

# LUNA



## POD 2000

### High Speed Polarimeter

POD 2000 is a DSP powered polarimeter designed for high-speed polarization characterization, analysis, and monitoring. This instrument uses four channels to simultaneously obtain the four Stokes parameters and measure the instantaneous state of polarization (SOP) and degree of polarization (DOP) of an input light beam.

A USB 2.0 interface enables data to be transferred directly to a computer and this polarimeter can easily monitor and analyze fast polarization changes with a sampling rate of up to 100 KS/s. Standard 100BASE-TX Ethernet is also available for measurement and control.

POD 2000 comes with user interface for real-time graphic display of polarization state either on a Poincaré Sphere window for viewing SOP traces or on an oscilloscope window for monitoring polarization changes over time.

**High speed polarimeter for analysis and monitoring polarization characterization.**

#### KEY FEATURES

- High speed, SOP/DOP measurement with 100KHz date update rate
- High accuracy
- Dynamic range -45 to 5 dBm
- None Stop or Continuous measurement as high as 100KHz update rate
- USB 2.0, Ethernet 100BASE-TX
- SCIP command, C/C++ API, PC GUI
- Trigger in/out

#### APPLICATIONS

- SOP/DOP monitoring
- Polarization analysis
- Scrambler DOP characterization
- SOP statistics
- PM fiber alignment to light sources, extinction ratio Analysis

**PERFORMANCE**

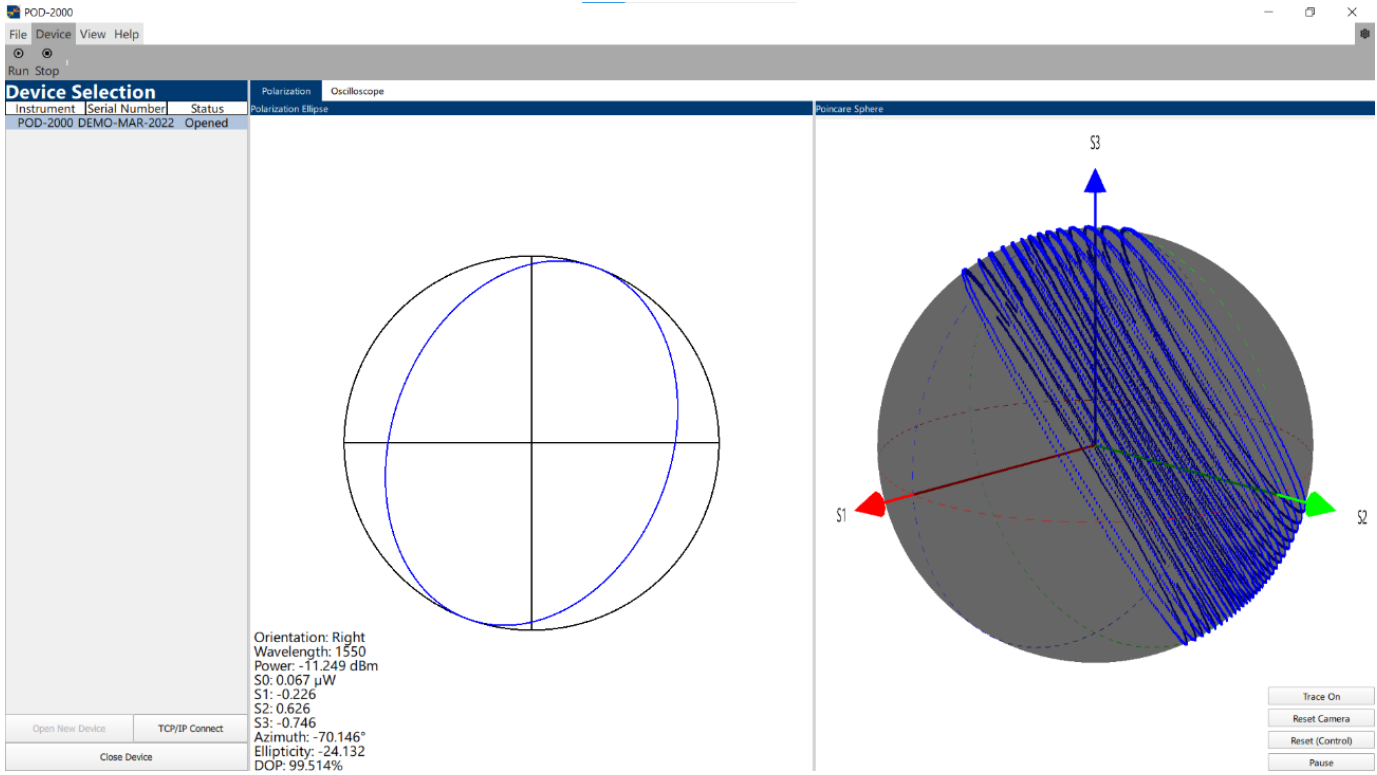
PARAMETER	SPECIFICATION			UNITS
<b>Absolute Maximum Rating</b>				
Optical input power <sup>1</sup>	300			mW
Operating Temperature	0 ~ 50			°C
Storage Temperature	-20 ~ 60			°C
<b>Optical Characteristics</b>				
Operation Wavelength <sup>2</sup>	Min.	Typical	Max.	
S, C, L band version	1480	1550	1640	nm
O band version	1260	1310	1380	nm
Dynamic Rang <sup>3</sup>	-45		5	dB
SOP Uncertainty (At calibration wavelength) <sup>4</sup>		1		Degree
Azimuth		0.5		Degree
Ellipticity		0.5		Degree
DOP Uncertainty (At calibration wavelength) <sup>4</sup>		2.5		%
Power measurement uncertainty <sup>4</sup>		0.15		dB
Measurement update Rate <sup>5</sup>			100	KHz
Data streaming Rate (USB / Ethernet)			100	KHz
Measurable SOP	Entire Poincaré Sphere			
Weight	1.6			Kg

