AFL

CLEANING & INSPECTION

Dry Cleaning Solutions | Wet Cleaning Solutions | Cleaning Kits

FOCIS Duel™ | FOCIS Flex | FOCIS WiFi2

Founded in 1984, AFL is an international manufacturer
providing end-to-end solutions to the energy, service provider,
enterprise and industrial markets as well as several emerging markets.

AFL's products are in use in over 130 countries
and include fiber optic cable and hardware, transmission and
substation accessories, outside plant equipment, connectivity,
test and inspection equipment, fusion splicers and training.

AFL also offers a wide variety of services supporting
data center, enterprise, wireless and outside plant applications.

AFL is dedicated to bringing our customers
a quality product as well as delivering superior value.

Table of Contents

Fiber Optic Connector Inspection

One-Click® Cleaner Series

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

Features

- Cleans connectors on jumpers and in adapters
- Effective on a variety of contaminates including dust and oils
- Ergonomic, comfortable design with single action cleaning
- Each clean is performed with fresh cleaning tape
- Compliant with EU/95/2002/EC Directive (RoHS)
- Several models available for a variety of single and multi-fiber connectors
- Low cost per clean

SC/ST/FC   MU/LC   ODC   MT-RJ

Mini-100 SC, ST, FC   Mini-100 MU/LC

Mini-500 SC, ST, FC   Mini-500 MU/LC

The Original One-Click Cleaner

The One-Click Cleaner is an easy-to-use option for cleaning connectors on jumpers and in adapters. Simply insert the One-Click Cleaner into an adapter and push until an audible "click" is heard. The One-Click Cleaner uses the mechanical push action to advance an optical grade cleaning tape while the cleaning tip is rotated to ensure the fiber end-face is effectively, but gently cleaned. The One-Click Cleaner is a must-have for field technicians. Small enough to fit in a shirt pocket and a great addition to cleaning kits. Save your wrist – no more twist!

Rugged ODC Version

With the increasing demand of Outdoor Connector (ODC) plug and socket styles, the ODC One-Click Cleaner, which cleans the ferrules in ODC plug, socket and 1.25 mm ferrules, is an essential cleaning tool for WiMax Base Station, Fiber-to-the-Antenna, Broadcasting and Surveillance Video technicians.

Compact One-Click Cleaner Mini

Offering the same technology and performance as the original, the One-Click Cleaner is now available in a smaller, more compact size, which allows for cleaning of connectors in tighter places. Its smaller size also makes it a great addition to test kits and cleaning kits. The One-Click Mini that is offered by AFL as a low cost solution with 100+ cleans per unit is now also available with same 500+ cleans per unit as the standard One-Click. The One-Click Mini is an effective, easy-to-use cleaning solution for SC, ST, FC, LC, MU and TFOCA connectors.

One-Click MT-RJ

The One-Click MT-RJ (Mechanical Transfer Registered Jack) is designed to clean both fibers of this small form factor connector. It complies with the EU/98/2002/EC RoHS directive and accommodates both male (pinned) and female (socketed) connectors with PC/UPC ferrules.

2

One-Click® Cleaner Series

One-Click Ultra Cleaner 2.5

The One-Click Ultra Cleaner 2.5 has an enlarged cleaning area to clean more of the connector end-face. Cleaning up to a 2 mm diameter area of the connector end-face, the One-Click Ultra Cleaner 2.5 is a superior cleaner for SC, ST, and FC connectors.

One-Click Cleaner D-LC (Duplex LC)

Reduce cleaning time with the new One-Click Cleaner D-LC. Offering the same performance and easy-to-use one-click technology as the original, the One-Click Cleaner D-LC cuts cleaning time in half by effectively cleaning both LC connectors of a duplex LC at one time. 500+ duplex LC cleans per cleaner (1000+ LC connector cleans).

One-Click Cleaner MPO

Designed to clean MPO/MTP® multi-fiber connectors used in Data Centers and other high density optical networks, the One-Click Cleaner MPO is a revolutionary push-type cleaner, which simplifies cleaning of the ferrule end-face of both MPO/MTP exposed connectors and connectors in adapters.

One-Click MPO-16

The One-Click MPO-16 is intended for the cleaning of 16-fiber MPO/MTP connectors, both pinned (male) and socketed (female). MPO-16 is used with IEEE 802.3bs 400G trunk cabling with each fiber carrying 25 Gbps data signals (400GBASE-SR16 for example), among other applications.

D-LC   Ultra 2.5

MPO   MPO-16

Ordering Information

DESCRIPTION	AFL NO.
One-Click Cleaner SC, ST, FC (500+ cleans)	8500-05-0001MZ
One-Click Cleaner MU/LC (500+ cleans)	8500-05-0002MZ
One-Click Cleaner ODC, outdoor connector (500+ cleans)	8500-05-0004MZ
One-Click Cleaner Mini-100 SC, ST, FC (100+ cleans)	8500-05-0005MZ
One-Click Cleaner Mini-100 MU/LC (100+ cleans)	8500-05-0006MZ
One-Click Cleaner Mini-500 SC, ST, FC (500+ cleans)	8500-05-0009MZ
One-Click Cleaner Mini-500 MU/LC (500+ cleans)	8500-05-0010MZ
One-Click Ultra Cleaner 2.5 (enlarged cleaning) SC, ST, FC (500+ cleans)	8500-05-0007MZ
One-Click Cleaner D-LC, Duplex LC (2 x 500+ cleans)	8500-05-0008MZ
One-Click Cleaner MPO (500+ cleans)	8500-05-0030MZ
One-Click Cleaner MPO-16 (500+ cleans)	8500-05-0013MZ
One-Click Cleaner MT-RJ (500+ cleans)	8500-05-0031MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

Cletop -S Series

Cletop Series

Cletop Cassette Cleaner Series

The Cletop connector cleaner is a rugged palm-sized cleaner that offers exceptional performance with a proven track record. The choice of many leading manufacturers and telecom carries worldwide for nearly 20 years – Cletop is a name you can rely on.

Why Clean Fiber Connectors?

- Pits and scratches are often caused by dirt
- Dust, dirt, oils, etc. are everywhere and will migrate to exposed connector end-faces
- Dirty connectors attenuate signal levels and can increase digital bit error rates
- Always clean both connectors when mating / unmating to avoid contamination transfer

Cletop Cassette Cleaner Options

- Cletop Series - Original version (proven reliability)
- Cletop –S Series - Second generation cleaner offering the same Cletop cleaning performance with "Drop-in" replacement tape cartridge and ergonomic design that works equally well for left or right handed operators
- Type A and -SA - Designed for single 2.5mm ferrules (SC, FC, ST, & D4)
- Type B and -SB - Cleans SC, SC2, FC, ST®, DIN, D4, MU, LC, MT, MPO/MTP® without pins, MT-RJ without pins
- Type MPO - Accepts MPO/MTP connectors with pins
- Type MT-RJ - Accepts MT-RJ connectors with pins

Features

- Compact and lightweight design is ideal for use in laboratories, assembly lines, or in the field
- Consistent cleaning results without IPA alcohol, which is toxic, flammable, and leaves a residue on fiber ends (white haze)
- Excellent anti-static properties for static sensitive applications and to minimize reattachment of dust to ferrule after cleaning
- Simple push button shutter operation exposes cleaning tape only when in use – minimizing unwanted dust
- Replaceable and cost effective cleaning tape
- Over 400 wipes per tape

Cletop Cassette Cleaner Series

Specifications

Size	130 x 75 x 40 mm (5.1 x 3.0 x 1.6 in)
Weight	160 g/0.35 lb

Ordering Information

DESCRIPTION	AFL NO.
CLETOP – S SERIES	
Cletop -SA with Blue Tape	8500-10-0020MZ
Cletop -SB with Blue Tape	8500-10-0029MZ
Cletop -SB with White Tape	8500-10-0016MZ
Replacement Tape Type S - Blue	8500-10-0021MZ
Replacement Tape Type S - White	8500-10-0017MZ
CLETOP ORIGINAL SERIES	
Cletop Type A with Blue Tape	8500-10-0027MZ
Cletop Type A with White Tape	8500-10-0011MZ
Cletop Type B with Blue Tape	8500-10-0028MZ
Cletop Type B with White tape	8500-10-0014MZ
Cletop for MT-RJ with pins (White Tape)	8500-10-0032MZ
Cletop for MPO/MTP with pins (White Tape)	8500-10-0033MZ
Replacement Tape Blue	8500-10-0012MZ
Replacement Tape White	8500-10-0015MZ

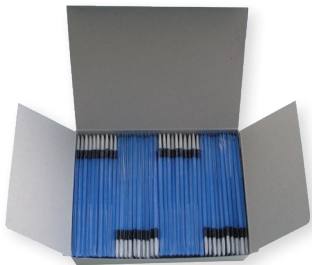**International Sales and Service Contact Information**

Available at www.AFLglobal.com/Test/Contacts

Type 2.5 mm

Type 1.25 mm

Cletop Adapter Cleaning Sticks

Cletop (ACT) adapter cleaning sticks are an easy to use efficient means of cleaning fiber optic connectors in adapters and cleaning adapter alignment sleeves. Cletop sticks are available in sizes for most common commercial connectors (ST, SC , FC, LC, MU), military connectors, and LEMO connectors for video applications. When connectors need to be cleaned inside adapters, you can rely on the Cletop stick.
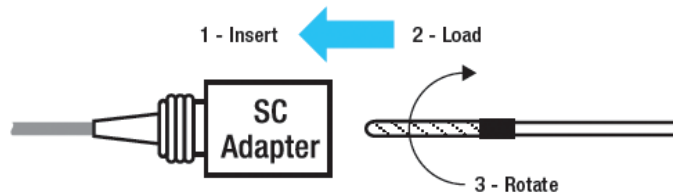
Features

- Easy to use and efficient. Delivers a consistently high level of cleaning performance
- Easy to clean ferrule end-faces inside the plug-in fiber optic connectors and various adapters
- Lightweight and safe to use. Compact and disposable
- Suitable for cleaning inside adapters for dust control

Ordering Information

DESCRIPTION	CONNECTORS	AFL NO.
ACT-01 — 2.5 mm Cletop Sticks (Box of 200)	FC, SC, ST, D4	8500-10-0024MZ
ACT-02 — 1.25 mm Cletop Sticks (Box of 200)	LC, MU	8500-10-0022MZ
ACT-03 — 2.0 mm Cletop Sticks (Box of 200)	Military termini, high definition television camera connectors such as LEMO	8500-10-0023MZ
Double-ended 2.0/2.5 mm Cletop Sticks (Box of 100)		8500-10-0030MZ

Recommended Cleaning Procedure for ACT Cleaning Sticks

Procedure:

1. **Insert:** Ensure that stick is held straight when inserting into sleeve.
2. **Load:** Apply sufficient pressure (approximately 600-700 g) to ensure ferrule is a little depressed in sleeve.
3. **Rotate:** Rotate stick clockwise 4-5 times while ensuring direct contact with ferrule end-face is maintained.

Notes:

1. Number of possible wipes:
   - Maintenance (repair): approximately 1 use
   - Equipment construction: 4 uses (max.)
2. FCC2 Fluid will improve cleaning performance.

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

NEOCLEAN Fiber Connector Cleaning Tools

NEOCLEAN-E

NEOCLEAN-M and NEOCLEAN-M2

Features

- Simple push action
- Replaceable cleaning cartridge (NEOCLEAN-E)
- NEOCLEAN-E: 750+ cleans per cartridge; low cost per clean
- NEOCLEAN-M: 600+ cleans per cartridge; low cost per clean
- NEOCLEAN-M2: 600+ cleans per cartridge; low cost per clean
- RoHS Compliant

Applications

- Cleans connectors on jumpers or in adapters
- NEOCLEAN-E for SC, FC, ST, E2000, LC and MU connectors with UPC or APC polishes
- NEOCLEAN-M for MPO and MTP® connectors
- NEOCLEAN-M2 for MPO-16 and MTP-16® connectors
- Fiber network patch panels
- FTTX, Data centers, Central office
- Cable assembly manufacturing
- Suitable for field or laboratory use

NEOCLEAN-E

The NEOCLEAN-E uses a simple one-push action to quickly and effectively clean contamination from the end-face of connectors on jumpers or in adapters, reducing cleaning time. It is effective for removing oil, dust, and dirt particulates that can have a negative impact on fiber optic network performance. The replaceable cleaning cartridge can perform 750 cleans, reducing cleaning cost. Available for SC, FC, ST, E2000, LC and MU connectors with UPC or APC polishes.

NEOCLEAN-M

The NEOCLEAN-M is designed for cleaning MPO and MTP® multi-fiber connectors used in Data Centers and other high density optical networks. It uses a one-push operation, which simplifies cleaning of the ferrule end-face of both MPO and MTP exposed connectors and connectors in adapters. The one-push operation advances the specially designed microfiber tape while effectively and gently cleaning the of the connector.

NEOCLEAN-M2

The NEOCLEAN-M2 is designed for cleaning MPO-16 and MTP-16® multi-fiber multi-row connectors used in data centers and other high density optical network environments. It uses a one-push operation, which simplifies cleaning of the ferrule end-face of both MPO-16 and MTP-16 exposed connectors and connectors in bulkhead adapters. The one-push operation advances the specially designed microfiber tape while effectively and gently cleaning the connector.

