

Polarization Measurement System – PolaWise™

PSGA-101-A for fiber optic applications

PolaWise™ is an advanced polarization measurement system for accurate characterization of all polarization related properties of light sources and optical materials. Based on General Photonics' patented magneto-optic polarization generation and analysis technology, the PSGA-101-A is specially designed for fiber optic applications and can effortlessly accomplish multiple functions, including polarization state generation (PSG), polarization state analysis (PSA), polarization extinction ratio (PER) measurement, polarization dependent loss (PDL) measurement, and polarization mode dispersion (PMD) measurement. Another attractive feature of the instrument is its large flip-top LCD graphic display design, an industry first that allows large viewing area on a compact, portable enclosure. Furthermore, a 2x20 character LCD is also included on the front panel for easy operation of the instrument for applications that do not require a graphic display, such as PER measurement. The instrument comes with an internal tunable laser for PDL and PMD measurement up to 10 ps. It can also control tunable lasers from third parties via a GPIB port for measurement of larger PMD values. The instrument also comes with a VGA port for use with an external LCD graphic display of the user's choice. PolaWise™: a wise instrument and a smart choice!



Preliminary Specifications

Operating Wavelength Range	1300 to 1620 nm
SOP generation accuracy	±1° on Poincaré Sphere
Azimuth & ellipticity angle accuracy	< 0.25°
Stokes vector accuracy	±0.5%
DOP measurement accuracy	±1%
PER dynamic range	> 40 dB (Input Power > -10 dBm)
PER axis accuracy	±0.2°
PMD resolution	0.5 fs (1550 nm, $\lambda_{step} = 10$ nm)
PMD repeatability	±2 fs (1550 nm, $\lambda_{step} = 10$ nm)
PMD measurement range	2 fs to 10 ps (Internal tunable laser) 2 fs to 400 ps (External laser, 0.01 nm < λ_{step} < 10 nm)
PDL measurement range	0 to 40 dB (Input power > -10 dBm)
PDL repeatability	0.02 dB (for PDL < 3 dB)
PMD	<0.1 ps
Internal tunable laser (optional)	1528 to 1563 nm
Wavelength tuning step	50 GHz minimum for internal tunable laser
Operating Power Range	-30 dBm to 10 dBm
Optical Power Accuracy	± 0.25 dB
Optical Power Damage Threshold	300 mW
Operating Temperature	0 °C to 40 °C
Storage Temperature	-20 °C to 60 °C
Computer interface	GPIB, Ethernet
Displays	8" flip-top graphic LCD & 2x20 character front panel LCD
External storage	USB removable storage media, such as compact flash
Power supply	100 – 120 VAC, 50-60 Hz 200 – 240 VAC, 50-60 Hz
Software	Control/display program (included).
Dimensions	2U, 3/4 of 19" rack width 3.5"(H) x 14" (W) x 14" (D)

Note: Please specify power supply and connector types for laser and PSG input/output when ordering.

Applications:

- PMD measurement
- PDL measurement
- Polarization state generation (PSG)
- PER measurement
- SOP measurement
- Source DOP measurement

Unique Features:

- Multiple operation modes
- Flip-top graphic display
- Front panel character LCD display
- External LCD monitor enabled
- USB removable storage media
- Compact & portable

Ordering Information:

PSGA - 101 - A - X

- Ordering Options: ←
- 1: with internal tunable laser
 - 2: without internal tunable laser

Making Light Work Lighter
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