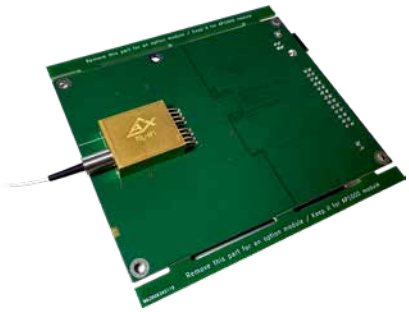
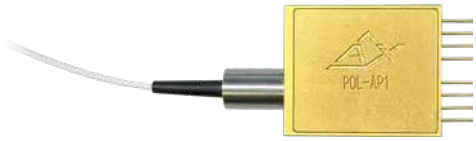
# Fiber-coupled Polarimeters

## POL-APx Series


### Benchtop Polarimeter

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





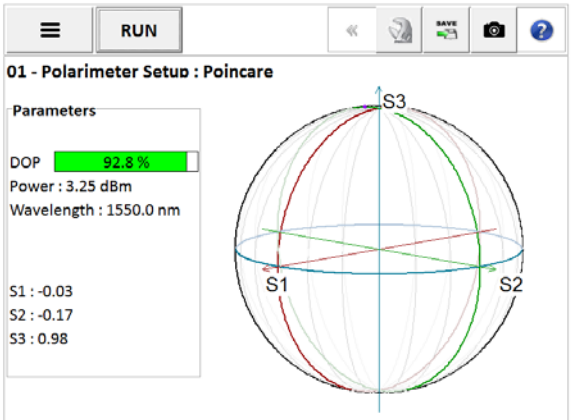

### Card & Component Polarimeter

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

## OSA/OCSA Advantages

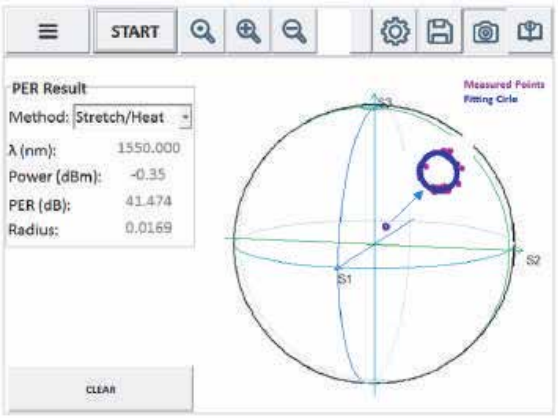
| Advantages | Benefits | Features |
|---|---|---|
| **High Accuracy** | Reliable results | Four output measurements |
| **High Dynamic Range** | Work with a variety of weak and strong optical signals, in real time | Input power from -60 dBm to +10 dBm<br>Fast sampling rate |
| **Versatility** | Cost-effective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

### SOP & DOP Measurements



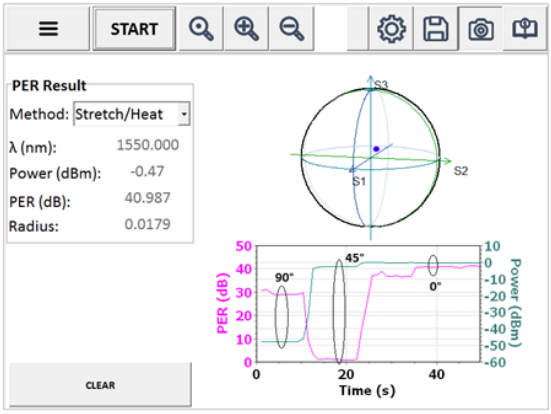

Measure the state of linear polarization input signal by variating the linear polarizer angle between 0 and 360°, with a DOP accuracy of ±0.5°.

### PER Measurements



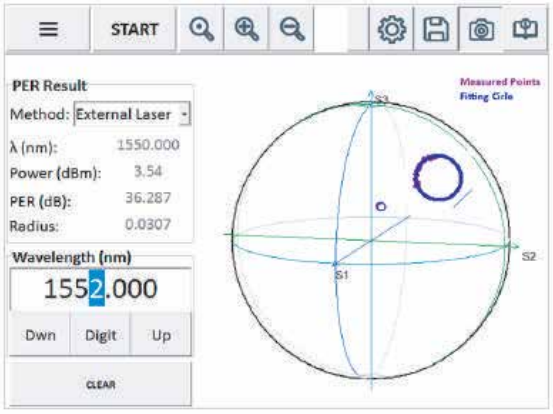

Measure the polarization extention ratio from the impact of mechanical stress on the point distribution of the Poincaré sphere.

### PM Fiber Alignment



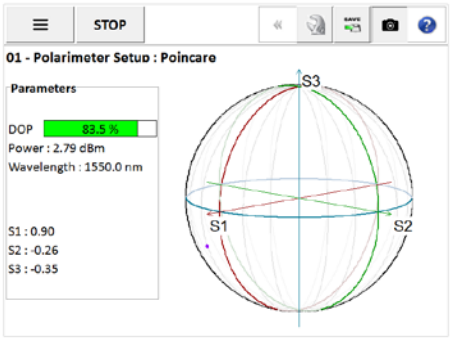

Align the polarization axis of PM fibers and optimize fiber splicing in real time.

