

# Gocator® 2500 Series

## 3D SMART LINE PROFILE SENSORS



BLUE  
LASER

- Pre-calibrated to scan out-of-the-box
- X resolution down to 8µm
- 10,000 profiles per second including 3D measurement
- Setup & control via web browser or SDK
- Built-in tools, no programming
- Extend with GDK and GoMax

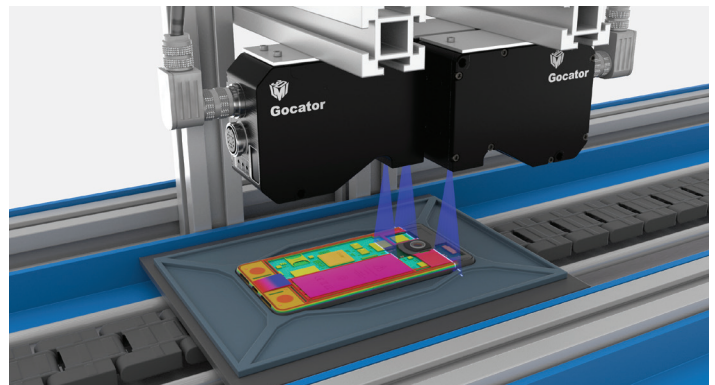
Gocator 2500 3D smart sensors are the fastest, most compact, and advanced Gocator laser line profilers to date. Designed for high performance small parts inspection, these line profilers achieve inspection rates up to 10 kHz (including scan, measure, and control) and high X resolutions down to 8 microns. A custom 2MP high speed imager, optimized optical design, and blue laser light generate excellent data with highly repeatable results on shiny and other challenging surfaces.

### INSPECT WITH SPEED AND PRECISION

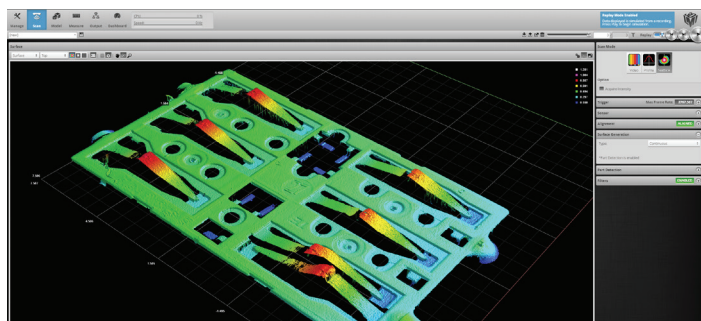
See and do more with micron resolution and faster scan rates. Take advantage of the higher speed by enabling multiple exposures to measure high-contrast targets at production speed. With an X resolution down to 8 µm, small features such as edges or gaps can be easily measured.

### LARGE FIELD OF VIEW AND MEASUREMENT RANGE

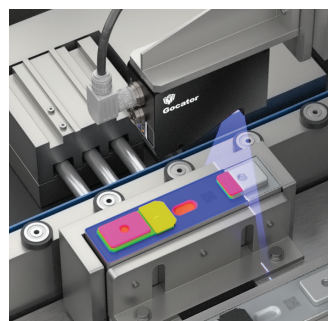
Accomplish more with fewer sensors, while still capturing the finest surface and edge details with a large field of view. A large measurement range lets you handle a wider variety of parts.



