Breakthrough Functionality in Fiber Optic Testing

LUNA TECHNOLOGIES
A Division of Luna Innovations Incorporated

PRECISION REFLECTOMETER

(Model PR™ 4400)

MEASUREMENT PERFORMANCE HIGHLIGHTS

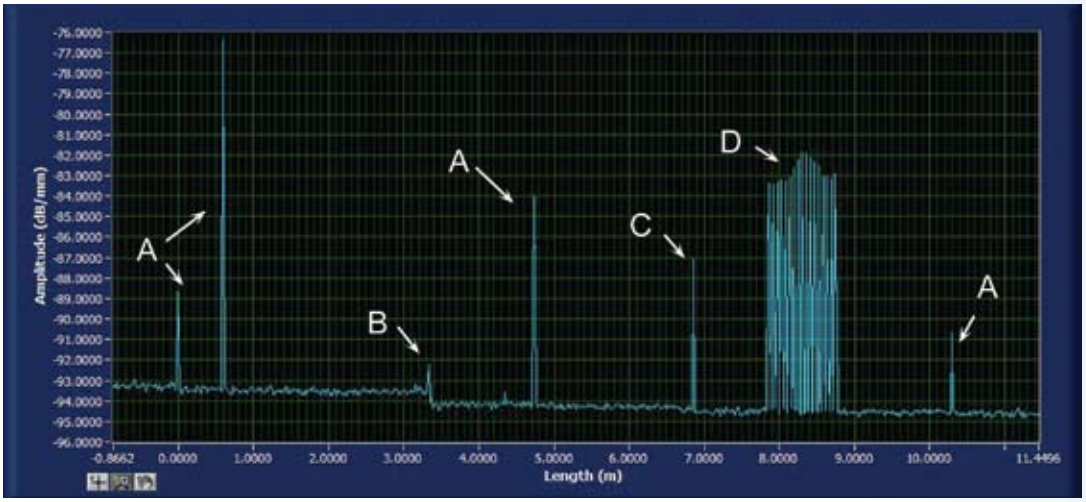
- -90 dB sensitivity
- 55 dB dynamic range
- 2 kilometer length range with no dead zone
- Micrometer resolution up to 70 meters

The PR™ 4400 is a next-generation precision reflectometer offering industry-leading micrometer spatial resolution and high speed measurements.

The PR™ 4400 is the industry's state-of-the-art tool for measuring optical reflections as a function of distance. The system comes with a small, easily transportable platform and the capability to view entire assemblies up to 2 kilometers with no dead zone. With a single scan, the PR™ 4400 quickly gives the user unprecedented optical-module inspection and diagnostic capabilities to locate and troubleshoot connectors, fiber breaks, and more.

KEY FEATURES AND APPLICATIONS

- Automated RL verification for connectors and cables
- Verify PON pedestal/fiber/connection
- High resolution fiber and waveguide characterization
- Automate pass/fail verification of fiber assemblies
- Network verification for aircraft and shipboard applications



A. FC/APC connectors
B. Bad splice
C. Optical Switch
D. Bragg Gratings

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PR™ 4400

PARAMETER	SPECIFICATION	UNITS
Maximum device length:		
Standard Mode	70	meters
Long Range Mode	2000	meters
Spatial resolution (two-point) [1]:	40 µm over 70 meters	
Dead zone :	Equals 2-pt spatial resolution	
Wavelength range [2]:	1265-1335 or 1525-1565	nm
Integrated return loss characteristics:		
Dynamic range	55	dB
Total range	+5 to -90	dB
Sensitivity	-90	dB
Resolution	± 0.05	dB
Accuracy	± 0.10	dB
Measurement Timing[3]	< 10	s

Specifications are for single-mode operation.
For multimode operation, specifications are nominal.

1 Over entire length range.
2 Ranges are nominal.
3 Combined scan and analysis time in high-resolution mode. The 10 s measurement time holds true for: 30 m, 80 micron resolution (10 nm scan) and 70 m, 160 micron resolution (5 nm scan).

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