

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 onebutton 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

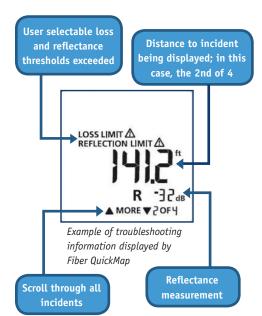
Concise information

 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 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.





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.

*Typical test time

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.



$\bigcirc \bigcirc$

Specifications

| Operating temperature with the battery | 0°C to 50°C | Maximum number of incidents shown | |
|--|---|--|--|
| Non-operating temperature | -20°C to 60°C | Distance accuracy (0 m to 1500 m or 0 ft to 4921 ft) | |
| Operating relative humidity | 95% (10°C to 35°C) 75% (35°C to 40°C) uncontrolled < 10°C | Testing speed | |
| (without condensation) | | Connector | |
| Vibration | Random, 5 Hz to 500 Hz, MIL-PRF-28800F CLASS 2 | Fiber types tested | |
| Shock | 1 meter drop test | | |
| Altitude | 3000 m | Detection of reflective incidents ³ | |
| EMC | EN 61326-1: 2004 | Reflectance | |
| Battery type | 2 AA alkaline batteries (no battery charger) | accuracy⁴ Maximum reflectance | |
| Battery life | 1500 tests (typical) | measurement | |
| Laser safety | Class 1 CDRH Detection of los incidents ⁵ | | |
| LCD type | Backlit black and white (segments) | Bulkhead quality | |
| Index of refraction range | 1.45 to 1.5 (factory default is 1.496) | Live fiber detection | |
| Auto turn off | Automatically turns off after 5 minutes if no keys are pressed. Backlight turns off first. | | |
| Factory calibration interval | None | Certifications and compliance | |
| 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 | | |

| | 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) |
| ger) | Reflectance accuracy ⁴ | ± 4 dB |
| <u> </u> | Maximum reflectance measurement | -20 dB |
| | Detection of loss incidents⁵ | 0.70 dB default threshold (user-configurable from 0.5 dB to 6.1 dB in 0.2 dB increments) |
| 6) | Bulkhead quality | If no fiber is attached or if the connector is dirty, the troubleshooter displays 0 m or 0 ft. |
| 6) utes if no ff first. | 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 detec- tion. +7 dB maximum input power. |
| | Certifications and compliance | CE Conforms to relevant European Union directives |
| | | Conforms to relevant Australian standards |
| 5-2 | | Isted by the Canadian Standards Association CSA C22.2 No. 61010.1.04 |
| | | |

9

incidents²

< 6 seconds typical

 \pm (1 m + 0.1 % x length) for reflective incidents¹ \pm (3 m + 0.1 % x length) for non-reflective

Removable/cleanable SC adapter, UPC polish

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.



$\bigcirc \bigcirc \bigcirc$

Fiber QuickMap Ordering Information

| Model | Description |
|----------|---|
| FQM-MAIN | Fiber QuickMap Enterprise Fiber Troubleshooter with carrying pouch |
| FQM-KIT | Fiber QuickMap™ mainframe with SC/LC 50 µm Launch Fiber, interchangeable LC Adapter 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 μ m) hybrid test reference 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, VisiFault VFL, SimpliFiber Pro power meter and multimode source, FT500 FiberInspector Mini video microscope, and carrying case |

Gold Support

| Support | Description |
|-------------|--|
| GLD-FQM | 1-Year Gold Support coverage for the Fiber QuickMap kits: Models - FQM-MAIN, FQM-KIT or FTS900 |
| GLD-FQM-FTK | 1-Year Gold Support coverage for the Fiber QuickMap kits: Models - FTS1000, FTS1100 |



Accessories

| Accessories | Description |
|-------------------|---|
| SFPOWERMETER | SimpliFiber Pro optical power meter, SC adapter |
| JI OWERGE ER | 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, 2.5 mm port cleaning swabs and 1.25 mm port cleaning swabs) and carrying case |
| NFC-Kit-Case | Fiber Optic Cleaning Kit with carrying case |
| NFC-Kit-Case-E | Enhanced fiber optic cleaning kit with carrying case |
| NFC-Kit-Box | Fiber Optic Cleaning Kit |
| NFK1-1SMPLX-SC | Reference test cord, 62.5/125 $\mu\text{m},$ SC/SC, 1 m |
| NFK1-1SMPLX-LC | Reference test cord, 62.5/125 $\mu\text{m},$ SC/LC, 1 m |
| NFK1-1SMPLX-ST | Reference test cord, 62.5/125 $\mu\text{m},$ SC/ST, 1 m |
| NFK2-1SMPLX-SC | Reference test cord, 50/125 $\mu\text{m},$ SC/SC, 1 m |
| NFK2-1SMPLX-LC | Reference test cord, 50/125 $\mu\text{m},$ SC/LC, 1 m |
| NFK2-1SMPLX-ST | Reference test cord, 50/125 μm , SC/ST, 1 m |
| NFK1-LAUNCH | Launch Cable Kit, 62.5 µm, SC/SC |
| NFK1-LAUNCH-FC | Launch Cable Kit, 62.5 µm, SC/FC |
| NFK1-LAUNCH-LC | Launch Cable Kit, 62.5 µm, SC/LC |
| NFK1-LAUNCH-ST | Launch Cable Kit, 62.5 µm, SC/ST |
| NFK2-LAUNCH | Launch Cable Kit, 50 µm, SC/SC |
| NFK2-LAUNCH-FC | Launch Cable Kit, 50 µm, SC/FC |
| NFK2-LAUNCH-LC | Launch Cable Kit, 50 µm, SC/LC |
| NFK2-LAUNCH-ST | Launch Cable Kit, 50 µm, SC/ST |
| NFK2-LAUNCH-E2K | Launch Cable Kit, 50 µm, SC/E2K |
| NF-OPRT-SC | Replacement Interchangeable SC Fiber QuickMap port |

Fluke Networks P.O. Box 777, Everett, WA USA 98206-0777

Fluke Networks operates in more than 50 countries worldwide. To find your local office contact details, go to www.flukenetworks.com/contact.

©2011 Fluke Corporation. Printed in U.S.A. 7/2011 3979961D