NEOCLEAN Fiber Connector Cleaning Tools

Specifications

PRODUCT	NEOCLEAN-E1	NEOCLEAN-E2	NEOCLEAN-E3	NEOCLEAN-M	NEOCLEAN-M2
Applicable Connectors	MU, LC UPC/APC	SC, FC UPC/APC	SC, FC, ST, E2000 UPC/APC	MPO/MTP	MPO/MTP
Number of Cleans	>750	>750	>750	>600	>600
Cleaning Area	0.5 mm	0.8 mm	0.8 mm		
Length (Main Unit)	240 mm	230 mm	230 mm	197 mm	197 mm
Length (Refill Cartridge)	190 mm	190 mm	190 mm	N/A	N/A

Ordering Information

MODEL	APPLICABLE CONNECTORS & DESCRIPTION	AFL NO.
NEOCLEAN-E1	For MU, LC (UPC/APC polishes) connectors	8500-15-0900MZ
NEOCLEAN-E2	For SC, FC (UPC/APC polishes), OptiTap connectors	8500-15-0901MZ
NEOCLEAN-E3	For SC, ST, FC, E2000 (UPC/APC polishes), OptiTap connectors	8500-15-0902MZ
NEOCLEAN-ES1	Pack of 3 replacement cartridges for NEOCLEAN-E1	8500-15-0903MZ
NEOCLEAN-ES2	Pack of 3 replacement cartridges for NEOCLEAN-E2	8500-15-0904MZ
NEOCLEAN-ES3	Pack of 3 Replacement cartridges for NEOCLEAN-E3	8500-15-0905MZ
NEOCLEAN-M	For MPO/MTP connectors	8500-15-0909MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

OPTIPOP-C

Features:

- High performance cleaning cloth captures dirt particulates
- Minimizes static attraction
- Available for SC, FC, ST, LC and MU connectors with UPC or APC polishes.
- Accommodates LC, MU and SC duplex connectors
- Suitable for laboratory or field use
- Refillable cards with 12 cleanings per card

Card Cleaner for Fiber Optic Connectors

The OPTIPOP-C cloth card cleaner uses a unique, densely woven micro fiber cloth that provides a superior connector cleaning performance. It minimizes static charge to ensure that dust and dirt particles are not instantly attracted back to the connector end-face. The card cleaner effectively removes contaminants such as oil, dust and dirt particulates that cause high insertion loss and reflectance that lead to connector damage and network failures.

Ordering Information

MODEL	DESCRIPTION	DIMENSIONS	AFL NO.
OPTIPOP-C	OPTIPOP Card Cleaner case, 10 cleaning cards, 120 cleanings - 12 per card	57 x 120 x 16 (mm)	8500-25-0900MZ
OPTIPOP-C Refills	OPTIPOP Refill Cards, 100 cards, 1200 cleanings - 12 cleanings per card		8500-25-0901MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FOLS FIBER OPTICS LAN SECTION

Bicsi CORPORATE MEMBER

FTTH COUNCIL

OPTIPOP-R Cassette Cleaner Series

OPTIPOP-R is a family of refillable cassette cleaners intended for use on the exposed ferrules of fiber optic connectors. The pre-washed micro-fiber cloth tape captures microscopic dust, particulate debris, oil and other contaminants to help ensure IEC 61300-3-35 and IPC end-face quality standards compliance. Constructed of tough ABS resin impregnated with an anti-static agent, the OPTIPOP-R cleaners are perfect for both inside and outside plant applications.

Features

- Cleans the exposed ferrule end-faces of fiber optic connectors
- More than 400 cleans per tape
- Replaceable tape reels reduce the cost per clean
- Dense weave white micro-fiber cleaning fabric eliminates electrostatic charge
- One and two slot models for cleaning all popular single and multi-fiber connector types including MU and LC duplex, male and female MPO/MTP®
- Trusted brand field-proven by technicians through years of service

Applications

- FTTx drop cable installation and service restoration
- Data center fiber trunk turn-up and maintenance
- Pre-terminated cable production
- Electro-optic test and calibration laboratories and clean rooms
- Cable head-end and central office optical equipment upgrades

Specifications

Size	124 x 83 x 35 mm (4.9 x 3.3 x 1.4 in)
Weight	150 g / 0.33 lb

Ordering Information

Four OPTIPOP-R models are available:

- OPTIPOP-R1 with one slot, for 1.25 mm and 2.5 mm ferrule connectors (SC, FC, ST, MU, LC, MT), MPO/MTP® without pins (female), and MT-RJ without pins (female)
- OPTIPOP-R2 with two slots, for 1.25 mm and 2.5 mm ferrule connectors (SC, FC, ST), and simplex/duplex MU and LC
- OPTIPOP-R3 with one slot, for MPO/MTP connectors with pins (male)
- OPTIPOP-R4 with one slot, for MT-RJ connectors with pins (male)

DESCRIPTION	AFL NO.
OPTIPOP-R1, one slot, SC, FC, ST, MU, LC, MT, MPO/MTP no pins, MT-RJ no pins	8500-11-0050MZ
OPTIPOP-R2, two slots, SC, FC, ST, simplex and duplex MU and LC	8500-11-0051MZ
OPTIPOP-R3, one slot, for MPO/MTP with pins (male)	8500-11-0052MZ
OPTIPOP-R4, one slot, for MT-RJ with pins (male)	8500-11-0053MZ
OPTIPOP-RR, replacement reel (1 reel)	8500-11-0057MZ
OPTIPOP-RS, replacement reels (6 reels per set)	8500-11-0058MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

Contains 3,200 Cleanings

Contains 600 Cleanings

CleanWipes™

Features

- High-modulus cleaning material won't rip, tear, shred or lint
- Super-soft material won't scratch end-faces
- Static-dissipative material eliminate static
- Color-coded CleanSlots™ monitor the cleaning process
- Large 3200 cleans box for high volume, high-speed cleaning required by fiber optic patch cord and components manufactures
- Smaller 600 cleans box is perfect for field technicians

CleanWipes

Sticklers™ brand CleanWipes are a convenient cleaning tool designed for high-speed cleaning of optical jumpers and patch cords. Its designs enables technicians to clean fiber optic end-faces at the lowest possible cost per clean.

The exclusive, static-dissipative, high-modulus fabric cleaning material will not tear or shred away even when cleaning LC connectors. The highly absorbent material is very soft, will not scratch connectors and delivers superior cleaning results.

The color-coded CleanSlots tracks remind technicians to never re-use a wipe, eliminating cross-contamination. The box design also eliminates the chance of cleaning on an already used wipe and minimizes fingertip contamination.

The CleanWipes system offers a simple, fast and disciplined cleaning process that delivers perfectly clean connectors. Better cleaning makes networks run faster and avoids expensive service calls.

Ordering Information

MODEL	DESCRIPTION	AFL NO.
CleanWipes 600	CleanWipes - box with 600 optical quality wipes	9000-03-0031MZ
CleanWipes 3200	CleanWipes - box with 3200 optical quality wipes	9000-03-0030MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

Kimwipes

Kimwipes are specially designed paper wipes which can be used for cleaning laboratory equipment and instruments, camera lens, fiber optic connectors and other electronic items. These delicate task wipes have been specially designed for cleaning those surfaces where the presence of minimal lint or dust can interfere with the normal functioning of the equipment or electronic item. Kimwipes are extremely useful wherein even the slightest contamination introduced by a cleaning medium like cloth or tissue paper can lead to serious errors or abrasion to the equipment. Kimwipes are an ideal cleaning solution for laboratories and manufacturing facilities.

Kimwipes have a high tensile strength which reduces tearing during cleaning yet are soft and non-abrasive. These wipes are also highly absorbent allowing them to be used for wet cleaning of fiber optic connectors with the FCC2 Fiber Optic Cleaning Fluid or as a dry cleaning solution. Use Kimwipes with the FPF1 Fiber Preparation Fluid for cleaning fibers before fusion splicing and terminating connectors.

Features

- High quality low lint wipe
- Soft and non-abrasive
- Extremely absorbent
- 280 wipes per box

Applications

- Ideal for laboratories and manufacturing facilities
- Wet or dry cleaning for fiber optic connectors
- Fiber preparation before splicing or terminating connectors
- Cleaning of laboratory equipment and electronics

Ordering Information

DESCRIPTION	AFL NO.
Kimwipes box of 280 wipes	9000-03-0002

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FCC2 Enhanced Fiber Connector Cleaner and Preparation Fluid

FCC2 Enhanced Fiber Connector Cleaner is a nonflammable, environmentally safe, residue-free solvent engineered to clean fiber connector end-faces and bare fiber before field terminating or fusion splicing. The 3-way dispenser is intended for easy one-handed use with fiber wipes, convenient wetting of CCT connector cleaning tips, and spray nozzle functionality. Packaged in unique, spill-proof containers, it can be shipped with connector cleaning and termination kits so technicians avoid wasting time sourcing a cleaner locally. Offering high purity and fast consistent cleaning, FCC2 was developed with and is packaged by Micro Care Corporation, a world leader in cleaning solvents.

Features

- Not Hazardous/Not Regulated for all modes of transport, including air cargo
- Unique dispenser for use with AFL Connector Cleaning Tips and FiberWipes
- Up To 400+ cleanings per can
- Dries without a residue, unlike alcohol
- Dissipates static charge
- Safe on all surfaces including soft plastics

Applications

- Cleans all types of connector end-faces
- Cleans bare fiber before field terminating or fusion splicing
- Removes oils, salts, dust, dirt and uncured epoxies
- Safe on glass, ceramic, metal, plastic optical fiber
- Compact size fits easily into tool kits, instrument cases, termination kits, and inspection kits
- Perfectly cleans all optic components

EU RoHS and WEEE Compliant

FCC2 is certified as a lead-free product and meets RoHS and WEEE standards.

Health and Safety Data

Flashpoint (TCC)	None
Weight	3 oz / 85 g
Safety Rating	Nonflammable
NFPA	Health: 3	Fire: 1	Instability: 0
HMIS:	Health: 1	Flammability: 1	Physical: 0
Transportation	Not regulated

Ordering Information

DESCRIPTION	AFL NO.
Fiber Connector Cleaner and Preparation Fluid in 3 oz / 85 g can	FCC2-00-0902
Fiber Connector Cleaner and Preparation Fluid , Case of 12 cans	FCC2-00-0903

FCC2 Enhanced Fiber Connector Cleaner and Preparation Fluid 10 oz Can

FCC2 Enhanced Fiber Connector Cleaner is a nonflammable, environmentally safe, residue-free solvent engineered to clean fiber connector end-faces and bare fiber before field terminating or fusion splicing. The 3-way dispenser is intended for easy one-handed use with fiber wipes, convenient wetting of CCT connector cleaning tips, and spray nozzle functionality. Packaged in unique, spill-proof containers, it can be shipped with connector cleaning and termination kits so technicians avoid wasting time sourcing a cleaner locally. Offering high purity and fast consistent cleaning, FCC2 was developed with and is packaged by Micro Care Corporation, a world leader in cleaning solvents.

Features

- Not Hazardous/Not Regulated for all modes of transport, including air cargo
- Unique dispenser for use with AFL Connector Cleaning Tips and FiberWipes
- Up To 1300+ cleanings per can
- Dries without a residue, unlike alcohol
- Dissipates static charge
- Safe on all surfaces including soft plastics

Applications

- Cleans all types of connector end-faces
- Cleans bare fiber before field terminating or fusion splicing
- Removes oils, salts, dust, dirt and uncured epoxies
- Safe on glass, ceramic, metal, plastic optical fiber
- Compact size fits easily into tool kits, instrument cases, termination kits, and inspection kits
- Perfectly cleans all optic components

EU RoHS and WEEE Compliant

FCC2 is certified as a lead-free product and meets RoHS and WEEE standards.

Health and Safety Data

Flashpoint (TCC)	None
Weight	10 oz / 283 g
Safety Rating	Nonflammable
NFPA	Health: 3 | Fire: 1 | Instability: 0
HMIS:	Health: 1 | Flammability: 1 | Physical: 0
Transportation	Not regulated

Ordering Information

DESCRIPTION	AFL NO.
Fiber Connector Cleaner and Preparation Fluid in 10 oz / 283 g can	
Fiber Connector Cleaner and Preparation Fluid , Case of 12 cans	

FCC3 Debris Destroyer® Fiber Cleaning Pen

FCC3 Debris Destroyer is a cleaning pen for fiber optic connectors and bare fiber. Use the Debris Destroyer to moisten cassette cleaners such as CLETOP-S and OPTIPOP-R, or FiberWipe™ and CleanWipe™, as well as One-Click® cleaners for the wet cleaning of tough end-face contamination challenges.

Safety Data Sheet (SDS): AFLglobal.com/FCC3

Features

- Removes dirt, dust, oils, and other debris
- Eliminates electrostatic charge
- Designed for use with One-Click cleaners, FiberWipes, CleanWipes
- Perfect for field use – easy to carry
- Safe with plastic components

Applications

- Cleaning fiber optic connector end-faces and bare fiber
- Wet to dry cleaning with wipes and One-Click cleaners
- Ideal for bare fiber preparation prior to fusion splicing
- General spot cleaning

Ordering Information

DESCRIPTION	AFL NO.
Debris Destroyer Fiber Cleaning Pen, 9 grams/0.32 oz.	FCC3-00-PEN1

CCT - Connector Cleaning Tips

AFL is pleased to offer a unique technology in fiber connector end-face cleaning. Rather than a fabric-covered or foam-covered stick, we are offering a molded cleaning tip that will trap contamination and wick cleaning solvents from bulkhead connectors. The cleaning tip is a molded, sintered polymer that is both porous and pliable conforming to virtually any fiber end-face polish geometry while trapping and absorbing contaminants.

