



Fiber Optic Testing for Data Centers

Measure latency with picosecond precision and pinpoint faults



Luna's test systems can quickly verify optical path length and latency with unmatched accuracy and precision, making them ideal for financial data centers and other high-performance networks.

Ultra-High Spatial Resolution and No "Dead Zones"
Unlike optical time-domain reflectometers (OTDRs), Luna's OBRs feature no "dead zones", no launch cable requirements and sampling resolutions down to 10 microns.

Troubleshoot and Diagnose Networks
Identify, measure and locate individual loss events, such as connectors, bad splices, macro-bends and breaks with backscatter-level sensitivity and industry-leading dynamic range.

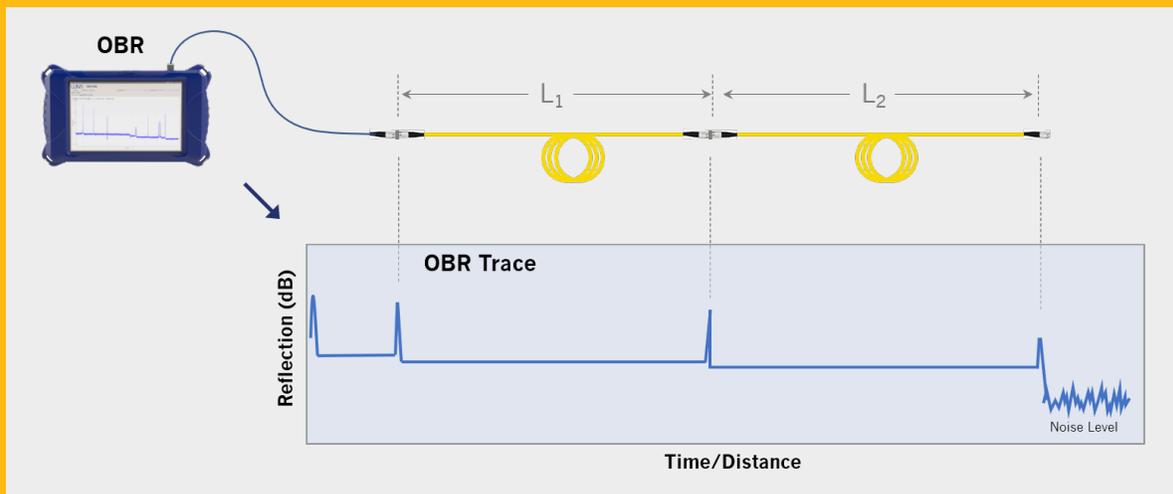
Applications

- Latency verification for high frequency trading applications
- Link length measurement
- Network diagnostics and troubleshooting
- Manufacturing test of fiber optic assemblies
- Characterize optical components and modules

Measuring Latency and Length with Optical Backscatter Reflectometry (OBR)

Luna's OBR systems scan a network and measure reflections with ultra-high sensitivity and spatial resolution. Reflective events in the network, such as connectors, bad splices, and macro-bends are detected and quantified.

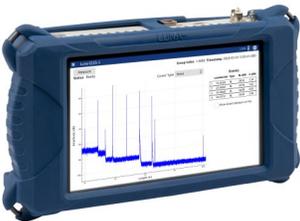
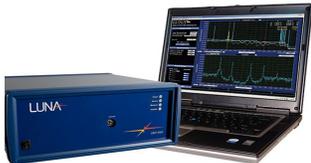
The OBR's industry-leading spatial resolution provides very precise measurements of the time, or distance, between reflection events. For example, the OBR 4600 will scan a 2 km network with a sampling resolution of 1 mm, corresponding to about 5 picoseconds.





Fiber Optic Test Solutions for the Data Center

Luna's family of advanced optical test and measurement OBR products are based on optical frequency domain reflectometry (OFDR) and deliver industry leading spatial resolution, dynamic range and speed.

	OBR 6235	OBR 4600
		
Wavelength band	C (1542 - 1552 nm)	4600: C & L (1525 - 1610 nm) 4613: O (1270 - 1340 nm)
Max measurement length	500 m	70 m standard 2000 m optional
Sampling resolution	0.20 mm @ 100 m 0.40 mm @ 200 m 1 mm @ 500 m	0.010 mm @ 30 m length mode 1 mm @ 2000 m length mode
Sensitivity	-129 dB	-140 dB
Return loss (RL) dynamic range	70 dB	80 dB
Distributed loss measurements (IL & RL) versus length	✓	✓
Spectral analysis	-	✓
Additional features	Touchscreen GUI Portable, battery-powered unit	Phase (GD) measurements Polarization state tracking