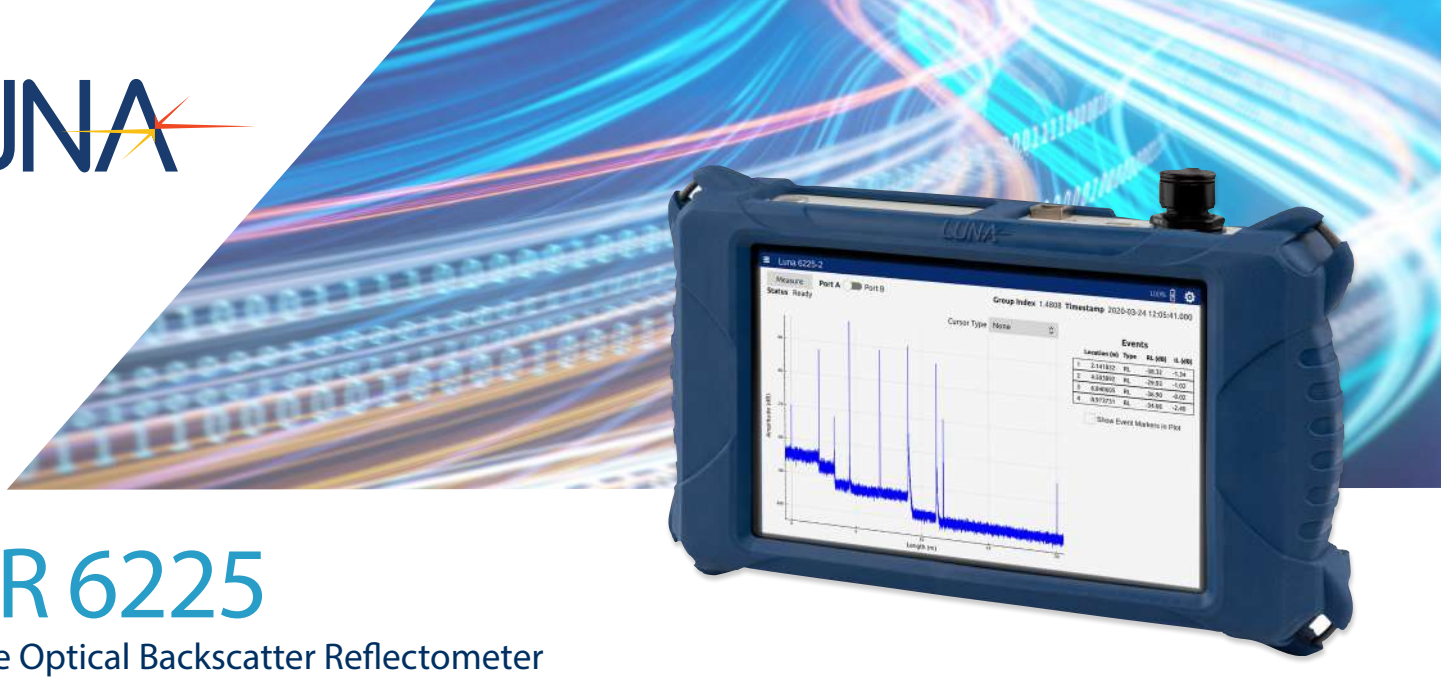


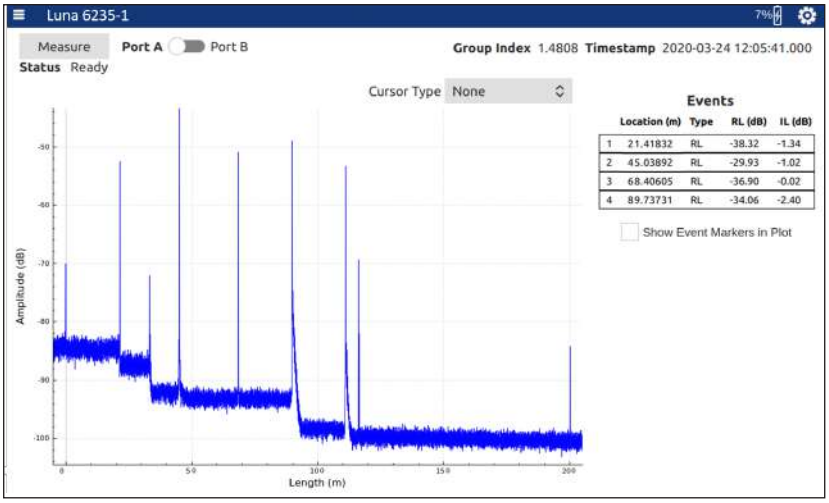
OBR 6225

Portable Optical Backscatter Reflectometer

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

The OBR 6225, along with the OBR 6235 for data centers and longer networks, are part of the OBR 6200 Series for precision testing of short and medium length fiber optic links and assemblies.

The OBR 6200 Series systems utilize optical frequency domain reflectometry (OFDR) technology to measure distributed return loss (RL) and insertion loss (IL) with sub-millimeter spatial resolution, high precision and high dynamic range. The OBR 6225 is a rugged battery powered integrated system with an intuitive touchscreen user interface, making it ideal for field maintenance applications.



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

The OBR 6200 Series provides portable high-resolution reflectometry for field and maintenance applications

KEY FEATURES

- Fully portable and rugged OBR
- Track and analyze return loss (RL) and insertion loss (IL) versus length
- Spatial sampling resolution down to 80 µm
- Detect and precisely locate reflective events
- Measure optical path length with high precision
- Automatic event detection
- One or two optical channels
- Available with IP65 and MIL-STD certifications

APPLICATIONS

- Troubleshoot fiber assemblies in the field
- Precisely 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

SPECIFICATIONS

PARAMETER		SPECIFICATIONS			
Measurement					
Number of optical ports	OBR 6225-1	1 port			
	OBR 6225-2	2 ports			
Measurement length modes		20 m	50 m	100 m	200 m[1]
Sampling resolution (two-point)[2]		0.080 mm	0.10 mm	0.20 mm	0.40 mm
Time-of-flight measurement accuracy [8]		± 0.005%			
Wavelength scan range		10 nm	8 nm	4 nm	2 nm
Center wavelength		1546.7 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		3 h runtime; 2 h charge time			