Applications

- Dual-head design permits wet and dry cleaning in one swab
- Solvent and chemical resistant, not physically altered by solvent contact
- Designed to work with FCC2 Fiber Connector Cleaner
- Most connectors cleaned the first time

Features

- Molded sintered polymer construction assures perfect bulkhead fit and consistent performance with each cleaning tip
- No fibers, binders, adhesives or outgassing that may contaminate the connector
- Traps and holds liquid and particle contaminants in an absorbent open cell matrix ranging from 10-25 microns
- The elastic cleaning head enhances entrapment of particles and oils, while allowing the tip to conform to virtually any fiber end-face geometry (8 degree, domed polish, etc.)
- Very absorbent
- US and Foreign patents pending

Tip Configurations

- **CCTS and CCTX series:** cleaning tip is exposed for cleaning ferrule end-faces in alignment sleeves that are recessed within sockets or bulkhead adaptors.
- **CCTP series:** cleaning tip is recessed in the "straw" for cleaning exposed ferrules and termini (jumpers). Fits 2.5 mm and smaller ferrules.

Ordering Information

Cleaning tips are available for most common commercial and Mil Spec ferrule sizes.

SIZE (diameter of ferrule or termini)	TYPE	COMMENTS	AFL NO.
2.5 mm	Pin	Examples: SC, ST, FC, etc.	CCTP-25-0900
2.5 mm	Socket	Examples: SC, ST, FC, etc.	CCTS-25-0900
2.0 mm	Pin	Mil T 29504/14 For Mil C 28876	CCTP-25-0900
2.0 mm	Socket	Mil T 29504/15 For Mil C 28876	CCTS-16-0900
1.6 mm	Pin	Mil T 29504/04 For Mil C 38999	CCTP-25-0900
1.6 mm	Socket	Mil T 29504/05 For Mil C 38999	CCTS-16-0900
1.25 mm	Pin	Examples: LC, MU	CCTP-25-0900
1.25 mm	Socket	Examples: LC, MU	CCTS-12-0900
MT ferrule	Pin	Examples: MPO, MPX®*	CCTX-MT-0900
MT ferrule	Socket	Examples: MPO, MPX®*	CCTX-MT-0900

* Registered Trademark of TYCO Electronics Corp.

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FiberWipes

FiberAide 1

Features

- Lint free
- Sized for fiber and connector cleaning
- Robust and tear-resistant

FiberWipes is a trademark of MicroCare Corporation.
FiberAide 1 is patent pending.

FiberWipes™

New Material – New Packaging – Superior Wipes

Specifically designed to remove and trap common contaminants found in fiber optic installations, FiberWipes provide superior cleaning results from material that is stronger and more absorbent, yet softer than traditional cellulose wipes. Packaged in a clean room, the fabric is considered "fiber optic grade". FiberWipes are available in rugged mini-tubs (90 wipes) or in hermetically sealed individual packages (FiberAide 1) and are the perfect size for tool kits and test kits.

Applications

- Cleaning optical fibers prior to termination or splicing
- Cleaning fiber optic connector end-faces
- Cleaning lenses, mirrors, and other optical surfaces

FiberWipes

- Small package footprint ideal for a laboratory or field use
- Rugged 90-wipe mini-tub keeps wipes clean and dry prior to use
- Octagonal cover minimizes rolling distance if dropped
- Solvent safe; may be moistened to provide wet / dry cleaning
- Instructions for use on the side of the tub

FiberAide 1

- Hermetically sealed wipes remain uncontaminated and ready for use
- Foil backed wipes protect skin from cleaning solvents and cable gel
- Packaging contains no glues to leach out
- Button hole for placement on panel board or keychain
- Ideal for shipping with OEM equipment to prevent contamination of fiber surfaces at installation
- Solvent safe; may be moistened to provide wet / dry cleaning
- Pictorial instructions on each package

Specifications

PRODUCT	WIPE SIZE	PACKAGE SIZE	PACKAGE WEIGHT
FiberWipes	4.25" W x 2" H	3" Dia x 3" H	2.6 oz
FiberAide 1	2.75" W x 1.5" H	4.25" W x 2.75" H	0.6 oz / 10 packets

Ordering Information

DESCRIPTION	AFL NO.
FiberWipes – case of 24 mini-tubs (2160 total wipes, 90 wipes per mini-tub)	9000-03-0026MZ
FiberAide 1 – case of 600 packets (60 bundles, 10 packets per bundle)	9000-03-0027MZ

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FCP1 Series Cleaning Kit

C182120 Cleaning Kit

FCP1 Fiber Optic Cleaning Kits

AFL offers a complete selection of fiber optic cleaning kits for field cleaning of connector end faces in fiber frames, adapters and on jumpers. Using our FCC2 Enhanced Formula non-hazardous cleaning fluid and CCT molded cleaning tips, the AFL cleaning kits deliver compact, safe, easy to use, reliable cleaning for all types of fiber optic connector end faces including Military and Multiple Fiber Ferrule designs.

Kit Contents by Application

APPLICATION	CLEANING MATERIALS	DESCRIPTION
For cleaning connector end-faces within alignment sleeves (bulkhead adaptors, female socket connectors)	FCC2	Optical quality cleaning and preparation fluid
	CCTS-25	2.5 mm cleaning tips for FC, SC, ST type standard connectors
	CCTS-12	1.25 mm cleaning tips for LC, MU type small form factor connectors
	CCTS-16	1.6 mm cleaning tips for 2.0 mm and 1.6 mm termini in military connectors and D4 connectors
For cleaning ferrule end-faces that are exposed (jumpers and patch cords)	FCC2	Optical quality cleaning and preparation fluid
	Cletop	Reel type cleaner
	CCTP-25	Universal cleaning tip for exposed ferrule and termini end-faces on jumpers or military connectors
For cleaning alignment sleeves	FCC2	Optical quality cleaning and preparation fluid
	ACT01	2.5 mm swabs for FC, SC, ST type standard connectors
	ACT02	1.25 mm swabs for LC, MU type small form factor connectors
	Cletop Stick-Type	2.0 mm swabs for D4 connectors
Additional options	8500-05-0001MZ	One-Click Cleaner SC, ST, FC (500+ cleans)
	8500-05-0002MZ	One-Click Cleaner LC/MU (500+ cleans)
	VS300	Video microscope for end-face inspection
For cleaning fibers prior to fusion splicing or installing FAST™ connectors	FCC2	Optical quality cleaning and preparation fluid
	FiberWipes™	Lint free, tear-resistant wipes

See individual data sheets for specification on individual supplies.

Ordering Information

A wide variety of pre-stocked kits makes ordering easy. Choose from the standard kits listed on the page 2 or call us at 800-321-5298 for a custom kit to meet your application needs. To keep your cleaning kits stocked and ready for use, page 3 lists individual cleaning items (refills).

AFL Cleaning Kits Selection Guide

Cleaning Supplies

A wide variety of pre-stocked 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 VS300 Scope includes 2.5 mm universal cap. Each stick is double ended, designed for two (2) cleanings.

Wall/Rack Mountable Field Portable Cleaning Kits

AFL NO.	OLD NO.	CCTS-25-0900MZ for FC, SC, ST adapt. QTY= 40, BLUE	CCTS-12-0900MZ for LC, MU adapt. QTY= 40, GREEN	CCTS-16-0900MZ for D4, Mil socket adapt. QTY= 40, ORANGE	CCTP-25-0900MZ for all connectors QTY= 20, YELLOW	CCTX-MT-0900MZ for MTP, MPO, MPX QTY= 20, PINK	Cletop Type	VS300 Scope
FCP1-00-0900		1	1		2		A	
FCP1-00-0901		1			2		SB	
FCP1-00-0905		1	1	1	2		SB	
FCP1-00-0906		1	1	1	2			
FCP1-00-0907	FCP1-37A	3	1		1	1		
FCP1-00-0909	FCP1-25D	3			1			
FCP1-00-0914	FCP1-37C	2	1		1		SB	
FCP1-00-0915	FCP1-37D	3	1	1	4	1		
FCP1-00-0926PZ[a]		2	2				SB	
FCP1-00-0927PZ[d]		2	1		1		SB	
FCP1-01-0902		1	1	1	2		SB	1[a]
FCP1-01-0903		1	1	1	2			1[a]
FCP1-01-0904		2	2		2		A	1
FCP1-01-0905		1	1		2	1	SB	1[a]

Hard Case Cleaning Kits

AFL NO.	CCTS-25-0900MZ for FC, SC, ST adapters QTY= 40, BLUE	CCTS-12-0900MZ for LC, MU adapters QTY= 40, GREEN	CCTP-25-0900MZ for all connectors QTY= 20, YELLOW	Cletop Type	VS300 Scope
FCP1-02-0901PF[d]	3	3	2	SB	1[b]
FCP1-02-0902PF[c, d]	3	3	2	SB	1[b]
C182120	AFL Connector/Adapter Cleaning Kit. Ships in a hard carry case with: Cletop –SB (Qty = 1), replacement reel for Cletop –SB (Qty = 1), ACT-01 cleaning tips for 2.5 mm adapters (Qty = 20), FiberWipes (Qty = 2 tubs), can of FCC2 Enhanced Fiber Connector Cleaner and Preparation Fluid (Qty = 1).				

Notes:

a. Includes 2.0 mm and 1.25 mm Universal cap.

b. Includes 1.25 mm Universal cap.

c. Includes One-Click SC/ST/FC and One-Click LC/MU.

d. Includes a tub of FiberWipes.

AFL Cleaning Kit Restocking Guide

Cleaning Fluids and CCT Double Ended Cleaning Sticks

For best results, use CCT sticks with FCC2 fluid.

DESCRIPTION	AFL NO.
FCC2 Enhanced Formula Fiber Connector Cleaner and Preparation Fluid- optical quality cleaning fluid for cleaning connector end-faces and cleaning optical fiber (after striping) before field termination or fusion splicing. Nonflammable, not hazardous, not regulated (including air-cargo).	FCC2-00-0902 (can) FCC2-00-0903 (12 cans)
Connector Cleaning Tips for exposed 2.5 mm, 2.0 mm, 1.6 mm ferrules and termini (FC, SC, ST, LC, MU, etc., jumpers and male Mil C 38999 & 28876). Yellow (20 sticks per tube).	CCTP-25-0900MZ
Connector Cleaning Tips for 2.5 mm ferrule in adapters or sockets (SC, FC, ST, etc. in adapters). Blue (40 sticks per tube).	CCTS-25-0900MZ
Connector Cleaning Tips for 1.25 mm ferrule in adapters or sockets (LC, MU, etc., in adapters). Green (40 sticks per tube).	CCTS-12-0900MZ
Connector Cleaning Tips for MT-RJ connectors and 2.0 mm and 1.6 mm termini in sockets (female Mil C 38999 & 28876 and MT-RJ both jumpers and adapters). Orange (40 sticks per tube).	CCTS-16-0900MZ
Connector Cleaning Tips for Biconic & MT ferrule connectors both jumpers and in adapters (Biconic, MTP, MPO, MPX, etc.) Pink (20 sticks per tube).	CCTX-MT-0900MZ

Cletop Cassette Cleaner Options

DESCRIPTION	AFL NO.
Cletop –S Series	
Cletop –SA with Blue Tape	8500-10-0020MZ
Cletop –SB with Blue Tape	8500-10-0029MZ
Cletop –SB with White Tape	8500-10-0016MZ
Replacement Tape Type S - Blue	8500-10-0021MZ
Replacement Tape Type S - White	8500-10-0017MZ
Cletop Original Series	
Cletop Type A with Blue Tape	8500-10-0027MZ
Cletop Type A with White Tape	8500-10-0011MZ
Cletop Type B with Blue Tape	8500-10-0028MZ
Cletop Type B with White Tape	8500-10-0014MZ
Cletop for MT-RJ with pins (White Tape)	8500-10-0032MZ
Cletop for MPO/MTP with pins (White Tape)	8500-10-0033MZ
Replacement Tape Blue	8500-10-0012MZ
Replacement Tape White	8500-10-0015MZ

One-Click Cleaners

DESCRIPTION	AFL NO.
One-Click Cleaner SC, ST, FC (500+ cleans)	8500-05-0001MZ
One-Click Cleaner LC/MU (500+ cleans)	8500-05-0002MZ

AFL Cleaning Kit Restocking Guide

Cletop (ACT) Cleaning Sticks

DESCRIPTION	AFL NO.
ACT-01 2.5 mm single-ended sticks (box of 200) for FC, SC, ST, D4	8500-10-0024MZ
ACT-02 1.25 mm single-ended sticks (box of 200) for LC, MU	8500-10-0022MZ
ACT-03 2.0 mm single-ended sticks (box of 200) for military and high-definition video (LEMO)	8500-10-0023MZ
2.0/2.5 mm double-ended sticks (box of 100) for military and high-definition video (LEMO)	8500-10-0030MZ

FiberWipes

DESCRIPTION	AFL NO.
FiberWipes – case of 24 mini-tubs (2160 total wipes, 90 wipes per mini-tub)	9000-03-0026MZ
FiberAide 1 – case of 600 packets (60 bundles, 10 packets per bundle)	9000-03-0027MZ

Refills for Test & Inspection Kits

DESCRIPTION	INCLUDES	AFL NO.
Wet Cleaning Kit	8500-10-0016MZ, Cletop-SB. CCTS-25-0900, Connector Cleaning Tips for 2.5 mm ferrule in adapters or sockets (SC, FC, ST in adaptors). Blue (1 tube = 40 sticks). CCTS-12-0900, Connector Cleaning Tips for 1.25 mm ferrule in adapters or sockets (LC, MU, etc., in adapters). Green (1 tube = 40 sticks). FCC2-00-0902, Optical Quality Cleaning and Preparation Fluid for connector end-faces and fiber before splicing and terminating.	8500-20-0900
Dry Cleaning Kit	8500-10-0016MZ, Cletop -SB. 8500-10-0024MZ, ACT-01 2.5 mm adapter cleaning tips – Qty = 200.	8500-20-0901

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FCP2-05-0900N

FCP2-04-0900N

FCP2-02-0900

FCP3-00-0900

Field Portable Duffle Bag Cleaning Kits

FCP2 kits offer a complete selection of optical cleaning products for field cleaning of connector end-faces in a convenient duffle bag style carry case. These popular kits are also available with inspection and loss testing options. All kits combine **Base Cleaning Package** plus various cleaning accessories as well as inspection and test equipment. **Base Cleaning Package** includes: FCC2 cleaning fluid, FiberWipes, Cletop SB, SC and LC One-Click Cleaners, and Debris Destroyer in a convenient duffle bag style carry case.

