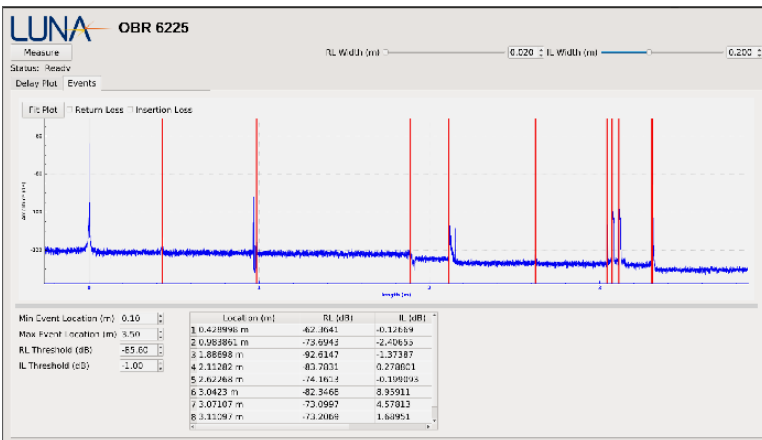


OBR 6225

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 μm
- 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			
Measurement length modes	20	50	100	m
Sampling resolution (two-point) ¹	0.080	0.100	0.200	mm
Length measurement accuracy ²	<1	<2	<4	mm
Center wavelength	1546.7			nm
Wavelength scan range	10			nm
Measurement time	10			s
Return Loss Measurement				
RL dynamic range ³	70			dB
Total range ⁴	0 to -129			dB
Sensitivity ⁴	-129			dB
Resolution ⁵	± 0.1			dB
Accuracy ⁵	± 0.5			dB
Insertion Loss Measurement				
IL dynamic range, in reflection mode ⁶	15			dB
Resolution ⁷	± 0.1			dB
Accuracy ⁷	± 0.2			dB
General				
Optical output power	4			mW
Battery life	3			h
Battery charge time	2			h
Touchscreen display	10.1", 1280 x 800 resolution			-
Data I/O ports	USB-C, RJ45 Ethernet			-
Optical connector	Sealed duplex APC connector			-
Weight	10.1 (4.6)			lb (kg)
Case size	13.4 x 8.7 x 2.8 (34 x 22 x 7)			in (cm)
Environmental				
Military certification	MIL-STD-810G			-
Ingress protection	IP65			-
Electromagnetic compatibility	MIL-STD-461G			-
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
Storage altitude	0 to 3000			m
Certifications				



NOTES

- Distance between two sample points in SMF-28.
- Does not include errors associated with user-supplied group index of refraction.
- Range between strongest reflection greater than -60 dB and noise floor.
- Noise floor return loss at half of maximum length.
- Measured with 1 cm integration width.
- Two way loss before backscatter reaches noise floor and IL measurements are no longer possible.
- Measured with 10 cm integration width.

ORDERING

Product	Description	Includes
OBR 6225-2	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

Specifications and features are preliminary.
Contact Luna for availability.



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