



Gocator® 3504

3D SMART SNAPSHOT SENSOR

- PRE-CALIBRATED, 6.7 μm XY RESOLUTION 3D DATA IN A SINGLE SNAPSHOT
- ACCURATE 3D MEASUREMENT WITH BLUE LIGHT PROJECTION
- INDUSTRIAL DESIGN FOR LONG LIFE
- REMOVES COST OF LINEAR MOTION SYSTEMS AND MINIMIZES ERROR DUE TO VIBRATION

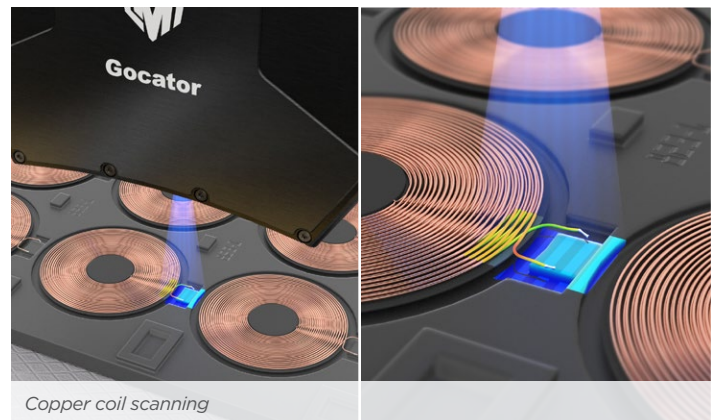
Gocator 3504 is the highest-resolution 3D snapshot sensor on the market today. Its combination of 6.7 μm XY resolution and 0.2 μm Z repeatability make this sensor ideal for detailed inline inspection of small electronic parts. An industrial stereo camera design helps see more of the part while delivering exceptional measurement stability.

HIGH ACCURACY WITH START-STOP MOTION

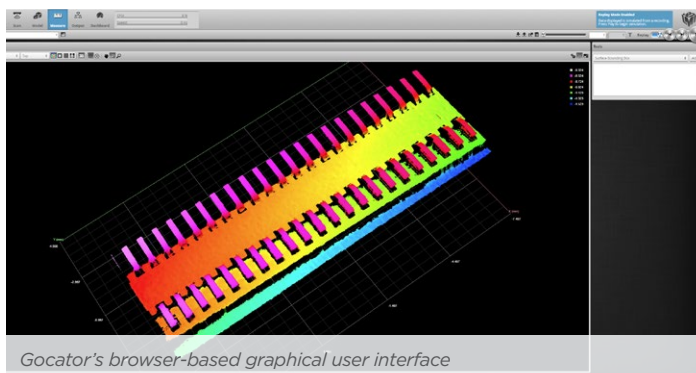
Gocator 3504's 5-megapixel stereo camera reduces occlusion and allows you to measure tiny features in a single snapshot, with the highest resolution and accuracy for an industrial structured light sensor on the market today.

INLINE INSPECTION READY WITH FASTER PROCESSING

Single sensors require no additional controllers or PCs to produce 3D measurements. The sensor's new dual-core controller and onboard hardware acceleration allow for inline production speeds. For time-critical applications, Gocator 3504 can be further accelerated up to 4x faster using GoMax smart vision accelerator.