FCC2 Fiber Optic Cleaning and Preparation Fluid

The AFL 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 cleaner is packaged in a compact spill-proof container with 3-way dispenser intended for easy one-handed use with WFW FiberWipes™, convenient wetting of CCT connector cleaning tips, and spray nozzle functionality.

WFW FiberWipes

Specifically designed to remove and trap common contaminants found in fiber optic installations, FiberWipes provide superior cleaning results from material that is stronger and more absorbent, yet softer than traditional cellulose wipes. Packaged in a clean room, the fabric is fully optical quality grade.

Cletop Connector Cleaner

The Cletop connector cleaner is a rugged palm-sized cleaner that offers exceptional performance with a proven track record. CLETOP cleaners have refillable cleaning tapes with 400 cleans per tape making them ideal for lab and field use. The simple push button shutter operation makes cleaning connectors quick and easy.

One-Click® Cleaner

The One-Click Cleaner is an easy-to-use option for cleaning connectors on jumpers and in adapters. Simply insert the One-Click Cleaner into an adapter and push until an audible "click" is heard. The One-Click Cleaner uses the mechanical push action to advance an optical grade cleaning tape while the cleaning tip is rotated to ensure the fiber end-face is effectively, but gently cleaned.

FCC3 Debris Destroyer™ Fiber Cleaning Pen

FCC3 Debris Destroyer is a cleaning pen for fiber optic connectors and bare fiber. Use the Debris Destroyer to moisten cassette cleaners such as CLETOP-S, or FiberWipe, as well as One-Click cleaners for the wet cleaning of tough end-face contamination challenges.

Field Portable Duffle Bag Cleaning Kits

FCP2 Kits Ordering Information

All FCP2 kits combine **Base Cleaning Package** plus various cleaning accessories as well as inspection and test equipment.

- **Base Cleaning Package** includes: FCC2 cleaning fluid, FiberWipes, Cletop SB, SC & LC One-Clicks, FCC3 Debris Destroyer, duffle bag style carry case.
- Each FCP2-01/-04/-05 Kit adds inspection capabilities to the Basic Cleaning Kit with OFS300-200 inspection scope and either FOCIS Flex or FOCIS Duel inspection probe.
- FCP2-02 Kit adds OFS300 inspection scope along with multimode and single-mode loss test capabilities (CSM1-2 power meter, CSS1-MM 850/1300 nm, and CSS1-SM 1310/1550 nm light source).
- Each FCP2-04 /-05 Kit includes TRM® 2.0 Basic Test Results Manager reporting PC software (Basic License) and offers AFL's FOCIS App (iOS and Android) as free download. The FOCIS App provides a comprehensive and user-friendly feature set to archive results and prepare inspection reports using AFL's aeRos® cloud-based workflow management platform. FOCIS App is available for Android devices from Google Play and for iOS devices from the Apple Store.

CLEANING SUPPLIES	INSPECTION PROBE	METER, SOURCES	BULKHEAD & FERRULE TIPS	CARRY CASE	REPORTING PC SW	FREE APP (Android, iOS)	AFL NO.
Base Package				Duffle Bag			FCP2-10-0900
Base Package, MPO One-Click				Duffle Bag			FCP2-00-0901
Base Package	OFS300			Duffle Bag			FCP2-01-0900
Base Package	OFS300	CSM1-2; CSS1-MM/-SM		Duffle Bag			FCP2-02-0900
Base Package	FOCIS Flex		No Tips	Duffle Bag	TRM 2.0 Basic	FOCIS	FCP2-04-0900N
Base Package	FOCIS Flex		UPC	Duffle Bag	TRM 2.0 Basic	FOCIS	FCP2-04-0900U
Base Package	FOCIS Flex		APC	Duffle Bag	TRM 2.0 Basic	FOCIS	FCP2-04-0900A
Base Package	FOCIS Duel		No Tips	Duffle Bag	TRM 2.0 Basic	FOCIS	FCP2-05-0900N
Base Package	FOCIS Duel		UPC	Duffle Bag	TRM 2.0 Basic	FOCIS	FCP2-05-0900U
Base Package	FOCIS Duel		APC	Duffle Bag	TRM 2.0 Basic	FOCIS	FCP2-05-0900A

The header above the table spans "CONTAINS (1 ea.)" over the first seven columns.

FCP2 Kits Reordering Items

DESCRIPTION	AFL NO.
Refill for Basic Cleaning Kit (no duffle bag). Includes Base Cleaning Package.	FCPR-10-0900
Field portable duffle bag	1400-01-0095PZ

FCP3 Easy-Access Cleaning Kit Ordering Information

DESCRIPTION	AFL NO.
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-S, Type B with White Tape, One-Click Cleaners (SC, LC/MU, Ultra 2.5, MPO/MTP), Soft Carry Case	FCP3-00-0900
Enterprise 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-S, Type B with White Tape, One-Click Cleaners (Duplex LC, LC/MU, Ultra 2.5, MPO/MTP), Soft Carry Case	FCP3-00-0901

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

Splicer V-groove Cleaning Kit

Today's splicing equipment is fast, efficient, and requires minimal maintenance due to advances in splicing technology. However, contamination in the V-groove of the splicer is still a primary source of trouble for the splicing technician. This is especially problematic when splicing with a fixed V-groove fusion splicer. Environmental contamination, such as dust, dirt and fiber coating debris, as well as the silica deposits generated during the fusion process eventually find their way to the surface of the v-groove. This contamination will offset the fibers and degrade performance. To help control this problem, a disciplined cleaning regimen and specific tooling is required to ensure the splice is right the first time.

To solve cleaning needs, AFL offers the Splicer V-groove Cleaning Kit. This product integrates eight components into an affordable and effective inspection and cleaning solution for any fusion splicer. Small and lightweight, it fits easily into the Fujikura splicer transit case or it can be carried separately in its own carrying case.

Splicer V-groove Cleaning Refill Kit

CS-1 Cotton Swabs

Kit Includes

- Scrubber Brush with stiff tapered nylon bristles
- Sweeper Brush with soft nylon bristles
- Eye Loupe with 3X to 12X magnification
- LED Pen Light with momentary or constant on switching
- Cleaning Fluid that is nonflammable and environmentally safe
- Lint-free Cotton Swabs
- Instruction Sheet with illustrations
- Canvas Carrying Case

Refill Kit Includes

To replenish the consumables within the kit, AFL provides a refill kit that includes the following components:

- One can of FCC2 Cleaning Fluid
- One Scrubber Brush
- One Sweeper Brush
- Ten packs CS-1 Cotton Swabs (250 swabs)

Ordering Information

DESCRIPTION	AFL NO.
Splicer V-groove Cleaning Kit	S014397
Splicer V-groove Cleaning Refill Kit	S014416
CS-1 Cotton Swabs (pack of 25 swabs)	S003719

FOCIS Lightning Multi-Fiber Optic Connector Inspection System

Features

- Extremely fast multi-fiber auto-analysis for datacom and telecom inspection applications
- Auto-focus and auto-centering for fast, easy inspection
- USB plus optional Bluetooth/WiFi connectivity
- IEC, IPC, AT&T, and user-defined auto-analysis
- Self-contained, tether-free, compact, hand-held inspection solution
- Keyless UPC & APC adapter tips work with both MPO-12 & MPO-16 connectors
- Available with adapter tips supporting all commonly used multi-fiber connector types
- Snout and adapter tip keys and slots eliminate loosening during normal operation
- Single fiber adapter tips for LC connectors and bulkheads (UPC & APC) also available
- Field replaceable NiMH battery lasts over six hours
- AFL's TRM PC software package enables MPO results reporting for desktop users
- Available in a 'No Wireless' [NW] variant, which removes the Bluetooth and WiFi functionality for use in RF restricted facilities.

Applications

- Inspect multi-fiber connectors on bulkhead adapters and patch cords
- Optimal tool for data center optical network installation, turn-up, troubleshooting
- MPO/MTP multi-fiber multi-row connector inspection
- Critical fiber infrastructure performance assurance
- Maintenance of fiber connections at highest optical performance levels
- Verification that proper connector cleaning practices are being used

FOCIS Lightning is a self-contained multi-fiber connector inspection probe with integrated screen. It is intended specifically for the inspection of multi-fiber connectors and bulkheads such MPO and MTP® including multi-row varieties. The FOCIS Lightning can perform industry standard and user-defined end-face cleanliness analysis at a rate of about 1 second per fiber. Lightning stores connector level and individual fiber images, analysis, overlays, and zones tables locally and provides optional WiFi and Bluetooth wireless links. The AFL FOCIS 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.

Pass / fail results in seconds: With the press of a single button, the FOCIS Lightning auto-focuses, captures, centers and analyzes the multi-fiber end-face image to industry standard and user-defined criteria.

Untethered operation: With rechargeable battery and integrated 2.4" TFT color LCD screen, FOCIS Lightning can be used independently.

Multi-fiber front-end adapter tips: Multi-fiber front-end adapter tips support single row and multi-row MT connector inspection for a wide range of patch cords and bulkhead-mounted connectors having either PC/UPC or APC polished end-faces. The probe snout includes a key which in combination with a slot on the adapter tips ensures that adapter tips never loosen during use, under any circumstances.

FOCIS Lightning Multi-Fiber Optic Connector Inspection System

Specifications[a]

OPTICAL PORT PARAMETERS	SPECIFICATION
Field of View (FOV; viewed on FOCIS Lightning)	Multi-fibers Live:1960 x 4670 µm and 980 x 2335 µm Multi-fibers Captured, Overview: 1960 x 4338 µm Multi-fibers Captured, Details: 130 x 130 µm Single fiber Live: 890 x 1075 µm and 445 x 537 µm Single fiber Captured Zoomed Out: 684 x 742 µm Single fiber Captured, Partially Zoomed In: 456 x 492 µm Single fiber Captured, Fully Zoomed In: 228 x 246 µm
Field of View (FOV; viewed on a PC)	Multi-fibers Captured, Overview: 1960 x 4670 µm Multi-fibers Captured, Details: 130 x 130 µm Single fiber Captured, Zoomed Out: 525 x 700 µm Single fiber Captured, Partially Zoomed In: 355 x 475 µm Single fiber Captured, Zoomed In: 175 x 235 µm
Manual Detection Capability (minimum)	0.25 µm
Auto Analysis Resolution	<1.0 µm
Internally Stored Image Size (pixels)	Multi-fibers: 640 x 480 VGA; images stored internally in N+1.JPG files, one in Overview screen and N each in Fiber Details screen Single fiber: 640 x 480 VGA; images stored internally in three .JPG files, one at each FOV
Bluetooth Image and Overlay	2 x QVGA (320 x 240; image + overlay) to AFL test instruments (SPP) 1 x VGA (640 x 480) file to Apple iOS devices (IAP / MFi)
Maximum No Damage Live Fiber Power Level	+20 dBm; image cannot be viewed if fiber is live
Focus Methods and Speeds	Auto-focus (≤3 sec) and manual focus
Centering	Auto-centering (<1 sec)
Zoom in Live Mode	1x and 2x modes
Image Capture with Pass/Fail Analysis	IEC 61300-3-35 (2015), AT&T TP-76461, IPC-8497-1, user-set criteria Capture SF <1 sec, MF <2 sec; Analysis <0.15 sec per fiber
Results Storage (Image and Pass/Fail Results)	Yes
File Format	JPG, GIF
File Storage Capacity	10,000 files
OPERATING FEATURES	
WiFi Characteristics (Wireless Models Only!)	IEEE 802.11bng
Bluetooth Characteristics (Wireless Models Only!)	IAP (iPod accessory protocol), SPP 0 x 1101
USB Characteristics	USB 2.0 mass storage device
Supported Languages	English, Chinese Simplified, Chinese Traditional, Finnish, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish, Turkish
ENVIRONMENT PARAMETERS	
Storage Temperature	-40 °C to +70 °C
Operating Temperature	0 °C to +50 °C
Relative Humidity	0 to 95% RH
Vibration Limits	2G (transportation)
Transit Drop (without soft case)	300 mm (12 inches, all sides, dust cover installed)
Transit Drop (with soft case)	460 mm (18 inches, all sides, dust cover installed)

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).

b. Operating conditions: 60 tests in 20 minutes, then auto-off; repeat each hour.

c. Trademarks are the property of their respective owners.