Touchscreen display		10.1", 1280 x 800 resolution			
Data I/O ports		USB-C, RJ45 Ethernet			
Optical connector	OBR 6225-1	FC/APC (SC/APC or FC/APC adapter patch cord)			
	OBR 6225-2	Sealed duplex FC/APC (FC/APC adapter patch cord)			
Weight		10.1 lb (4.6 kg)			
Case size		13.4 x 8.7 x 2.8 in (34 x 22 x 7 cm)			
Environmental					
Military certification (OBR 6225-2)		MIL-STD-810G			
Ingress protection (OBR 6225-2)		IP65			
Electromagnetic compatibility (OBR 6225-2)		MIL-STD-461G			
Operating temperature		-20 to 35 °C (0 to 35 °C charging)			
Storage temperature		-20 to 60 °C			
Operating altitude		0 to 2500 m (0 to 3000 m storage)			
Certifications					

NOTES

1. With Extended Length Option
2. Distance between two sample points in SMF-28.
3. Range between strongest reflection greater than -60 dB and noise floor.
4. Noise floor return loss at half of maximum length.
5. Measured with 1 cm integration width.
6. Two way loss before backscatter reaches noise floor and IL measurements are no longer possible.
7. Measured with integration widths of 10 cm, 12.5 cm, 25 cm and 50 cm for 20 m, 50 m, 100 m and 200 m modes, respectively.
8. Accuracy guaranteed via internal NIST-traceable HCN gas cell.

The OBR 6225-2 (top) incudes a sealed, dual FC/APC connector, while the OBR 6225-1 includes a single standard FC/APC optical connetor.

ORDERING

Product	Description	Includes
OBR 6225-1	Portable OBR	OBR 6225-1 single-channel system, adapter cables with FC/APC and SC/APC connectors, accessory kit, power supply/charger and ruggedized shipping case
OBR 6225-2	Portable Dual-Channel OBR with IP65 Rating	OBR 6225-2 dual-channel system, adapter cable with 2 FC/APC connectors, accessory kit, power supply/charger and ruggedized shipping case
OPT06225	Extended Length Option	Adds 200 m measurement mode to the OBR 6225