)								
			UPC	UPC Tips APC Tips		One-Click	Soft Carry			
AFL NO.	FOCIS Duel	AC Charger	Bulkhead	Ferrule	Bulkhead	Ferrule	Cleaner	Case		
FOCIS-DUEL-N	1	1						1		
FOCIS-DUEL-U	1	1	1	1			1	1		
FOCIS-DUEL-A	1	1			1	1	1	1		
FOCIS-DUEL-UA	1	1	1	1	1	1	1	1		
FOCIS-DUEL-NW-N	1	1						1		
FOCIS-DUEL-NW-U	1	1	1	1			1	1		
FOCIS-DUEL-NW-A	1	1			1	1	1	1		
FOCIS-DUEL-NW-UA	1	1	1	1	1	1	1	1		



Sm. Device & FOCIS Duel

#### **FOCIS Duel Order Entry**

[NW]

Absent

#### FOCIS-DUEL-[NW]-[K]-[PLUG]-[TIP] where:

NW	No Wireless
[K]	Kit type
N	No adapter tips
U	UPC adapter tips
Α	APC adapter tips
UA	UPC and APC adapter tips

**Wireless Option** 

Includes wireless

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

	User-selected bul	khead a	and ferrule adapter tips and One	e-Click C	leaner		
[TIP]	Port 1 bulkhead tips	Tip ID	Port 2 ferrule adapter tips	Tip ID	One-Click		
		FOO	CIS-DUEL-U Kits				
SC	SC/UPC	SC	SC/UPC, slotted female "click-in"	SUSC	2.5 mm		
FC	FC/UPC	FC	Universal 2.5 mm UPC, slotted	U2	2.5 mm		
LC	LC/UPC	LC	LC/UPC, slotted female "click-in"	SULC	1.25 mm		
	FOCIS-DUEL-A Kits						
SC	SC/APC, quad-slotted	XASC	SC/APC, slotted female "click-in"	SASC	2.5 mm		
FC	FC/APC, quad-slotted	XAFC	Universal 2.5 mm APC, slotted	A2	2.5 mm		
LC	LC/APC, quad-slotted	XALC	LC/APC, slotted female "click-in"	SALC	1.25 mm		
		FOC	IS-DUEL-UA Kits				
sc	SC/UPC	SC	SC/UPC, slotted female "click-in"	SUSC	2.5 mm		
30	SC/APC, quad-slotted	XASC	SC/APC, slotted female "click-in"	SASC	2.3 111111		
FC	FC/UPC	FC	Universal 2.5 mm UPC, slotted	U2	2.5 mm		
FC	FC/UPC, quad-slotted	XAFC	Universal 2.5 mm APC, slotted	A2	2.3		
LC	LC/UPC	LC	Slotted female "click-in" LC/UPC	SULC	1.25 mm		
LC	LC/APC, quad-slotted	XALC	Slotted female "click-in" LC/APC	SALC	1.23 [[[[[]		





January 17, 2022

1400-01-0172PZ (example)



6000-00-0034PR



1410-02-0228PZ



FDUO-01-ULC



FDUO-01-ALC

#### **FOCIS Duel® Accessories**

AFL NO.	Description	
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 [PLUG] when ordering. See "FOCIS Duel Order Entry" on page 32.	
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 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; Inspection Port 2	
8800-02-0281MR	Dust cap for the SC (both UPC and APC) adapter tips; Inspection Port 2	
4050-00-0033MR	Vehicle charger, 12VDC to 5VDC @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 Duel Adapter Tips**

The Port 1 of FOCIS Duel (identical to FOCIS Flex) 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 section "FOCIS Series and DFS1 Adapter Tips" on page 26.

The Port 2 of FOCIS Duel uses very specific tips (listed below) used only for Port 2 of FOCIS Duel.

AFL NO.	Port Usage	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	XAFC	
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"		
FDUO-01-U125	2	Universal 1.25 mm UPC ferrule adapter tip, single-slotted		
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	





January 17, 2022



#### **FOCIS WiFi2™ Fiber Optic Connector Inspection System**

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

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

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

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







#### **FOCIS WiFi2 Connector Inspection Kits**

Each FOCIS WiFi2 Kit includes: FOCIS WiFi2 probe with wrist strap and dust cap, AC charger with country-specific plug, quick reference guide, and soft carry case with strap.

		Contains (ea.)									
					UPC '	UPC Tips		APC Tips			
AFL NO.	FOCIS WiFi2	AC Charger	Dust Cap	Wrist Strap	Bulkhead	Ferrule	Bulkhead		Cleaner Mini	Soft Carry Case	
FOCIS-WIFI2-N	1	1	1	1						1	
FOCIS-WIFI2-U	1	1	1	1	1	1			1	1	
FOCIS-WIFI2-A	1	1	1	1			1	1	1	1	
FOCIS-WIFI2-UA	1	1	1	1	1	1	1	1	1	1	

#### **FOCIS WiFi2 Order Entry**

#### FOCIS-WiFi2-[K]-[PLUG]-[TIP] where:

K]	Kit type
N	No adapter tips
U	UPC adapter tips
Α	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

	User-selected bulkhea	d and fe	rrule adapter tips and Or	e-Click C	leaner Mini		
[TIP]	Bulkhead adapter tips	Tip ID	Ferrule adapter tips	Tip ID	One-Click		
		FOCIS-	WiFi2-U Kits				
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		
	FOCIS-WiFi2-A Kits						
SC	SC/APC	ASC	Universal 2.5 mm APC	A25	2.5 mm		
FC	FC/APC	AFC	Universal 2.5 mm APC	A25	2.5 mm		
LC	LC/APC	ALC	Universal 1.25 mm APC	A125	1.25 mm		
		FOCIS-V	ViFi2-UA Kits				
sc	SC/UPC	SC	Universal 2.5 mm UPC	U25	2.5 mm		
30	SC/APC	ASC	Universal 2.5 mm APC	A25	2.3 111111		
FC	FC/UPC	FC	Universal 2.5 mm UPC	U25	2 5 mm		
FC	FC/APC	AFC	Universal 2.5 mm APC	A25	2.5 mm		
ıc	LC/UPC	LC	Universal 1.25 mm UPC	U125	1.25 mm		
LC	LC/APC	ALC	Universal 1.25 mm APC	SALC	1.23 11111		





January 17, 2022



1400-01-0172PZ (example)



#### **FOCIS WiFi2 Accessories**

AFL NO.	Description	
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 [PLUG] when ordering. See "FOCIS WiFi2 Order Entry" on page 34.	
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)	

#### **FOCIS WiFi2 Tips**

See section "FOCIS Series and DFS1 Adapter Tips" on page 26.