FOCIS Lightning Multi-Fiber Optic Connector Inspection System

Specificationsª

PHYSICAL AND POWER CHARACTERISTICS	
Display Size, Type, Resolution	2.4", color TFT, backlit, 240 x 320 with brightness control
Battery Type	NiMH, user replaceable
Operating Time (typical)	6 hours[b]; 3 hours continuous
Power Save Features	Auto-off (disabled, 2, 5, 10 min)
Recharge Time	≤4 hours
Low-Battery Warning	Alerts when ≤15 minutes battery operation remains
AC Charger Voltage, Frequency, Current	100-240VAC, 50/60Hz, 5VDC, 2A
Charger Jack	3.2 mm, center positive
Size	47 x 37 x 190 mm (1.8 x 1.5 x 7.7 in)
Weight	280 g (0.62 lb)
Safety & Compliance Certifications	UL, CE, FCC

Ordering Information

DESCRIPTION	AFL NO.
FOCIS Lightning Kit, soft carry case, AC charger, with no tips or One-Click® cleaner	FOCIS-LTNG-N
FOCIS Lightning Kit, soft carry case, AC charger, (1) UPC ferrule & bulkhead adapter tip, (2) One-Click MPO cleaners	FOCIS-LTNG-U
FOCIS Lightning Kit, soft carry case, AC charger, (1) APC ferrule & bulkhead adapter tip, (2) One-Click MPO cleaners	FOCIS-LTNG-A
FOCIS Lightning Kit, soft carry case, AC charger, (1) UPC and (1) APC ferrule & bulkhead adapter tips, (2) One-Click MPO cleaners	FOCIS-LTNG-UA
FOCIS Lightning No Wireless Kit, soft carry case, AC charger, with no tips or One-Click® cleaner	FOCIS-LTNG-NW-N
FOCIS Lightning No Wireless Kit, soft carry case, AC charger, (1) UPC ferrule & bulkhead adapter tip, (2) One-Click MPO cleaners	FOCIS-LTNG-NW-U
FOCIS Lightning No Wireless Kit, soft carry case, AC charger, (1) APC ferrule & bulkhead adapter tip, (2) One-Click MPO cleaners	FOCIS-LTNG-NW-A
FOCIS Lightning No Wireless Kit, soft carry case, AC charger, (1) UPC and (1) APC ferrule & bulkhead adapter tips, (2) One-Click MPO cleaners	FOCIS-LTNG-NW-UA

FOCIS Lightning Adapter Tips and Accessories

DESCRIPTION	TIP ID	AFL NO.
Adapter tip for MPO-12/24 APC bulkhead (with key)	M12A	FLTNG-01-M12A
Adapter tip for MPO-12/24 UPC bulkhead (with key)	M12U	FLTNG-01-M12U
Adapter tip for MPO-16/32 UPC bulkhead (with key)	M16U	FLTNG-01-M16U
Universal adapter tip for MPO-12/16/24/32 APC bulkhead (partial key)	MPA	FLTNG-01-MPA
Universal adapter tip for MPO-12/16/24/32 UPC bulkhead (partial key)	MPU	FLTNG-01-MPU
Adapter tip for MPO-12/24/16/32 APC bulkhead (no key)	MPOA	FLTNG-01-MPOA
Adapter tip for MPO-12/16/24/32 UPC bulkhead (no key)	MPOU	FLTNG-01-MPOU
Adapter Tip for MPO-12/16/24/32 APC connector (with key)	MAC	FLTNG-01-MAC
Adapter Tip for MPO-12/16/24/32 UPC connector (with key)	MUC	FLTNG-01-MUC
Coupler for most 'FFLX' single fiber connector adapter tips	SFA	FLTNG-01-SFA
Extended adapter tip for LC-APC bulkhead	ALCM	FLTNG-01-ALCM
Extended adapter tip for LC-UPC bulkhead	ULCM	FLTNG-01-ULCM
MPO extender barrel	MPE	FLTNG-01-MPE

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).

b. Operating conditions: 60 tests in 20 minutes, then auto-off; repeat each hour.

ISO CERTIFIED   CE   RoHS2 COMPLIANT

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FOCIS Duel™ Fiber Optic Connector Inspection System

Features

- Auto-focus (both ports) and auto-centering (Port 1) for fast, easy inspection
- Self-contained, tether-free, compact, hand-held inspection solution
- IEC 61300-3-35 (2015), IPC 8497-1, AT&T TP-76461 and user-defined auto-inspection (Port 1)
- Available with more than three dozen tips supporting all commonly used connector types, including MPO/MTP multi-fiber connectors and bulkheads
- Rechargeable, field-replaceable NiMH battery lasts more than 8 hours
- Snout and adapter tip slots eliminate loosening during normal operation
- Fast 1X/2X zoom toggle

Applications

- Inspect connectors on bulkhead adapters (Port 1) and patch cords (Port 2) without swapping adapter tips
- Optimal tool for optical network installation, turn-up, troubleshooting and maintenance
- MPO/MTP multi-fiber multi-row connectors inspection
- Critical fiber infrastructure performance assurance
- Maintenance of fiber connections at highest optical performance levels
- Verification that proper connector cleaning practices are being used

FOCIS Duel is a self-contained twin-ported Bluetooth connected fiber optic connector inspection probe with integrated screen. The first port (right hand side Port 1) is fully featured, identical to AFL's FOCIS Flex. The second port (left hand side Port 2) has fast and convenient female "click-in" adapters, auto-focus and 2X zoom capabilities. The FOCIS Duel can perform IEC, IPC, AT&T and user-defined end-face cleanliness analysis and store Port 1 images and reports locally. The AFL FOCIS 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.

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

Untethered operation: With rechargeable battery and integrated 2.4" color TFT LCD screen, FOCIS Duel can be used independently.

Wide range of adapter tips: Port 1 – Interchangeable adapter tips support single and multi-fiber connector inspection for a wide range of patch cords and bulkhead-mounted connectors having either PC/UPC or APC polished end-faces. A key on the probe snout combined with a slot on the adapter tips assures that adapter tips never loosen during use, under any circumstances. Quad-slotted APC adapter tips ensure the screen is visible in any use case. Port 2 – A slot on the adapter tips combined with a keyed snout eliminates loosening during normal use. Port 2 adapter tips are available for all common connector types – Universal 1.25 mm and 2.5 mm, SC and LC in both UPC and APC polish types.

Inspection kits include AC charger, carry strap, two user-selected adapter tips (optionally), and soft carry case.

IEC 61300-3-35	IPC 8497-1	ATT-TP-76450

FOCIS Duel™ Fiber Optic Connector Inspection System

Specifications [a]

FIRST PORT (Port 1) PARAMETERS	SPECIFICATION
Field of View (FOV; viewed on FOCIS Duel)	Live: 710 x 860 μm; Captured, Zoomed Out: 560 x 600 μm; Captured, Partially Zoomed In: 360 x 390 μm; Captured, Fully Zoomed In: 180 x 195 μm
Field of View (FOV; viewed on a PC)	Captured, Zoomed Out: 525 x 700 μm; Captured, Partially Zoomed In: 355 x 475 μm; Captured, Zoomed In: 175 x 235 μm
Manual Detection Capability (minimum)	0.25 μm
Auto Analysis Resolution	<1.0 μm
Internally Stored Image Size (pixels)	640 x 480 VGA; images stored internally in three .JPG files, one at each FOV
Bluetooth Image and Overlay	2 x QVGA (320 x 240; image + overlay) to AFL test instruments (SPP) 1 x VGA (640 x 480) file to Apple iOS devices (IAP / MFi)
Maximum No Damage Live Fiber Power Level	+20 dBm; Image cannot be viewed if fiber is live
Focus Methods and Speeds	Auto-focus (≤3 sec) and manual focus
Centering	Auto-centering (<1 sec)
Zoom in Live Mode	1x and 2x modes
Image Capture with Pass/Fail Analysis	IEC 61300-3-35 (2015), AT&T TP-76461, IPC-8497-1, user-set criteria
Results Storage (Image and Pass/Fail Results)	Yes
File Format	JPG, GIF, Port 1 only
File Storage Capacity	10,000 files
SECOND PORT (Port 2) PARAMETERS	
Field of View (FOV; Viewed on FOCIS Duel)	Live: 365 x 440 μm and 183 x 220 μm
Manual Detection Capability (minimum)	0.25 μm
Maximum No Damage Live Fiber Power Level	+20 dBm; Image cannot be viewed if fiber is live
Zoom in Live Mode	1x and 2x modes
Focus Methods and Speeds	Auto-focus (≤3 sec) and manual focus
OPERATING FEATURES	
Bluetooth Characteristics	IAP (iPod accessory protocol), SPP 0 x 1101
USB Characteristics	USB 2.0 mass storage device
Supported Languages	English, Chinese Simplified, Chinese Traditional, Finnish, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish, Turkish
ENVIRONMENT PARAMETERS	
Storage Temperature	-40°C to +70°C
Operating Temperature	0°C to +50°C
Relative Humidity	0 to 95% RH
Vibration Limits	2G (transportation)
Transit Drop (without soft case)	300 mm (12 inches, all sides, dust cover installed)
Transit Drop (with soft case)	460 mm (18 inches, all sides, dust cover installed)

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).

b. Operating conditions: 60 tests in 20 minutes, then auto-off; repeat each hour.

FOCIS Duel™ Fiber Optic Connector Inspection System

Specifications [a]

PHYSICAL AND POWER CHARACTERISTICS	
Display Size, Type, Resolution	2.4″, color TFT, backlit, 240 x 320 with brightness control
Battery Type	NiMH, user replaceable
Operating Time (typical)	8 hours[b]; 3 hours continuous
Power Save Features	Auto-off (disabled, 2, 5, 10 min)
Recharge Time	≤4 hours
Low-Battery Warning	Alerts when ≤15 minutes battery operation remains
AC Charger Voltage, Frequency, Current	100-240VAC, 50/60Hz, 5VDC, 2A
Charger Jack	3.2 mm, center positive
Size	47 x 37 x 175 mm (1.8 x 1.5 x 6.8 in)
Weight	280 g (0.62 lb)
Safety & Compliance Certifications	UL, CE, FCC

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).

b. Operating conditions: 60 tests in 20 minutes, then auto-off; repeat each hour.

Ordering Information

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

FOCIS Duel Adapter Tips

PORT USAGE	DESCRIPTION	TIP ID	AFL NO.
1	SC-APC bulkhead adapter tip, quad-slotted	XASC	
1	FC-APC bulkhead adapter tip, quad-slotted	XAFC	
1	LC-APC bulkhead adapter tip, quad-slotted	XALC	
2	LC-UPC ferrule adapter tip, single-slotted female "click-in"	SULC	
2	LC-APC ferrule adapter tip, single-slotted female "click-in"	SALC	
2	SC-UPC ferrule adapter tip, single-slotted female "click-in"	SUSC	
2	SC-APC ferrule adapter tip, single-slotted female "click-in"	SASC	
2	Universal 1.25 mm UPC ferrule adapter tip, single-slotted	U1	
2	Universal 1.25 mm APC ferrule adapter tip, single-slotted	A1	
2	Universal 2.5 mm UPC ferrule adapter tip, single-slotted	U2	
2	Universal 2.5 mm APC ferrule adapter tip, single-slotted	A2	

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

FOCIS Flex

U.S. Patent 9,217,688

Fiber Optic Connector Inspection System

Features

- Auto-focus and auto-centering for fast, easy inspection
- Untethered operation simplifies access at patch panels
- IEC, IPC and user-defined pass/fail analysis
- Self-contained, compact, hand-held inspection solution
- Use independently, or pair with FlexScan or FlexTester OTDR
- Configure and access results from Android or Apple App
- Save results internally and upload via Bluetooth or USB
- Ergonomic design fits in the palm of your hand
- Generate inspection reports using aeRos or TRM® 2.0

Applications

- Inspect connectors on patch cords or in bulkhead adapters
- Optical network installation, troubleshooting and maintenance
- Inspect MPO/MTP multi-fiber connectors
- Assure critical fiber infrastructure performs properly
- Keep fiber connections working at optimal performance levels
- Verify proper connector cleaning practices are being used

Pass/fail results in seconds: With the press of a single button, FOCIS Flex auto-focuses, captures and centers the end-face image, applies pass/fail rules, displays image and pass/fail results, and wirelessly transfers image and results to a paired FlexScan or FlexTester OTDR. All in a matter of seconds!

Independent, untethered operation: With rechargeable battery supply and integrated display, FOCIS Flex can be used independently – without requiring an external OTDR or display unit.

Pair with FlexScan or FlexTester OTDR: Still prefer to view and save images and pass/fail results on your FlexTester OTDR? No problem! Captured images and pass/fail results are immediately displayed and easily saved on the paired device along with associated OTDR and/or insertion loss test results.

Pair with Android or iOS device: Display images on your Android or iOS device using AFL's FOCIS Flex mobile App. Save results to AFL's aeRos cloud-based workflow management system.

Save results internally or externally: FOCIS Flex internally stores thousands of results using file-naming capabilities similar to FlexScan and FlexTester OTDRs. A micro-USB port supports fast upload of internally stored results to PC, and ensures your FOCIS Flex software can be updated to the latest features and supported languages.

Wide range of adapter tips: Interchangeable adapter tips support connector inspection for a wide range of both single-fiber and multi-fiber patchcords and bulkhead-mounted connectors having either PC or APC polished end-faces.

FOCIS Flex is available in standalone kit configurations including soft carry case / holster and user-selected adapter tips. Available FlexScan and FlexTester PRO and Complete Kits bundle FOCIS Flex with the selected OTDR, fiber ring and cleaning supplies.

