

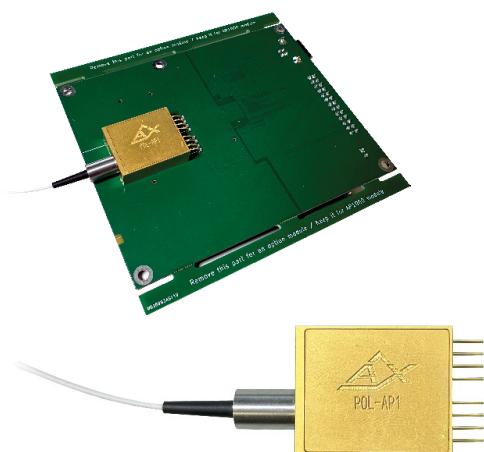
Fiber-coupled Polarimeters

POL-APx Series



Benchtop Polarimeter

Enables accurate real-time monitoring of SOP, DOP, and power for a wide range of optical signals



Card & Component Polarimeter

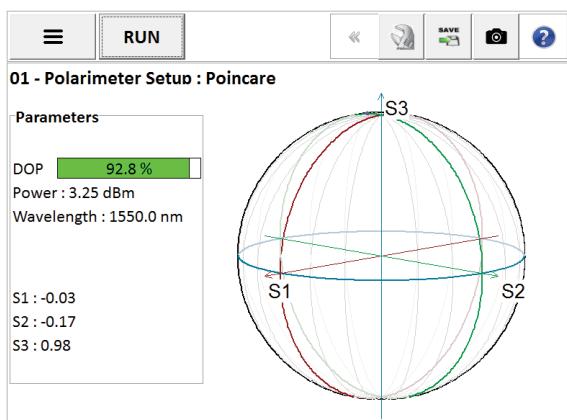
The same performance in an electronic card assembly or component-only, for direct integration into a proprietary design



POL-APx Series Advantages

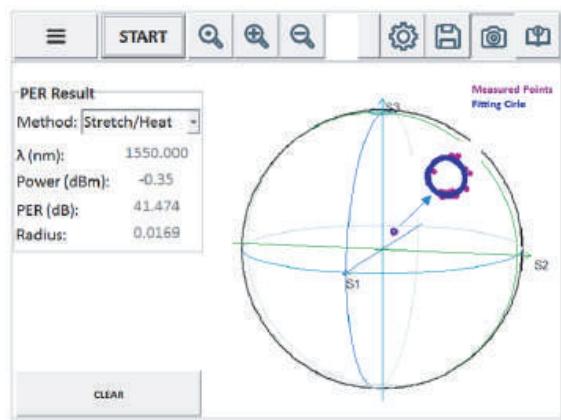
Advantages	Benefits	Features
High Accuracy	Reliable results	Four output measurements
High Dynamic Range	Work with a variety of weak and strong optical signals, in real time	Input power from -60 dBm to +10 dBm Fast sampling rate
Versatility	Cost-effective multi-analysis tool	SOP, DOP, and PER analysis Poincaré sphere, Jones diagram or virtual oscilloscope
Ease of use	Time-saving efficiency	User-friendly interface & Remote control capabilities

SOP & DOP Measurements



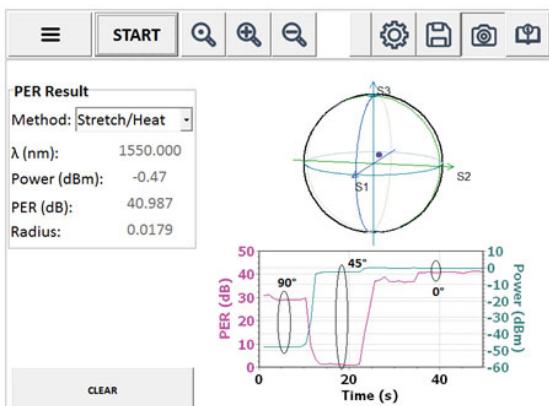
Measure the state of linear polarization input signal by variating the linear polarizer angle between 0 and 360°, with a DOP accuracy of $\pm 0.5\%$.

PER Measurements



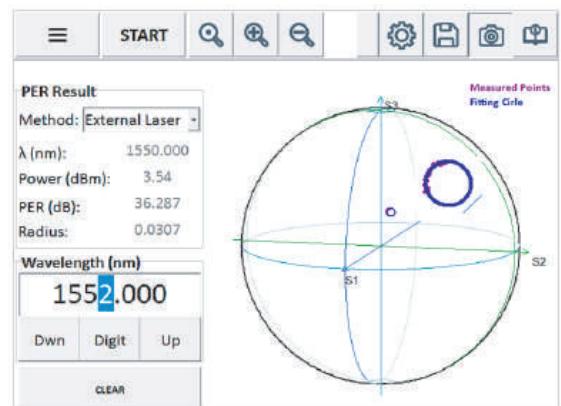
Measure the polarization extention ratio from the impact of mechanical stress on the point distribution of the Poincaré sphere.

PM Fiber Alignment



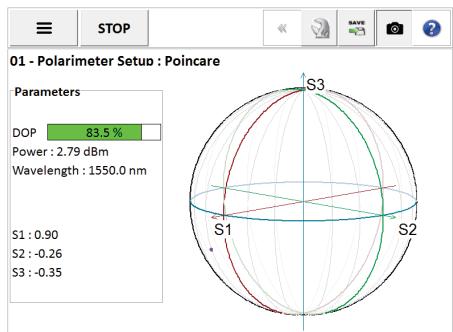
Align the polarization axis of PM fibers and optimize fiber splicing in real time.