#### **OFS300 Microscope for Connectors on Patch Cords**

The OFS300-200C is a hand-held microscope used for inspecting fiber optic connectors on patch cords and test jumpers.

The OFS300-200C is a high-resolution optical microscope with integrated infrared safety filter. T

Each scope includes a 2.5 mm Universal adapter cap and neck strap. The OFS300-200C uses thread-on adapter caps (see page 60).

Model	Nominal Magnification	Adapter Mount	Infrared Safety Filter	Power	
OFS300-200C	200x	Thread-on	Schott KG3	(2) AA alkaline	

#### **OFS300 Accessories**

AFL NO.	Description	
1400-01-0055	Soft carry case	



# Countertop Display

#### Fiber-Optic Cleaning Supplies Point of Purchase



#### **Display Kit Contents**

- 2 Cletop-SBs with White Tape
- 2 Tubs of FiberWipes<sup>™</sup> 90 wipes per tub
- 2 Cans Fiber Connector Cleaner 3 oz/85 g
- 3 Debris Destroyers® Fiber Optic Cleaning Pen
- 6 One-Click Cleaners SC, ST, FC (500+ cleans)
- 2 One-Click Cleaners Mini-100 SC, ST, FC (100+ cleans)
- 6 One-Click Cleaners MU/LC (500+ cleans)
- 2 One-ClickMini-100 MU/LC (100+ cleans)
- 1 Acrylic Display Case (free with kit purchase)
- 20 Fiber Optic Cleaning Quick Reference Guides

Everyone who works with optical fiber needs cleaning supplies on a daily basis. These custom-printed countertop displays are designed to raise awareness and sales of AFL cleaning products at your facility. Available as just the acrylic display to highlight your current inventory, or as a kit stocked with our best sellers, including our patented One-Click® cleaners.

#### **Ordering Information:**

#### Display

Part number: 1400-01-0183PZ

Empty three-tiered custom-printed acrylic display. Dimensions: 11.5 (W) x 15.3 (T) x 8.1 (D) inches

#### **Display Kit**

Part Number: AFL-CleanDisplay-1

Above display and a selection of our top selling wet

and dry cleaning supplies.







January 17, 2022

# TAR III

1400-01-0183PZ

# Cleaning Supplies

AFL-CleanDisplay-1

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	



AFL-CleanDisplay-1

#### Wall/Rack Mountable Field Portable Cleaning Kits

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.

	for FC, SC, ST	for LC, MU		for all connectors	for MTP, MPO, MPX	Cletop	
AFL NO.	QTY=40, BLUE	QTY=40, GREEN	QTY=40, ORANGE	QTY=20, YELLOW	QTY=20, PINK	Туре	
FCP1-00-0901	1			2		SB	
FCP1-00-0907	3	1		1	1		
FCP1-00-0914	2	1		1		SB	



FCP1 Kit

#### Field Portable Duffle Bag Cleaning Kits

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

AFL NO.	Contains (1 ea.)						
FCP2-10-0900	CC2 cleaning fluid, FiberWipes, Cletop-SB, SC and LC One-Clicks, Debris Destroyer, Duffle Bag						
FCP2-00-0901	FCC2 cleaning fluid, FiberWipes, Cletop-SB, SC and LC One-Clicks, Debris Destroyer, MPO One-Click, Duffle Bag						
FCP2 Kits Reordering Items							
FCPR-10-0900	Refill for FCP2-10-0900 Cleaning Package (no duffle bag). Includes FCC2 cleaning fluid, FiberWipes, Cletop-SB, SC and LC One-Clicks, Debris Destroyer.						



FCP2-10-0900

#### FCP3 Easy-Access Cleaning Kit



FCP3-00-0901

AFL NO.	Description	
FCP3-00-0900	Basic Easy-Access Cleaning Kit. Includes:  FCC2 Fiber Connector Cleaner And Preparation Fluid (can)  FCC3 Debris Destroyer Fiber Optic Cleaning Pen  CCTS-12 (for 1.25 mm ferrule) and CCTS-25 (for 2.5 mm ferrule) Connector Cleaning Tips  Cletop-SB, White Tape  One-Click Cleaners (SC, LC/MU, Ultra 2.5, MPO/MTP)  Soft Carry Case	
FCP3-00-0901	<ul> <li>Enterprise Easy-Access Cleaning Kit. Includes:</li> <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>Cletop-SB, White Tape</li> <li>One-Click Cleaners (Duplex LC, LC/MU, Ultra 2.5, MPO/MTP)</li> <li>Soft Carry Case</li> </ul>	





January 17, 2022



FCC2 in 3 oz/85 g Can





#### 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	
FCC2-00-0902	Enhanced Formula, (3 oz/85 g) Fiber Connector Cleaner and Preparation Fluid (1 can)	
FCC2-00-0903	Enhanced Formula, (3 oz/85 g) Fiber Connector Cleaner and Preparation Fluid (case of 12 cans)	
FCC3-00-PEN1	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					
Connector Cleaning	g Tips - Double-ended							
CCTP-25-0900MZ	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)							
CCTS-25-0900MZ	For 2.5 mm ferrule in adapters or sockets (SC, FC, ST, etc. in adapters)	Blue	40					
CCTS-12-0900MZ	For 1.25 mm ferrule in adapters or sockets (LC, MU, etc., in adapters)	Green	40					
CCTS-16-0900MZ	For MT-RJ connectors and 2.0 mm and 1.6 mm termini in sockets (female MILT 29504/15 for MIL C 28876 and MILT 29504/05 for MIL C 38999, MT-RJ both jumpers and adapters)	Orange	40					
CCTX-MT-0900MZ	For Biconic and MT ferrule connectors both jumpers and in adapters (Biconic, MTP, MPO, MPX, etc.)	Pink	20					
CCT Tips are availa	ble in bulk packs of single-ended sticks. Packs of 50 sticks packaged in boxes of 6 packs (	300 sticks)						
CCTP-25-0910MZ	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)	Yellow	300					
CCTS-25-0910MZ	For 2.5 mm ferrule in adapters or sockets (SC, FC, ST, etc. in adapters)	Blue	300					
CCTS-12-0910MZ	For 1.25 mm ferrule in adapters or sockets (LC, MU, etc., in adapters)	Green	300					
CCTS-16-0910MZ	For MT-RJ connectors and 2.0 mm and 1.6 mm termini in sockets (female MILT 29504/15 for MIL C 28876 and MILT 29504/05 for MIL C 38999, MT-RJ both jumpers and adapters)  Orange  300							
CCTX-MT-0910MZ	For Biconic and MT ferrule connectors both jumpers and in adapters (Biconic, MTP, MPO, MPX, etc.)	Pink	300					





January 17, 2022



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	
Cletop –S Series		
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 Seri</b>	es es	
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	
8500-10-0032MZ	Cletop for MT-RJ with pins (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	ACT-01	
	2.5 mm single-ended sticks (box of 200 - 40 bags of 5 sticks per bag). For FC, SC, ST, and D4.	
8500-10-0022MZ	ACT-02	
	1.25 mm single-ended sticks (box of 200 - 40 bags of 5 sticks per bag). For LC and MU.	
8500-10-0023MZ	ACT-03	
	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).	





