Datasheet: Fiber QuickMap™ Multimode Fiber Distance and Fault Locator

Overview

Fiber QuickMap™ measures length and identify high loss events on Multimode fiber optic cable. Like an OTDR, a laser sends light pulses through the fiber and measures the power and timing of light reflected from high loss connections and splices, and the end of the fiber. They are very simple to use: Turn on the unit. Connect your fiber to the SC connector on the unit (optional adapters for LC, FC and ST, are available) – remember to clean connector end faces first Press “Test”. In about 5-6 seconds the unit displays loss and distance of the first incident detected. Additional incidents can be seen by pressing the up or down buttons. The unit automatically checks to make sure the fiber is not active before allowing the test to begin

Locate Faults beyond the range of a Visual Fault Locator (VFL)

VFLs work well for exposed lengths of fiber near a patch panel by illuminating bad connections and breaks. They are not very helpful for cable runs more than a few meters, or when the cable is not visible or accessible, or when the laser light can’t penetrate the jacket. Optical Time Domain Reflectometers (OTDR) provide graphical data and analysis along the entire length of a cable, way beyond the reach of a VFL, but they can be expensive and require more time and skill to operate. Fiber QuickMap fills the gap between a VFL and an OTDR. These models have the simplicity of a VFL, and provide distance and

power information on high losses, breaks, and the end of the fiber. They also identify live fiber.

			
Feature	**Typical VFL**	**Fiber QuickMap**	**Typical OTDR**
Illuminates high loss areas	✓		
One button operation	✓	✓	
Long range		✓	✓
Live fiber detection		✓	✓
Numeric distance display		✓	✓
Numeric reflective loss (dB) display		✓	✓
Graphic display of traces			✓
Trace analysis			✓
Power Meter Options			✓
Data Storage			✓
Data Transfer to PC or Cloud			✓
Cost	Low	Low-medium	High

Applications:

Measure and locate high-loss splices Measure and locate high loss connections and breaks Locate the end of a fiber Find potential sources of high bit error rates caused by reflectance from dirty or poor connections Detects live optical signals before it begins testing

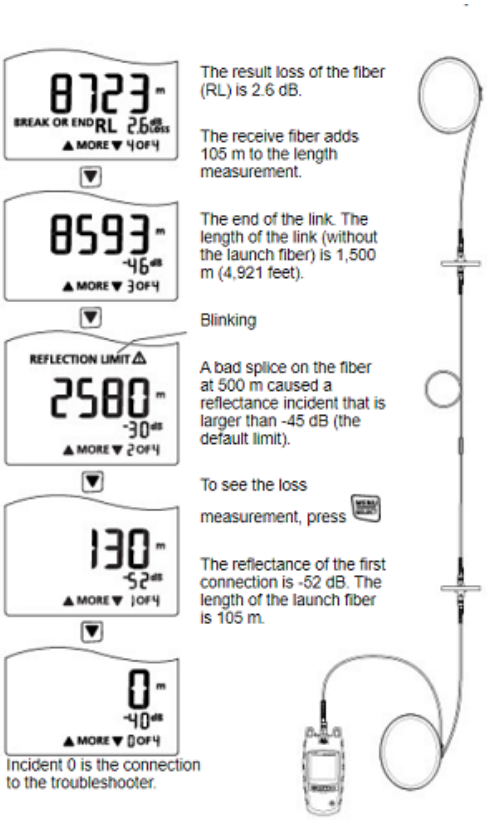
Feature	Fiber QuickMap
Fiber type	Multimode
Fiber size	50/125 µm and 62.5/125 µm
Output Wavelength	850 nm