External Laser Mode

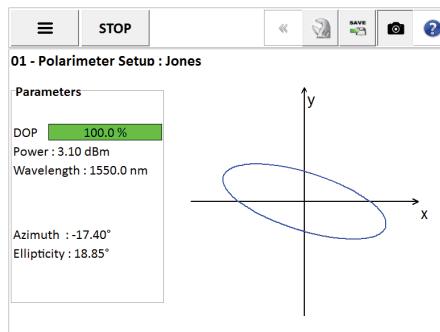


Characterize external lasers and or measure PER of components using an external tunable laser source.

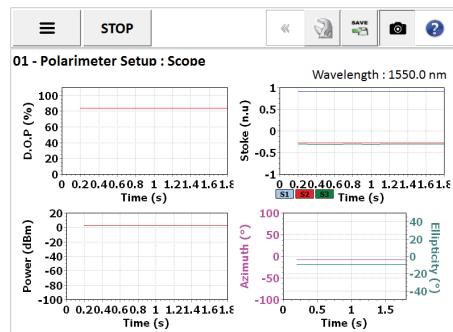
Poincaré Sphere



Jones Graph



Stokes Parameters



Specifications

Parameters	Values
Wavelength Range	1260 – 1610 nm
Input Power Range	-60 dBm to +10 dBm
Maximum Sampling Rate¹	1000 S/s
SOP Accuracy	+/- 0.25° (-30 to +2 dBm) < 2° (-60 to -30 dBm & 2 to 10 dBm)
Measurable SOP States	Full Poincaré sphere
Azimuth Accuracy	+/- 0.25° (-30 to +2 dBm)
Ellipticity Accuracy	+/- 0.25° (-30 to +2 dBm)
DOP Accuracy	+/- 1 % (-35 to +5 dBm)
Relative Power Measurement Accuracy	+/- 0.2 dB (-35 to +5 dBm)
Absolute Power Measurement Accuracy	+/- 1 dB (-35 to +5 dBm)

(1) Applies to benchtop and OEM module; photodiodes are sampled at 4kHz. Polarimeter component's bandwidth (photodiodes) is 500 MHz.

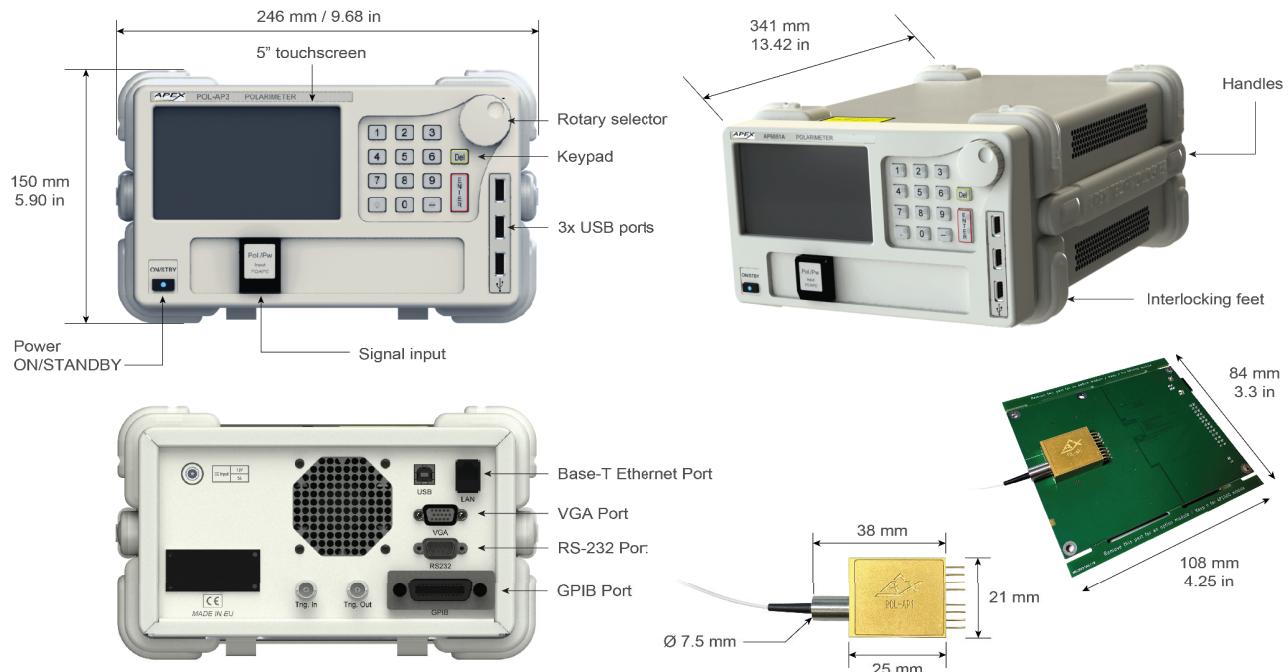
General Specifications¹

Parameters	Values
Optical Connectors	FC/APC
Remote Control	Ethernet, GPIB (optional)
USB Connectors	3 USB-A 2.0 ports (enables keyboard, mouse and USB stick)
Internal Memory	64 GB
Power	115/230 VAC, 50/60 Hz, 60 W
Operating Temperature	+5 to 35 °C
Storage Temperature	-10 to +50 °C
Humidity	20 – 80% RH (non-condensing)
Dimensions (W x H x D)	246 x 150 x 341 mm 9.7 x 5.9 x 13.4 in
Weight	4.5 kg (9.9 lbs)

(1) Benchtop unit (see next page for card & component dimensions)

Bring your Lab to the Top

APEX Technologies – Experts in Next Generation Test Equipment



APEX Technologies

9bis, rue ANGIBOUST
91460 MARCOUSSIS
FRANCE
+33 (0)1 69 63 26 30

www.apex-t.com



© 2025 APEX Technologies, All rights reserved.