January 17, 2022

#### One-Click® Cleaners

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





One-Click Cleaners





January 17, 2022



NEOCLEAN-M and -M2

## **NEOCLEAN Fiber Connector Cleaning Tools**

AFL NO.	Description						
8500-15-0900MZ	8500-15-0900MZ NEOCLEAN-E1 for MU and LC connectors with UPC/APC polishes (750+ cleans)						
8500-15-0901MZ	NEOCLEAN-E2 for SC and FC connectors with UPC/APC polishes and OptiTap connectors (750+ cleans)						
8500-15-0902MZ	NEOCLEAN-E3 for SC, ST, FC, E2000 with UPC/APC polishes and OptiTap connectors (750+ cleans)						
8500-15-0903MZ	NEOCLEAN-ES1 - pack of 3 replacement cartridges for NEOCLEAN-E1 (750+ cleans each)						
8500-15-0904MZ	NEOCLEAN-ES2 - pack of 3 replacement cartridges for NEOCLEAN-E2 (750+ cleans each)						
8500-15-0905MZ	NEOCLEAN-ES3 - pack of 3 replacement cartridges for NEOCLEAN-E3 (750+ cleans each)						
8500-15-0909MZ	NEOCLEAN-M for MPO/MTP® connectors (600+ cleans)						
8500-15-0910MZ	NEOCLEAN-M2 for MPO-16/MTP-16® connectors (600+ cleans)						

### **Optical Grade Cleaning Wipes**

AFL NO.	Description	
9000-03-0031MZ	CleanWipes - 600 optical quality wipes (1 box)	
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)	
9000-03-0027MZ	FiberAide 1 - 600 lint free wipes for single use (12 bags of 50 wipes)	
9000-03-0028MZ	FiberAide 1 - 50 lint free wipes for single use (1 bag of 50 wipes)	



**NEOCLEAN-E Models** 



CleanWipes-600



FiberWipes Tub



# **OPTICAL LOSS TESTING**





# ROGUE® OLTS Certifier

# Test & Certify Multimode or Single-Mode Networks



ROGUE OLTS Certifier can perform multiple tests, certify a range of network types, and work both online and offline.

#### **Specifications**

• Wavelengths: Dual SM (1310, 1550 nm)

Quad (850, 1300, 1310, 1550 nm)

• Power Measurement Range: -3 to +60 dBm

Length Measurement Range: 5 km (MM); 200 km (SM)

Encircled Flux Compliant

• Internal Storage: 4 GB (>1000 fibers)

Size: 23.5 x 13.3 x 7.6 cmWeight: 1.56 kg (3.46lb)

Battery Life: >8 hours continuous testingDisplay: 7" high resolution color screen

ROGUE OLTS Certifier was designed for both enterprise network operators and telecom service providers who need to test and vertify their networks. Its unique design features a test port on each of the paired units that measures insertion loss, return loss and length bi-directionally on multimode or single-mode networks. The additional dedicated power meter and visual fault identifier help with troubleshooting.

ROGUE is available with dual bi-directional test ports that certify two single-mode fibers at once, without swapping test cords, to accelerate testing high density networks such as data centers, saving technicians valuable time when testing hundreds or even thousands of fibers.

ROGUE OLTS Certifier is another product from AFL that focuses on being robust, easy-to-use and affordable.





# **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022



iB1 Base with Module

# ID I base with Module

iB1 Base with Module

#### **ROGUE® OLTS Certifier**

- 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.

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

# ROGUE OLTS Certifier Kit Order Entry RGK-CERT[KIT]-[C]-[AC] where:

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

[C]	Single-mode Connector Type
U	UPC
Α	APC

[AC]	Destination Country	AC Power Plug Type
US	USA	3-wire, 115V, Type K
EU	European Union	3-wire, 250V, Type B
UK	United Kingdom	3-wire, 250V, Type D
CN	China, Australia	3-wire, 250V, Type C
DK	Denmark	3-wire, 250V, Type E

[AC]	Destination Country	AC Power Plug Type
JP	Japan	3-wire, 125V, Type M
СН	Switzerland	3-wire, 250V, Type L
IT	Italy	3-wire, 250V, Type I
IL	Israel	3-wire, 250V, Type H
IN	India	3-wire, 250V, Type G



**ROGUE Carry Case** 

# FAFL TURBO



#### 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	
ROGUE TURBO OLTS Certifier	Available	

#### ROGUE RTG "Ready to Go" Tablets

 $\label{lem:AFL} \textit{AFL offers Android Tablets preloaded and configured for use with the ROGUE \mid aeRos\ Test\ Suite.}$ 

AFL NO.	Warranty (Description)	
RGA-7TBLT-01	Preloaded with AFL ROGUE Apps. 90 days Limited Warranty	





January 17, 2022

ROGUE iB1 Base



**OLTS Certifier Module** 

#### Connector Adapters for ROGUE OLTS Certifier Module Test Ports



2900-50-0003MR



2900-52-0005MR



2900-50-0007MR

#### **ROGUE® Hardware and Accessories**

AFL NO.	Description	Contains	
RGK-OLTS03B1	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	
RG-B01	ROGUE iB1, Intelligent Base	(1) ROGUE iB1 Base, (1) battery, (1) AC charger, (1) adjustable carry strap	
RG-1100-Q01	ROGUE OLTS Certifier Quad Module	(1) Quad Module; test port adapters: (2) SC for OLS port, (1) SC and (1) LC for OPM port	
RG-1100-S01-D	ROGUE OLTS Certifier SM Module	(1) SM Module; test port adapters (2) SC for OLS port, (1) SC and (1) LC for OPM port	
RGA-CASE-01	ROGUE Kit Carry Case	(1) Case	
5400-00-0200	ORL Referencing Mandrel	(1) Mandrel	
8400-00-0066MZ	SC UPC Terminator for ORL Reference	(1) Terminator	
8400-00-0048MZ	FC UPC Terminator for ORL Reference	(1) Terminator	
RGA-STRAP-01	ROGUE Adjustable Carry Strap	(1) Strap	
4050-00-0918PR	AC charger fpr ROGUE iB1 Base	(1) AC charger, (specify power cord, see page 61, 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
2900-50-0002MR	FC	OLS
2900-50-0003MR	SC	OLS
2900-50-0004MR	ST	OLS
2900-50-0006MR	LC	OLS
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
2900-52-0006MR	1.25 mm Universal	OPM
2900-50-0007MR	2.5 mm Universal	VFL
2900-50-0010MR	1.25 mm Universal	VFL

