



DFS1 Digital FiberScope

## 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](http://www.AFLglobal.com).

### 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 M210 OTDR

### 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



DFS1 Digital FiberScope with M700 OTDR



DFS1 Digital FiberScope Kit

## DFS1 Digital FiberScope

### Specifications <sup>a</sup>

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	<b>DFS1-00-04XU</b>
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	<b>DFS1-00-04XA</b>
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	<b>DFS1-00-04XN</b>
DFS1 FiberScope display software update for M200, M210, M700, C840, C850, C860, C880	<b>DFS1-001-00</b>

## DFS1 Digital FiberScope

### Ordering Information (continued)

#### DFS1 Accessories



DFS1-00-0001MR



DFS1-00-0002MR



DFS1-00-0004MR



DFS1-00-0013MR

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 <a href="http://www.AFLglobal.com">www.AFLglobal.com</a>

#### 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.
<b>PC FERRULE CONNECTOR ADAPTER TIPS</b>	
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
<b>SC/PC AND FC/PC BULKHEAD ADAPTER TIPS</b>	
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
<b>ST/PC BULKHEAD ADAPTER TIPS</b>	
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
<b>LC/PC BULKHEAD ADAPTER TIPS</b>	
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.
<b>E2000/PC BULKHEAD ADAPTER TIPS</b>	
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
<b>MU/PC BULKHEAD ADAPTER TIPS</b>	
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
<b>MTP/PC MULTI-FIBER ADAPTER TIPS (FERRULE &amp; BULKHEAD)</b>	
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
<b>MISCELLANEOUS PC BULKHEAD ADAPTER TIPS</b>	
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
<b>APC TIPS</b>	
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](http://www.AFLglobal.com/Test/Contacts)