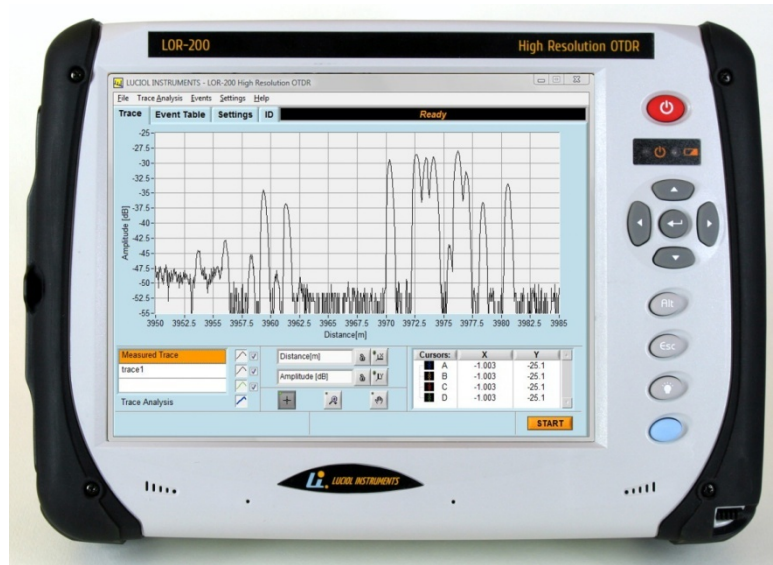


# LOR-200

## High Resolution Optical Time-Domain Reflectometer



Industry-leading  
resolution (2 ns  
pulses)

Fully portable OTDR  
format

High dynamic range  
with short pulses

Sees both high  
reflections and RBS

1625 nm option  
with matched filter  
for live PON  
applications

Up to four  
wavelengths

Custom systems for  
most fiber types  
and wavelengths

The LOR-200 from Luciol Instruments is a fully portable high resolution OTDR. It is similar in shape and feel to a standard OTDR, but achieves unprecedented resolution. The LOR-200 distinguishes events with 20 cm separation and has a sub-m attenuation deadzone. Its unique dynamic range for short pulse lengths (15 dB for 2 ns pulses) enables to see through optical splitters, even over very short distances. The 1625 nm option with matched filter allows the use of the LOR-200 on live PONs, without disturbing the transmission.

### APPLICATIONS

- See and localize events, which no other OTDR can show.
- Install and maintain PONs and any type of optical network, where the conjunction of high resolution and high dynamic range is a must.
- Fiber optic sensors
- FTTH
- Aerospace
- And more...



## SPECIFICATIONS

### Optical

Wavelength options ( $\pm 10$  nm)  
1310 nm; 1490 nm; 1550 nm; 1625 nm (with matched filter for active PON monitoring)

Fiber Type: Single Mode

Optical Connector: Universal, APC type.

Optical Pulse Widths:  
2ns, 5ns, 10ns, 30ns, 100ns, 300ns, 1ms

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 Range :  
30 dB for pulsewidth = 1 ms (S/N=1) ;  
15 dB for pulsewidth = 2 ns (S/N =1);

Reflectance Range:  
98 dB (S/N=1, any pulsewidth);  
-2dB to -100dB)

Event dead zone<sup>§</sup>: 20 cm

Attenuation dead zone<sup>§</sup>: < 1 m

Distance accuracy:  
 $\pm (5\text{cm} + 3 \times 10^{-5}$  of measured distance)

Reflectance accuracy:  $\pm 1$ dB

### Hardware

Operating system: Windows XP embedded

Processor: AMD Geode 500 MHz

RAM: 512 MB

Storage: Compact flash 4 GB

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: 7 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-20X-W1(-W2-W3-W4);  
X= # of wavelengths W1 to W4.

Standard wavelengths ( $\pm 10$  nm): 1310; 1490; 1550; 1625F (with matched filter for live PON measurements).

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

§: for Reflectance= -35dB; pulsewidth 2 ns.