#### **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	



# **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022



MFS- Multi-Fiber Switch



MFS in Carry Holster

#### **Multi-Fiber Switch Certification Add-on Kits**

Each Multi-Fiber Switch Certification Add-on kit include (2) Multi-Fiber Switches, (2) 6 in. USB-USB mini cables, (2) key Up / key Down MPO-MPO mating adapters, (2) MFS carry holsters, (1) One-Click Cleaner MPO, (2) MFS kit carry cases, test cords and mating adapters (see table below).

		Contains (ea.)				
				Reference Test Cords		
AFL NO.	Add-On Kit	12F MFS Switch	SC-SC, 0.3 (m)	12F MPO-MPO, 2 (m)		
MPO-SM-CERT-ADD	SM, SC/UPC-MPO/APC	(2) SM, SC/UPC-MPO/APC	(2) SM	(2) SM, type A unpinned; (2) SM, type A pinned/unpinned; (1) SM, type B unpinned		
MPO-MM-CERT-ADD	MM, SC/UPC-MPO/UPC	(2) MM, SC/UPC-MPO/UPC	(2) MM	(2) OM4, type A unpinned; (2) OM4, type A pinned/unpinned; (1) OM4, type B unpinned		

#### **Multi-Fiber Switch Models**

AFI'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-lon, 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	



# FlowScout PON Power Meter

# The Easiest Way to Verify Many Types of PON Networks



Eliminate the guesswork in activating and troubleshooting many types of PON Network

#### **Specifications**

- Network Types: BPON, EPON, GPON, 10G-EPON, XG-PON, XGS-PON
- Upstream: 1310, 1270 nm
- Downstream: 1490, 1550, 1577 nm
- Battery: >8 hours, rechargeable
- Weight: 0.59 kg (1.3 lb)
- Size: 17.1 x 10.4 x 4.6 cm (6.75 x 4.1 x 1.8 in)

AFL's FlowScout PON Power Meter identifies, measures, and qualifies both downstream and upstream signal levels in FTTx PON networks. It is perfect for technicians responsible for activating and maintaining networks carrying a mix of GPON/EPON, video, and next gen PON (XG/XGS-PON, 10GEPON) wavelengths.

Unlike competing through-mode PON Power Meters, AFL's FlowScout requires no setup. Technicians simply plug in the fiber under test to see results displayed in seconds on the large color touchscreen. Storage and reporting options are included to verify and document results from the field.

FlowScout's rugged design makes it perfect for outside plant environments where it can be dropped, get dirty or even wet. And because it is so easy to use, FlowScout requires little, if any, training.

Contact your AFL representative to schedule a demo or get more information.







January 17, 2022



#### FlowScout PON Optical Power Meter

**Designed for all:** FlowScout PON power meter is designed to meet the demands of the outside plant environment. It easily withstand the one-meter drop test and has splash resistant controls that are easy to use, even with gloves on.

**Flexible and efficient:** A range of field-swappable output adapters enables access for cleaning optical ports and supports multiple connector styles. The efficient design provides long test time from rechargeable Li-Polymer battery. Equipped with auto-off feature to save power.

**Stores test results:** 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					
		Unctroom	Wavelength	1270 nm	1310 nm	
TPPM-XG	FlowScout PON Power Meter	Upstream	Measurement Range	-30 to +13 dBm	-30 to +13 dBm	
IPPIVI-AG	XGPON/XGSPON	Dougnetroom	Wavelength	1490 nm	1550 nm	1577 nm
		Downstream	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	SC One-click mini cleaner (500)	
4050-00-0034MR	AC Adapter	
AFL ships one power p	lug (of customer choice) along with the order. Please select one out of the four plugs listed below.	
4050-00-0034EUMR	EU Power Plug for AC charger	
4050-00-0034NAMR	US power plug for AC charger	
4050-00-0034SAAMR	CN/AUS power plug for AC charger	
4050-00-0034UKMR	UK power plug for AC charger	



# **Test & Inspection**

**Features** 

#### **Buyer's Guide**

January 17, 2022







Encircled Flux Options for multimode testing. See "Encircled Flux (EF) Compliant Test Kit and Light Source" on page 50.

Loss Measurements (nm)

Specify one source/adapter cap connector type when ordering. All test kits include an optical power meter, optical light source, adapter cap, user's quide, and carry case. Additional adapter caps may be ordered separately (see page 60). For available AC chargers see page 51. SLP and SMLP5 kits also include mandrel, USB cable, and TRM® 2.0 Test Results Manager trace analysis/reporting and certification or OPM loss reporting PC software (Basic License).







AFL NO.	Power Meter	Light Source	Fiber Type	850	1300	1310	1490	1550	Dynamic Range (dB)	Available Connectors	Set Ref.	PC S/W	Auto Dual λ Test	
SLP5-6	OPM5-3D	OLS2-DUAL	SM			<b>♦</b>		<b>♦</b>	70 <sup>b</sup>	FC, SC, ST, LC	•	•	•	
SLP5-FTTH	OPM5-4D	OLS7-FTTH	SM			•	•	<b>♦</b>	45 <b>b</b>	FC, SC, ST, LC	•	•	<b>♦</b>	
SMLP5-5	OPM5-2D	OLS4	MM SM	•	•	•		•	40 @850/1300 nm <sup>a</sup> 60 @1310/1550 nm <sup>b</sup>	FC, SC, ST, LC	•	•	•	
CKM-2	CSM1-3	CSS1-MM	MM	<b>♦</b>	•				40ª	SC (fixed)	<b>♦</b>			
CKS-3	CSM1-3	CSS1-SM	SM			•		<b>♦</b>	70 @1310/1550 nm	FC, SC	•			
CKSM-2	CSM1-3	CSS1-MM CSS1-SM	MM SM	•	•	•		•	40 @850/1300 nm <sup>a</sup> 60 @1310/1550 nm <sup>b</sup>	SC	•			
Minter														

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





January 17, 2022



#### **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)

					Availab Connec		Included 2-meter 1	est Cords	
AFL NO.	Power Meter	Light Source	WL - λ (nm)		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	

When placing an order, select options as follows:

SMLP5-5-EF — XX — YY

Source port UCI adapter style (XX) — Output connector of RGTC (YY) \*

Input connector of RGTC (XX)

XX = FC, SC

XX — YY

Output connector of RGTC (YY) \*

\* See section "Encircled Flux (EF) Reference Grade Test Cords" (below) to order additional Reference Grade Test Cords.

