OFL250-50 Handheld, Fault-Locating OTDR

The Noyes OFL250-50 is a 1550 nm single-mode OTDR with an integrated optical power meter (OPM), 1550 nm laser source (OLS), and visual fault locator (VFL) in a handheld package weighing only 0.8 kg (1.7 lb). With short dead zone and mid-range dynamic range performance, the OFL250-50 is ideal for troubleshooting dark single-mode fibers in local area, metro area, and FTTx networks.

The OFL250-50 provides automatic and manual setup, precision event analysis, 12-hour battery life, internal data storage, and USB connectivity. OTDR and OPM test ports are equipped with tool-free adapters, which can be changed in seconds.

OTDR test results are saved as industry standard .SOR files, which can be transferred to a PC for viewing, printing, and analyzing with the supplied Windows® compatible software.

Applications

- Locate cable cuts, open or high-loss splices, fiber bends, and high-loss/high-reflectance connections
- Measure optical power (OPM port)
- Short-range fault-location (VFL port)
- Trace fibers and measure end-to-end loss at 1550 nm (working with a Noyes optical power meter or light source)
- Identify fibers (working with a Noyes optical fiber identifier)

Features

- Rugged, handheld and light weight
- 1.5 m event dead zone
- 26 dB dynamic range
- Integrated OPM, OLS, VFL
- Tool-free, switchable adapters for OTDR and OPM ports
- Internal storage (>1000 OTDR traces in standard .SOR format)
- High-contrast display is clear and bright in any lighting condition, including direct sunlight
- Transfer test results to a PC via USB
- Rechargeable 12-hour Li-Ion battery or AC power
- Windows® compatible software to view, print, and archive test records

Ordering Information

MODEL NUMBER	DESCRIPTION
OFL250-50U-ENG	1550 nm, single-mode OTDR

Note: *The OFL250-50 OTDR comes with a carry case, (1) SC and (1) FC adapter for the OTDR/OLS port, 2.5 mm adapter for the OPM and VFL ports, One-Click Cleaner SC/FC/ST (2.5 mm), USB cable (connects with Type A USB port on your PC), and AC power adapter with country-specific power cord.*

NOYES Test & Inspection
A Division of **AFL Telecommunications**

Continued on the next page

OFL250-50 Handheld, Fault-Locating OTDR

Specifications

OTDR	
Emitter Type	Laser
Safety Class	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type	Single-mode
Center Wavelength	1550 nm
Wavelength Tolerance	± 20 nm
Dynamic Range (SNR=1)	26 dB
Event Dead Zone [1]	1.5 m
Attenuation Dead Zone [2]	7 m
Pulse Widths	5, 10, 30, 100, 300 ns, 1, 3, 10 µs
Range Settings	250 m to 256 km
Data Points	Up to 16,000
Data Point Spacing	12.5 cm (range ≤ 4 km), Range/16,000 (range > 4 km)
Group Index of Refraction (GIR)	1.4000 to 1.6000
Distance Uncertainty (m)	± (1 + 0.005% x distance + data point spacing)
Trace File Format	Bellcore GR-196 V.1.1
Trace File Storage Medium	Internal memory (>1000 traces)
Data Transfer to PC	USB cable
OTDR Modes	Full Auto, End Locate, Expert, Live

1. *Typical distance between the two points 1.5 dB down each side of a reflective spike caused by a -45 dB event using 5 ns pulse width.*
2. *Typical distance from event location to point where trace is within 0.5 dB of backscatter at 5 ns pulse width.*

OPTICAL POWER METER	
Calibrated Wavelengths	1310, 1490, 1550, 1625 nm
Detector Type	Filtered InGaAs
Measurement Range	+23 to - 45 dBm
Tone Detect Range	+3 to -35 dBm
Wavelength ID range	+3 to -35 dBm
Accuracy	± 0.25 dB
Resolution	0.01 dB
Measurement Units	dB, dBm, µW, nW

OPTICAL LIGHT SOURCE	
Emitter Type	Class I FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Fiber Type	Single-mode
Center Wavelength	1550 nm
Wavelength Tolerance	± 20 nm
Spectral Width (FWHM)	5 nm (max)
Internal Modulation	1 kHz, 2 kHz
Output Power Stability	< ± 0.25 dB after 15 min
Output Power (nominal)	– 3 dBm

VISUAL FAULT LOCATOR	
Emitter Type	Laser
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Wavelength	650 nm
Output Power (nominal)	0.8 mW into single-mode fiber

GENERAL	
Size (in boot)	19 x 11.2 x 4.7 cm (7.5 x 4.4 x 1.9 in)
Weight	0.8 kg (1.7 lb)
Operational Temperature	-10 to +50°C, 0 to 95% RH (non-condensing)
Storage Temperature	-20 to +60°C, 0 to 95% RH (non-condensing)
Power	Rechargeable Li-Ion or AC adapter
Battery Life	12 hours, backlight ON, continuous operation
Display	LCD, 320 x 240, 3.5 inch (89 mm), color, high-performance transflective with backlight and AR coating

NOYES Test & Inspection

A Division of **AFL Telecommunications**