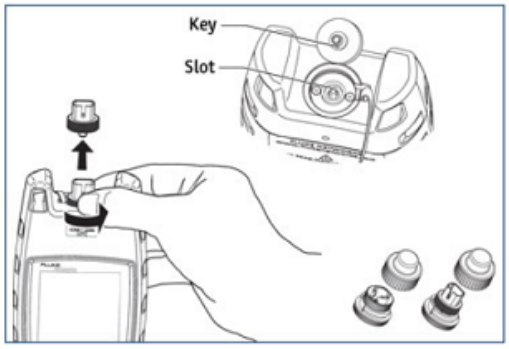
Range	up to 1,500 meters / 4,921 feet

Other Features on the Fiber QuickMap

Quick set-up. Connect your fiber and press the Test button. No lengthy set-up necessary Find problems quickly. Six-second test time — no more blind troubleshooting that can waste hours Key information visible on a large display; power loss in db and distance in meters or feet Set loss and reflection limits Change the Index of Refraction (IOR) to improve fiber length accuracy Visible in dark areas. Backlighted display turns off automatically Removable SC adapter is easily cleaned Optional LC, ST and FT interchangeable adapters are available Long battery life, 1,500 tests (typical) from 2 AA alkaline batteries Rugged construction; vibration and drop tested to 1 meter

When and Where to Use the Fiber QuickMap





Screw on interchangeable SC adapter. Older models have rectangular latching style adapter.

Specifications for Fiber QuickMap™

Output wavelength	850nm ± 10nm
Fiber Types Tested	50/125µm or 62.5/125µm multimode
Maximum distance	1500 meters or 4921 feet
Detection of reflective incidents1b	-35dB default threshold (User selectable: -20dB to -45dB in 5dB increments
Maximum reflectance measurement	-20dB
Live fiber detection	Detects optical signals from 600 nm to 1050nm and shows ACTIVE LINE if a signal is there. Looks for a signal every 3 seconds after the first detection. +7dB maximum input power.
Detection of loss incidents2	0.70dB default threshold (user-configurable from 0.5dB to 6.1dB in 0.2dB increments)
Reflectance accuracy3	± 4dB

Dynamic range	11dB
Dimensions	17.5cm H, 7.8cm W, 3.8cm D, .35kg weight including batteries
Operating temperature with the battery	0ºC to 50ºC
Non-operating temperature	-20ºC to 60ºC
Operating relative humidity (without condensation)	95% (10ºC to 35ºC) 75% (35ºC to 40ºC) uncontrolled ‹ 10ºC
Vibration	Random, 5Hz to 500Hz, MIL-PRF-28800F CLASS 2
Shock	1-meter drop test
Altitude	9,842 feet/3,000 metres
EMC	EN 61326-1:2004
Battery type	2 AA alkaline batteries (no battery charger)
Battery life	More than 1,500 tests (typical)
Laser safety and classification	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 1.468)
Auto turnoff	Automatically turns off after 5 minutes if no keys are pressed. Backlight turns off first.
Factory calibration interval	None
Maximum number of incidents shown	9
Testing speed	6 seconds typical testing time
Connector	Removable/cleanable SC adapter, UPC
Loss Threshold Setting	1.5dB default warning threshold (user-configurable from 0.5dB to 6.1dB in 0.1dB increments)
Distance accuracy	± (1m + 0.1% x length) for reflective incidents4 ± (3m + 0.1% x length) for non-reflective incidents4

Bulkhead quality	If no fiber is attached or if the connector is dirty, the troubleshooter displays 0m or 0ft.
Certifications and compliance	CE Conforms to relevant European Union directives
	N10140 Conforms to relevant Australian standards
	Listed by the Canadian Standards Association CSA C22.2 No. 61010.1.04
	Conforms to FCC Rules, Part A, Class A
	RoHS Compliant RoHs
1a. Detects the location of an incident that has a reflectance larger than -62dB. Detects incidents ›2m after the bulkhead connector when the bulkhead reflectance is ‹35dB. Detects incidents ›3m after an incident when the incident reflectance is ‹35dB. 1b. Finds and gives the location of an incident that has a reflectance larger than -55dB. Detects incidents ›1m after the bulkhead connector when the bulkhead reflectance is 3 m after an incident when the incident reflectance is. 2. Detects incidents ›10m after the bulkhead connector or any prior incident when the bulkhead reflectance is ‹-35dB and the reflectance of any prior incident is ‹-35dB. The maximum link loss prior to the incident is -7dB 3. With a backscatter coefficient of -63dB at 850nm using a calibrated -14dB reference. 4. ± user-configurable Index of Refraction (IOR) error ± the incident location error.	

