DATASHEET

CertiFiber® Pro Optical Loss Test Set

At a Glance

The CertiFiber® Pro is a Tier 1 (basic) fiber certification solution and part of the Versiv™ Cabling Certificationproduct family. The Versiv line also includes copper certification and OTDR analysis modules. Versiv is designed around the revolutionary ProjX™ management system and Taptive™ user interface. ProjX helps ensure jobs are done correctly the first time, thus reducing rework. With the intuitive Taptive user interface, instrument set-up and operation are so simple, even operators with limited cabling skills can successfully test and troubleshoot a system. Analysis of measurement data and professional test reports are easy with the familiar LinkWare™ PC management software. Upload and consolidate fiber and copper certification test results from remote sites and manage projects from smart devices using the LinkWare Live service.

Versiv makes you money every time you use it.



Overview

Installing a high performance fiber optic cabling system starts with systems design and ends with systems acceptance. Certifying cabling to industry performance standards is a core element of the process. The faster it goes, the more profitable you'll be. Unfortunately, there are a lot of things that slow the process down – setting the tester up incorrectly, testing to the wrong limits, dirty fiber endfaces causing testing failures, waiting for lead technicians to analyze or troubleshoot failures, misinterpretation of results, and test reports that customers can't understand.

The CertiFiber Pro Optical Loss Test Set (OLTS) helps cabling professionals accomplish more than ever. It's all about accurate, error-free certification, making jobs easier to manage and certifying fiber optic cabling to industry standards, faster. CertiFiber Pro OLTS complies with all applicable cabling standards, which call out the new Encircled Flux launch condition requirements for optical sources. It's not just for the expert technicians and Project Managers. Individuals of various skill levels can improve the set-up, operation, test reporting, and simultaneously manage diverse projects.

Unique features:

- Versiv enables users to accomplish more than ever with a cable tester, accelerating every step of the testing process
- ProjX management system eases tasks from initial set-up of a job to system acceptance. It eliminates redundant steps, and ensures that all tests are completed correctly the first time, and every time
- Taptive user interface puts advanced data analysis and easy set-up and operation at the fingertips of technicians of all skill levels
- LinkWare PC management software provides unmatched analysis of test results and professional test reports
- LinkWare Live allows you to manage results and the testing process from your smart devices

Performance:

- Three-second Autotest optical loss measurement of two fibers at two wavelengths with distance measurement and optical loss budget calculation
- Provides automatic Pass/Fail analysis to industry standards or custom test limits
- Identifies incorrect test procedures resulting in negative loss readings
- Double ended Pass/Fail certification of fiber optic connector endfaces
- Graphical indication of problem areas on fiber endfaces due to contamination, pits, chips and scratches
- Interchangeable power meter adapters available for all typical connector types (SC, ST, LC and FC) to enable the most accurate 1-jumper reference method
- Built-in visual fault locator for basic troubleshooting and polarity determination
- Dual wavelength measurement capability on a single fiber allows the tester to be used in applications that require only one fiber link
- Compliant with TIA-526-14-B and IEC 61280-4-1 Encircled Flux requirements with no additional equipment or procedures
- Integrated Wi-Fi allows you to easily upload results to LinkWare Live

Standards:

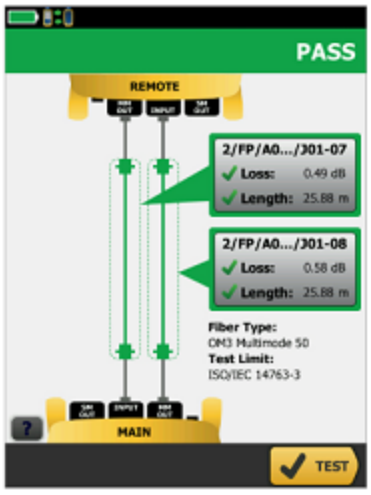
- Allows combined OLTS Tier 1 (basic), OTDR Tier 2 (extended) certification, end-face inspection and reporting when paired with OptiFiber™ Pro OTDR
- Set reference wizard verifies test reference cords (TRCs) per ISO/IEC 14763-3 and eliminates negative loss errors
- Encircled Flux compliant optical launch conditions as required by ANSI/TIA and ISO/IEC standards for testing multimode fiber
- Certify fiber optic endfaces to industry standards – IEC 61300-3-35



