FLUKE networks

Fiber QuickMap™

Enterprise Fiber Troubleshooter

Detect and Fix Fiber Cabling Problems Before They Become Network Problems

As more OM3/OM4 multimode fiber is installed in enterprise networks to support 10, 40, and 100Gbps traffic, fiber reliability is critical. Preventing network downtime – or facilitating its recovery – is an essential capability for all enterprise technicians.

Fiber QuickMap Troubleshooter Highlights

Easy to use

- It does not get any easier than one-button troubleshooting. Plug the Fiber QuickMap into one end of a fiber channel and press the "Test" button to reveal the locations of any incidents of interest and confirm channel connectivity

Fast results

- Six-second* testing eliminates time-consuming trial-and-error troubleshooting

Concise information

- No confusing data to decipher. The Fiber QuickMap troubleshooter shows distance(s) to any potential sources of fiber failure (frequently high loss incidents or breaks) and causes of network performance degradation (high reflectance incidents from bit error rates)

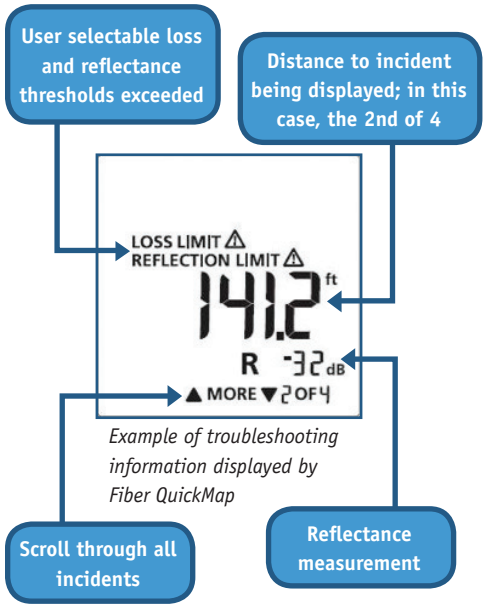
Ruggedly constructed

- Includes Fluke Networks' renowned impact-resistant cover with a secure, comfortable grip

*Typical test time

The Fluke Networks Fiber QuickMap is an enterprise fiber troubleshooter that quickly and efficiently locates connections and breaks in multimode fiber. By instantly providing distances to failures such as high loss and high reflectance incidents, Fiber QuickMap is the must-have troubleshooter for any technician who works with fiber.

Other troubleshooting solutions in today's data centers are too inefficient and take up too much time. Lasers are simple, but the repetitive process of shining it down a link and checking the far end is imprecise, tiresome and time-consuming. On the other end of the spectrum, OTDRs work well as troubleshooters, but their advanced analysis and trace capabilities make them best used for certifying and documenting cable installation quality. Today, network technicians need a first-line diagnostic tool to help them fix their fiber cabling problems. Fiber QuickMap's one-button ease-of-use, speed and detailed insight into fiber connectivity make it the technician's troubleshooter of choice.



Example of troubleshooting information displayed by Fiber QuickMap



Fiber QuickMap

To meet your troubleshooting needs, Fiber QuickMap is available as a standalone troubleshooter or as part of a more comprehensive fiber testing kit. Fiber Troubleshooting Kits (FTS) can include these added capabilities based on kit configuration:

- SimpliFiber Pro power meter and dual-wavelength 850 and 1300 nm multimode source measures power and loss. The SimpliFiber Pro meter features the ability to save a reference power level, enabling a direct display of fiber loss.

- FT500 Fiber Inspector Mini video microscope inspects fiber end faces for contamination. The FT500 FiberInspector Mini provides 200x magnification and can be used in any fiber installation.

