

NOYES®

OFL250-50 Hand-held, 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 hand-held package weighing only 0.8 kg (1.8 lb). With short dead zone and mid-range dynamic range performance, the OFL250-50 is ideal for troubleshooting dark single-mode fibers in local access, 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.

Features

- Rugged, hand-held and light weight
- 1.5 m event dead zone
- 26 dB dynamic range
- Integrated OPM, OLS, VFL
- Tool-free, interchangeable 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

Applications

- Locate cable cuts, open or high-loss splices, fiber bends, and high-loss/high-reflectance connections
- Measure optical power and loss (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)

NOYES® OFL250-50 Hand-held, Fault-Locating OTDR

Specifications ^a

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 ^b	1.5 m
Attenuation Dead Zone ^c	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

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, nW, μW, mW

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	Visible red laser
Safety Class	Class II FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1: 2007-03
Wavelength	650 nm ±20 nm
Output Power (nominal)	0.8 mW into single-mode fiber

GENERAL	
Size (in boot)	20.1 x 13.0 x 53.0 cm (7.9 x 5.1 x 2.1 in)
Weight	0.8 kg (1.8 lb)
Operational Temperature	-10 °C to +50 °C, 0 to 95 % RH (non-condensing)
Storage Temperature	-20 °C 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 transreflective with backlight and AR coating

Notes:

- All specifications valid at 25 °C unless otherwise specified.
- 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.
- Typical distance from event location to point where trace is within 0.5 dB of backscatter at 5 ns pulse width.

NOYES®

OFL250-50 Hand-held, Fault-Locating OTDR

Ordering Information

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.

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

Available Accessories

MODEL	DESCRIPTION
2900-50-0002MR	FC adapter, OTDR/OLS port
2900-50-0003MR	SC adapter, OTDR/OLS port
2900-50-0004MR	ST adapter, OTDR/OLS port
2900-50-0006MR	LC adapter, OTDR/OLS port
2900-52-0001MR	FC adapter, OPM port
2900-52-0002MR	SC adapter, OPM port
2900-52-0003MR	ST adapter, OPM port
2900-52-0004MR	LC adapter, OPM port
2900-52-0005MR	2.5 mm adapter, OPM port
2900-52-0006MR	1.25 mm adapter, OPM port
2900-53-0001MR	2.5 mm adapter, VFL port
2900-53-0002MR	1.25 mm adapter, VFL port
8800-00-0072PR	Dust cap for UCI outputs
FR1-SM-150-y1-y2 ^a	Fiber Ring, SM, 150 m
1400-01-0045	Soft carry case
EWxY-xx-xxxx	Extended Warranty and pre-paid annual calibration plans available for 1, 2, and 4 years (contact factory).

a. When ordering Fiber Rings, specify connector types (y1,y2); 500 and 1000 m lengths also available.

Authorized Channel Partner



United States
Customer Service
1.800.321.5298
1.603.528.7780
www.AFLglobal.com

Europe, Middle East, Africa
Max Penfold
Max.Penfold@AFLglobal.com
+44 1799 542 840
+44 7802 839 160

Middle East
Ahmed El Sakaty
Ahmed.ElSakaty@AFLglobal.com
+20 106 451 523

Africa (Sub Sahara)
Nicholas Cole
Nicholas.Cole@AFLglobal.com
+44 7702 005 590

Greater China
Dai Liu
Dai.Liu@AFLglobal.com
+86 133 1101 4533

Asia-Pacific (non-China)
Saw Biing Huei
Biing.Saw@AFLglobal.com
+65 9791 3398