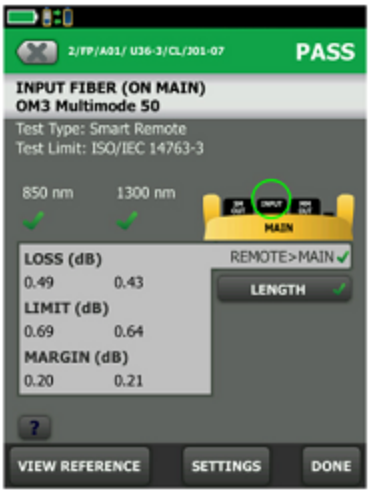
Detailed View of Fiber Loss Results

View the results of each fiber tested at the same time and the Pass/Fail status on the test results screen. Easily identify the fiber type, test limits, loss and which fiber correlates to each result. All good results are highlighted with a green icon, any faulty events are highlighted with red icons and fibers are identified as output or input to facilitate quick identification and corrective action. The Taptive user interface also makes the results screen a powerful tool with a detailed window which can be touched to drill down and see detailed results.

The screen below shows margin and limit values in the window. Simply tap the screen to drill into specific results as shown in second image.



Complete data is displayed with a test result. The dotted line shows what's included in the measurement. Detail windows show the results for each fiber tested.



Detail shows margin and allowable limits for the fiber at two wavelengths.

Double Ended Fiber Optic Endface Certification

Fiber optic connector end-face contamination is a leading cause of fiber failures. Dirt and contaminants cause insertion loss and back-reflection that inhibit optical transmission and causes havoc with transceivers. Fiber loss 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 fiber optic connector end-face to another upon mating, both sides of any connection must always be cleaned and inspected.

CertiFiber Pro provides double ended fiber optic inspection capability through the use of 2 Versiv Main units. One unit acts as the normal CertiFiber Pro main and the 2nd unit functions as a Remote unit. Using a Main unit as a Remote provides a touchscreen interface at the remote end giving you the ability to visually inspect fiber endfaces!

CertiFiber Pro's double ended fiber optic inspection capability allows you to inspect and certify fiber optic connector end-faces at both ends of your fiber link in less than a second so you can get your job done the first time. This double ended fiber optic inspection capability provides automated PASS/FAIL certification take the guess work out of fiber inspection so anyone can be a fiber expert.



Create, Manage and Select Projects

As part of the Versiv family, the CertiFiber Pro OLTS incorporates ProjX to ease job set-up, minimize test limit errors and better manage multiple projects. Project managers and technicians can create new projects for different jobs, locations or customers and or easily define project requirements for each job ahead of time – including all tests parameters and cable IDs – then keep track of job progress. All project detail information is stored in LinkWare for easy transfer to other Versiv cabling certification testers.

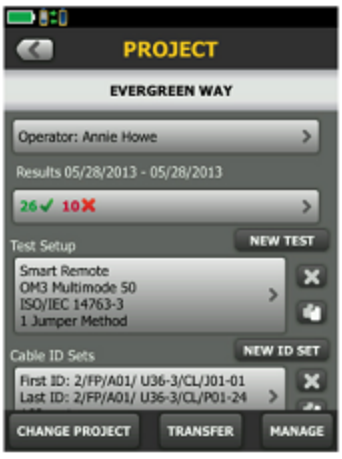
The ProjX management system allows project specifications to be loaded and saved into the tester ahead of time. As the tester moves from job to job, the project list is easily accessible and users can quickly see detail data such as percentage of links tested, percentage to completion and percentage of results exported.



Set-up or view test limits, fiber types,and testing attributes in the field or the office.