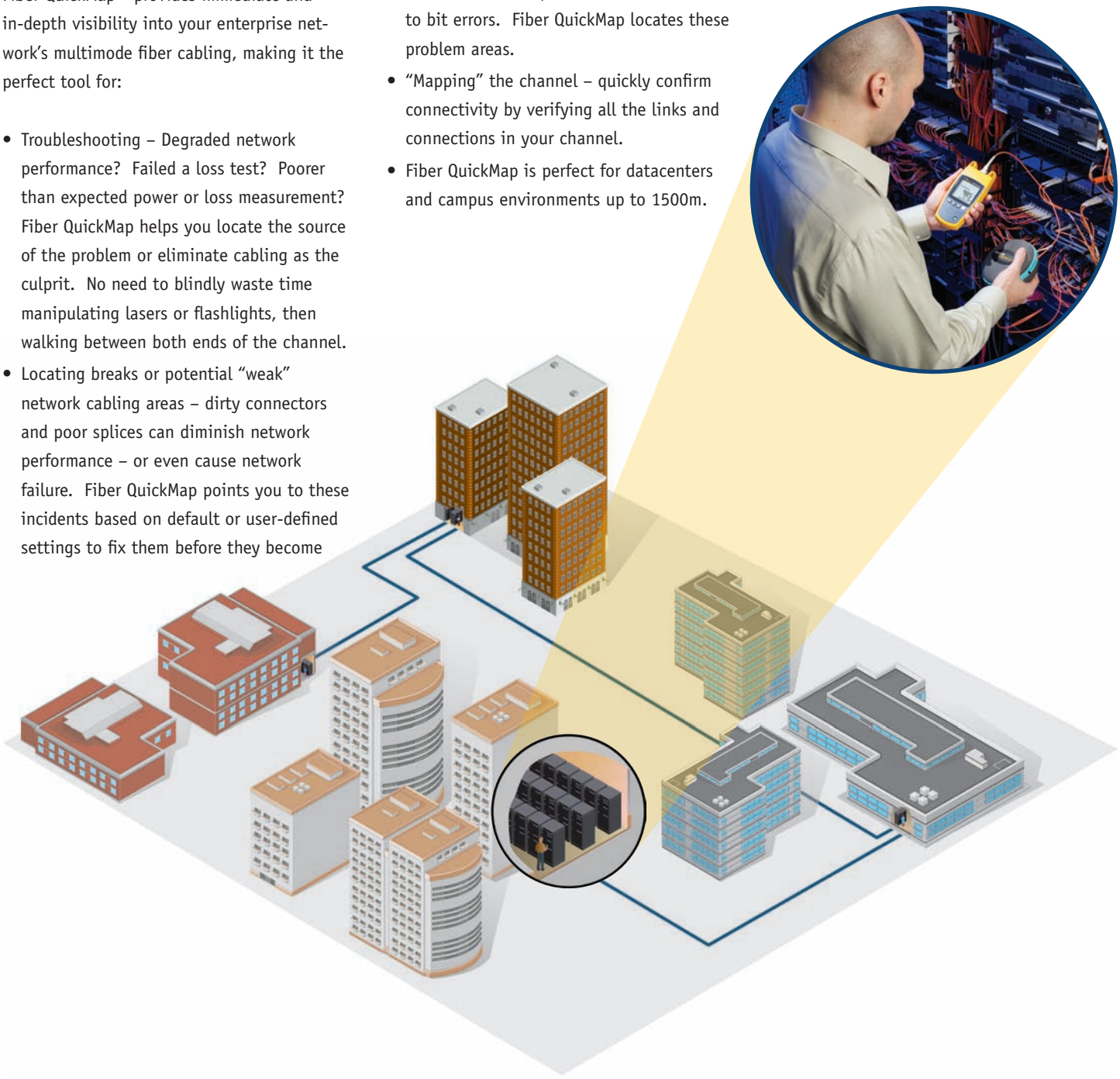
Technical Data

Fiber QuickMap - One Button Fiber Troubleshooting for the Enterprise

When and Where to Use Fiber QuickMap

Fiber QuickMap™ provides immediate and in-depth visibility into your enterprise network's multimode fiber cabling, making it the perfect tool for:

- Troubleshooting – Degraded network performance? Failed a loss test? Poorer than expected power or loss measurement? Fiber QuickMap helps you locate the source of the problem or eliminate cabling as the culprit. No need to blindly waste time manipulating lasers or flashlights, then walking between both ends of the channel.
- Locating breaks or potential "weak" network cabling areas – dirty connectors and poor splices can diminish network performance – or even cause network failure. Fiber QuickMap points you to these incidents based on default or user-defined settings to fix them before they become bigger problems.
- Locating potential sources of bit error rates – reflectance caused by end-face contamination or poor connections leads to bit errors. Fiber QuickMap locates these problem areas.
- "Mapping" the channel – quickly confirm connectivity by verifying all the links and connections in your channel.
- Fiber QuickMap is perfect for datacenters and campus environments up to 1500m.



Fiber QuickMap is perfect for troubleshooting multimode fiber networks by locating causes of fiber failure, network degradation, and mapping out link connectivity.

Specifications

Operating temperature with the battery	0°C to 50°C
Non-operating temperature	-20°C to 60°C
Operating relative humidity (without condensation)	95% (10°C to 35°C) 75% (35°C to 40°C) uncontrolled < 10°C
Vibration	Random, 5 Hz to 500 Hz, MIL-PRF-28800F CLASS 2
Shock	1 meter drop test
Altitude	3000m
EMC	EN 61326-1: 2004
Battery type	2 AA alkaline batteries (no battery charger)
Battery life	1500 tests (typical)
Laser safety	Class 1 CDRH Complies to EN 60825-2
LCD type	Backlit black and white (segments)
Index of refraction range	1.45 to 1.5 (factory default is 1.496)
Auto turn off	Automatically turns off after 5 minutes if no keys are pressed. Backlight turns off first.
Factory calibration interval	None
Output wavelengths	850 nm ± 10 nm
Laser classification	Class 1 CDRH Complies to EN 60825-2
Dynamic range	>11 dB
Maximum distance	1500 meters or 4921 feet

