

Datasheet: FI-7000 FiberInspector Pro

Roughly 85% of fiber optic network failures are due to contaminated end-faces. While inspecting and cleaning end faces and connectors is not new, it is growing in importance and linked with increasing data rates which impact budgets.

Fluke Networks' FI-7000 FiberInspector Pro allows you to inspect and certify end-faces in 2 seconds so you can get the job done the first time. Automated PASS/FAIL certification take the guess work out of fiber inspection so anyone can be a fiber expert.



Eliminate the #1 cause of fiber failure

End-face contamination is a leading cause of fiber failures. Dirt and contaminant cause insertion loss and back-reflection that inhibits optical transmission and causes havoc with transceivers. Fiber loss and OTDR testing can expose this problem, but in many cases, dirty connections make fiber testing time consuming and inaccurate.

Since dirt can be an issue before, during, or after fiber optic certification testing, and migrate from one end-face to another upon mating, both sides of any connection must always be cleaned and inspected.

Further, mating contaminated connectors can cause permanent damage as microscopic debris is crushed between end-faces in physical contact. Even factory terminated patch cords or pigtailed must be inspected as protective caps do not keep end-faces clean. Avoiding this common cause of failure, starts with inspecting the end-face and eliminating any contamination before insertion into a bulkhead or piece of equipment.

Overview

The FI-7000 FiberInspector Pro enables you to quickly inspect and certify fiber end-faces inside ports or patch cords. It's 2-second automated PASS/FAIL certification eliminates human subjectivity and enables anyone to become a fiber inspection expert.

- Automated Pass/Fail acceptance testing of fiber end-faces
- Graphical indication of problem areas due to contamination, pits, chips, and scratches
- Large touchscreen for pinch and zoom
- Certify to industry standards - IEC 61300-3-35
- No more confusion about whether the fiber is good or bad
- Eliminate human subjectivity from end-face measurements
- Save end-face views during certification process
- Reduce fiber inspection time with 2-second grading
- ProjX™ system manages job requirements and progress from set-up to systems acceptance, making sure all tests are completed correctly
- Taptive™ user interface simplifies set-up, and eliminates error
- Analyze test results and create professional test reports using LinkWare™ management software



Fiber Inspection Certification

Certify your fiber end-faces to industry standards - IEC 61300-3-35. Or if you prefer, you can manually grade your end-faces.

Graphical indication of Problem Areas

FiberInspector Pro highlights defects found on fiber end-faces. Instead of just coloring the defect area, the FI-7000 colors the defect and highlights the defect's background so that the defect is clearly visible. Defects that fail the standard's requirements are colored Red, while defects that pass are colored Green.

Store End-face Images

Store both end-face images of a fiber directly in your Versiv test results. Combine end-face images with CertiFiber Pro OLTS and/or OptiFiber Pro OTDR test results for the complete history of your fiber cabling health.

Built on the Versiv Platform

The FI-7000 is built on the Versiv Cable Certification Platform which enables you to easily add optical loss (OLTS) and Optical Time Domain Reflectometry (OTDR) or even twisted pair copper or network analysis functionality to FI-7000. Product add-on kits are available for the DTX CableAnalyzer, CertiFiber Pro OLTS, OptiFiber Pro OTDR and OneTouch AT Network Assistant.

Versiv's ProjX System

ProjX manages jobs from setup to systems acceptance, ensuring that all tests are completed correctly. Enter the testing details for a job once, and ProjX stores them in a project file with a name the whole team can understand. Change modules or jobs without having to re-enter details. Support multiple testers on the same job by sharing project files via USB sticks or email.

Taptive User Interface

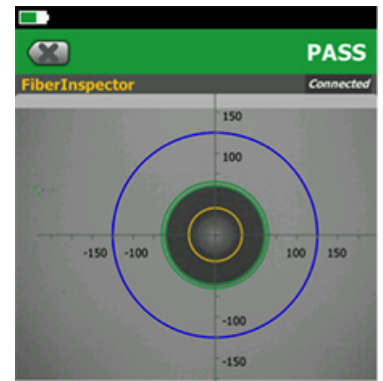
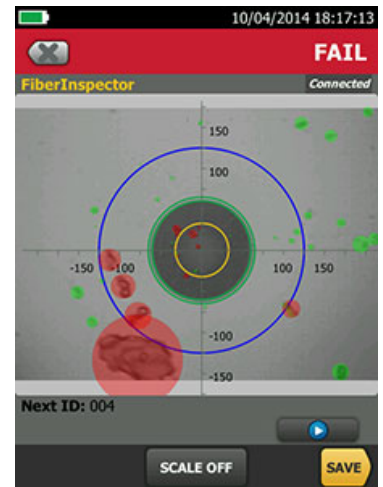
Now you can test across multiple media types and requirements as easy as using a smartphone. Simply, select the job you're working on, and the large display confirms the test that needs to be performed. Taptive helps you tap into the overall cabling infrastructure faster and more easily.

