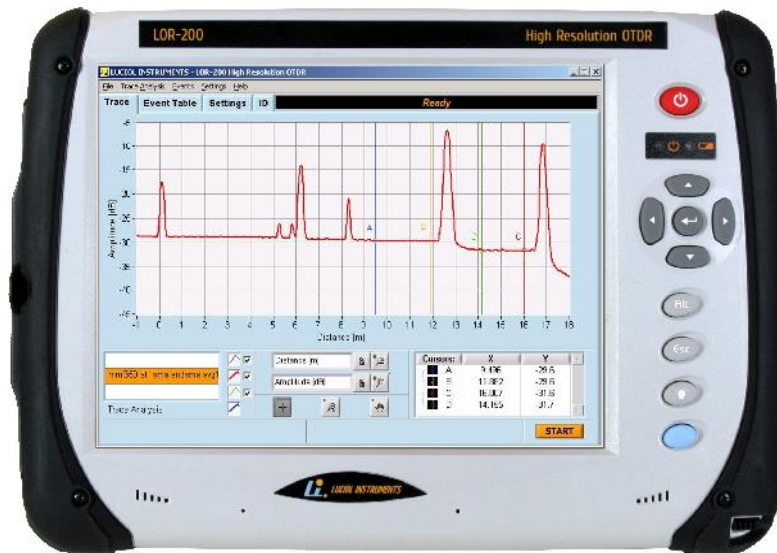


LOR-220

High Resolution Optical Time-Domain Reflectometer for Aviation and Defense applications



Fully portable OTDR
format

Industry-leading
resolution (1 ns
pulses)

Measures IL and
ORL for all types of
connectors

High dynamic range

Up to four
wavelengths

Custom systems for
most fiber types
and wavelengths

Patented design; US
patent # 7,593,098

The LOR-220 from Luciol Instruments is new member of the LOR-200 family. It is the first **truly portable** High Resolution OTDR specially designed for short MMF assemblies, found for example in airplanes, ships and defense applications. The LOR-220 can **characterize** the original assembly, **monitor** possible evolution for preventive maintenance purposes and **troubleshoot** in case of a fault in the system. The extremely short deadzones (10 cm event deadzone, 40 cm attenuation deadzone) 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.

APPLICATIONS

- Aviation, aerospace and defense industries
- Characterization/monitoring/troubleshooting of fiber assemblies in harsh environments
- Fiber optic sensors
- And more...



SPECIFICATIONS

Optical

Wavelength options (standard)¹:
670 nm, 810 nm
Fiber Type: MMF 200 µm, 62.5 µm or 50 µm
Optical Connector:
Universal, PC type, with FC, SC or ST adapter
Optical Pulse Widths: 1 ns
Measurement Range:
1.25, 2.5, 5, 10, 20, 40, 80, 160km
Distance Units:
kilometer, meter, feet, miles, time(ns)
Sampling Resolution:
Any multiple of 2.5 cm (250ps)
Dynamic Range² :
Return loss: 98 dB ;
Rayleigh Backscattering: >20 dB (S/N=1)
Deadzones²:
Event deadzone: 10 cm;
Attenuation deadzone³: 40 cm.
Distance accuracy:
± (10 mm + 5x10⁻⁵ x[fiber length])
Reflectance accuracy: ± 1dB

Hardware

Operating system: Windows XP embedded
Processor: AMD Geode 500 MHz
RAM: 512 MB
Storage: Compact flash 8 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, 6.6 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%; noncondensing

OPTIONS AVAILABLE

-VFL⁴

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

-OPM⁵

Optical power meter for 670, 850 nm, 1310, 1550 and 1610 nm.

-FM

Fiber microscope; End-face verification of connectors; USB connection; Video displayed on LOR screen.

ORDERING INFORMATION

LOR-22X-MMFYY-W1(/W2/W3/W4)-CC;
X= # of wavelengths;
MMFYY= MMF62, MMF50;
W1, W2...: wavelengths
CCC: connector type (ASC, AFC, SC, FC, ST).

Ordering example:

LOR-222-MMF62-670/850-FC-VFL
LOR-220 for MMF 62.5 µm, with 2 wavelengths at 670 nm and 850 nm, FC connector, with VFL.

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

Notes:

- 1: Typical, ±30 nm. Other wavelengths available on request
- 2: Typical
- 3: For ORL = 45 dB
- 4: available with 670 nm option only
- 5: Preliminary specifications:
-50 dBm to +5 dBm for 670 and 850 nm ;
-60 dBm to +5 dBm for 1310, 1550 and 1610 nm;