#### AFL EF compliant light source

Afl offers OLS4 light source with designed in Encircled Flux (EF) optics supplied with EF qualified 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	

When placing an order, select options as follows:

OLS4-EF — XX — YY

Source port UCI adapter style (XX) — Output connector of RGTC (YY)\*

Input connector of RGTC (XX)

XX = FC, SC

XX = FC, SC

#### **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	

<sup>\*</sup> See section "Encircled Flux (EF) Reference Grade Test Cords" (below) to order additional Reference Grade Test Cords.





January 17, 2022

## 5 YEAR WARRANTY



OLS1-DUAL

# PAPL Colors

OLS2-DUAL

# FAPL STATE OF THE STATE OF THE

OLS4



OLS7



CSS-SM

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

Quick Ref Guides (PDF format) are available in Chinese Simplified, Chinese Traditional, French, German, Italian, Japanese, Korean, Portuguese, Spanish and Turkish www.AFLglobal.com.

Encircled Flux Options for multimode testing. See "Encircled Flux (EF) Compliant Test Kit and Light Source" on page 50

When ordering, specify connector type at the end of model number (e.g. OLS2-DUAL-SC). All OLS models include protective rubber boot and carry case. AC chargers are available (ordered separately), see table below.

	Out	put V	Vave	lengt	ths (r	ım)	Ports							
Model	850	1300	1310	1490	1550	1625	Output Po	Emitter Type <sup>a</sup>	Output Power (nominal, dBm)	Stability	Wave ID Transmit	Available Connectors	Power	
OLS1-DUAL	<b>♦</b>	•					1	LED	-20	± 0.1 dB/8 hrs	<b>♦</b>	FC, SC, ST, LC	(2) AA, AC	
OLS2-DUAL			<b>♦</b>		<b>♦</b>		1	Laser	Ор	± 0.05 dB/1 hr	<b>♦</b>	FC, SC, ST, LC	(2) AA, AC	
OLS4	•	•	•		•		2	LED and Laser	-20 @850 &1300 nm 0 @1310 & 1550 nm	± 0.05 dB/1 hr	•	FC, SC, ST, LC	(2) AA, AC	
OLS7-3			<b>♦</b>		<b>♦</b>	<b>♦</b>	1	Laser	-5	± 0.05 dB/1 hr	<b>♦</b>	FC, SC, ST, LC	(2) AA, AC	
OLS7-FTTH			•	<b>♦</b>	<b>♦</b>		1	Laser	-5	± 0.05 dB/1 hr	<b>♦</b>	FC, SC, ST, LC	(2) AA, AC	
CSS1-MM	<b>♦</b>	<b>♦</b>					1	LED	-20	± 0.1 dB/1 hr		SC (fixed)	(2) AA	
CSS1-SM			<b>♦</b>		<b>♦</b>		1	Laser	0	± 0.05 dB/1 hr		FC, SC, ST, LC	(2) AA	

#### 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 61, Table 2)	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	

#### Connector Adapters (D models starting February 2006)

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





January 17, 2022

## 5 YEAR WARRANTY

#### **Optical Power Meters (OPM and CSM1 Series)**

Quick Ref Guides (PDF format) are available in Chinese Simplified, Chinese Traditional, French, German, Italian, Japanese, Korean, Portuguese, Spanish and Turkish on <a href="https://www.AFLglobal.com">www.AFLglobal.com</a>.



OPM4

#### OPM models.

- Select one of the following adapter caps when ordering power meters: 2.5 mm, 1.25 mm, FC, SC, ST, LC.
- OPM5 models include TRM® 2.0 software (Basic License).
- For a list of all available adapter caps, see page 60.

When placing an order, select options as follows:

- Model Number (M)
- Detector Type (N)
- Connector Configuration (CC)



OPM5

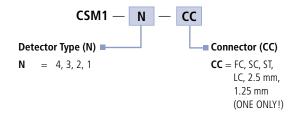
# OPM M — N — CC Model Number (M) — Connector (CC) M = 5, 4 CC = FC, SC, ST, LC, 2.5 mm, 1.25 mm N = 4, 3, 2, 1 (ONE ONLY!)

#### CSM1 models

- Select one of the following adapter caps when ordering power meters:
   2.5 mm, 1.25 mm, FC, SC, ST, LC.
- For a list of all available adapter caps, see page 60.

When placing an order, select options as follows:

- Detector Type (N)
- Connector Configuration (CC)





CSM1

	Ca	libra	itec	Wa	vel	eng	ths	(nm	)						Featu	res			
Model	650	099	780	850	086	1300	1310ª	1490	1550	1625	Detector Type	Measurement Range (dBm)	Units of Measure	Power	Set Ref.	PC S/W	Wave ID	Toneb	
OPM4-1D	•	<b>♦</b>	<b>♦</b>	<b>♦</b>							Silicon	+6 to -70	dB, dBm, W	(2) AA, USB	<b>♦</b>		<b>♦</b>	•	
OPM4-2D				<b>♦</b>		•	<b>♦</b>	<b>♦</b>	<b>♦</b>		Germanium	+6 to -60	dB, dBm, W	(2) AA, USB	<b>♦</b>		<b>♦</b>	<b>♦</b>	
OPM4-3D				<b>♦</b>		•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	InGaAs	+10 to -75	dB, dBm, W	(2) AA, USB	•		<b>♦</b>	<b>♦</b>	
OPM4-4D				<b>♦</b>	<b>♦</b>	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	InGaAs	+26 to -50	dB, dBm, W	(2) AA, USB	•		<b>♦</b>	<b>♦</b>	
OPM5-2D				<b>♦</b>		•	•	<b>♦</b>	<b>♦</b>		Germanium	+6 to -60	dB, dBm, W	(2) AA, USB	•	USB	<b>♦</b>	<b>♦</b>	
OPM5-3D				<b>♦</b>		•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	InGaAs	+10 to -75	dB, dBm, W	(2) AA, USB	•	USB	<b>♦</b>	<b>♦</b>	
OPM5-4D				<b>♦</b>	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	InGaAs	+26 to -50	dB, dBm, W	(2) AA, USB	•	USB	<b>♦</b>	•	
CSM1-3				<b>♦</b>		•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	InGaAs	+6 to -70	dB, dBm, W	(2) AA	<b>♦</b>			<b>♦</b>	
CSM1-4				<b>♦</b>	•	•	<b>♦</b>	<b>♦</b>	<b>♦</b>	<b>♦</b>	InGaAs	+26 to -50	dB, dBm, W	(2) AA	•			<b>♦</b>	

#### Notes:

- a. Optical Power Meters use a common calibration point for 1300 nm (multimode) and 1310 nm (single-mode).
- b. 270 Hz, 330 Hz, 1 kHz, and 2 kHz Tone detection.