LinkWare Management System

Leveraging the popular and multi-featured LinkWare management software application, FI-7000 FiberInspector Pro users can easily access the ProjX management system data, generate reports, and upgrade the software in their testers. Project Managers have full capabilities to manage workflow and consolidate test results. Users can provide the finishing touch by adding their company logo to the report and offer it unaltered to their customers for system acceptance purposes. Keep your business tools simple, no matter which Fluke Networks copper or fiber tester you are using, LinkWare is the software package that reports it all.

PASS/FAIL Fiber End-face Grading

The FI-7000's PASS/FAIL fiber end-face grading is available to all Versiv owners. It is included in Versiv firmware v3.0 and higher. To enjoy this free fiber end-face grading, just download the latest Versiv firmware and create a new Project using FiberInspector as the test.



Technical Specifications

Inspection Probe specifications	
Resolution	2M pixels
Light Source	Blue LED
Power Source	Versiv mainframe
Field of View (FOV)	Horizontal: 425 μ m, Vertical: 320 μ m
Minimum Detectable Particle Size	0.5 μ m
Dimensions	Approximately 6.75 in x 1.5 in (1175 mm x 35 mm) without adapter tip
Weight	200 g
Temperature Range	Operating: 32°F to 122°F (0 °C to +50 °C), Storage: -4°F to +158°F (-20°C to +70°C)
Certifications	CE

VFL specifications	
On/Off Control	Mechanical switch and a button on the touch screen
Output Power	316 μ W (-5 dBm) = peak power = 1.0 mW (0 dBm)
Operating Wavelength	650 nm nominal
Spectral Width (RMS)	\pm 3 nm
Output Modes	Continuous wave Pulsed mode (2 Hz to 3 Hz blink frequency)
Connector Adapter	2.5 mm universal
Laser Safety (Classification)	Class II CDRH Complies to EN 60825-2

General Specifications	
Weight	Mainframe with module and battery: 3 lbs, 5 oz (1.28 kg)
Dimensions	Mainframe with module and battery: 2.625 in x 5.25 in x 11.0 in (6.67 cm x 13.33 cm x 27.94 cm)
Battery	Lithium ion battery pack, 7.2 volts
Battery Life	Eleven hour with Inspection probe attached

Charge Time	
Tester Off	Four hours to charge from 10% to 90% capacity
Tester On	Six hours to charge from 10% to 90% capacity with the tester on

Environmental Specifications	
Operating Temperature*	-18°C to 45°C
Non-operating Temperature	-30°C to 60°C
Operating Altitude	4,000 m (13123 ft) 3200 m (10,500 ft) with ac adapter
Storage Altitude	12,000 m
EMC	EN 61326-1

* Do not keep battery at temperatures below -20°C (-4°F) or above 50°C (122°F) for periods longer than one week to maintain battery capacity.

Ordering Information

Device	Description
FI-7000	FiberInspector Pro
FI-7000-MPO	FiberInspector Pro w/MPO tip and cleaning
FI-1000	USB video probe for Versiv products
FI-1000-KIT	USB video probe for Versiv products plus tip set (LC, FC/SC BULKHEAD, 1.25 AND 2.5MM UNIVERSAL TIPS in a box)
FI1000-TIP-KIT	LC,FC/SC bulkhead, 1.25 AND 2.5MM universal tips in a box
FI1000-ST-TIP	ST bulkhead video probe tip
FI1000-MU-TIP	MU bulkhead video probe tip
FI1000-E2KAPC-TIP	E2000/APC bulkhead video probe tip
FI1000-SCAPC-TIP	SC/APC bulkhead video probe tip
FI1000-E2K-TIP	E2000 bulkhead video probe tip
FI1000-LCAPC-TIP	LC/APC bulkhead video probe tip
FI1000-2.5-UTIP	2.5 mm universal video probe tip for patch cords
FI1000-1.25-UTIP	1.25 mm universal video probe tip for patch cords
FI1000-2.5APC-UTIP	2.5 mm APC universal video probe tip for patch cord
FI1000-MPO-UTIP	MPO probe tip and translator knob for patch cords and bulkheads
FI1000-MPOAPC-UTIP	MPO/APC probe tip and translator knob for patch cords and bulkheads
FI1000-1.25APC-TIP	1.25 mm APC universal video probe tip for patch cords
FI1000-MPOAPC-RT	MPO/MTP APC REPLACEMENT TIP WITH NO TRANSLATOR KNOB
FI1000-MPO-RT	MPO/MTP REPLACEMENT TIP WITH NO TRANSLATOR KNOB
NFC-KIT-CASE-E	Enhanced Fiber Optic Cleaning Kit - Includes an IBC OneClick 1.25mm cleaner, an IBC OneClick 2.5mm cleaner, an IBC OneClick MPO cleaner, a solvent pen, a cleaning cube and a softcase
VERSIV-SM-CASE	Versiv Small Carry Case