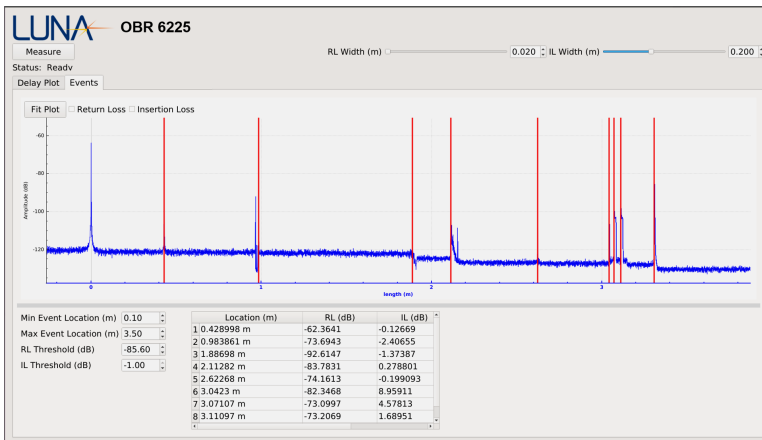


OBR 6225

Portable Optical Backscatter Reflectometer

The Luna OBR 6225 is a portable and rugged ultra-high resolution reflectometer with backscatter-level sensitivity for testing short networks deployed in aerospace, naval, data center and industrial applications.

The OBR 6225 utilizes optical frequency domain reflectometry (OFDR) technology to measure distributed return loss (RL) and insertion loss (IL) with high precision and dynamic range. The OBR 6225 easily locates optical loss events with sub-millimeter resolution. The OBR 6225 is a rugged battery powered integrated system with an intuitive touchscreen user interface, making it ideal for field maintenance applications. The user interface includes screen modes for interactive RL and IL measurement as well as automatic event detection



The OBR 6225 maps reflection versus length with high resolution, automatically detecting RL reflection events and IL sites that exceed user defined thresholds

KEY FEATURES

- Fully portable and rugged dual-channel OBR
- Return loss (RL) and insertion loss (IL) analysis
- Trace distributed RL versus length of an optical path
- Spatial sampling resolution - 80 μ m
- Detect and precisely locate reflective events
- Measure optical path length with high precision
- Waterproof and dustproof; IP65 rated

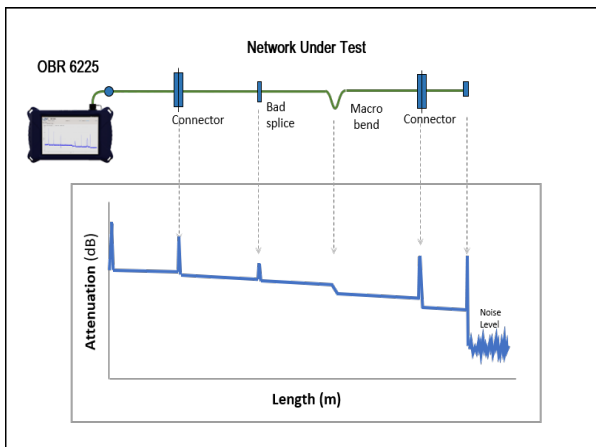
APPLICATIONS

- Troubleshoot fiber assemblies in the field
- Locate IL sites, high RL connections, fiber breaks, etc.
- Maintain avionics, aerospace, naval and industrial networks
- Verify fiber lengths of data center interconnects
- Troubleshoot fiber optic sensing systems

Portable high-resolution reflectometry for field and maintenance applications

PERFORMANCE

PARAMETER	SPECIFICATIONS (Preliminary)		UNITS
Measurement			
Number of optical ports	2		
Sampling resolution (two-point) ¹	0.080		mm
Measurement length	20	50	m
Length measurement accuracy	<1	<2	mm
Center wavelength	1546.7		nm
Wavelength range	10		nm
Measurement time	10		s
Return Loss Measurement			
RL dynamic range ²	70		dB
Total range ³	0 to -129		dB
Sensitivity ³	-129		dB
Resolution ⁴	± 0.1		dB
Accuracy ⁴	± 0.5		dB
Insertion Loss Measurement			
IL dynamic range, in reflection mode ⁵	15		dB
Resolution ⁶	± 0.1		dB
Accuracy ⁶	± 0.2		dB
Optical Output			
Optical connector type	Sealed duplex APC connector		-
Optical output power	4		mW
Mechanical and Environmental			
Battery life	3		h
Charge time	2		h
Touchscreen display	10.1", 1280 x 800 resolution		
I/O ports	USB-C, RJ45 Ethernet		
Ingress protection	IP65		
Operating temperature	-20 to 35		°C
Operating temperature, battery charging	0 to 35		°C
Storage temperature	-20 to 60		°C
Operating altitude	0 to 2500		m
I/O ports	USB-C, RJ45 Ethernet		
Weight	10.1 (4.6)		lb (kg)
Case size	13.4 x 8.7 x 2.8 (34 x 22 x 7)		in (cm)



The OBR 6225 works similarly to an OTDR, but with sub-millimeter resolution and no dead zones.

Specifications and features are preliminary.
Contact Luna for availability.

NOTES

1. Distance between two sample points in SMF-28.
2. Range between strongest reflection greater than -60 dB and noise floor.
3. Noise floor return loss at half of maximum length.
4. Measured with 1 cm integration width.
5. Two way loss before backscatter reaches noise floor and IL measurements are no longer possible.
6. Measured with 10 cm integration width.



ORDERING

Product	Description	Includes
OBR 6225	Portable OBR with IP65 rating	OBR 6225 dual-channel system, adapter cable (terminated with 2 FC/APC connectors), accessory kit, power supply/charger and ruggedized shipping case



+1.866.586.2682
solutions@lunainc.com
www.lunainc.com