#### **OPM Accessories**

AFL NO.	Description	OPM4D	OPM5D
6000-00-0024MR	USB Cable: PC (USB-A) to OPM (USB-MINI B):	External	Connect to PC and
	- Connect OPM to PC for data upload to TRM® 2.0	power only	external power
	- External Power for OPM (when used with customer supplied USB-A power source)		
	Note: OPM/OLS don't charge any rechargeable batteries!		



# FIBER IDENTIFICATION







January 17, 2022



### **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	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		Fiber ID mode: +10 to -35 dBm OPM mode: +10 to -75 dBm	2 X AA



MFT Multi-Fiber Tracer

#### **MFIS Ordering**

	1						
			Includ	es			
	Multi-Fiber Tester			Accesso	ories		
AFL NO.	MFT Tracer	MFI Identifier	MFP Power Meter	12-fiber Cable	One-Clicks	Soft Carry Case	
MFTI-12-BAS	<b>*</b>	<b>•</b>		<b>•</b>	<b>*</b>	<b>•</b>	
MFTP1-12-BAS	<b>*</b>		<b>•</b>	•	<b>♦</b>	<b>*</b>	
MFTIP1-12-BAS	<b>*</b>	•	<b>•</b>	•	•	<b>*</b>	
MFI1-00-0900MR		<b>•</b>					
MFP1-12-0900MR			•				



MFI Multi-Fiber Identifier

#### **MFIS Kits Order Entry**

MFTI-12-BAS-[C] MFTP1-12-BAS-[C] MFTIP1-12-BAS-[C]



MFP Multi-Fiber Power Meter

[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-BIPMe Optical Fiber Identifier

# Verify before disconnect! Avoid costly network disruption!



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.

#### **Specifications**

- Insertion Loss: 0.2 dB @1310 m
- Detection Sensitivity: -64 dBm @1310 nm, 250 μm fiber
- Detect up to four tones: 270Hz, 330Hz, 1KHz, and 2KHz
- Power Measurement: +10 to -73 dBm @1550 nm, 250 μm 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





January 17, 2022

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

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

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 F		Wavelength Range		Detectable Signals	
	MM fiber, 0.25 mm SM and SM ribbon fiber (up to 12 ribbon) 1.1 /1.5 /1.7 /2.0 /3.0 mm SM jacketed fiber	900-1700 nm	(2) AA	CW, Traffic or 270 Hz / 1 kHz / 2 kHz	
	MM fiber, 0.25 mm SM and SM ribbon fiber (up to 12 ribbon) 1.1 /1.5 /1.7 /2.0 /3.0 mm SM jacketed fiber	900-1700 nm	(2) AA	CW, Traffic or 270 Hz / 330 Hz / 1 kHz / 2kH	



OFI-BIPMe

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

AFL NO.	Adapter Type	Test Port	
BIPM-00-FC	FC	OPM (power meter)	
BIPM-00-SC	SC	OPM (power meter)	
BIPM-00-ST	ST	OPM (power meter)	
BIPM-00-LC	LC	OPM (power meter)	
BIPM-00-25	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.

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

#### OFI-200D and OFI-400 Accessories

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

OFI-200D OFI-400



# VFI4

# Compact Long-Range Red Laser Visual Fault Identifier



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

#### **Specifications**

- Emitter Type: Laser, Class IIIa FDA 21 CFR 1040.10 and 1040.11, Class 3R IEC, 60825-1:2014
- Wavelength: 650 nm ±15 nm
- Output Power: 5 mW Maximum
- Modulation: 2 Hz or CW selected
- Power 1 AA battery, <30 hours (flash mode)</li>
- 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.

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.



Contact sales@AFLglobal.com



## **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022



# VFI4

#### VFI4 Visual Fault Identifier

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 keychain, 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.

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

<sup>\*</sup> Safety: Class IIIa FDA 21 CFR 1040.10 and 1040.11, Class 3R IEC 60825-1:2007-03.

AFL NO.	Description	
VFI4-01-0900PR	VFI4 with 2.5 mm and 1.25 mm adapters	

#### **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® connectors.

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

<sup>\*</sup> 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	



January 17, 2022

#### **TEST MANAGEMENT AND REPORTING SOFTWARE**



Cloud-based Workflow Management Solution

#### aeRos® Cloud-based Test Management and Reporting

aeRos is the cloud-based solution that integrates every aspect of your testing process. aeRos lets you set up jobs before a truck ever rolls, monitor data and interact with technicians in real time, complete jobs faster, generate reports more efficiently, and get to revenue sooner.

- Seamless interaction with Android™ applications push jobs and equipment setup down to tech in the field no more mistakes and get test results real-time from anywhere in the world
- Run reports at the push of a button within seconds of completing the job users can run a report even before the technician leaves the job site
- Licensing flexible licensing supports individual users to full enterprise solution

#### aeRos Software Licensing

aeRos solution is available in two options: aeRos BASIC account and aeRos PRO account.

**aeRos® BASIC account** — Data Management solution that allows users to save their test data in the aeRos Cloud and then retrieve it from anywhere at any time with a standard Internet browser. **aeRos BASIC is free to all owners of AFL's ROGUE modular test equipment.** 

**aeRos® PRO account** — Workflow Management solution that allows users to manage their entire testing workflow and enables seamless and efficient communications and data management. aeRos PRO is available in annual and lifetime License configurations.

AFL NO.	Description	
aeRos-PRO-YRL	(1) Admin or Project Manager Seat plus (10) user seats, 1 year subscription	
aeRos-PRO-LFT	(1) Admin or Project Manager Seat plus (10) user seats, Lifetime subscription	



#### TRM® 2.0/3.0 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, macrobend 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.

