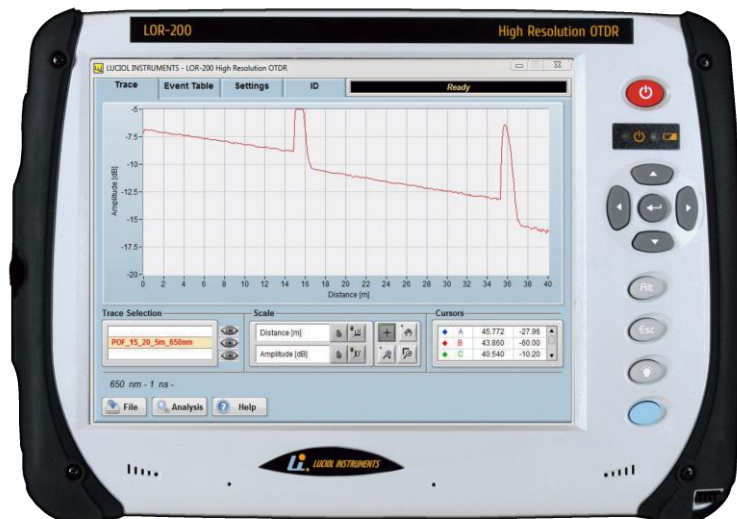


LOR-220 POF

High Resolution Optical Time-Domain Reflectometer For Large Core Optical Fibers



Fully portable OTDR
format

Industry-leading
resolution (1 ns
pulses)

High dynamic range

Custom systems for
most fiber types up
to 1mm

Patented design; US
patent # 7,593,098

The LOR-220 POF from Luciol Instruments is new member of the LOR-200 family. It is a portable high resolution OTDR specially designed for testing large core optical fibers such as 1mm PMMA (POF) or others. The LOR-220 POF is a universal tool to characterize insertion losses and fiber attenuation. You can characterize the original assembly, monitor possible degradation for preventive maintenance purposes and troubleshoot in case of a fault in the system. The extremely short deadzones ensure that you can detect, localize and measure events, which no other OTDR can show, such as fiber breaks and bend-loss, even after a large reflection.

The LOR-220 POF is available on a custom basis for most large core optical fibers and it has several wavelengths options.

APPLICATIONS

- Fiber, cable manufacturing
- Characterization/monitoring/troubleshooting of fiber assemblies
Fiber optic sensors
- And more...



SPECIFICATIONS

Optical

Wavelength options (standard)¹:
650 nm, 520 nm
Fiber type: PMMA 1mm (standard)
others on request
Optical connector:
SMA, ST (others on request)
Optical pulse width: 1 ns
Measurement range:
1.25 km
Distance units:
kilometer, meter, feet, miles, time(ns)
Sampling resolution:
Any multiple of 2.5 cm (250ps)
Dynamic range² :
Rayleigh backscattering: >20 dB (S/N=1)
Deadzones²:
Attenuation deadzone (RL=45dB): 40 cm.³
Attenuation deadzone (RL=14dB): <1 m.³
Loss accuracy:
 $\pm 0.1 \text{ dB} \pm 0.02 \text{ dB/dB}$

Hardware

OS: Windows 10 Home
Processor: Intel N4200
RAM: DDR3L, 4 GB
Storage: SSD, 120 GB (more optional)
Display: Touchscreen TFT 10.4" (800x600)
Interfaces: 2x Ethernet RJ45
4x USB 3.0
1x HDMI
1x Headphone/Microphone
Wifi/Bluetooth (optional)

Power rating: 15V/4 A
Power input: AC operation with 100 to 240 VAC;
50/60 Hz universal adapter; DC operation on
batteries (Li Ion, 6.2 Ah)
Battery operating time: 5 h
Battery charging time: 3.5 h
Size: 320 x 240 x 90 mm, Weight: 3.1 kg

Environmental

Operating temperature: 0° to +40°C (32° to 104° F)
Storage temperature: -20° to +60° (-4° to 140°F)
Relative humidity: $\leq 80\%$ (0 to 30°C), decreasing
linearly to 50% at 40 °C
Maximum operation altitude: 2000 m
Pollution degree: 2

OPTIONS AVAILABLE

-VFL

Visual Fault Locator on the OTDR output; can be
used as Fiber Identifier.

ORDERING INFORMATION

LOR-22X-POFYYYY-W1(/W2/W3/W4)-CC
X = # of wavelengths
YYYY = Fiber diameter μm
W1, W2...: wavelengths
CCC: connector type (ASC, AFC, SC, FC, ST)

Ordering example:

LOR-222-POF1000-650/520-SMA-VFL
LOR-220 for 1 mm POF, with 2 wavelengths (650
nm and 520 nm), SMA connector, with VFL.

Other wavelengths, fiber types and configurations
are available on a custom basis. Contact the factory
with your special requirements.

Notes:

- 1: $\pm 10 \text{ nm}$.
- 2: Typical
- 3: The attenuation deadzone will be increased by the fibers
modal dispersion