FOCIS Flex

U.S. Patent 9,217,688

Fiber Optic Connector Inspection System

Specifications [a]

OPTICAL PERFORMANCE	
Field of View (viewed on FOCIS Flex)	Live: 710 x 860 µm; Captured, Zoomed Out: 560 x 600 µm; Captured, Partially Zoomed In: 360 x 390 µm; Captured, Fully Zoomed In: 180 x 195 µm
Field of View (Viewed on a PC)	Stored, Zoomed Out: 700 x 525 µm; Stored, Fully Zoomed In: 240 x 180 µm
Manual Detection Capability (minimum)	0.25 µm
Auto Analysis Resolution	<1.0 µm
Captured Image Size (Pixels)	648 x 480 VGA; Images stored internally in three .JPG files, one at each FOV
OPERATING FEATURES	
Focus	Auto-focus and manual focus
Centering	Auto-centering after capture
Pass/Fail Analysis	IEC 61300-3-35 (2015), IPC and user-defined criteria
Image Capture and File Storage Capacity	10,000 files
File Format (Image and Pass/Fail Results)	jpg, gif
Bluetooth Characteristics	SPP to FlexScan and FlexTester OTDRs; IAP to iOS devices
USB Characteristics	USB 1.1 mass storage device
Supported Languages	English, Chinese Simplified, Chinese Traditional, Finnish, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish, Turkish
PHYSICAL AND POWER CHARACTERISTICS	
Display size, type, resolution	2.4", TFT, 240 x 320 with brightness control
Battery Type	NiMH, user replaceable
Battery Operating Time (typical)	8 hours (60 tests in 20 minutes each hour; auto-off enabled)
Recharge Time	<4.5 hours
Power Save Features	Auto-off (disabled, 2, 5, 10 minutes)
AC Charger voltage, frequency, current	100-240 V, 50/60 Hz, 5VDC, 2A
Size	47 x 37 x 183 mm (1.8 x 1.5 x 7.2 in)
Weight	240 g (0.5 lb)
ENVIRONMENTAL CHARACTERISTICS	
Operating Temperature	0 to +50 °C
Storage Temperature	-40 to +70 °C
Relative Humidity	95%, non-condensing
Transit and shock	2G vibration, 30G shock

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).

Ordering Information

DESCRIPTION	AFL NO.
FOCIS Flex Kit, soft carry case / holster, USB cable, AC charger, TRM 2.0 reporting software, reference guide, no tips	FOCIS-FLX-P4XN
FOCIS Flex Kit, soft carry case / holster, USB cable, AC charger, TRM 2.0 reporting software, reference guide, 2 user-selected UPC adapter tips (ferrule and bulkhead), user-selected One-Click cleaner	FOCIS-FLX-P4XU
FOCIS Flex Kit, soft carry case / holster, USB cable, AC charger, TRM 2.0 reporting software, reference guide, 2 user-selected APC adapter tips (ferrule and bulkhead), user-selected One-Click cleaner	FOCIS-FLX-P4XA

FOCIS Flex

U.S. Patent 9,217,688

Fiber Optic Connector Inspection System

FlexScan OTDR PRO and Complete Kits with FOCIS Flex

PRO Kits include the following items:

- FlexScan with accessories (AC charger, carry strap, SC/2.5 mm connector adapters, TRM® 2.0 Advanced Test Results Manager, carry case)
- FOCIS Flex Fiber Optic Connector Inspection System with accessories (AC charger, USB cable, soft carry case/holster)
- Two user-selected adapter tips and one user-selected One-Click Cleaner
- 150 m Fiber Ring (launch cable) with user-specified connectors

Complete kits expand on PRO Kits by adding bend insensitive fiber identifier with optional power meter (OFI-BI or OFI-BIPM).

See FlexScan data sheet for FlexScan PRO and Complete Kit ordering information.

FlexTester PRO2 and Complete2 Kits with FOCIS Flex

PRO2 Kits include the following items:

- User-selected FLX380-3xx or OFL280-1xx FlexTester with accessories (AC charger, USB cable, TRM® 2.0 Advanced Test Results Manager)
- FOCIS Flex Fiber Optic Connector Inspection System with accessories (AC charger, USB cable, soft carry case/holster)
- Two user-selected adapter tips and one user-selected One-Click Cleaner
- 150 m Fiber Ring (launch cable) with user-specified connectors
- Rugged, waterproof carry case

Complete2 Kits include everything in the FlexTester PRO2 kit plus choice of OFI optical fiber identifier.

See FLX380 or OFL280 data sheet for FlexTester PRO2 and Complete2 Kit ordering information.

FOCIS Flex Adapter Tips (Contact AFL for adapter tips for other connector types)

DESCRIPTION	AFL NO.
SC-UPC bulkhead adapter tip	FFLX-01-SC
FC-UPC bulkhead adapter tip	FFLX-01-FC
ST-UPC bulkhead adapter tip	FFLX-01-ST
LC-UPC bulkhead adapter tip	FFLX-01-LC
Universal 2.5 mm, UPC ferrule adapter tip	FFLX-01-U25
Universal 1.25 mm, UPC ferrule adapter tip	FFLX-01-U125
SC-APC bulkhead adapter tip	FFLX-01-ASC
FC-APC bulkhead adapter tip	FFLX-01-AFC
LC-APC bulkhead adapter tip	FFLX-01-ALC
Universal 2.5 mm, APC ferrule adapter tip	FFLX-01-A25
Universal 1.25 mm, APC ferrule adapter tip	FFLX-01-A125
FOCIS Flex adapter extension tube, straight, 46 mm	FFLX-01-EXTS46
FOCIS Flex adapter extension tube, straight, 80 mm:	FFLX-01-EXTS80

DESCRIPTION	AFL NO.
E2000 PC/UPC bulkhead adapter tip	DFS1-00-0023MR
E2000 APC bulkhead adapter tip	DFS1-01-0008MR
Tip for SC/APC (OptiTap®) bulkhead adapter	DFS1-01-0007MR
Tip for OptiTip® APC ferrule and bulkhead adapter	DFS1-01-0013MR
Multi-row MTP/PC ferrule & bulkhead adapter extended tip kit (base plus multi-row MTP/PC front end tip)	DFS1-00-0050MR
MTP/PC ferrule & bulkhead adapter extended tip kit (base plus MTP/PC front end tip)	DFS1-00-0037MR
MTP/PC and MTP/APC ferrule & bulkhead adapter extended tip kit (base,MTP/PC, MTP/APC front end tips)	DFS1-00-0042MR
MTP/APC ferrule and bulkhead adapter extended tip kit (base plus MTP/APC front end tip)	DFS1-01-0010MR

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

www.AFLglobal.com or (800) 321-5298, (603) 528-7780

FOCIS Flex – No Wireless
Fiber Optic Connector Inspection System

Features

- Removes Bluetooth and WiFi features for secure network facility compliance
- Auto-focus and auto-centering for fast, easy inspection
- Untethered operation simplifies access at patch panels
- IEC, IPC and user-defined pass/fail analysis
- Self-contained, compact, hand-held inspection solution
- Save results internally
- Ergonomic design fits in the palm of your hand
- Generate inspection reports using aeRos or TRM® 2.0

Applications

- Inspect connectors on patch cords or in bulkhead adapters
- Optical network installation, troubleshooting and maintenance
- Inspect MPO/MTP multi-fiber connectors
- Assure critical fiber infrastructure performs properly
- Keep fiber connections working at optimal performance levels
- Verify proper connector cleaning practices are being used

The FOCIS Flex NW addresses the need of network maintenance contractors operating in secure environments, where devices emitting radio frequency (RF) communication signals are prohibited, such as government and defense facilities and restricted private enterprise network facilities. The FOCIS Flex NW removes, in both hardware and software, Bluetooth and WiFi communications transceiver functions. It includes internal storage for 10,000 ferrule end-face images and pass/fail results, as well as a USB mass storage device interface, so that inspection results can be transferred at the end of the workday.

Pass/fail results in seconds: With the press of a single button, FOCIS Flex NW auto-focuses, captures and centers the end-face image, applies pass/fail rules, and displays image and pass/fail results. All in a matter of seconds!

Independent, untethered operation: With rechargeable battery supply and integrated display, FOCIS Flex NW can be used independently – without requiring an external OTDR or display unit.

Save results internally or externally: FOCIS Flex NW internally stores thousands of results using file-naming capabilities similar to FlexScan and FlexTester OTDRs. A micro-USB port supports fast upload of internally stored results to PC, and ensures your FOCIS Flex NW software can be updated to the latest features and supported languages.

Wide range of adapter tips: Interchangeable adapter tips support connector inspection for a wide range of both single-fiber and multi-fiber patchcords and bulkhead-mounted connectors having either PC or APC polished end-faces.

FOCIS Flex NW is available in standalone kit configurations including soft carry case/holster and user-selected adapter tips.

FOCIS Flex – No Wireless
Fiber Optic Connector Inspection System

Specifications [a]

OPTICAL PERFORMANCE	
Field of View (viewed on FOCIS Flex)	Live: 710 x 860 µm; Captured, Zoomed Out: 560 x 600 µm; Captured, Partially Zoomed In: 360 x 390 µm; Captured, Fully Zoomed In: 180 x 195 µm
Field of View (Viewed on a PC)	Stored, Zoomed Out: 700 x 525 µm; Stored, Fully Zoomed In: 240 x 180 µm
Manual Detection Capability	1 µm
Analysis Resolution	1.5 µm
Captured Image Size (Pixels)	648 x 480 VGA; Images stored internally in three .JPG files, one at each FOV
OPERATING FEATURES	
Focus	Auto-focus and manual focus
Centering	Auto-centering after capture
Pass/Fail Analysis	IEC 61300-3-35 (2015), IPC and user-defined criteria
Image Capture and File Storage Capacity	10,000 files
File Format (Image and Pass/Fail Results)	jpg, gif
USB Characteristics	USB 1.1 mass storage device
Supported Languages	English, Chinese Simplified, Chinese Traditional, Finnish, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish, Turkish
PHYSICAL AND POWER CHARACTERISTICS	
Display size, type, resolution	2.4", TFT, 240 x 320 with brightness control
Battery Type	NiMH, user replaceable
Battery Operating Time (typical)	8 hours (60 tests in 20 minutes each hour; auto-off enabled)
Recharge Time	<4.5 hours
Power Save Features	Auto-off (disabled, 2, 5, 10 minutes)
AC Charger voltage, frequency, current	100-240 V, 50/60 Hz, 5VDC, 2A
Size	47 x 37 x 183 mm (1.8 x 1.5 x 7.2 in)
Weight	240 g (0.5 lb)
ENVIRONMENTAL CHARACTERISTICS	
Operating Temperature	0 to +50 °C
Storage Temperature	-40 to +70 °C
Relative Humidity	95%, non-condensing
Transit and shock	2G vibration, 30G shock

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).

FOCIS Flex – No Wireless
Fiber Optic Connector Inspection System

Ordering Information

DESCRIPTION	AFL NO.
FOCIS Flex Kit, soft carry case / holster, USB cable, AC charger, TRM 2.0 reporting software, reference guide, no tips, no BT or WiFi wireless functionality	FOCIS-FLX-NW-P4XN
FOCIS Flex Kit, soft carry case / holster, USB cable, AC charger, TRM 2.0 reporting software, reference guide, 2 user-selected UPC adapter tips (ferrule and bulkhead), user-selected One-Click cleaner, no BT or WiFi wireless functionality	FOCIS-FLX-NW-P4XU
FOCIS Flex Kit, soft carry case / holster, USB cable, AC charger, TRM 2.0 reporting software, reference guide, 2 user-selected APC adapter tips (ferrule and bulkhead), user-selected One-Click cleaner, no BT or WiFi wireless functionality	FOCIS-FLX-NW-P4XA

FOCIS Flex Adapter Tips (Contact AFL for adapter tips for other connector types)

DESCRIPTION	AFL NO.
SC-UPC bulkhead adapter tip	FFLX-01-SC
FC-UPC bulkhead adapter tip	FFLX-01-FC
ST-UPC bulkhead adapter tip	FFLX-01-ST
LC-UPC bulkhead adapter tip	FFLX-01-LC
Universal 2.5 mm, UPC ferrule adapter tip	FFLX-01-U25
Universal 1.25 mm, UPC ferrule adapter tip	FFLX-01-U125
SC-APC bulkhead adapter tip	FFLX-01-ASC
FC-APC bulkhead adapter tip	FFLX-01-AFC
LC-APC bulkhead adapter tip	FFLX-01-ALC
Universal 2.5 mm, APC ferrule adapter tip	FFLX-01-A25
Universal 1.25 mm, APC ferrule adapter tip	FFLX-01-A125
FOCIS Flex adapter extension tube, straight, 46 mm	FFLX-01-EXTS46
FOCIS Flex adapter extension tube, straight, 80 mm:	FFLX-01-EXTS80
E2000 PC/UPC bulkhead adapter tip	DFS1-00-0023MR
E2000 APC bulkhead adapter tip	DFS1-01-0008MR
Tip for SC/APC (OptiTap®) bulkhead adapter	DFS1-01-0007MR
Tip for OptiTip® APC ferrule and bulkhead adapter	DFS1-01-0013MR
Multi-row MTP/PC ferrule & bulkhead adapter extended tip kit (base plus multi-row MTP/PC front end tip)	DFS1-00-0050MR
MTP/PC ferrule & bulkhead adapter extended tip kit (base plus MTP/PC front end tip)	DFS1-00-0037MR
MTP/PC and MTP/APC ferrule & bulkhead adapter extended tip kit (base,MTP/PC, MTP/APC front end tips)	DFS1-00-0042MR
MTP/APC ferrule and bulkhead adapter extended tip kit (base plus MTP/APC front end tip)	DFS1-01-0010MR

International Sales and Service Contact Information
Available at www.AFLglobal.com/Test/Contacts

FOCIS WiFi2™ Fiber Optic Connector Inspection System

Features

- Trim, lightweight, ergonomic and highly productive tool
- App-based automatic and manual focus; auto-centering after image capture
- One button workflow using rapid LED feedback on probe
- Multi-color LED on probe for fast pass/fail user inspection feedback
- Pairs with an iOS or Android smart device or the aeRos® cloud-based workflow management platform
- IEC, IPC, AT&T and user-defined pass/fail analysis when paired with a smart device
- Wide range of adapter tips including MPO/MTP multi-fiber connectors and bulkheads
- Over 8 hours operation with rechargeable Li-Ion battery

Applications

- Inspection of connectors on patch cords or in bulkhead adapters
- Installation, troubleshooting and maintenance of fiber network
- Inspection of multi-fiber connectors including MPO16 and MXC®
- Critical fiber infrastructure performance assurance
- Verification of proper connector cleaning methods of procedure

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 transferable to the aeRos cloud. With rechargeable battery and convenient pass/fail LED feedback, FOCIS WiFi2 can be used semi-independently.