View multiple projects in the office or the field.



Touch a project icon to see project specific detail.

Dynamic Project and User Profile Management

CertiFiber Pro increases efficiency by allowing field technicians access to project based settings entered at the time of set-up. This minimizes set-up errors or lost files when switching from one job to another or utilizing multiple testers on a single job more. Setting limits and establishing cable ID sets is easy with the Taptive user interface. And once the technicians start testing, the progress of each project is easily monitored.

ProjX Management System specific benefits are: Real time status to completion on each job 0-100%, giving the operator the "Fix Later" option to isolate any test requiring a second look and helps to assure nothing is overlooked. The "Fix Later" selection creates a punch list or automatic "to do" list for correcting any workmanship issues.

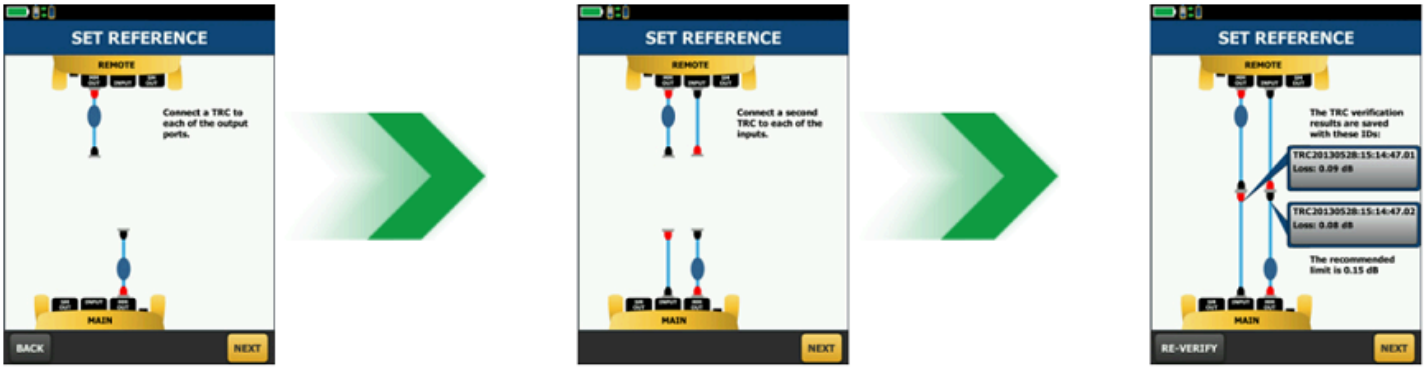
Managing the testing of multiple jobs with multiple teams, testers, and requirements is time consuming and can be hard to manage. Increasingly larger jobs make project organization more important than ever. The new ProjX management system on the CertiFiber Pro assigns a name for all job specifics. This eliminates the need to ever have to re-enter test limits or other job details after starting a project or returning to it after a different job. This minimizes set-up errors or lost files when switching from one job to another or utilizing multiple testers on a single job, enabling project managers and crew leaders to be more efficient.

Selecting Reference Method

The key to good test results is tester set-up. The CertiFiber Pro refers to the settings already chosen for the project and guides the technician through setting a reference – taking the guesswork out of getting ready to test in the field.

Set Reference

Setting a reference no longer has to be a challenge. The CertiFiber Pro OLTS has set a reference wizard function to guide the technician through setting a reference and checking test reference cords. The animated set-up helps reduce optical loss testing set-up errors that often result in confusing negative loss readings.



Animated set-up guide

Rugged Metal LC Connectors

Fluke Networks Test Reference Cords and Launch Fibers with LC connectors feature our unique metal latch design. Traditional LC connectors use a single-piece plastic design that flexes the latching mechanism each time the connector is inserted and removed and eventually breaks, making them unsuitable for repeated use in testing. The Fluke Networks Metal LC latching system uses a multi-piece metal design with a spring located between the latch and connector body. Since this latch is not part of the body and does not flex, the life of the latching mechanism is greatly improved, thereby extending the life of the LC connector and therefore the TRC's and launch cords.