#### TRM 2.0 Ordering (for use with M-series and FlexTester OTDRs and OPM5 Power Meter)

AFL NO.	Description	
TRM-00-0900PR	TRM 2.0 with Basic License (OTDR Trace/OLTS Viewer, Batch Editor and Reports), USB delivery	
TRM-01-0900PR	TRM 2.0 with Basic License (OTDR Trace/OLTS Viewer, Batch Editor and Reports), email delivery	
TRM-00-0910PR	TRM 2.0 with Advanced License (TRM 2.0 Basic plus Advanced Analysis), USB delivery	
TRM-01-0910PR	TRM 2.0 with Advanced License (TRM 2.0 Basic plus Advanced Analysis), email delivery	
TRM-00-0920PR	TRM 2.0 upgrade from Basic to Advanced License, USB delivery	
TRM-01-0920PR	TRM 2.0 upgrade from Basic to Advanced License, email delivery	

#### TRM 3.0 Ordering (for use with FlexScan OTDRs, ROGUE OLTS Certifier, and FOCIS family products)



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	
N/A	FlexScan App download from 'iOS App Store' or 'Google play' store	





January 17, 2022

#### **ADAPTER CAPS & ACCESSORIES**

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

AFL's standard thread-on adapter caps are used to mate non-angled and angled single-fiber and dual-fiber connectors to optical power meter ports on OPM/CSM series power meters and inspection ports on OFS300-200C microscopes.

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	

#### Adapter Caps for OFS300-200 Only

AFL's thread-on angled and multifiber adapter caps are used to mate angled single-fiber as well as angled or non-angled multifiber connectors to our OFS 300-200C microscopes.

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

AFL NO.	Description	
8800-00-0220	Angled SC	
8800-00-0218	Angled FC	
8800-00-0233	MTP®/MPO flat ferrule (0°), typically MM	
8800-00-0234	MTP®/MPO angled ferrule (8°), typically SM	
8800-00-0236	1.25 mm open Universal <sup>b</sup>	
8800-00-0219	2.5 mm open Universal.(accepts SC duplex, OptiTap)	
8800-00-0244	1.6 mm ferrule (pin)	
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)	

- a. 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.
- b. For Inspecting backplane and duplex connectors with 1.25 mm ferrules such as LC and MU. Not recommended for measuring optical power.





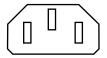
January 17, 2022

#### **Test Jumpers**

AFL NO.	Description				
Multimode Test Jun	Multimode Test Jumpers (62.5/125 μm - 2 meters)				
8700-00-0053MR	SC/SC				
8700-00-0045	SC/ST				
8700-00-0003	ST/ST				
Single-mode Test Ju	ımpers (9/125 μm - 2 meters)				
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				
MPO Test Jumpers					
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, OLTS5, OLS1-1C/2C, T400/500B, VFS2, VOA5 Series)



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	Description	
6000-00-0001MR	USA	3-conductor, IEC320, 115V, Type K	
6000-00-0012MR	Euro	3-conductor, IEC320, 250V, Type B	
6000-00-0015MR	UK	3-conductor, IEC320, 250V, Type D	
6000-00-0016MR	Australia, China	3-conductor, IEC320, 250V, Type C	
6000-00-0017MR	Denmark	3-conductor, IEC320, 250V, Type E	
6000-00-0018MR	Japan	2-conductor, IEC320, 125V, Type M	
6000-00-0019MR	Swiss	3-conductor, IEC320, 250V, Type L	
6000-00-0020MR	Italy	3-conductor, IEC320, 250V, Type I	
6000-00-0021MR	Israel	3-conductor, IEC320, 250V, Type H	
6000-00-0022MR	India	3-conductor, IEC320, 250V, Type G	

#### **Mating Adapters**

Adapters listed below are recommended for both multimode and single-mode 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

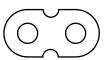
Mandrels are used to meet the transmit jumper mandrel-wrap requirements of TIA/EIA-568 B.3 (Section 7.1) when testing multimode links using an LED source.

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	Description		
6000-12-0001MR	USA	2-conductor, IEC 320-C7, Type N		
6000-12-0002MR	Euro	2-conductor, IEC 320-C7, Type A		
6000-12-0003MR	UK	2-conductor, IEC-320-C7, Type D		
6000-12-0004MR	Australia, China	a 2-conductor, IEC-320-C7, Type P		
6000-12-0005MR	India	2-conductor, IEC-320-C7, Type G		
6000-12-0006MR	Japan	2-conductor, IEC-320-C7, Type M		





January 17, 2022

#### **Accessories for Discontinued Products**

AFL NO.	Description			
C850 OTDR, C840	and C880 Accessories and Connector Ad			
4050-00-0122PR	Vehicle charger/supply, 18 V, 6.7 A, 120 W			
4050-00-0918PR	AC charger 100-240 VAC to 18 VDC (a)			
3900-05-0004ME	C850 Li-lon battery			
4050-30-0005MR	C850 Li-lon battery charger 90-260 VAC (b)			
3900-05-0001PE	C840, C880 Li-lon battery			
6000-00-0027MR	Cable, USB-MINI B (connect to PC)			
TRM-00-0920PR	TRM® 2.0 software upgrade, Basic to Advanc	ed		
8800-00-0072PR	Universal flip-top dust cap for UCI outputs			
2900-50-0002MR	FC adapter for OTDR/OLS port			
2900-50-0003MR	SC adapter for OTDR/OLS port	C850,		
2900-50-0004MR	ST adapter for OTDR/OLS port	C840, C880		
2900-50-0006MR	LC adapter for OTDR/OLS port	C000		
8800-00-0200	FC adapter for OPM port			
8800-00-0209	SC adapter for OPM port	]		
8800-00-0202	ST® adapter for OPM port	1		
8800-00-0225	LC adapter for OPM port	COEO		
8800-00-0214	2.5 mm adapter for OPM port	C850		
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			
2900-52-0004MR	LC adapter for OPM port	C840,		
2900-52-0005MR	2.5 mm Universal adapter for OPM port	C880		
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			
CS260, FLX380, OF	L250, OFL280 Series Accessories and Co	nnector A	dapters	
6000-00-0024MR	Cable, USB-MINI B (connect to PC)			
4050-00-0927PR	AC charger 100-240 VAC to 15 VDC (a)			
4050-30-0005MR	Li-lon battery charger 90-260 VAC (b)			
3900-05-0003ME	Li-lon battery pack			
1400-01-0123PZ	Soft carry case			
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			
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			

