

## **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

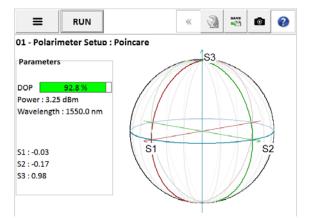


APEX\_POL Datasheet\_v2.0

#### **OSA/OCSA Advantages**

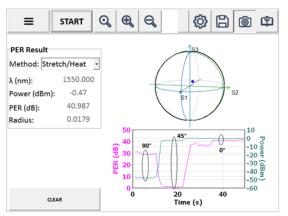
Advantages	Benefits	Features
High Accuracy	Reliable results	Four output measurements
High Dynamic Range	Work with a variety of weak and strong optical signals, in real time	Input power from -60 dBm to +10 dBm Fast sampling rate
Versatility	Cost-effective multi-analysis tool	SOP, DOP, and PER analysis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

#### **SOP & DOP Measurements**



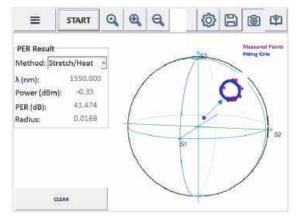
Measure the state of linear polarization input signal by variating the linear polarizer angle between 0 and 360°, with a DOP accuracy of  $\pm 0.5^{\circ}$ .

#### **PM Fiber Alignment**



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

#### **PER Measurements**



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

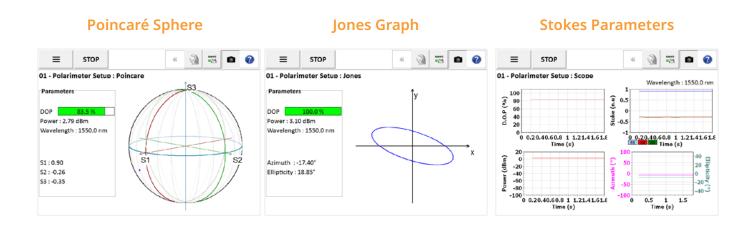
#### START QQQ @ B 6 4 ≡ PER Result litting (5 Method: External Laser -1550.000 λ (nm): Power (dBm): 3.54 36.287 PER (dB): 0 0.0307 Radius: Wavelength (nm) 1552.000 Dwn Digit Up CLEAR

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



#### External Laser Mode





### **Specifications**

Parameters	Values
Wavelength Range	1260 – 1610 nm
Input Power Range	-60 dBm to +10 dBm
Maximum Sampling Rate	4000 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	<b>+/-0.25°</b> (-30 to +2 dBm)
DOP Accuracy	+/-1 % (-35 to +5 dBm)
Relative Power Measurement Accuracy	<b>+/-0.2 dB</b> (-35 to +5 dBm)
Absolute Power Measurement Accuracy	+/-1 dB (-35 to +5 dBm)

#### **General Specifications**<sup>1</sup>

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)
<b>Dimensions</b> (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**

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www.apex-t.com





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# **Fiber-coupled Polarimeters**

246 mm / 9.68 in 341 mm 13.42 in 5" touchscreen Rotary select Keypad 150 mm 5.90 in गजनब लजनब I 3x USB ports 303-erlocking feet Power ON/STANDBY Signal input 84 mm 3.3 in Base-T Ethernet Port ۲ VGA Port RS-232 Port 108 mm 4.25 in GPIB Port Ø 7.5 mm 25 mm

**POL-APx Series** 





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#### Card & Component Polarimeter

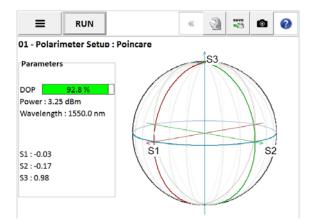
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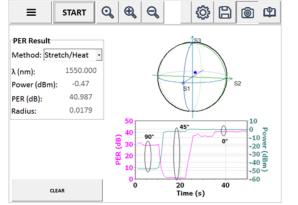
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#### **SOP & DOP Measurements**



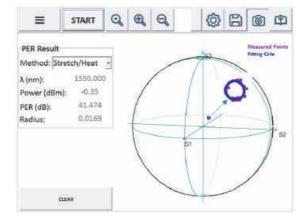
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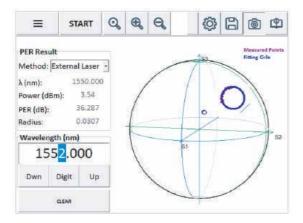
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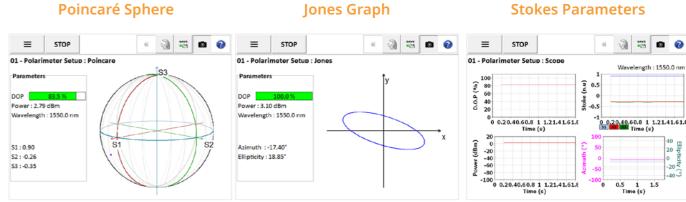


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