Wide range of adapter tips: Interchangeable adapter tips support single and multi-fiber connector inspection for a wide range of patch cords and bulkhead-mounted connectors having either PC/UPC or APC polished end-faces.
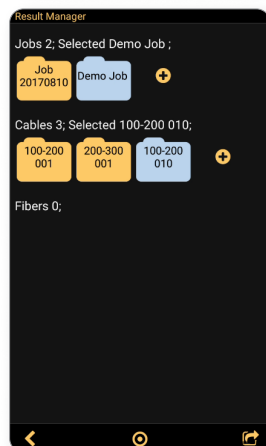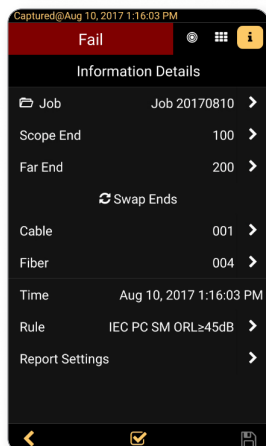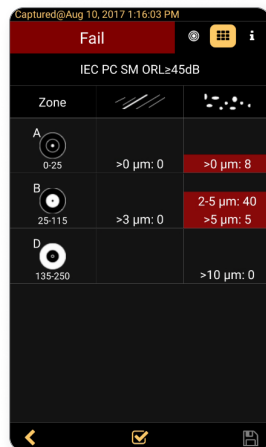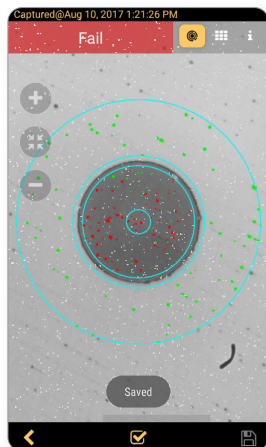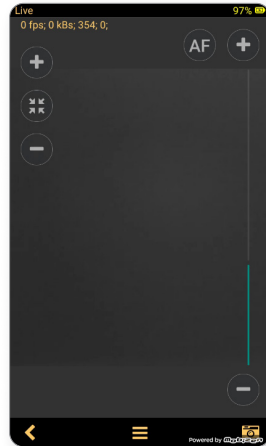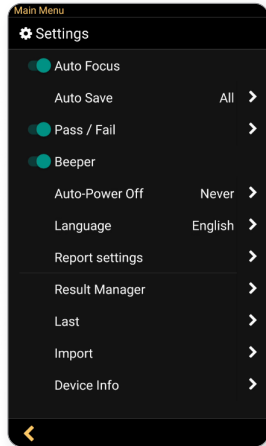
IEC 61300-3-35

IPC 8497-1

FOCIS WiFi2™ Fiber Optic Connector Inspection System

Smart Device Apps: FOCIS WiFi2

Features

- Live image video streaming
- Auto-focus and auto centering
- IEC, IPC, industry standard, and user-defined inspection rules
- Pinch-to-zoom fiber end-face images
- Report generation
- Multi-language Graphical User Interface (GUI)
- Day/time stamped job saving

FOCIS WiFi2™ Fiber Optic Connector Inspection System

Specifications[a]

OPTICAL PERFORMANCE	
Field of View (FOV)[b]	Live and Captured: 612 x 460 µm;
Manual Detection Capability (minimum)	0.25 µm
Auto Analysis Resolution	<1.0 µm
Stored[c] Image Size	2592 x 1944 (5M) pixels
End-face Illumination	Coaxial blue LED 476 nm
Maximum No Damage Live Fiber Power Level	+20 dBm (Image cannot be viewed if fiber is live)
OPERATING FEATURES	
WiFi Characteristics	IEEE 802.11bng
Focus	Auto-focus (≤3 sec) and manual focus
Centering	Auto-centering (<1 sec)
Button Functionality	Power On/Off (>3 secs); Capture/Analysis/Auto-save/Live
Main LED Functionality	Blue = Power On, Green = Pass, Red = Fail, White = No Fiber
Live Image Frames per Second	15
Magnification[b]	Variable from 80X to 700X, in Live and Capture modes
Applications Compatibility	Android ≥4.0.3, iOS ≥8.1
Image Capture with Pass/Fail Analysis[c]	IEC 61300-3-35 (2015), AT&T TP-76461, IPC-8497-1, user-set criteria
Image File Format	JPEG, GIF
Image & Pass/Fail Results Storage[c]	Yes
File Storage Capacity[c]	Unlimited
Result Manager[c]	Storage, rename, delete, transfer
Reporting[c]	Built-in fillable PDF reporter
Supported Languages[c]	English, French, German, Japanese, Korean, Russian, Spanish

PHYSICAL AND POWER CHARACTERISTICS	
Battery Type	Li-Ion, non-replaceable by user
Maximum Charger Current Draw	1.2A, battery charge current + device consumption current
Operating Time (typical)	60 hours[d]; 8 hours continuous
Recharge Time	≤4 hours
Low-Battery Warning	Viewed on smart device
Charging LED Status; viewed on smart device	Red = Charging, Green = Fully Charged, Blinking Red/Green = Battery Fault
Power Save Features (Controlled by iOS & Android App)	Probe Auto-Off – disabled, 5, 10, 30, 60 minutes; Probe WiFi Not Connected – 5 minutes
AC Charger Voltage, Frequency, Current	100-240VAC, 50/60Hz, 5VDC, 2A
Charger Jack	0.9 x 3.2 mm barrel, center (tip) positive
Size (Max Diameter x Length)	Ø 40 x 226 mm (Ø 1.6 x 8.9 in)
Weight	150 g (5.3 oz)
Safety & Compliance Certifications	UL, CE, FCC Part 15
ENVIRONMENTAL CHARACTERISTICS	
Operating Temperature	0 to +50 °C
Storage Temperature	-40 to +70 °C
Relative Humidity	95%, non-condensing
Vibration Limits	2G (transportation)

Notes:

a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F).
b. Viewed on Smart Device.
c. In iOS & Android Apps.
d. Operating conditions: 60 tests in 20 minutes, then auto-off; Repeat each hour

Ordering Information

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

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

DFS1 Digital FiberScope

DFS1 Digital FiberScope with M210 OTDR

Clean connector

Dirty connector

DFS1 Digital FiberScope

The DFS1 Digital FiberScope supports magnified video inspection of optical fiber connector end-faces during fiber optic cable and connector installation and maintenance. The ergonomically designed hand-held unit illuminates fiber end-faces and delivers magnified images via USB port to AFL's M-series OTDRs, C-series OTDRs and Certification Testers. FiberScope software displays, labels and stores captured images as part of connector installation and/or maintenance records.

A large adjustment knob permits easy focusing using real-time view. Once focused, a conveniently located trigger button signals the attached display device to capture the image for analysis and archiving. The scope's ergonomic shape and control locations support comfortable, single-handed operation.

The DFS1 is powered through the USB port, eliminating the need for an additional battery or AC power supplies. Electronic video inspection eliminates all danger of eye damage from active (lit) fibers carrying either visible or infrared wavelengths.

An extensive assortment of adapters supports inspection of a wide range of optical jumper cable connector ferrules and bulkhead adapters. Bulkhead adapter tips are available in multiple lengths as well as 60° angle. Connector adapters are available for PC, UPC or APC polished ferrules in 1.25 mm, 2.5 mm and other diameters. The DFS1 is available in three different kits which provide either PC/UPC adapters, APC adapters or no adapters.

AFL SimpleView™ Fiber Inspection Software is an application, which permits the DFS1 Digital FiberScope to be used with Windows® XP or Windows® 7 computers. AFL SimpleView software displays a live, high-resolution video image of the end-face of an optical fiber on the PC's display. SimpleView software is a free download www.AFLglobal.com.

Features

- Ergonomic, hand-held design
- Single-handed operation
- 400x magnification
- Fast, easy focus and display capture
- Video output via USB port to M- and C-series or user PC
- Powered from USB; no batteries required
- Extensive assortment of interchangeable fiber connector and bulkhead adapter tips
- Adapter tips easily changed; no tools required
- Use AFL SimpleView PC software with DFS1 to inspect connectors using a laptop PC

Applications

- Ideal for telco, broadband and enterprise applications
- Optical connector and bulkhead adapter inspection
- Display and analyze fiber end-face quality on C- and M-series
- Visually inspect fiber end-faces for damage or contamination impairing optical transmission
- Generate installation inspection records, associating captured digital photo with fiber ID

DFS1 Digital FiberScope with M700 OTDR

DFS1 Digital FiberScope Kit

DFS1 Digital FiberScope

Specifications [a]

PARAMETERS	VALUE
400X	Magnification
~400 µm x 300 µm	Field of View
0.5 µm detectable	Resolution
0°C to 50°C	Operating Temperature
-20°C to 70°C	Storage Temperature
Manual adjustment, 2 mm max travel	Focus
35 mm diameter x 175 mm length (without tip)	Dimensions
200 g	Weight
Blue LED	Light Source
USB port of M-series OTDRs or C-series OTDRS and Certification Testers	Power Supply

Note:
a. All specifications valid at 23°C ±2°C (73.4°F ±3.6°F) unless otherwise specified.

Ordering Information

The DFS1 is available in three different kits which provide either PC/UPC adapters, APC adapters, or no adapters. All kits include soft carry case, a storage box to hold up to six adapter tips, FiberScope display software update for M-series OTDRs (M200, M700) or C-series OTDRs and Certification Testers (C840, C850, C860, C880), and a quick reference guide.

DESCRIPTION	AFL NO.
DFS1 Digital FiberScope PC/UPC Inspection Kit includes: (1) DFS1-00-04X0MR DFS1 USB Digital FiberScope (1) DFS1-00-0001MR Universal 1.25 mm male PC adapter tip (1) DFS1-00-0002MR Universal 2.5 mm male PC adapter tip (1) DFS1-00-0003MR SC and FC female bulkhead adapter tip (1) DFS1-00-0004MR LC female bulkhead adapter tip (1) DFS1-04-0001MZ soft carry case for scope and adapters (1) 8500-05-0001MZ One-Click Cleaner SC, ST, FC (1) 8500-05-0002MZ One-Click Cleaner LC/MU (1) 1400-01-0093MZ 6-compartment adapter tip storage box (1) DFS1-001-00 DFS1 software update for M200, M210, M700, C840, C850, C860, C880	DFS1-00-04XU
DFS1 Digital FiberScope APC Inspection Kit includes: (1) DFS1-00-04X0MR DFS1 USB Digital FiberScope (1) DFS1-01-0002MR Universal 2.5 mm male APC adapter tip (1) DFS1-01-0003MR SC/APC and FC/APC bulkhead adapter tip (1) DFS1-01-0011MR SC/APC bulkhead adapter tip (1) DFS1-04-0001MZ soft carry case for scope and adapters (1) 8500-05-0001MZ One-Click Cleaner SC, ST, FC (1) 1400-01-0093MZ 6-compartment adapter tip storage box (1) DFS1-001-00 DFS1 software update for M200, M210, M700, C840, C850, C860, C880	DFS1-00-04XA
DFS1 USB Digital Fiber Inspection Kit without Adapters includes: (1) DFS1-00-004X0MR DFS1 USB Digital FiberScope (1) Soft carry case for scope and adapters (1) 6-compartment adapter tip box (1) DFS1-001-00 DFS1 software update for M200, M210, M700, C840, C850, C860, C880	DFS1-00-04XN
DFS1 FiberScope display software update for M200, M210, M700, C840, C850, C860, C880	DFS1-001-00

DFS1 Digital FiberScope

Ordering Information (continued)

DFS1 Accessories

DESCRIPTION	AFL NO.
Soft carry case for DFS1 Digital FiberScope and adapters	DFS1-04-0001MZ
6-compartment adapter tip storage box	1400-01-0093MZ
11-compartment adapter tip storage box	1400-01-0094MZ
One-Click Cleaner SC, ST, FC	8500-05-0001MZ
One-Click Cleaner LC/MU	8500-05-0002MZ
AFL SimpleView PC viewer software	Free download from www.AFLglobal.com

DFS1-00-0001MR

DFS1-00-0002MR

DFS1-00-0004MR

DFS1-00-0013MR

DFS1 Adapter Tips

The following table identifies commonly required adapter tips. Other adapter tips available. Please consult the factory for additional adapter tips and prices.

