

# High-End Microscope Polaris

for detailed inspection of scratches  
and defects on connector endface



Single fiber



Multi-fiber



Auto focus



0.2  $\mu\text{m}$  defect  
size detection



0.56  $\mu\text{m}$   
High  
resolution



Scratch  
detection



Industry  
standards



PASS/FAIL  
verdict

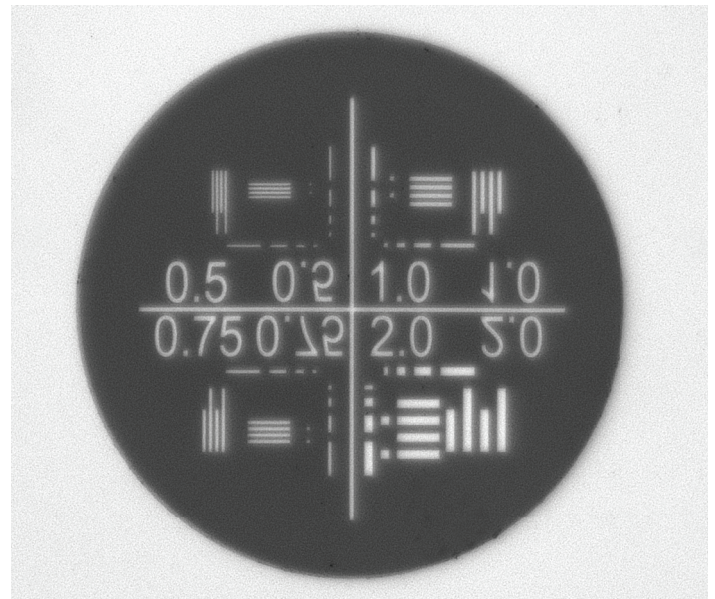
**Polaris** is a high-end benchtop microscope for visual inspection, analysis and certification of single and multi-fiber optic connectors in production and laboratory environment.

It was designed for critical examination of the polished fiber end faces and may serve as a reference system to verify and adjust lower resolution microscopes on the production line.



## Industry-leading MaxInspect™ analytical software

The software is provided with predefined Pass/Fail criteria per IEC standards or you can set your own parameters for specific applications (e.g. when launching a new product).



*Endface of a reference test-object demonstrates the resolution of Polaris. The width of etched lines and the distance between them is defined by the value in microns in the corresponding quadrant.*

3532 Seagate Way, Suite 100, Oceanside, CA 92056, USA

<https://www.sumix.com>

E-mail: [info-team@sumix.com](mailto:info-team@sumix.com)

Tel.: +1 (877) 233-3385

# Specification

<b>Field of view:</b>	d=0.4 mm
<b>Inspection field:</b>	6.4 mm x 6.4 mm* (MTP/MPO connector)
<b>Defect size detection:</b>	0.2 $\mu\text{m}$
<b>Optical resolution:</b>	0.69 $\mu\text{m}$
<b>Effective optical resolution:</b>	0.56 $\mu\text{m}$ (according to MTF calculations)
<b>Magnification:</b>	1320 $\times$ , calculated for 24" screen (1920 $\times$ 1080)
<b>Camera resolution:</b>	0.21 $\mu\text{m}/\text{px}$
<b>Illumination wavelength:</b>	530 nm
<b>Focus:</b>	automatic / manual
<b>Focusing range:</b>	$\pm 3$ mm
<b>Camera type:</b>	monochrome, 5 MP
<b>Data transfer cable:</b>	USB 3.0, detachable
<b>Power source:</b>	12 V AC adapter
<b>Dimensions (H<math>\times</math>W<math>\times</math>L):</b>	125 $\times$ 154 $\times$ 200 mm (4.92 $\times$ 6.06 $\times$ 78.74 inches)
<b>Weight:</b>	4.6 kg (10.14 lbs)
<b>Connectors inspected:</b>	SC, FC, ST, LC, MU, Arinc, MTP®/MPO connectors; bare fiber

\* Due to automated movable x/y stage

## Features

### Maximum contrast and resolution for accurate inspection

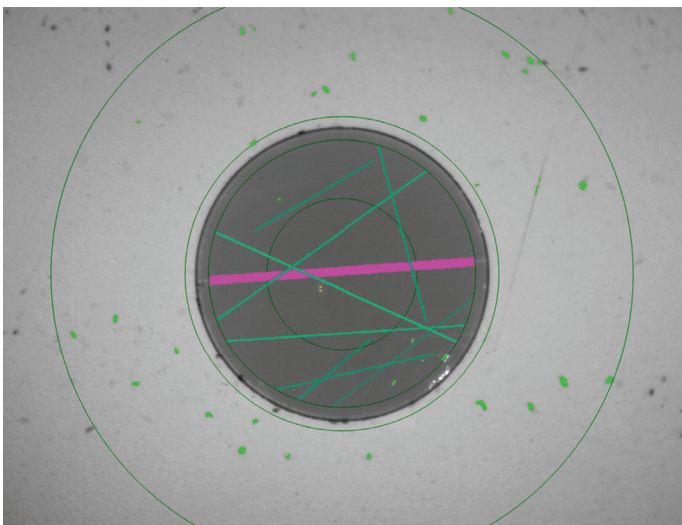
Check your single and multi-fiber connectors for the finest defects as small as 0.2  $\mu\text{m}$  in diameter and scratches as small as 0.4  $\mu\text{m}$  in width.

### Fully automated movement along MPO connector endface

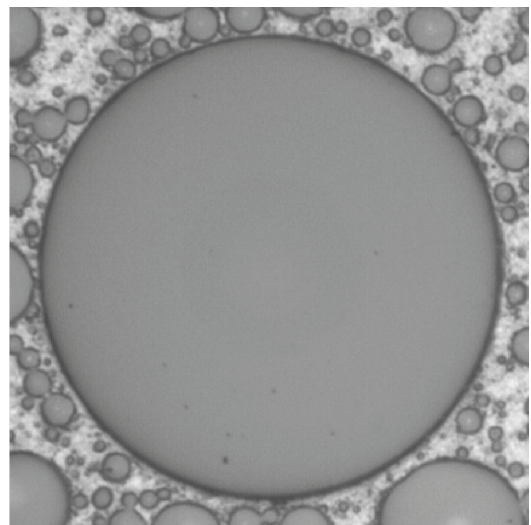
Let the system move from fiber to fiber and keep track of fiber numerical order by itself. No manual manipulations, no guesswork about the fiber number, no missed fibers.

### Autofocus

Minimize operator's actions to just one click.



*MaxInspect software detects scratches and qualifies them according to IEC standard*



*Polaris microscope automatically moves from fiber to fiber to test the whole MTP®/MPO connector*