



OPTICAL VECTOR ANALYZER™
(Model 5000 LP)

KEY FEATURES AND PRODUCT HIGHLIGHTS

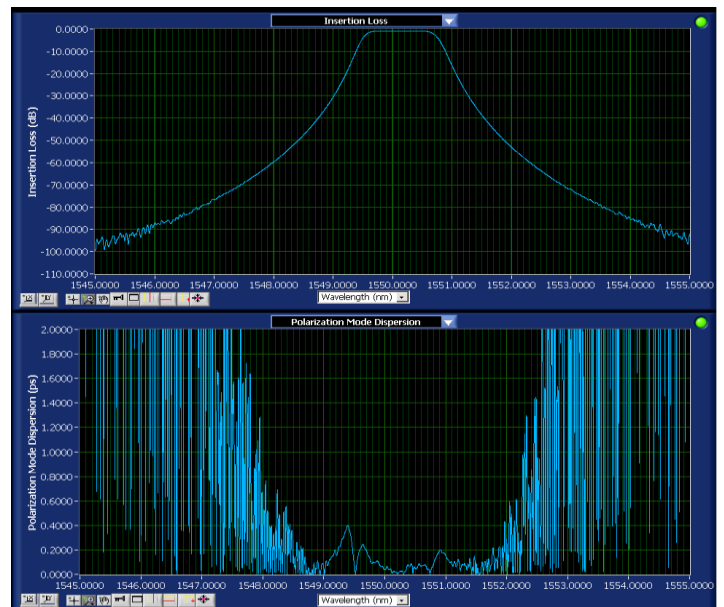
- **Investment Protection:** With the OVA 5000 LP, you can cost effectively invest in a Luna solution today for IL/PDL/PMD, and upgrade the OVA 5000 LP as your testing needs expand.
- **Industry Standard:** The Jones Matrix Eigenanalysis method used by the OVA 5000 LP is the industry standard for measuring PMD.
- **Industry-Leading Speed and Accuracy:** The OVA 5000 LP has the highest accuracy and speed in the industry; with characterization over the full C & L bands in less than 3 seconds.
- **Best in Class Dynamic Range:** Recognized across the industry as the leading tool for making component and system level polarization dependent measurements with dynamic range in excess of 60 dB.

Access industry-leading measurements at a lower cost with the OVA 5000 LP.

The OVA 5000 LP is the fastest, most accurate and economical tool for loss and polarization measurements of modern optical networking equipment.

With the OVA 5000 LP, production cost, development cost and time to market for passive optical components and modules can be reduced by up to 60%. Luna's OVA 5000 LP characterizes passive optical components with industry-leading speed and accuracy. With a single sweep of an internal tunable laser, the OVA 5000 LP measures:

- Insertion Loss (IL)
- Polarization Dependent Loss (PDL)
- Polarization Mode Dispersion (PMD) / Second Order PMD
- Optical Time Domain Response
- Jones Matrix Elements



OVA 5000 LP

PARAMETER	FAST MODE*	AVERAGING MODE*	UNITS
Wavelength Range:			
	1265-1335 or 1525-1610		nm
Wavelength:			
Standard Resolution	3.2	3.2	pm
High Resolution	1.6	1.6	pm
Accuracy ¹	±1.5	±1.5	pm
Repeatability	±0.1	±0.1	pm
Insertion Loss Characteristics:			
Dynamic range ²	60	80	dB
Ripple	±0.05	±0.01	dB
Resolution	±0.05	±0.002	dB
Insertion loss accuracy	±0.1	±0.05	dB
Return loss accuracy	±0.2	±0.1	dB
PMD:			
Range ³	6	6	ns
Accuracy – First Order	±0.03 (100pm steps) ±0.15 (30pm steps)	±0.08	ps
Accuracy – Second Order	±10	±2	ps ²
Loss range ²	40	50	dB
PDL:			
Extinction ratio	40	50	dB
Accuracy	±0.05	±0.03	dB
Measurement Timing:			
Laser sweep rate	70	70	nm/s
All-parameter measurement rate ⁴	30	30	ms/nm
Fully specified measurement time ⁵	12	55	s
Real-time mode update rate ⁶	1	NA	Hz
Maximum Device Length (including leads):			
Transmission	150	150	meters
Reflection	75	75	meters
Physical			
Weight (Processor not Included)	16.24 35.8		kg lbs
Case Size (W X D X H)	473 X 420 X 206 18.62 X 16.54 X 8.08		mm inches

1 Accuracy maintained by an internal NIST-traceable HCN gas cell.
2 80 and 50 dB dynamic ranges in 'Averaging Mode' for IL and PMD are with the "High Dynamic Range Averaging" option installed and enabled.

3 Specifies the total device impulse-response duration that may be captured.

4 Rate calculated from combined laser sweep and analysis time per scan.

5 Measurement with full specification (see note 2) over Fast Mode: 40 nm range, and Averaging Mode: 2.5 nm range. Excludes calibration time.

6 For 2.5 nm scan range.

Fast Mode: no averaged calibration scans, 4 averaged measurement scans, 30 pm resolution bandwidth, 8 m device length (accuracies verified using NIST certified artifacts except for IL). High dynamic range option enabled.
Averaging Mode: 4 averaged calibration scans, 64 averaged measurement scans, 30 pm resolution bandwidth, 8 m device length (accuracies verified using NIST certified artifacts except for IL). High dynamic range option enabled.
*results are typical

CLASS 1 LASER PRODUCT

LUNA 
TECHNOLOGIES
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