Fiber QuickMap™ Ordering Information

Model	Description
FQM-M	Fiber QuickMap™. Includes multimode fiber fault locator unit, screw on interchangeable SC adapter, 4-language Quick Reference Guide (manuals in 9 languages available on-line), safety instruction manual, and batteries.
FQM-100-M	Fiber QuickMap™ Kit. Includes multimode fiber fault locator unit, screw on interchangeable SC adapter, UPC-UPC 2-meter patch cord, carrying case, 4-language Quick Reference Guide (manuals in 9 languages available on-line), safety instruction manual, and batteries.
FQM-100-M-VFL	Fiber QuickMap™ Kit with VisiFault. Includes all the items in the FQM-100-M plus the VisiFault Visual Fault Locator with 2.5 mm universal adapter.
FQM-SFP-M	Fiber QuickMap™ Kit with SimpliFiber Pro— Includes all the items in the FOS-100-M plus SimpliFiber Pro optical power meter and SC adapter.

Accessories for Multimode Fiber QuickMap™

Model	Description
MRC-50-SCSC	Multimode test reference cord (2m) for testing 50µm SC terminated fibers (SC/SC)
MRC-50-LCLC	Multimode test reference cord (2m) for testing 50µm LC terminated fibers (LC/LC)
MRC-50-FCFC	Multimode test reference cord (2m)for testing 50µm FC terminated fibers (FC/FC)
MRC-50-STST	Multimode test reference cord (2m) for testing 50µm ST terminated fibers (ST/ST)
MRC-625-SCSC	Multimode test reference cord (2m) for testing 62.5µm SC terminated fibers (SC/SC)
MRC-625-LCLC	Multimode test reference cord (2m) for testing 62.5µm LC terminated fibers (LC/LC)
MRC-625-FCFC	Multimode test reference cord (2m)for testing 62.5µm FC terminated fibers (FC/FC)
MRC-625-STST	Multimode test reference cord (2m) for testing 62.5µm ST terminated fibers (ST/ST)
MMC-50-SCSC	Multimode launch cable 50µm SC/SC
MMC-50-SCLC	Multimode launch cable 50µm SC/LC
MMC-50-LCLC	Multimode launch cable 50µm LC/LC
MMC-50-SCST	Multimode launch cable 50 µm SC/ST
MMC-50-STST	Multimode launch cable 50µm ST/ST
MMC-50-SCFC	Multimode launch cable 50µm SC/FC
MMC-50-FCFC	Multimode launch cable 50µm FC/FC
MMC-50-SCE2K	Multimode launch cable 50µm SC/E2K
MMC-62-SCSC	Multimode launch cable 62.5µm SC/SC
MMC-62-SCLC	Multimode launch cable 62.5µm SC/LC
MMC-62.5-LCLC	Multimode launch cable 62.5µm LC/LC
MMC-62-SCST	Multimode launch cable 62.5µm SC/ST
MMC-62.5-STST	Multimode launch cable 62.5µm ST/ST
MMC-62-SCFC	Multimode launch cable 62.5µm SC/FC
MMC-62.5-FCFC	Multimode launch cable 62.5µm FC/FC

LC Adapters for older meters with a rectangular optical port. Use MMC-50-SCLC or SC to LC launch cables or MMC-62-SCLC launch cable

Accessories for Fiber QuickMap™

Model	Description
NFC-Kit-Box	Fiber Optic Cleaning Kit
PA-SC	Screw on SC adapter (not for older meters with rectangular style)
PA-LC	Screw on LC adapter (not for older meters with rectangular style)
PA-FC	Screw on FC adapter (not for older meters with rectangular style)
PA-ST	Screw on ST adapter (not for older meters with rectangular style)

About Fluke Networks

Fluke Networks is the worldwide leader in certification, troubleshooting, and installation tools for professionals who install and maintain critical network cabling infrastructure. From installing the most advanced data centers to restoring service in the worst weather, our combination of legendary reliability and unmatched performance ensure jobs are done efficiently. The company's flagship products include the innovative LinkWare™ Live, the world's leading cloud-connected cable certification solution with over fourteen million results uploaded to date.

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