**NOTES**

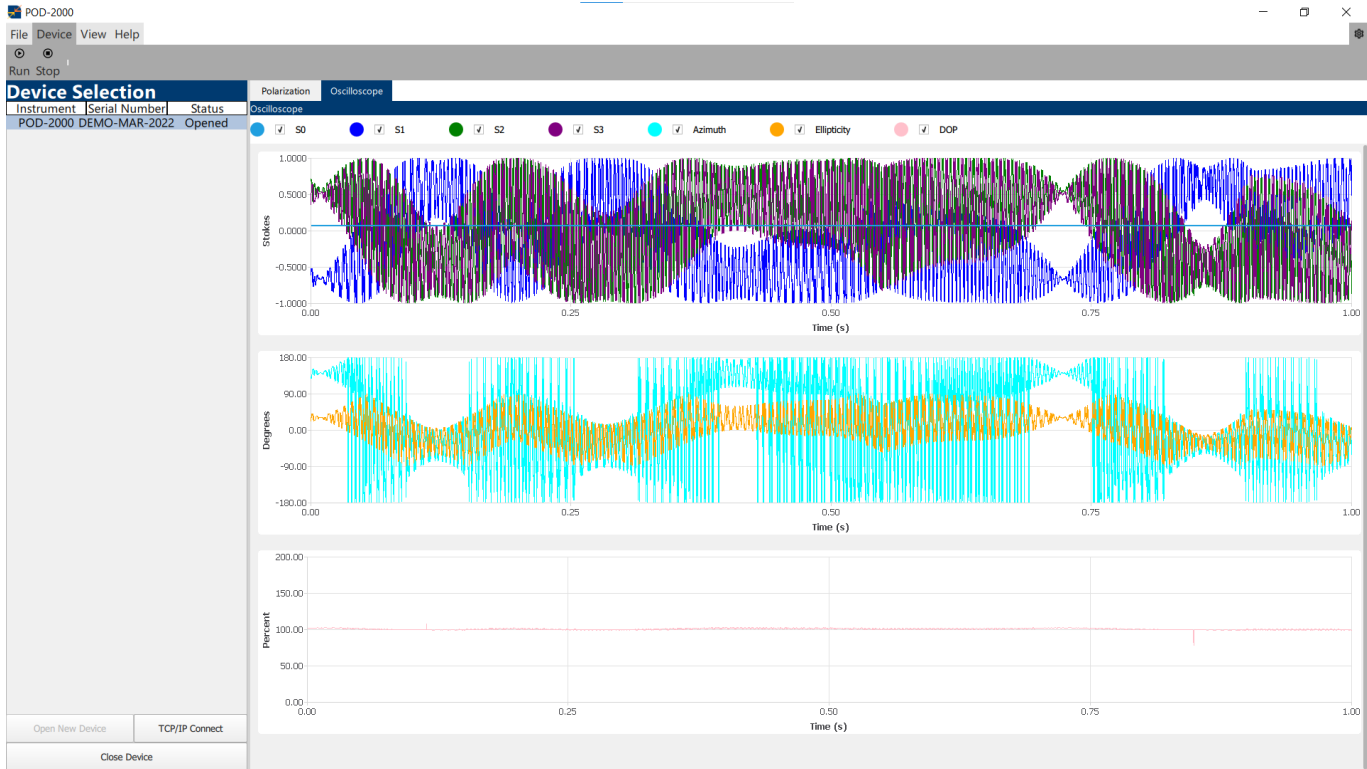
Specifications are based on the pigtail fiber SMF-28.

1. For CW signal
2. Range of the calibration data
3. SOP, DOP, and Power reading are calibrated in power range from -40 to 5 dB
4. Input power >-30dB.
5. It suggested to set the streaming speed to 1Khz/10Khz for lower input power, such as < -30dB or -40dB.

POD-2000 GUI



POD-2000 GUI oscilloscope mode



ORDERING	
Catalog #	Description
POD 2000-15-FC/APC	POD 2000 High speed polarimeter, 1480nm to 1640nm
POD 2000-13-FC/APC	POD 2000 High speed polarimeter, 1240nm to 1380nm
POD 2000-10-FC/APC (coming soon)	POD 2000 High speed polarimeter, 960nm to 1160nm
POD 2000-35-FC/APC (coming soon)	POD 2000 High speed polarimeter, 1240nm to 1380nm and 1480nm to 1640nm



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\*Specifications subject to change without notice.