iSCAN3D - Laser Line Scanner

METROLOGY GRADE HAND-HELD LASER SCANNER

Integrated with Radian Plus and Pro Laser Trackers, iScan3D's crossed blue laser lines are capable of scanning in any direction. Dual stylus-mounting locations for probing of hidden features provide measurement flexibility with precise results. iScan3D can scan a wide variety of surface textures, including high-gloss and contrast areas. It also provides unique probing ability for hidden-point measurements.

FEATURES & BENEFITS

- **Large Scanning Volume** - iScan3D works in tandem with API's Radian Laser Trackers to scan large areas. Its rotating head provides flexibility by allowing complete 360° rotation.

- **RFID** - Automatic probe stylus recognition uses RFID technology to automatically identify probe length and tip size of the stylus and eliminate user probe selection during measurements.

- **Smart Buttons** - Pre-programmed buttons for better hardware and software interaction minimize user computer interaction with full measurement control at their fingertips.

- **Blue Crossed-Lines Scanner** - Crossed laser lines provide the ability to scan a surface in any direction with ease and flexibility.

- **Tactile Probing** - A variety of probe styli (up to 500mm supported) to suit every application provide the ability to probe profound features.

- **Dense Point Cloud** - Blue lasers and high-resolution camera provide dense point cloud with fine details of the features in real-time.

- **Dynamic Stability** - Advanced electronics, gyroscopes and level sensors compensate for small perturbations and hand vibrations during measurement.

- **Controllerless** - The versatility of iScan3D makes large-scale scanning quick and simple.

APPLICATIONS

- Reverse Engineering
- Flush and Gap
- Surface Contours
- Large Body Assemblies
- Rapid Prototyping
- Mold and Die Cavities
- Compare CAD
- Fixture Inspection
- Tooling, Fixtures, and Jigs

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PRODUCT SPECIFICATIONS

System Accuracy			
	2 -7 Meters	7-15 Meters	Above 15 Meters
Spatial Length (2σ)	± 50µm	± 80µm	± (20µm + 4µm/m)
Sphere Radius (2σ)	± 50µm	± 75µm	± (30µm + 4µm/m)
Surface (2σ)	± 60µm	± 70µm	± (80µm + 2µm/m)

Attributes	
Angle Acceptance	±45°(Pitch and Yaw) 360° Roll
Sampling Frequency	100Hz
Max. Scanning Speed	200,000 pts/sec
Laser Line Width	150µm
Laser Line Color	Blue
Min. Point Spacing	70µm
Stand Off Distance	170mm ±40mm
Depth of Field	±40mm
Field of View	110mm x 100mm
Size and Weight	H 265mm x W 110mm x L 110mm / 1.03kg
Working range	Up to 50m (using 50m cable)
Autolock	
iVision Field of View	30° (diagonal)
Acquisition Range	2m – 40m
Environmental	
Operating Temperature	-10°C – 45°C
Relative Humidity	10% – 95% (non-condensing)
Power	
Power Supply Voltage	110v/230v ±10%
Power Consumption	100w