Copper coil scanning



Gocator's browser-based graphical user interface



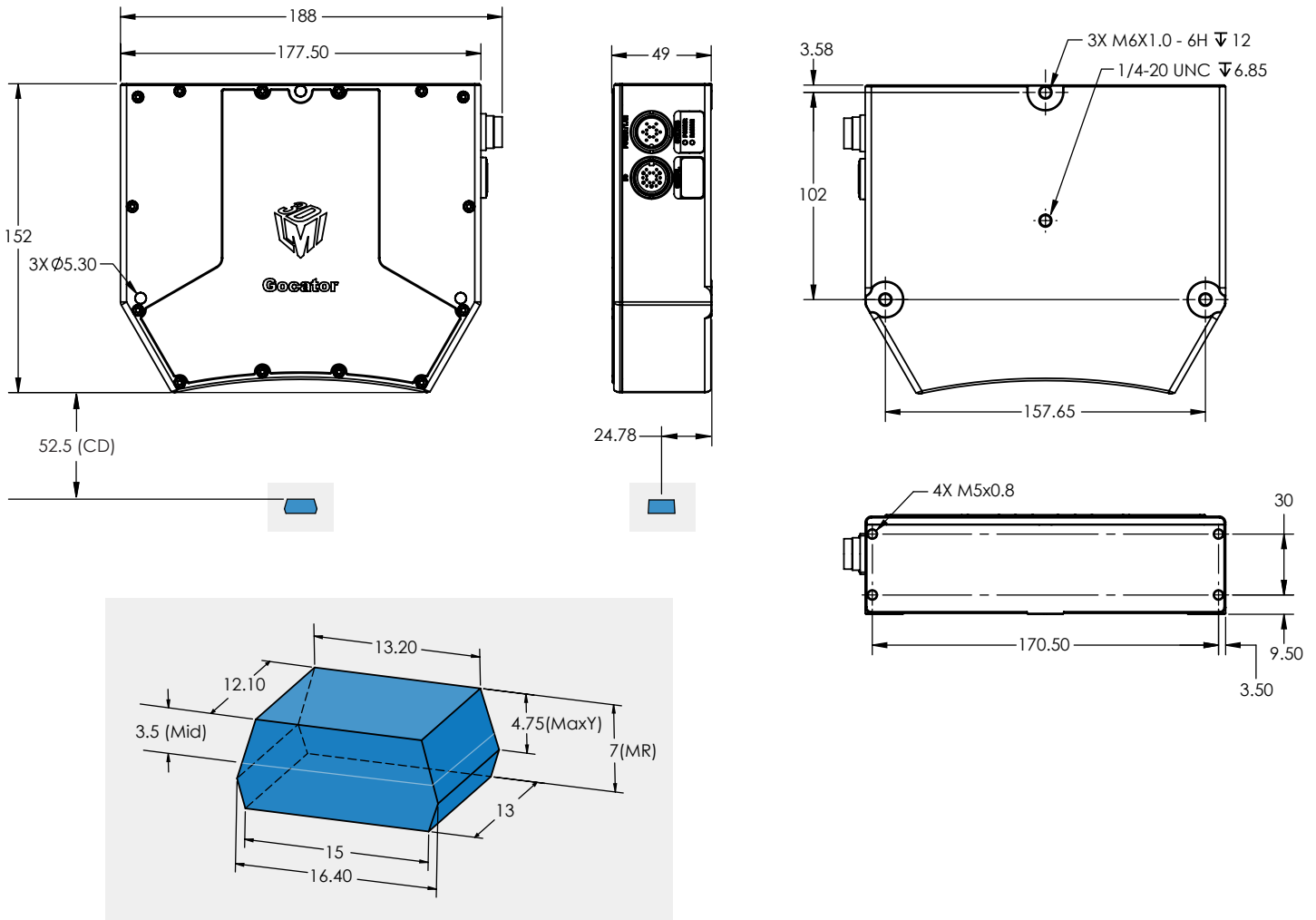
Pin inspection

GOCATOR 3504 SPECIFICATIONS

Scan Rate (Hz)	6
Imagers	5 MP, Stereo
Clearance Distance (CD) (mm)	52.5
Measurement Range (MR) (mm)	7
Field of View (mm)	12.1 x 13.2 (near) 12.7 x 16.4 (maxY) 13.0 x 15.0 (far)
Repeatability Z (µm)	0.2
Resolution XY (µm)	6.7 - 7.1
Accuracy XYZ (µm)*	6
Dimensions (mm)	49x152x177.5
Weight (kg)	1.77
Light Source	Blue LED (465 nm)
Inputs	Differential Encoder, Trigger
Outputs	2x Digital Output, RS485 Serial (115 kbaud), 1x Analog Output (4 - 20 mA)

Interface	Gigabit Ethernet
Input Voltage (Power)	+24 to +48 VDC (25 Watts); Ripple +/- 10%
Housing	Gasketed Aluminium Enclosure, IP67
Operating Temp	0 to 50 °C
Storage Temp	-30 to 70 °C
Vibration Resistance	10 to 55 Hz, 1.5 mm double amplitude in X, Y, and Z directions, 2 hours per direction
Shock Resistance	15 g, half sine wave, 11 ms, positive and negative for X, Y, and Z directions
3D Feature Tools	Openings (holes, slots), Cylinders, Studs (threaded and non-threaded), Plane
3D Volumetric Tools	Volumes, Areas, Bounding boxes, Positions (min, max, centroid), Ellipses, Orientations
Scanning Software	Browser-based GUI and open source SDK for configuration and real-time 3D visualization. Open source SDK, native drivers, and industrial protocols for integration with user applications, third-party image processing applications, robots, and PLCs.

* Based on sphere-fitting at various positions in the scan volume.



Scan volume diagram



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