The Metal LC connector is compliant with IEC 61754-20 and TIA-604-10B intermateability standards. That latch has also been tested for up to 10,000 insertions with no degradation in performance and passes all Telecordia GR-326-CORE durability tests including thermal, humidity, vibration, flex, impact, and salt spray. While the connector itself is the most rugged available, the glass fiber endface is still susceptible to damage, so it's important to inspect the endface to make sure it's contaminant-free and to properly clean it if necessary.



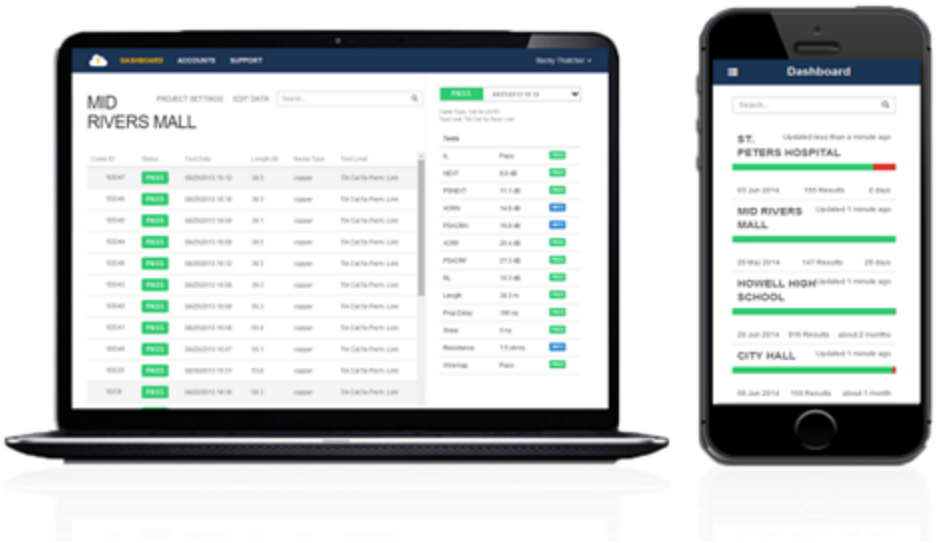
LinkWare Live

LinkWare Live is a Software as a Service from Fluke Networks for cabling professionals managing multiple projects that quickly, easily and affordably provides unmatched job visibility and superior project control from anywhere at anytime

LinkWare Live provides increased productivity by no longer needing to recall testers from the field just to download test results. Just upload the results from the tester to LinkWare Live from the jobsite so you can finish sooner, get home sooner and get paid faster. LinkWare Live reduces reporting time by automatically consolidating all results into correct job, and cuts rework by reducing the likelihood of losing test results when testers or memory cards are lost, stolen or erased. LinkWare Live provides instant access to results for faster troubleshooting, real time visibility into project status from any location and fully integrates with LinkWare PC for fast reporting.

LinkWare Live also reduces errors by allowing Project Managers to set testers up remotely through smart phones, tablets, or PC's. And if someone changes that setup, LinkWare Live will let you know.

CertiFiber Pro connects to the LinkWare Live service through Wi-Fi or wired connections to provide remote setup, results uploading, and testing status information.



LinkWare PC Management Software

With LinkWare PC Management software, CertiFiber 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 monitor workflow and consolidate test results.

