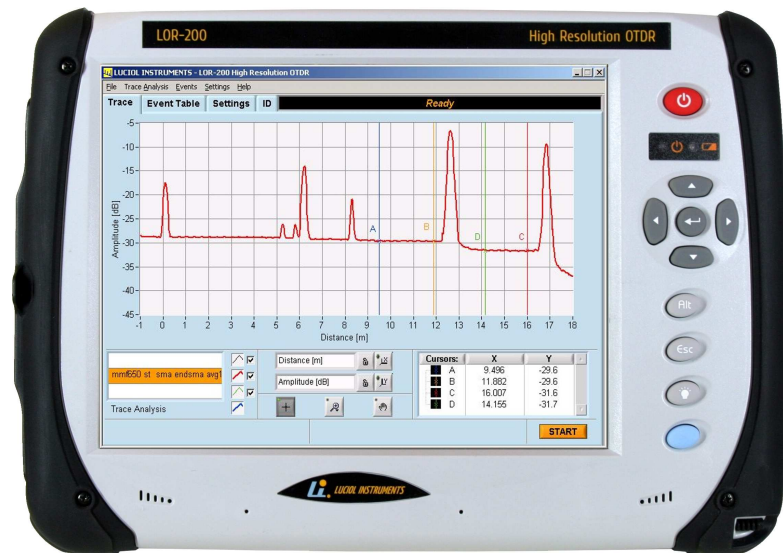


LOR-220

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



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...



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

SPECIFICATIONS

Optical

Wavelength options (standard)¹:

650 nm, 850 nm

Fiber Type: Multimode 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:

± (20 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 4 GB (8GB or more available as options)

Display: Touchscreen TFT 10.4"; 800X600

Notes:

1: Other wavelengths available on request

2: Typical

3: For ORL = 45 dB

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°C (-4° to 140° F)

Humidity: 0% to 90% noncondensing

ORDERING INFORMATION

LOR-200

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-MMF62-650/850-FC

LOR-220 for MMF 62.5 μm, with 2 wavelengths at 650 nm and 850 nm, FC connector.

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