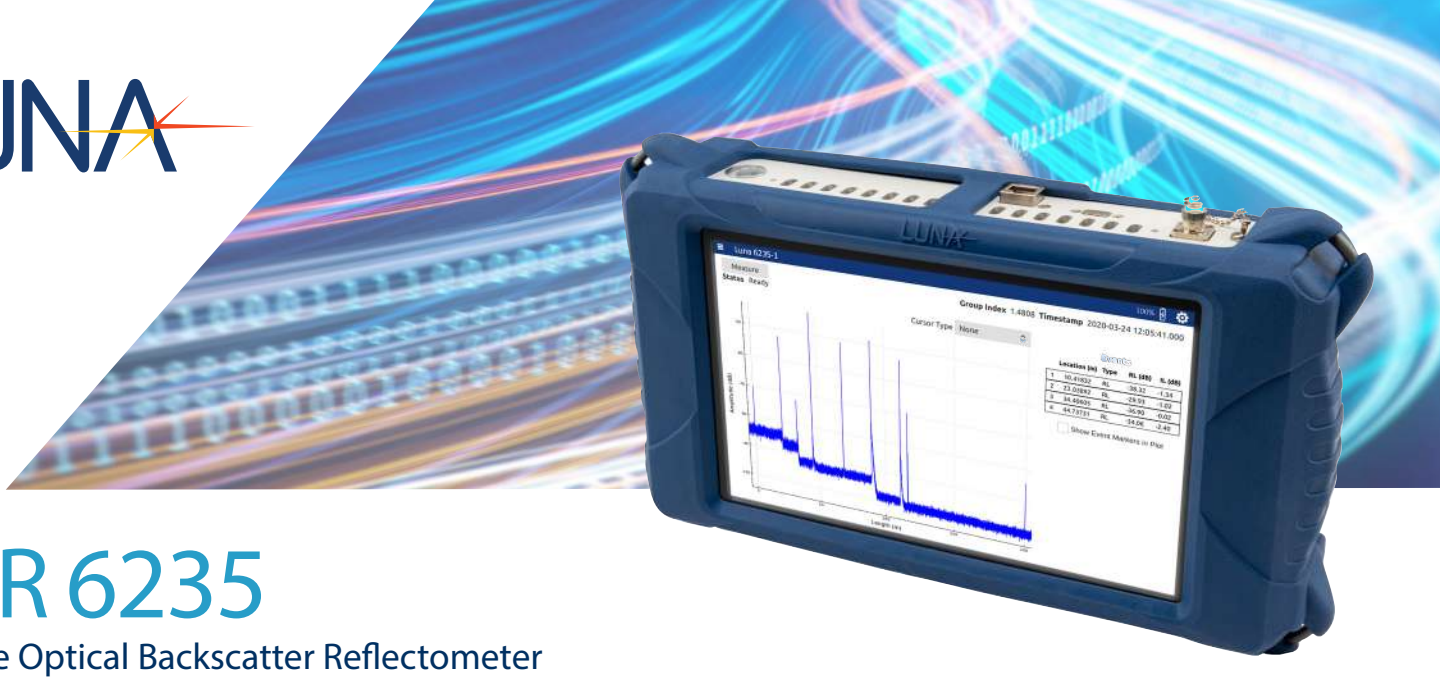


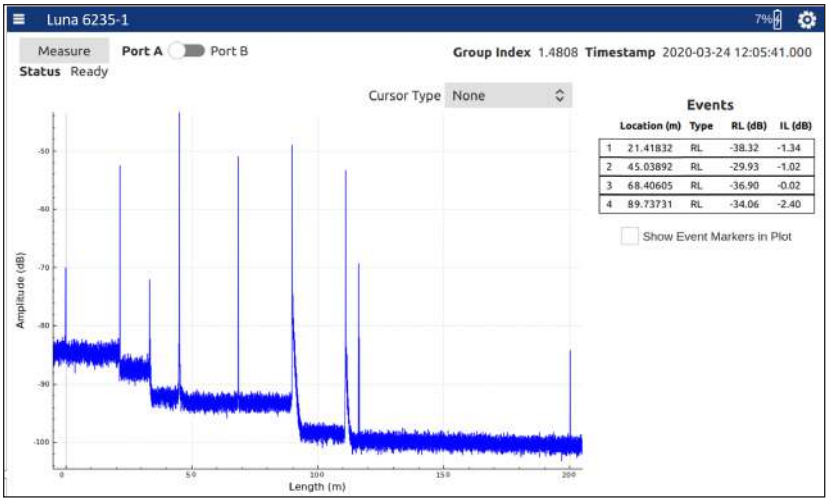
OBR 6235

Portable Optical Backscatter Reflectometer

The Luna OBR 6235 is a portable and rugged ultra-high resolution reflectometers with extended range for testing fiber optic links in data centers and longer networks in aerospace, naval and industrial applications.

The OBR 6235 utilizes 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 6235 is a rugged battery powered integrated system with an intuitive touchscreen user interface, making it ideal for field maintenance applications.

The OBR 6235 extends the measurement length range to 500 m, making it ideal for precision testing of data center interconnects.



The OBR 6235 maps reflection versus length with high resolution, automatically detecting RL reflection events and IL locations 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 with extended length range
- Track and analyze return loss (RL) and insertion loss (IL) versus length
- Sub-millimeter sampling resolution with no "dead zones"
- Measure optical path latency and length with high precision
- Detect and precisely locate reflective events
- One or two optical channels
- Available with IP65 and MIL-STD certifications

APPLICATIONS

- Measure and verify optical latency in critical interconnects
- Troubleshoot fiber assemblies in the field
- Diagnose and validate fiber optic links in data centers
- Precisely locate IL sites, high RL connections, fiber breaks, etc.
- Maintain avionics, aerospace, naval, industrial and data center networks

SPECIFICATIONS

PARAMETER		SPECIFICATIONS		
Measurement				
Number of optical ports	OBR 6235-1	1 port		
	OBR 6235-2	2 ports		
Measurement length modes		100 m	200 m	500 m
Sampling resolution (two-point)[1]		0.20 mm	0.40 mm	1.0 mm
Time-of-flight delay accuracy [2]		± 0.005%		
Wavelength scan range		4 nm	2 nm	0.8 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 runtime		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	OBR 6235-1	FC/APC (SC/APC or FC/APC adapter patch cord)		
	OBR 6235-2	Sealed duplex FC/APC (SC/APC or 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 6235-2)		MIL-STD-810G		
Ingress protection (OBR 6235-2)		IP65		
Electromagnetic compatibility (ORB 6235-2)		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. Distance between two sample points in SMF-28.
2. Accuracy guaranteed vian internal NIST-traceable HCN gas cell.
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 25 cm, 50 cm and 125 cm for100 m, 200 m and 500 m modes, respectively.

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 6235-1	Portable OBR	OBR 6235-1 single-channel system, adapter cables with FC/APC and SC/APC connectors, accessory kit, power supply/charger and ruggedized shipping case
OBR 6235-2	Portable Dual-Channel OBR with IP65 Rating	OBR-6235-2 dual-channel system, adapter cable with 2 FC/APC connectors, accessory kit, power supply/charger and ruggedized shipping case