DESCRIPTION	AFL NO.
PC FERRULE CONNECTOR ADAPTER TIPS	
Universal 1.25 mm tip for PC ferrule connector	DFS1-00-0001MR
Universal 2.5 mm tip for PC ferrule connector	DFS1-00-0002MR
Universal 2.0 mm tip for PC ferrule connector	DFS1-00-0005MR
Slim 1.6 mm tip for PC ferrule (termini)	DFS1-00-0006MR
Slim 1.25 mm probe tip for LuxCis and termini	DFS1-00-0038MR
Slim 2.5 mm PC ferrule tip for ELIO and termini	DFS1-00-0039MR
Tip for ELIO 1.25 mm ferrule connector	DFS1-00-0008MR
SC/PC AND FC/PC BULKHEAD ADAPTER TIPS	
Tip for SC/PC and FC/PC bulkhead adapter	DFS1-00-0003MR
Short extended tip for SC/PC and FC/PC bulkhead adapter	DFS1-00-0010MR
Medium extended tip for SC/PC and FC/PC bulkhead adapter	DFS1-00-0011MR
Long extended tip for SC/PC and FC/PC bulkhead adapter	DFS1-00-0012MR
60° angled tip for SC/PC and FC/PC bulkhead adapter	DFS1-00-0013MR
60° angled tip for SC/PC bulkhead adapter	DFS1-00-0040MR
ST/PC BULKHEAD ADAPTER TIPS	
Tip for ST/PC bulkhead adapter	DFS1-00-0014MR
Short extended tip for ST/PC bulkhead adapter	DFS1-00-0015MR
Medium extended tip for ST/PC bulkhead adapter	DFS1-00-0016MR
Long extended tip for ST/PC bulkhead adapter	DFS1-00-0017MR
60° angled tip for ST/PC bulkhead adapter	DFS1-00-0018MR
LC/PC BULKHEAD ADAPTER TIPS	
Tip for LC/PC bulkhead adapter	DFS1-00-0004MR
Short extended tip for LC/PC bulkhead adapter	DFS1-00-0019MR
Medium extended tip for LC/PC bulkhead adapter	DFS1-00-0020MR
Long extended tip for LC/PC bulkhead adapter	DFS1-00-0021MR
60° angled tip for LC/PC bulkhead adapter	DFS1-00-0022MR

DFS1 Digital FiberScope
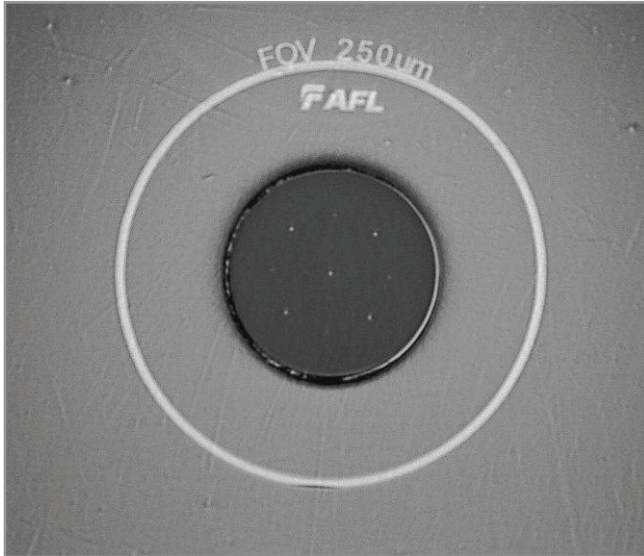
Ordering Information (continued)

DESCRIPTION	AFL NO.
E2000/PC BULKHEAD ADAPTER TIPS	
Short extended tip for E2000/PC bulkhead adapter	DFS1-00-0023MR
Medium extended tip for E2000/PC bulkhead adapter	DFS1-00-0024MR
Long extended tip for E2000/PC bulkhead adapter	DFS1-00-0025MR
MU/PC BULKHEAD ADAPTER TIPS	
Tip for MU/PC bulkhead adapter	DFS1-00-0026MR
Short extended tip for MU/PC bulkhead adapter	DFS1-00-0027MR
Medium extended tip for MU/PC bulkhead adapter	DFS1-00-0028MR
Long extended tip for MU/PC bulkhead adapter	DFS1-00-0029MR
60° angled tip for MU/PC bulkhead adapter	DFS1-00-0030MR
MTP/PC MULTI-FIBER ADAPTER TIPS (FERRULE & BULKHEAD)	
MTP/PC bulkhead adapter extended tip; includes base plus MTP/PC front end tip. Test ferrules using adapter tip with bulkhead adapter.	DFS1-00-0037MR
Front end tip for MTP/PC ferrule and bulkhead adapter	DFS1-00-0041MR
MTP/PC and MTP/APC bulkhead adapter extended tip kit; includes base plus MTP/PC and MTP/APC front end tips. Test ferrules using adapter tip with bulkhead adapter.	DFS1-00-0042MR
Multi-row MTP/PC bulkhead adapter extended tip; Includes base plus MTP/PC front end tip. Test multi-row MTP/PC ferrules using this adapter tip with multi-row bulkhead adapter	DFS1-00-0050MR
MISCELLANEOUS PC BULKHEAD ADAPTER TIPS	
Tip for LEMO 2.0 mm bulkhead adapter	DFS1-00-0031MR
Tip for LX.5/PC bulkhead adapter	DFS1-00-0032MR
Tip for 2.0 mm termini bulkhead adapter	DFS1-00-0033MR
Tip for 1.6 mm termini bulkhead adapter	DFS1-00-0034MR
Tip for ELIO 1.25 mm bulkhead adapter	DFS1-00-0036MR
APC TIPS	
Universal 1.25 mm tip for APC ferrule connector	DFS1-01-0001MR
Universal 2.5 mm tip for APC ferrule connector	DFS1-01-0002MR
Tip for SC/APC and FC/APC bulkhead adapter	DFS1-01-0003MR
Tip for SC/APC bulkhead adapter	DFS1-01-0011MR
Tip for LC/APC bulkhead adapter	DFS1-01-0004MR
Short extended tip for SC/APC bulkhead adapter	DFS1-01-0005MR
60° angled tip for SC/APC bulkhead adapter	DFS1-01-0006MR
Tip for E2000/APC bulkhead adapter	DFS1-01-0008MR
Tip for LX.5/APC bulkhead adapter	DFS1-01-0009MR
MTP/APC bulkhead adapter extended tip kit; includes base plus MTP/APC front end tip. Test ferrules using adapter tip with bulkhead adapter.	DFS1-01-0010MR
Front end tip for MTP/APC ferrule and bulkhead adapter	DFS1-01-0012MR

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

AFL SimpleView™ Fiber Inspection Software

AFL SimpleView Fiber Inspection Software is an application that permits the DFS1 Digital FiberScope to be used with Windows® XP or Windows® 7 computers. AFL SimpleView software provides a live, high-resolution video image of the end-face of an optical fiber. This capability enables fiber installers and network technicians to inspect and troubleshoot optical fibers and verify that they are clean and undamaged.

The DFS1 Digital FiberScope is an ergonomically-designed hand-held inspection probe that illuminates the end-face of single-mode or multimode optical fiber and delivers live video images to laptop computers and OTDRs.

Capabilities

- 0.5 μm detection
- 1.0 μm optical resolution
- 250 μm field of view (minimum)
- Integrated focus control

Applications

- Document "as-built" condition of patch cords and connectors
- Document "as-inspected" condition of malfunctioning links
- Perform final or incoming inspection of equipment and components

Minimum System Requirements

- OS: Windows XP or Windows 7
- USB: USB 1.1 Host

AFL SimpleView software is available as a free download at:

http://www.aflglobal.com/Products/Test-and-Inspection/Software/AFL_SimpleView%28TM%29_Fiber_Inspection_Software.aspx

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

VS300 View Safe Video Microscope

Features

- Safety: The VS300 has no optical path to the user's eye
- Ergonomic: Comfortable molded easy grip case
- 2.5 mm Universal adapter included (accepts FC, ST, FC, etc.)
- View PC and angled connector types including MPO/MTP
- NTSC video output

Applications

- Verify jumper ends are clean prior to connecting to network
- Inspect end-faces for scratches or pits
- Eliminate the most common network fault (bad connectors)

Inspect patch cords with VS300 from AFL. Designed for field use, the VS300 scope delivers a high quality end-face image at 400x magnification. Quickly identify scratches, dirt or other problems normally associated with poor network performance.

Fact: A large percentage of network failures are caused by dirty or damaged end-faces on fiber optic connectors. Inspecting jumper end-faces prior to connection is critical to network performance. The VS300 scope provides a quality optical inspection tool at an affordable price.

Safety by design: the VS300 Utilizes a camera and micro display to provide an end-face image while eliminating the optical path to the technician's eye. This ensures no harm in the case of inadvertent viewing of live fibers.*

The VS300 features a Universal adapter cap mount that accepts a variety of thread-on style adapter caps (ordered separately) to ease inspection of many connector style. A momentary power switch located on the top panel keeps one hand free for focusing.

Tripod mount: For stationary work, the tripod mount allows the VS300 to attach to any standard camera tripod.

Auto time-out feature provides long battery life from standard 2 x AA alkaline batteries.

*Always follow your company's laser safety procedures and never use an optical microscope to view live fiber optic connectors.

VS300 View Safe Video Microscope

Specifications [a]

OPTICAL	
Magnification	400x equivalent to 8" monitor for 20" distance
Adapter Mount	Thread-on (Universal)
Safety Filter	Not required - no optical path to user
Video Output	NTSC
GENERAL	
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +60 °C
Humidity	0 to 90 % (non - condensing)
Power Supply	2 AA alkaline batteries, optional AC adapter
Battery Life	~250 inspections at 60 seconds each
Indicators	Low battery
Weight	0.42 kg (0.94 lb)
Size (H x W x D)	3.5 x 1.5 x 8.5 in (8.9 x 3.8 x 21.6 cm)

Note:

a. All specifications valid at 25 °C unless otherwise specified.

Ordering Information

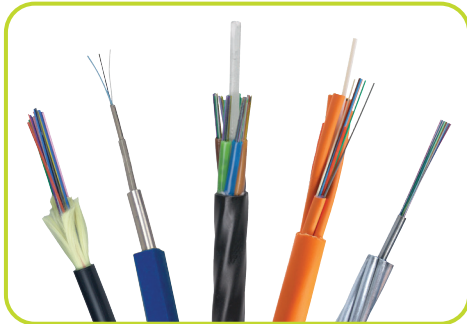| DESCRIPTION	AFL NO
VS300 Inspection Kit. Includes VS300 Inspection Scope, 2.5 mm Universal adapter cap, 2 x AA batteries, users guide.	VS300
VS300 UPC/APC MPO Inspection and Cleaning Kit. Includes VS300, MPO APC (8°) adapter tip, MPO UPC adapter tip, 2.5 mm Universal adapter tip, One-Click MPO Cleaner, Optixx Precision Lens and Instrument Cleaning kit, hard case, 2 x AA batteries, users guide.	MPOK-AU-VIDX
VS300 UPC MPO Inspection and Cleaning Kit. Includes VS300 Inspection Scope, MPO UPC adapter tip, 2.5 mm Universal adapter tip, One-Click MPO Cleaner, Optixx Precision Lens and Instrument Cleaning kit, hard case, 2 x AA batteries, users guide.	MPOK-XU-VIDX
VS300 APC MPO Inspection and Cleaning Kit. Includes VS300 Inspection Scope, MPO APC (8°) adapter tip, 2.5 mm Universal adapter tip, One-Click MPO Cleaner, Optixx Precision Lens and Instrument Cleaning kit, hard case, 2 x AA batteries, users guide.	MPOK-AX-VIDX
VS300 UPC/APC MPO Upgrade Kit for VS300 Owners. Includes MPO APC (8°) adapter tip, MPO UPC adapter tip, One-Click MPO Cleaner, Optixx Precision Lens and Instrument Cleaning Kit, hard case.	MPOK-AU-VIDU
VS300 UPC MPO Upgrade Kit for VS300 Owners. Includes MPO UPC adapter tip, One-Click MPO Cleaner, Optixx Precision Lens and Instrument Cleaning Kit, hard case.	MPOK-XU-VIDU
VS300 APC MPO Upgrade Kit for VS300 Owners. Includes MPO APC (8°) adapter tip, One-Click MPO Cleaner, Optixx Precision Lens and Instrument Cleaning Kit, hard case.	MPOK-AX-VIDU
VS300 angled SC adapter tip	8800-00-0220
VS300 angled FC adapter tip	8800-00-0218
VS300 angled E-2000 adapter tip	8800-00-0229
VS300 angled MTP/MPO adapter tip	8800-00-0234
VS300 UPC MTP/MPO male adapter tip	8800-00-0233
VS300 1.25 mm Universal male adapter tip	8800-00-0236
VS300 2.5 mm Universal male adapter tip	8800-00-0219
VS300 SMC 0° adapter tip	8800-00-0235
VS300 1.6 mm (pin) adapter tip	8800-00-0244
VS300 2.0 mm (pin) adapter tip	8800-00-0248
VS300 EC (radial) adapter tip	8800-00-0277
VS300 1.25/2.5 mm (2-position) Universal adapter tip	8800-00-0265

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts

Please contact your AFL Sales Representative for information about our other products or services.
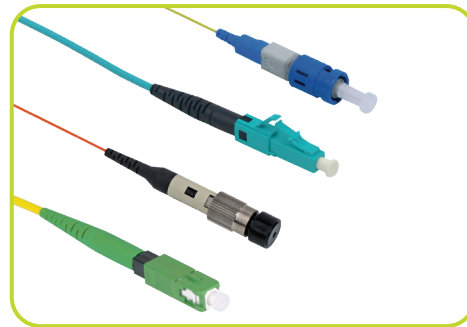
**FIBER OPTIC CABLE
(OPGW, ADSS, Loose Tube)**

**TEST AND INSPECTION
EQUIPMENT**

**FUSION SPLICING
SYSTEMS AND ACCESSORIES**

**FIELD-INSTALLABLE
CONNECTORS**

Along with a broad range of products, we offer professional training through the
Light Brigade®. Over 55,000 people worldwide have completed Light Brigade training.
Our instructor-led classes provide critical knowledge and skills for technicians, engineers and others.
Check out our standard and specialty courses at www.lightbrigade.com

FAFL

International Sales and Service Contact Information

Available at www.AFLglobal.com/Test/Contacts