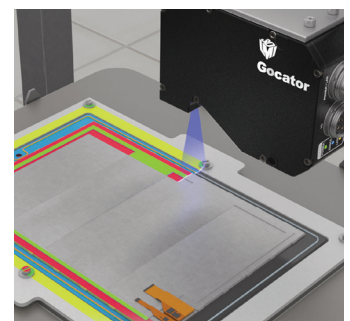
Phone component & frame inspection



Gocator's browser-based graphical user interface



Battery weld inspection



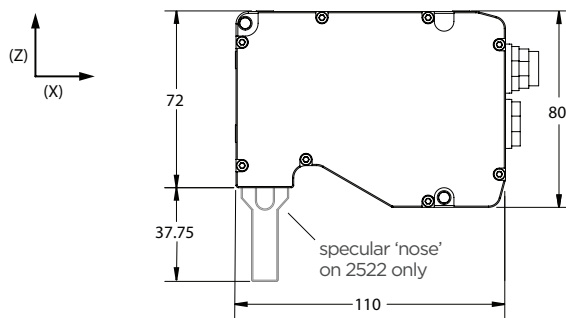
Glue bead inspection

GOCATOR 2500 SERIES MODELS	2510	2512	2520	2522	2530	2540	2550
Data Points / Profile	1920	1920	1920	1920	1920	1920	1920
Resolution X (μm) (Profile Data Interval)	8.0	8.0	13.0 - 17.0	13.0 - 17.0	28.0 - 54.0	64.0 - 160.0	80.0 - 270.0
Linearity Z (+/- % of MR)	0.015	0.015	0.006	0.006	0.01	0.05	0.06
Repeatability Z (μm)	0.2	0.2	0.4	0.4	0.5	1.2	2.0
Clearance Distance (CD) (mm)	17.0	17.0	47.5	17.75	40	152	216
Measurement Range (MR) (mm)	6	6	25	25	80	295	595
Field of View (FOV) (mm)	13.0 - 14.5 (diffuse)	13.0 - 14.5 (diffuse & specular)	25.0 - 32.5 (diffuse)	25.0 - 32.5 (diffuse) 25.0 (specular)	48.0 - 100.0 (diffuse)	120.0 - 292.0 (diffuse)	154.0 - 518.0 (diffuse)
Laser Class	2 (blue, 405 nm)	2 (blue, 405 nm)	2 (blue, 405 nm)	2 (blue, 405 nm)	2 (blue, 405 nm)	2, 3R, 3B (blue 405 nm)	2, 3R, 3B (blue 405 nm)
Dimensions (mm)	46 x 80 x 110	46 x 80 x 110	46 x 80 x 110	46 x 110 x 110	46 x 80 x 110	55 x 105 x 195	55 x 105 x 195
Weight (kg)	0.65	0.65	0.65	0.65	0.65	1.48	1.48

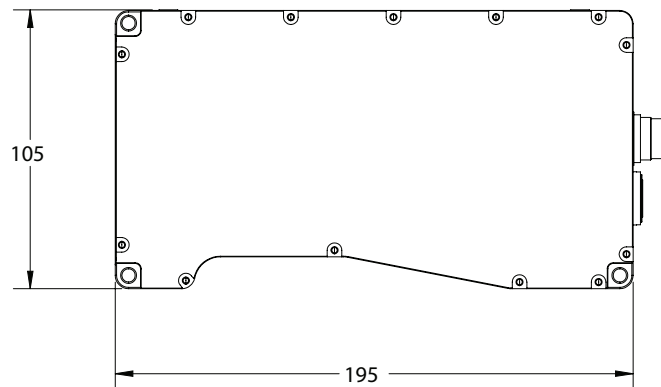
#### ALL 2500 SERIES MODELS

Scan Rate	Approximately 2 - 10 kHz
Interface	Gigabit Ethernet
Inputs	Differential Encoder, Laser Safety Enable, Trigger
Outputs	2x Digital output, RS-485 Serial (115 kBaud)
Input Voltage (Power)	+24 to +48 VDC (15 Watts); Ripple +/- 10%
Housing	Gasketed aluminum enclosure, IP67
Operating Temperature	0 to 40°C
Storage Temperature	-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
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.

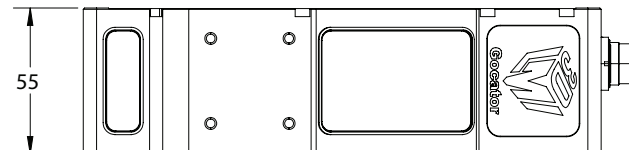
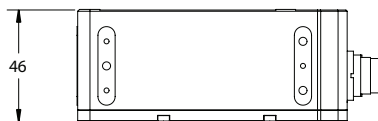
#### 2510/2512/2520/2522/2530



#### 2540/2550



\*Mounting positions are identical for all models



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