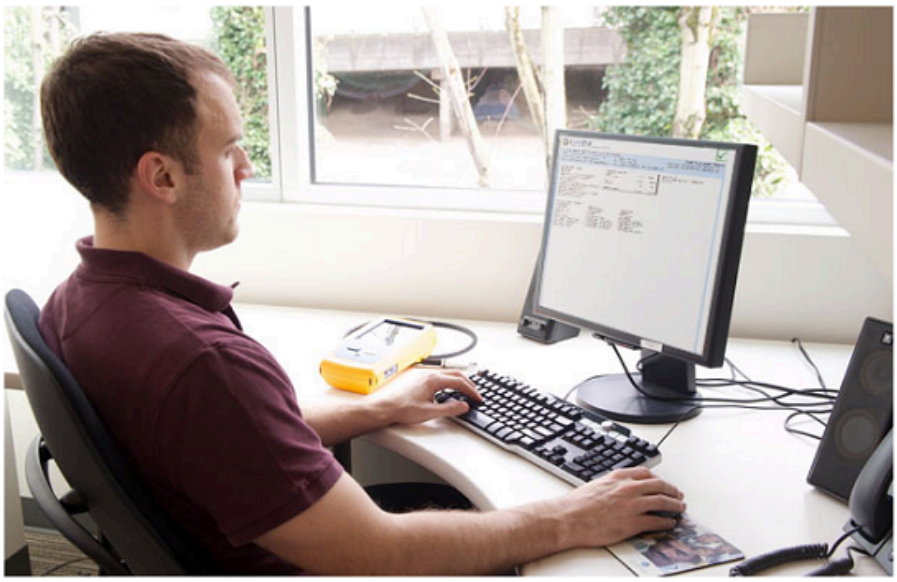
LinkWare PC provides automated statistical reports. This application moves you above and beyond the page-per-link report to see your entire cabling infrastructure in one summary. It analyzes and transforms test results into charts to reveal cabling plant performance. The report even summarizes your entire cabling infrastructure in a compact, graphical format so it’s easy to verify margins and spot anomalies. Previous versions of LinkWare PC are backwards compatible with new versions, so you can stay current and integrate tests from different testers into one-test report.

Combine OLTS Tier 1 (basic), OTDR Tier 2 (extended) and fiber inspection images and certification results in a single report while allowing management of multiple jobs simultaneously. Users can provide the finishing touch by adding their company logo to the report and before offering to their customers for system acceptance. Keep your business tools simple. No matter which Fluke Networks cabling certification tester you use, LinkWare PC reports it all

LinkWare Report



LinkWare Report with Encircled Flux and Test Reference Cords Tested



CertiFiber Pro Optical Loss Test Set Module Specifications

Power Meter Specifications	
Input Connector	Interchangeable connector adapter (LC standard, SC, ST, FC, and MDC optional)
Detector Type	InGaAs
Wavelengths	850 nm, 1300 nm, 1310 nm, 1550 nm
Power Measurement Range	0 dBm to -65 dBm (850 nm) 0 dBm to -70 dBm (all other wavelengths)
Power Measurement Uncertainty1,2	< +/- 5% +/- 32 pW
Measurement Linearity3	< ± 0.1 dB
Re-calibration Period	1 year

Power Meter Specifications	
Integrated Wi-Fi	Meets IEEE 802.11 a/b/g/n; dual band (2.4 GHz and 5 GHz)
1. +/- 100 pW at 850 nm 2. Under the following conditions: Power level 100 µW (-10 dBm), continuous wave (CW) for absolute power at 850 nm and 1310 nm. Divergent beam, NA = 0.20 for 50/125 µm and NA = 0.14 for 9/125 µm. Ambient temperature 23° ± 1°C. SC/UPC connector with ceramic ferrule. After a 5 minute warm-up. Traceable to NIST. 3. -3 dBm to -55 dBm at 850 nm and 1310 nm. Ambient temperature 23° ± 1°C. After a 5 minute warm-up.	