Maximum number of incidents shown	9
Distance accuracy (0 m to 1500 m or 0 ft to 4921 ft)	± (1 m + 0.1 % x length) for reflective incidents[1] ± (3 m + 0.1 % x length) for non-reflective incidents[2]
Testing speed	< 6 seconds typical
Connector	Removable/cleanable SC adapter, UPC polish
Fiber types tested	50/125 µm or 62.5/125 µm multimode
Detection of reflective incidents[3]	-35 dB default threshold (User selectable: -20 dB to -45 dB in 5 dB increments)
Reflectance accuracy[4]	± 4 dB
Maximum reflectance measurement	-20 dB
Detection of loss incidents[5]	0.70 dB default threshold (user-configurable from 0.5 dB to 6.1 dB in 0.2 dB increments)
Bulkhead quality	If no fiber is attached or if the connector is dirty, the troubleshooter displays 0 m or 0 ft.
Live fiber detection	Detects optical signals from 600 nm to 1050 nm and shows ACTIVE LINE if a signal is there. Looks for a signal every 3 seconds after the first detection. +7 dB maximum input power.
Certifications and compliance	CE Conforms to relevant European Union directives
	Conforms to relevant Australian standards
	Listed by the Canadian Standards Association CSA C22.2 No. 61010.1.04
	FC Conforms to FCC Rules, Part A, Class A

1. ± user-configurable Index of Refraction (IOR) error ± the incident location error. Incident location error for reflective incidents: ±1 m from 1 m to 1.5 km.
2. ± user-configurable Index of Refraction (IOR) error ± the incident location error. Incident location error for non-reflective incidents: ±2 m for lengths ≤15 m, otherwise ±1 m.
3. Finds and gives the location of an incident that has a reflectance larger than -55 dB. Detects incidents >1m after the bulkhead connector when the bulkhead reflectance is <35 dB. Detects incidents >3 m after an incident when the incident reflectance is <35 dB.
4. With a backscatter coefficient of -63 dB at 850 nm using a calibrated -14 dB reference.
5. Detects incidents >10 m after the bulkhead connector or any prior incident when the bulkhead reflectance is <-35 dB and the reflectance of any prior incident is <-35 dB. The maximum link loss prior to the incident is <7 dB.

Fiber QuickMap Ordering Information

Model	Description
FQM-MAIN 	Fiber QuickMap Enterprise Fiber Troubleshooter with carrying pouch
FQM-KIT 	Fiber QuickMap Kit: Includes Fiber QuickMap, SC/SC and SC/LC (50 and 62.5 µm) hybrid test reference cords, and carrying pouch
FTS900 	Fiber QuickMap Kit: Includes Fiber QuickMap, SC/SC and SC/LC (50 and 62.5 µm) hybrid test reference cords, VisiFault VFL, and carrying pouch
FTS1000 	Fiber QuickMap Troubleshooter Kit : Includes Fiber QuickMap, SC/SC and SC/LC (50 and 62.5 µm) hybrid test reference cords cords, VisiFault VFL, SimpliFiber Pro power meter and multimode source, and carrying case
FTS1100 	Fiber QuickMap Troubleshooter Kit: Includes Fiber QuickMap, SC/SC and SC/LC (50 and 62.5 µm) hybrid test reference cords cords, VisiFault VFL, SimpliFiber Pro power meter and multimode source, FT500 FiberInspector Mini video microscope, and carrying case



Accessories

Model	Description
SFPOWERMETER 	SimpliFiber Pro optical power meter, SC adapter included
SFMULTIMODESOURCE	SimpliFiber Pro multimode 850/1300 source
FT525 	FiberInspector Mini and Cleaning Kit: Includes FiberInspector Mini; complete cleaning supplies (cleaning cube, ten cleaning cards, solvent pen, 2.5mm port cleaning swabs and 1.25mm port cleaning swabs) and carrying case
NFC-Kit-Case	Fiber Optic Cleaning Kit with carrying case
NFC-Kit-Box	Fiber Optic Cleaning Kit
NFK1-1SMPLX-SC	Reference test cord, 62.5/125 µm, SC/SC, 1 m
NFK1-1SMPLX-LC	Reference test cord, 62.5/125 µm, SC/LC, 1 m
NFK1-1SMPLX-ST	Reference test cord, 62.5/125 µm, SC/ST, 1 m
NFK2-1SMPLX-SC	Reference test cord, 50/125 µm, SC/SC, 1 m
NFK2-1SMPLX-LC	Reference test cord, 50/125 µm, SC/LC, 1 m
NFK2-1SMPLX-ST	Reference test cord, 50/125 µm, SC/ST, 1 m
NFK1-LAUNCH-SC/FQM	Launch/receive fiber, 62.5/125 µm, SC/SC, 30 m
NFK1-LAUNCH-LC/FQM	Launch/receive fiber, 62.5/125 µm, SC/LC, 30 m
NFK1-LAUNCH-ST/FQM	Launch/receive fiber, 62.5/125 µm, SC/ST, 30 m
NFK2-LAUNCH-SC/FQM	Launch/receive fiber, 50/125 µm, SC/SC, 30 m
NFK2-LAUNCH-LC/FQM	Launch/receive fiber, 50/125 µm, SC/LC, 30 m
NFK2-LAUNCH-ST/FQM	Launch/receive fiber, 50/125 µm, SC/ST, 30 m
NF300SM	ST/ST fiber optic adapter
NF310SM	SC/SC fiber optic adapter

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