

## OPTICAL VECTOR ANALYZER *ELp*

Luna Technologies' **Optical Vector Analyzer (OVA) ELp** is the fastest, most accurate and economical tool for loss and polarization measurements of modern optical networking equipment. Based on Luna's award winning OVA CTe, the OVA ELp is the ideal tool for loss and polarization measurements of fiber components.

With the OVA ELp, production cost, development cost, and time to market for passive optical components and modules can be reduced by up to sixty percent. Luna's OVA ELp characterizes passive optical components with industry-leading speed and accuracy, all with a single sweep of a tunable laser.

- Insertion Loss (IL)
- Polarization Dependent Loss (PDL)
- Polarization Mode Dispersion (PMD) / Differential Group Delay (DGD)
- 2<sup>nd</sup> Order PMD
- Optical Time Domain response
- Jones Matrix elements

...and more across the S, C and L bands using one test instrument.

### ADVANTAGES

- **Investment Protection:** With the OVA ELp, you can cost effectively invest in a Luna solution today for IL/PDL/PMD, and as your testing needs expand in the future, upgrade the unit to add chromatic dispersion, group delay, and other phase measurements at a later date.
- **Industry standard:** The Jones Matrix Eigenanalysis method used by the OVA ELp "is" the industry standard for measuring PMD and DGD. Why settle for something less!
- **Industry leading accuracy** in a single sweep. For fast measurements, the OVA ELp has the highest accuracy in the industry. Want better performance? Simply enable the averaging capability of the unit.
- **Best in Class Dynamic Range** capabilities. 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!



The OVA ELp is configured with an Agilent 81600 series tunable laser source.

### KEY FEATURES AND PRODUCT HIGHLIGHTS

*High speed Loss and Polarization measurements*

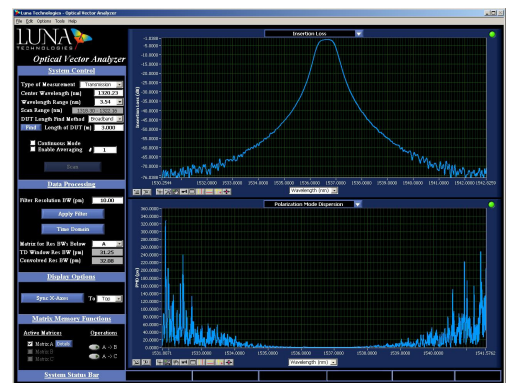
*High resolution S-C-L band capability*

*PDL range of 0-35 dB*

*Integrated, easy to use interface*

*"Look inside" device - time domain viewing to interrogate individual components within a subsystem*

*Wavelength resolution and accuracy of 1.5pm*



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Parameter	Specification	Units
<b>Wavelength range<sup>1</sup>:</b>	1460-1625	nm
<b>Wavelength:</b>		
Standard Resolution	3.2	pm
High Resolution	1.6	pm
Accuracy <sup>2</sup>	± 1.5	pm
Repeatability <sup>2</sup>	± 0.1	pm
<b>Insertion loss characteristics<sup>3</sup>:</b>		
Dynamic range	60	dB
Ripple	± 0.02	dB
Resolution	± 0.01	dB
Accuracy	± 0.05	dB
<b>PMD:</b>		
Range <sup>4</sup>	3 or 6	ns
Accuracy <sup>3</sup> – 1 <sup>st</sup> Order	± 0.15	ps
Accuracy <sup>3</sup> – 2 <sup>nd</sup> Order	± 10	ps <sup>2</sup>
<b>PDL:</b>		
Extinction ratio	35	dB
Accuracy <sup>3</sup>	± 0.05	dB
<b>Measurement Timing:</b>		
Laser sweep rate	40	nm/s
All-parameter measurement rate <sup>5</sup>	350	ms/nm
Typical measurement time <sup>6</sup>	10	s
<b>Maximum device length (including leads)<sup>7</sup></b>	30	meters

1 - Outside of range 1520-1620, specifications are nominal

2 - Accuracy maintained by internal NIST-traceable HCN gas cell

3 - Measured using 40 averaged calibration scans, 64 averaged measurement scans, 30 pm resolution bandwidth, 4 m device length (verified using NIST certified artifacts)

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

5 - Combined laser sweep and analysis time per scan

6 - Single scan measurement over C and L bands

7 - In transmission mode