### External Laser Mode

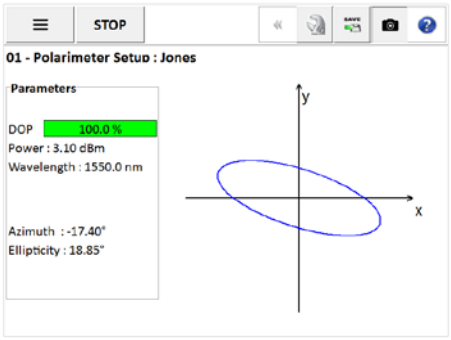



Characterize external lasers and or measure PER of components using an external tunable laser source.

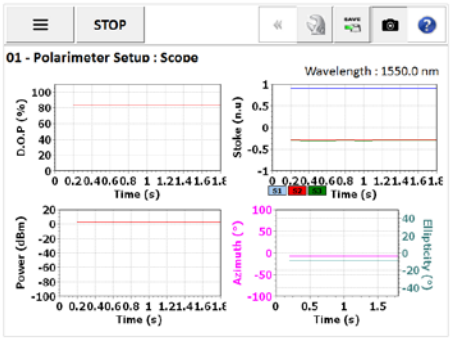
Poincaré Sphere




Jones Graph




Stokes Parameters




## Specifications

| Parameters | Values |
|---|---|
| **Wavelength Range** | 1260 – 1610 nm |
| **Input Power Range** | -60 dBm to +10 dBm |
| **Maximum Sampling Rate** | 4000 S/s |
| **SOP Accuracy** | +/- 0.25°*(-30 to +2 dBm)*<br>< 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)* |
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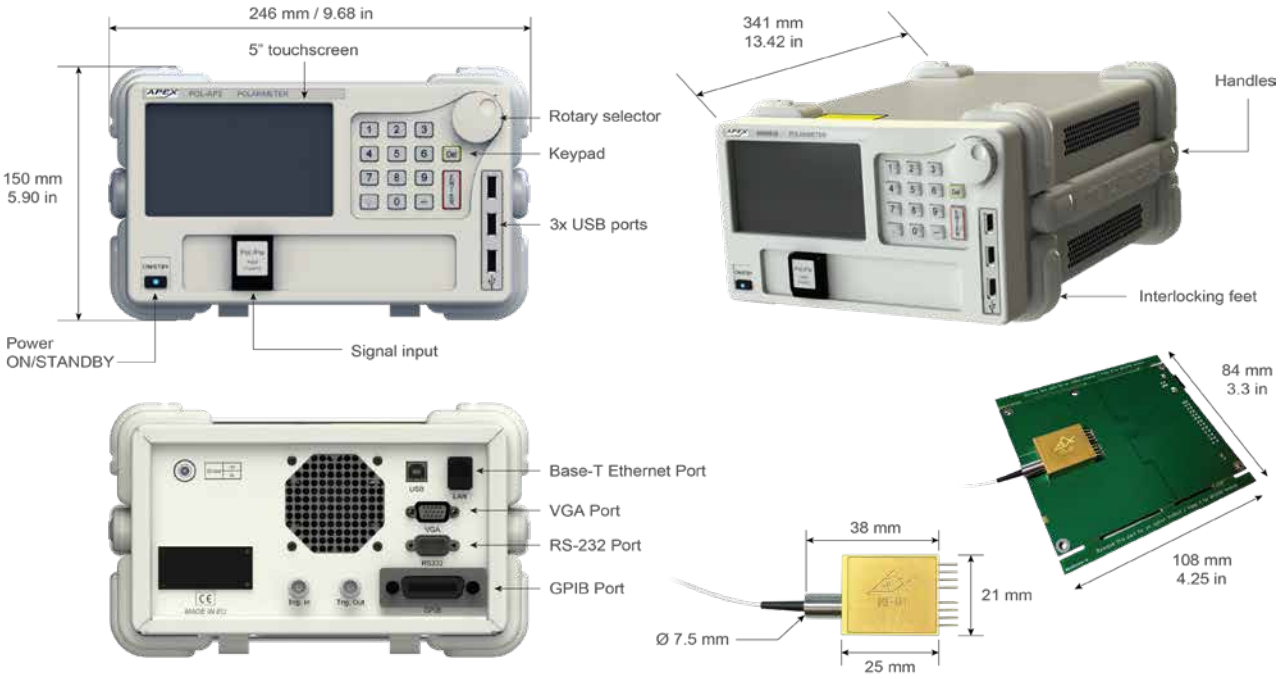
## General Specifications[1]

| 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**<br>*(W x H x D)* | 246 x 150 x 341 mm<br>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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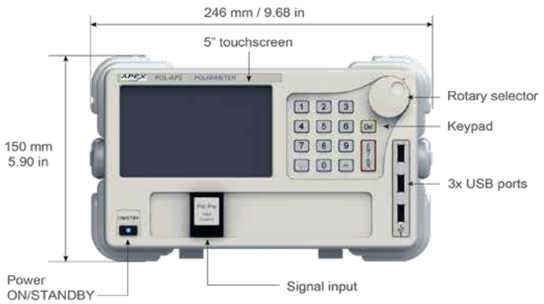