Loss/Length Specifications		
Specification	CertiFiber Pro **Multimode** Modules	CertiFiber Pro **Singlemode** Modules
Testing Speeds (excludes referencing times)	Smart Remote mode: < 3 seconds (2 wavelengths, one direction, auto wavelength detection) Far End Source mode: ≤ 2 seconds (2 wavelengths, one direction auto wavelength detection) Loopback mode: ≤ 2 seconds (2 wavelengths, one direction auto wavelength detection)	
Input/Output Connectors	Interchangeable connector adapter (LC standard, SC, ST, FC, and MDC optional)	
Launch Condition1,2	Encircled Flux compliant to TIA-526-14-B, ISO/IEC 14763-3 and IEC 61280-4-1	
Fiber Types Tested	50/125 µm or 62.5/125 µm	Singlemode
Source Type and Wavelengths	LED source 850 nm ± 30 nm 1300 nm ± 20 nm	Fabry-Perot laser diode 1310 nm ± 20 nm 1550 nm ± 30 nm
Maximum Length Measurement	12 km	130 km
Length Measurement Accuracy	± 1.5 m plus ± 1 % of length	
Output Power (Nominal)	≥ -24 dBm with EF-TRC	≥ -4 dBm
Output Power Stability3	± 0.05 dB over 8 hours ± 0.03 dB over 15 minutes	± 0.1 dB over 8 hours ± 0.08 dB over 15 minutes

Loss/Length Specifications		
1. At the output of the EF-TRC 2. Variations between EF measurement equipment may occur but EF compliance can be expected with a 95% confidence factor 3. Relative to power level after 15 minute warm up – at constant temperature		

Loss/Length Specifications (continued)	
Source Wavelengths	850 nm, 1300 nm, 1310 nm, 1550 nm
Power Measurement Range	0 dBm to -65 dBm (850 nm) 0 dBm to -70 dBm (all other wavelengths)
Power Measurement Uncertainty1, 2	< +/- 5% +/- 32 pW
Measurement Linearity3	< ± 0.1 dB
Re-calibration Period	1 year
1. +/- 100 pW at 850 nm 2. Under the following conditions: Power level 100 µW (-10 dBm), continuous wave (CW) for absolute power at 850 nm and 1310 nm. Divergent beam, NA = 0.20 for 50/125 µm and NA = 0.14 for 9/125 µm. Ambient temperature 23° ± 1°C. SC/UPC connector with ceramic ferrule. After a 5 minute warm-up. Traceable to NIST. 3. -3 dBm to -55 dBm at 850 nm and 1310 nm. Ambient temperature 23° ± 1°C after a 5-minute warm-up.	

Selected Specifications

Visual Fault Locator (VFL)		
Title	Requirement	
Output Power	>-5 dBm	
<0 dBm		
SMF-28 singlemode fiber		

Visual Fault Locator (VFL)		
Continuous wave		
SC/UPC connector		
Operating Wavelength	650 nm nominal	
Output Modes	Continuous wave Pulsed mode (2 Hz to 3 Hz blink frequency)	
Connector Adapter	2.5 mm universal	
Laser Safety	Class II CDRH Over operating temperature range	

Environmental Specifications	
Title	Requirement
Operating Temperature	14° F to 113° F (-10° C to 45° C)
Storage Temperature	14° F to 140° F (-10° C to +60° C)
Operating Relative Humidity (% RH without condensation)	
0% to 90%, 32° F to 95° F (0° C to 35° C)	
0% to 70%, 95° F to 113° F (35° C to 45° C)	
Vibration	Random, 2 g, 5 Hz-500 Hz
Shock	1 m drop test with and without module and adapters
Safety	
CSA C22.2 No. 1010.1: 1992	
EN 61010-1 1st Edition + Amendments 1, 2	
Pollution Degree	2
Altitude	Operating: 4,000 m; storage: 12,000 m
EMC	EN 61326–1



Ordering Information

CertiFiber Pro Wireless models		
Model	Description	
CFP2-100-QI	CertiFiber Pro Quad OLTS V2 kit with double ended inspection and Wi-Fi	
CFP2-100-QI/GLD	CertiFiber Pro Quad OLTS V2 kit with double ended inspection, Wi-Fi and 1 YR Gold Support	
OFP2-CFP-QI	OptiFiber Pro, Certifiber Pro Quad V2 with inspection and Wi-Fi	
CFP2-100-Q	CertiFiber Pro Quad OLTS V2 kit with Wi-Fi	
CFP2-100-Q/GLD	CertiFiber Pro Quad OLTS V2 kit with Wi-Fi and 1 YR GOLD SUPPORT	
CFP2-100-M	CertiFiber Pro Multimode OLTS V2 with Wi-Fi	
CFP2-100-S	CertiFiber Pro Singlemode OLTS V2 with Wi-Fi	
CFP2-Q-ADD-R	CertiFiber Pro Quad OLTS add-on kit with V2 remote (not compatible with original Versiv main)	

