

# XLP Laser Scanning Probe Models 250, 500, 1000

- **XLP laser probes are fully integrated with CyberOptics Surveyor 3D scanning systems and are easily integrated with 7-axis portable CMM arms, as well as any traditional CMM.**



Industry best speed, accuracy and resolution for laser line scanning technology available in a variety of laser line lengths.

## Shorter Inspection Times

- Obtain high speed point cloud data collection with a 70% faster scan rate.
- Save time with fast program set up with Surveyor Scan Control (SSC) and direct plugins to other inspection and reverse engineering software packages.
- Scan efficiently with a gigabit ethernet connection versus USB that's plug and play ready for existing CMM's.



## Better Accuracy and Resolution Performance

- Gain an accurate 3D representation of a part or object with high resolution point cloud data with 50% improved accuracy and 30% higher resolution.
- NIST traceable factory calibration ensures the measurement results from the XLP correlate to accepted standards.

## Versatility for Multiple Applications

- Scan a variety of surfaces and finishes without the need of special coatings with advanced suppression controls and 3D filtering features.
- Fast 3D scanning and part set up enabled by automated, programmable 3 to 6 axis scanning control and automated path plan generation.
- In a clean room, factory floor, or metrology lab, common applications for the XLP Laser Scanner include: part-checking against CAD, dimensional inspection, GD&T measurements, reverse engineering, and more.

## Application Tools Library for Integrators

- The Application Tools Library contains all the tools essential for data capturing, buffering, and outputting profile data. Consisting of ActiveX controls and available in object form for all popular PC-based development environments, the library provides a straightforward integration path for application software developers and system integrators.

**With the ability to scan everything from small highly detailed parts, to large automotive and aerospace parts, XLP probes are the answer for precise laser scanning.**

# Specifications

	XLP 250	XLP 500	XLP 1000
<b>Standoff distance</b>			
Near	53 mm	60 mm	125 mm
Mid	66 mm	95 mm	205 mm
Far	79 mm	120 mm	285 mm
<b>Depth of Field</b>	30 mm	60 mm	160 mm
<b>Line Length</b>			
Near	23 mm	40 mm	56 mm
Mid	25 mm	50 mm	86 mm
Far	29 mm	60 mm	115 mm
<b>Accuracy<sup>1</sup></b>	6µm	12µm	24µm
<b>Repeatability<sup>2</sup></b>	6µm	12µm	24µm
<b>Resolution (Point Spacing)</b>	19µm	39µm	78µm
<b>Typical Application</b>	Small to medium parts	Small to large parts	Medium to large parts
<b>Sample count</b>	1280 points/line		
<b>Sample Rate</b>	100 Hz 128,000 points/sec		
<b>Weight (probe only)</b>	585g		
<b>Size (h x w x d)</b>	131.17 x 93.5 x 44.398 mm		
<b>Minimum Angle of Incidence</b>	25 degrees		
<b>Laser Power Output and Wavelength</b>	8mW (class 2M) 658nm		
<b>Permissible Ambient Light (fluorescent light)<sup>3</sup></b>	10,000lx		
<b>Protection Class</b>	IP 65		
<b>EMC</b>	EN 61326-1:2006-10, DIN EN 55011: 2007-11 (Group 1, Class B) EN 61000-6-2: 2006-03		
<b>Operating Temperature</b>	0°C to 45°C		
<b>Storage Temperature</b>	-20°C to 70°C		
<b>Supply</b>	11-30VDC, 24V, 500mA, IEEE 802.3af class2, Power over Ethernet		
<b>Trigger</b>	RS422		
<b>Laser Scanning Software</b>	Surveyor Scan Control (SSC)		
<b>CMM Interface</b>	PH10M with Multiwire compatible, Renishaw ACR3 compatible, or Laser Wrist. Portable arm compatible.		
<b>CMM PC Controller Cabling</b>	Cabling compatible with CMM controller from Renishaw (UCC2), Helmel Engineering, Zeiss C99L (Spectrum II CMM's)		
<b>OS Compatibility</b>	High-end Windows 7 or Windows 10 PC		
<b>Reverse Engineering/ Inspection Software Options*</b>	Geomagic Design X, Polyworks, SPACECLAIM, Geomagic Control X, Polyworks/Inspector		

1 Accuracy is the allowable 3σ error of the measured position of a vertex target at 12 positions within the Laser Field of View, repeated 10 times.

2 Repeatability is the allowable 3σ error of the measured position of a vertex target repeated 10 times for 12 positions within the Laser Field of View.

3 Measuring Object: Metallic, diffusely reflecting material

\*Geomagic software by 3D Systems, Polyworks software by Innovmetric, Spaceclaim software by ANSYS.



Contact CyberOptics today for more information

+1 800.366.9131 or +1 763.542.5000 | CSsales@cyberoptics.com | www.cyberoptics.com