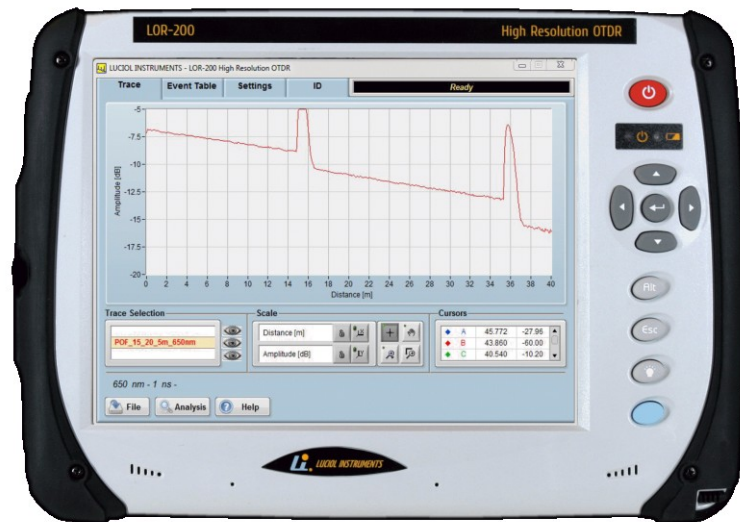


LOR-220 POF

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 32-bit
Processor: AMD G T40E, 2x 1 GHz
RAM: DDR3, 4 GB
Storage: SSD, 120 GB (more optional)
Display: Touchscreen TFT 10.4"; 800X600
Interfaces: 1x Ethernet RG45;
2x USB Type 2;
1x VGA,
1x Serial port

Power rating: 15V; 3.2 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)

Humidity: 0% to 90%; non-condensing

OPTIONS AVAILABLE

-VFL

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

-OPM: Optical power meter for 850 nm, 1310, 1550 and 1610 nm.

Range: -50 dBm to +8 dBm for 850 nm ;

-55 dBm to +3 dBm for 1310, 1550 and 1610 nm;

Linearity: $\pm 0.05 \text{ dB}$ (between -45 and

0 dBm)

Absolute power uncertainty: $\pm 0.2 \text{ dB}$

Resolution: $\pm 0.01 \text{ dB}$

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