OFL 250 Handheld OTDR

The Noyes OFL 250 from AFL Telecommunications is a single-mode OTDR with an integrated Optical Power Meter (OPM), 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 OFL 250 is ideal for testing optical fibers in service provider metro areas and FTTx networks.

The OFL 250 provides automatic and manual setup, precision event analysis, multiple-wavelength testing, a 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.

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

- Handheld, 0.8 kg (1.7 lb)
- Multiple-wavelength single-mode OTDR
- 1.5 m (typ.) event dead zone
- 26 dB dynamic range
- Integrated OPM, OLS, and VFL (650 nm)
- Tool-free, switchable adapters for OTDR & OPM ports (FC, SC, ST, LC, E2000 are available)
- Bellcore (GR-196) .SOR file format
- Rechargeable (> 12 hr) LiIon battery or AC power
- 3.5-inch, indoor/outdoor LCD
- Windows® compatible software to view, print, and archive test record
- Mini USB Port (connect to PC with cable)

Ordering Information

MODEL NUMBER	DESCRIPTION	WAVELENGTHS
OFL 250 1310/1550	Single-mode OTDR	1310/1550 nm

NOTE: All OFL 250 models come with: a carry case, SC and FC adapters for the OTDR/OLS port, 2.5 mm universal adapters for the OPM and VFL ports, USB cable (connects with normal (Type A) USB port on your PC), AC power adapter, country-specific power cord, and a user guide.

NOYES
Test & Inspection

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Specifications

OTDR SPECIFICATIONS	
Emitter Type	Laser
Safety Class	Class 1 FDA 21 CFR 1040.0 & 1040.11
Fiber Type	Single-mode
Center Wavelengths	1310 / 1550 nm
Wavelength Tolerance	± 30 nm
Dynamic Range (SNR=1)	26 / 26 dB
Event Dead Zone [1]	1.5 m
Attenuation Dead Zone @ 5ns [2]	Typ.6.0 m, max. 6.5 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 $\leq$ 4 km), Range/16000 (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 10 ns pulse width.*

2. *Typical distance from event location to point where trace is within 0.5 dB of backscatter.*

OPTICAL POWER METER SPECIFICATIONS	
Calibrated Wavelengths	1310, 1490, 1550, 1625 nm
Detector Type	InGaAs
Measurement range	+23 to - 45 dBm
Tone detect range	+3 to -40 dBm
Wavelength ID range	+3 to -40 dBm
Accuracy (dB)	± 0.25 dB
Resolution (dB)	0.01 dB
Measurement units	dB, dBm, µW, nW

OPTICAL LIGHT SOURCE SPECIFICATIONS	
Emitter Type	Laser, Class 1 (FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1)
Fiber Type	Single-mode
Center Wavelengths	1310, 1550 nm
Wavelength Tolerance	± 20 nm
Spectral Width (FWHM)	2 nm (max)
Internal Modulation	1 kHz, 2 kHz
Wavelength ID	Compatible with Noyes Optical Power Meters & Light Sources
Output Power Stability	< ± 0.25 dB after 15 min
Output Power	– 3 dBm

VISUAL FAULT LOCATOR SPECIFICATIONS	
Emitter type	Laser
Safety Class	Class 1 (FDA 21 CFR 1040.10 and 1040.11, IEC 60825-1:1994, IEC 825-1:1993)
Wavelength	650 nm
Output Power (nominal)	0.8 mW into SMF-28

GENERAL	
Size (in boot)	190 x 112 x 47 mm (7.5 x 4.4 x 1.9 inches)
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 LiIon or AC adapter
Battery life (backlight ON in OTDR mode)	> 12 hours
Display	LCD, 320 x 240, 3.5 inch (89 mm) , color, transflective
OTDR and OPM ports	Switchable. See website or contact AFL for available adapter types.

NOYES
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