CertiFiber Pro Non-Wireless models		
Model	Description	
CFP2-100-Q-NW	CertiFiber Pro Quad OLTS V2 kit	
CFP2-100-M-NW	CertiFiber Pro Multimode OLTS V2 kit	
CFP2-100-S-NW	CertiFiber Pro Singlemode OLTS V2 kit	

Accessories	Description
CFP-MM-ADD	CertiFiber Pro multimode modules add on kit
CFP-SM-ADD	CertiFiber Pro singlemode modules add on kit
CFP-Q-ADD	Certifiber Pro Quad Add On Kit (modules and SC/LC TRCs)
CFP2-Q-ADD-R	Certifiber Pro Quad Add On Kit with V2 Remote (modules and SC/LC TRCs)
OFP-Q-ADD	Optifiber Pro Quad Add On Kit (module and SC/LC launch cords)
SRC-9-SCLC-KIT-M	Singlemode test reference cord kit (2m) for testing LC terminated fibers (2 SC/LC, 2 LC/LC) - Metal
SRC-9-SCSC-KIT	Singlemode test reference cord kit (2m) for testing SC terminated fibers (4 SC/SC)
MRC-50EFC-SCLCKITM	Multimode Encircled Flux compliant test reference cord kit for testing 50um LC terminated fibers (2 SC/LC, 2 LC/LC) - Metal
MRC-50EFC-SCSCKIT	Multimode Encircled Flux compliant test reference cord kit for testing 62.5um LC terminated fibers (2 SC/LC, 2 LC/LC)
MRC-625EFC-SCSCKIT	Multimode Encircled Flux compliant test reference cord kit for testing 62.5um SC terminated fibers (4 SC/SC)
FI-1000-KIT	A USB Fiber Inspection Video probe for Versiv products plus tiip set (LC, FC/SC bulkhead, 1.25 and 2.5mm universal tips in a box)
VERSIV2 M/RU KIT	VERSIV V2 Main & Remote Upgrade Bundle with Wi-Fi
VERSIV2 M/RU-NW KIT	VERSIV V2 Main & Remote Upgrade Bundle Non-Wi-Fi
VERSIV2-RU	VERSIV V2 Main & Remote Upgrade Bundle with Wi-Fi
VERSIV2-M	Versiv2 Main Replacement Unit

CertiFiber Gold Support models		
Model	Description	
GLD-CFP-100-QI	1 year Gold Support, CFP2-100-QI or CFP-100-QI	
GLD3-CFP-100-QI	3 year Gold Support, CFP2-100-QI or CFP-100-QI	
GLD-CFP-100-Q	1 year Gold Support, CFP2-100-Q or CFP-100-Q	
GLD3-CFP-100-Q	3 year Gold Support, CFP2-100-Q or CFP-100-Q	
GLD-CFP-100-M	1 year Gold Support, CFP2-100-M or CFP-100-M	

CertiFiber Gold Support models		
GLD3-CFP-100-M	3 year Gold Support, CFP2-100-M or CFP-100-M	
GLD-CFP-100-S	1 year Gold Support, CFP2-100-S or CFP-100-S	
GLD3-CFP-100-S	3 year Gold Support, CFP2-100-S or CFP-100-S	
GLD-CFP-Q-ADD-R	1 year Gold Support, CFP2-Q-ADD-R or CFP-Q-ADD-R	

For a complete listing of CertifFiber Pro models and accessories, visit www.flukenetworks.com/certifiberpro.

Configure CertiFiber Pro to your exact requirements by visitng www.flukenetworks.com/versiv-config.