AFL NO.	Description	Model		
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			
M210e/M310/M70	0/M710 OTDR Accessories and Connecto	or Adapters		
4050-00-0918PR	AC charger <sup>a</sup> , 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-lon battery	M310		
6000-00-0024MR	Cable, USB-MINI B (connect to PC)			
1400-01-0067	Soft Case			
1400-01-0082PZ	Soft carry case	M700,		
3900-05-0004ME	Li-lon battery	M710		
4050-30-0005MR	Li-lon battery charger 90-260 VAC (a)			
6000-00-0027MR	Cable, USB-MINI B (connect to PC)			
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, M710		
2900-50-0006MR	LC adapter for OTDR port	1117 10		
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	M310		
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			
8800-00-0200	FC adapter for OPM port	M700,		
8800-00-0209	SC adapter for OPM port	M710		
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			

a. Specify power cord, see page 61, Table 1.

b. Specify power cord, see page 61, Table 2





January 17, 2022

#### **Accessories for Discontinued Products**

AFL NO.	Description Model			
OFS300 Microscope Accessories and Adapter Caps				
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			
8800-00-0219	2.5 mm open Universal <sup>c</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			
8800-00-0220	Angled SC			
8800-00-0218	Angled FC			
8800-00-0234	MTP®/MPO angled ferrule (8°), typically SM			
8800-00-0233	MTP®/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)			
8800-00-0244	1.6 mm ferrule (pin)			
8800-00-0248	2.0 mm ferrule (pin)			
8800-00-0223	1.0 mm bare fiber (plastic)			
SVA1 Accessories a	and Connector Adapters			
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			

- a. Specify power cord, see <a href="page 61">page 61</a>, Table 1.
- b. 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.
- c. Specify power cord, see <a href="page 61">page 61</a>, Table 2.





January 17, 2022

#### **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 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	
OTDRs, FlexTesters	C850*	
	FlexScan® TS100, FS300, FS200-50B/-60/-300/-100/-304 without OLS/OPM	
	FlexScan TS100, FS300, FS200-50/-60/-300/-100/-304 with OLS/OPM	
	FLX380, M210, M210e, M310, M710, OFL280, OFL250*, RG-2100	
OTDR and Certification Kits	C860*	
Certification and Loss/Return Loss Kits (Pairs)	C840*, C880*	
ROGUE® OLTS Certifier Kits (Pairs)	RGK-CERTxx, RGK-CERTxxB1	
ROGUE OLTS Certifier Modules	RG-1100-xxx	
FlowScout PON Power Meter	TPPM-XG	
Power Meters	CSM1, OPM, MFP	
Light Sources	CSS1, OLS (except OLS1-2C* and OLS1-1C*), MFT	
Light Sources - Encircled Flux (EF) Compliant	OLS1-DL-EF, OLS4-EF	
Optical Fiber Identifiers	OFI, MFI	

- \*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





January 17, 2022

#### **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 260 Parkway East Duncan, SC 29334 Attn: Calibration and Repair (800)866-3602 https://www.aflglobal.com

#### Canada

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

#### **Poland**

INTERLAB
Kosiarzy 37/20 street
02-953 Warsaw, Poland
+48 840 8180
service@interlab.pl
https://www.interlab.pl/service.html

#### Romania

TeleGrup 8A, Episcopul Radu Street Sector 2, 020753 Bucuresti, Romania +40 21 318 7431 vanzari@tele-grup.ro www.tele-grup.ro

#### Europe

Fujikura Europe Ltd
C51 Barwell Business Park
Leatherhead Road
Chessington, Surrey, KT9 2NY
+44 208 240 2020
service@fujikura.co.uk
https://www.fujikura.co.uk

#### Saudi Arabia

BrightWires
Qaatan Plaza 1st Floor
PO Box 56219
Sulimaniya Riyadh 11554
Saudi Arabia
+966 11 2176265
asim@brightwires.com.sa
http://www.brightwires.com.sa

#### Dubai

Arabian Calibration Dev. Rep. Co. LLC (ARABCAL)
Industrial Area #13
Near National Paints R/A,
P.O.Box: 24650, Sharjah
UAE
+971 6 5345747
cs@arabcal.com
http://www.arabcal.com

#### Asia

Fujikura Asia Ltd 438A Alexandra Road, #08-03 Blk A, Alexandra TechnoPark Singapore 119967 +65 62711312 calibration.fal@sg.fujikura.com http://www.fujikura.com.sg

#### **Turkey**

BS Telekom Ltd.
Erenkoy Mah. Igdelidere Cad. 1494. Sok. No. 12
38050 Melikgazi- Kayseri Turkey
+90 352 222 82 03
s.ugur@bstelekom.com
http://www.bstelekom.com

#### **Australia / New Zealand**

AFL Technical Services
93-97 Merrindale Drive
Croydon, Victoria
Australia, 3136
+61 3 9737 4209
austechservices@aflglobal.com
https://www.aflglobal.com





January 17, 2022

#### **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 warrantied 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



### **Test & Inspection**

#### **Buyer's Guide**

January 17, 2022

#### **TERMS AND 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.

- 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.





January 17, 2022

## **CHANGES IN THE CURRENT REVISION, JANUARY 2022**

#### **Removed Products**

AFL NO.	Description		
DFS1 Digital FiberScop	DFS1 Digital FiberScope		
DFS-00-04XU	DFS1 PC/UPC Kit		
DFS-00-04XA	DFS1 APC Kit		
DFS-00-04XN	DFS1 kit without adapters		
DFS1-04-0001MZ	Soft carry case for DFS1 Digital FiberScope and adapters		
1400-01-0093MZ	6-compartment adapter tip storage box		
1400-01-0094MZ	11-compartment adapter tip storage box		
DFS1-001-00	Digital FiberScope display software update for M series OTDR		
SP2-DFS1-04X	2-year Service Plan for DFS1 kits - Includes free repair or replace, if your DFS1 kit is found defective.		
Cleaning Supplies	Cleaning Supplies		
FCC2-10-0902	Enhanced Formula, (10 oz/283 g) Fiber Connector Cleaner and Preparation Fluid (1 can)		
FCC2-10-0903	Enhanced Formula, (10 oz/283 g) Fiber Connector Cleaner and Preparation Fluid (case of 12 cans)		
8500-25-0900MZ	OPTIPOP-C: Includes card cleaner case, 10 cleaning cards, 120 cleans - 12 cleans per card		
9000-03-0030MZ	CleanWipes - 3200 optical quality wipes (1 box)		
8500-25-0901MZ	OPTIPOP-C refills: Includes 100 cleaning cards, 1200 cleans - 12 cleans per card		





**TEST & INSPECTION**