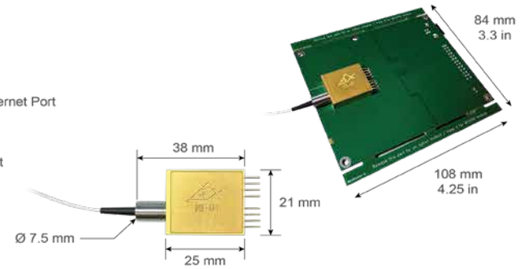


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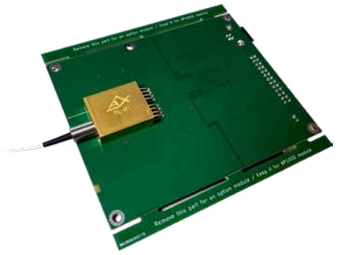

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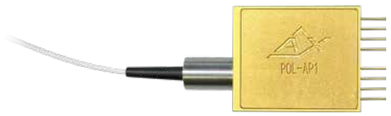


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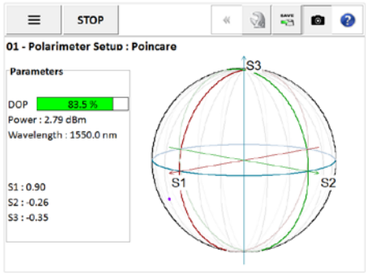


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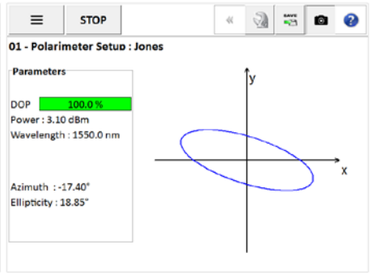


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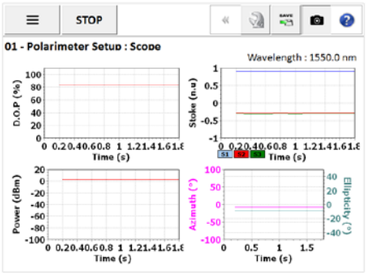


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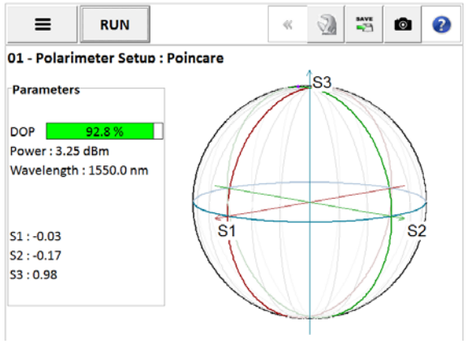


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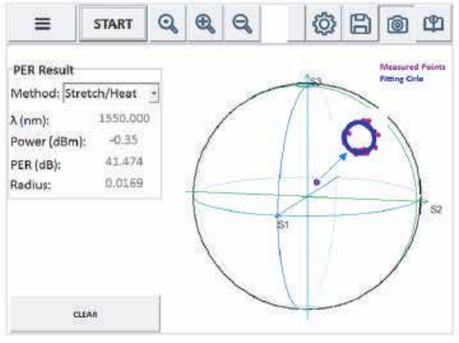


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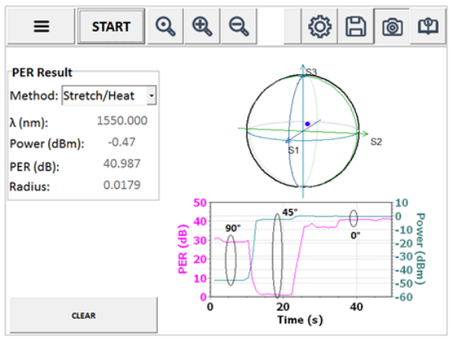


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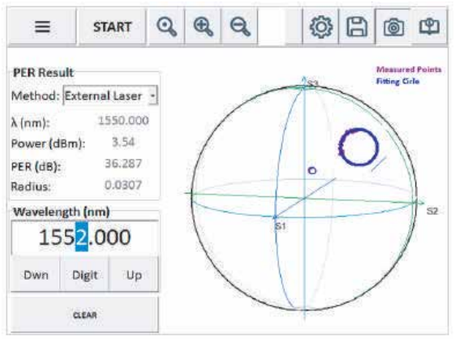


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