



LMI TECHNOLOGIES

Gocator® 2300 Series

3D SMART PROFILE SENSORS

FOR WOOD SCANNING APPLICATIONS

- 1-Megapixel imager - up to 1280 points/profile
- 170 HZ full frame up to 5 KHZ
- X Resolution: 0.004" - 0.043" (0.095 mm - 1.1 mm)
- Z Resolution: 0.0005" - 0.0192" (0.013 mm - 0.488 mm)
- FOV: 3.8" - 49.6" (96 mm - 1260 mm)
- Measurement range: 8.3" - 31.5" (210 mm - 800 mm)

The Gocator 2300 series of 3D smart sensors are deployed for high performance wood scanning in the harshest mill conditions. Gocator's simple and flexible design enables mills to reduce costs and maximize profitability by improving efficiencies in wood volume and value optimization.

360° SCANNING CAPABILITY

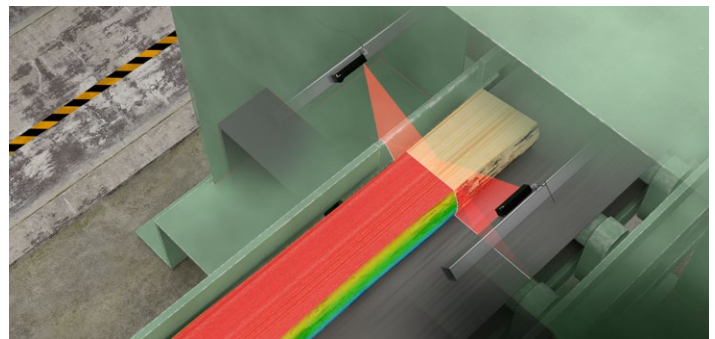
Gocator systems can effortlessly scale to multiple sensors using LMI Master hubs. For example, Gocator 2380 line profilers can be arranged in a ring configuration that logs pass through to scan the entire 360° circumference of the log and generate a complete 3D point cloud. Shape data is used to calculate wood volume and determine shape features such as taper, sweep, and crook.

SIMPLE TO INTEGRATE & EASY TO USE

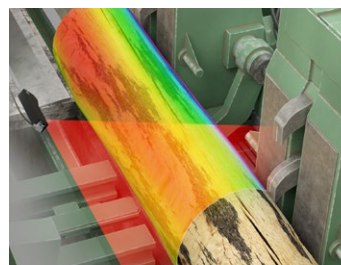
Standardized cabling and a compact envelope size simplify mounting and system integration. Gocator's built-in Graphical User Interface (GUI) allows for flexible configuration of profiling settings and measurement tools using any web browser, computer or operating system. With no additional software to install, Gocator's out-of-the-box setup and configuration is fast and easy.

2D AND 3D DATA GENERATION

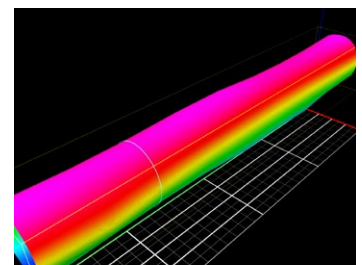
Gocator sensors simultaneously generate both 3D shape data and 2D intensity (contrast-based) data for a robust wood measurement and inspection solution. Onboard tools make measurement operations straight forward and efficient.



Two Gocator 2380 laser line profilers angled at an edger infeed for flitch width cutting optimization



A single Gocator 2380 laser line profile sensor scanning a log on a headrig carriage system.



GOCATOR 2300 SERIES MODELS	2340	2350	2370	2380
Data Points / Profile	1280	1280	1280	1280
Linearity Z (+/- % of MR)	0.01	0.01	0.04	0.04
Resolution Z	0.0005" - 0.0015" (0.013 mm - 0.037 mm)	0.0007" - 0.0024" (0.019 mm - 0.060 mm)	0.002" - 0.008" (0.055 mm - 0.200 mm)	0.004" - 0.020" (0.092 mm - 0.488 mm)
Resolution X (Profile Data Interval)	0.004" - 0.007" (0.095 mm - 0.170 mm)	0.006" - 0.012" (0.150 mm - 0.300 mm)	0.011" - 0.022" (0.275 mm - 0.550 mm)	0.015" - 0.043" (0.375 mm - 1.100 mm)
Repeatability Z	1.2 µm	2 µm	8 µm	12 µm
Clearance Distance (CD)	7.5" (190 mm)	11.8" (300 mm)	15.7" (400 mm)	13.8" (350mm)
Measurement Range (MR)	8.3" (210 mm)	15.7" (400 mm)	19.7" (500 mm)	31.5" (800 mm)
Field of View (FOV)	3.8" - 7.6" (96 mm - 194 mm)	6.2" - 14.4" (158 mm - 365 mm)	12.1" - 27.0" (308 mm - 687 mm)	15.4" - 49.6" (390 mm - 1260 mm)
Laser Classes	2, 3R, 3B	2, 3R, 3B	2, 3R	2, 3R
Dimensions	Top Mount 1.929"x2.953"x7.756" (49x75x197 mm)	Top Mount 1.929"x2.953"x10.709" (49x75x272 mm)	Top Mount 1.929"x2.953"x10.709" (49x75x272 mm)	Top Mount 1.929"x2.953"x10.709" (49x75x272 mm)
Weight	2.072 lbs (0.94 kg)	2.866 lbs (1.3 kg)	2.866 lbs (1.3 kg)	2.866 lbs (1.3 kg)

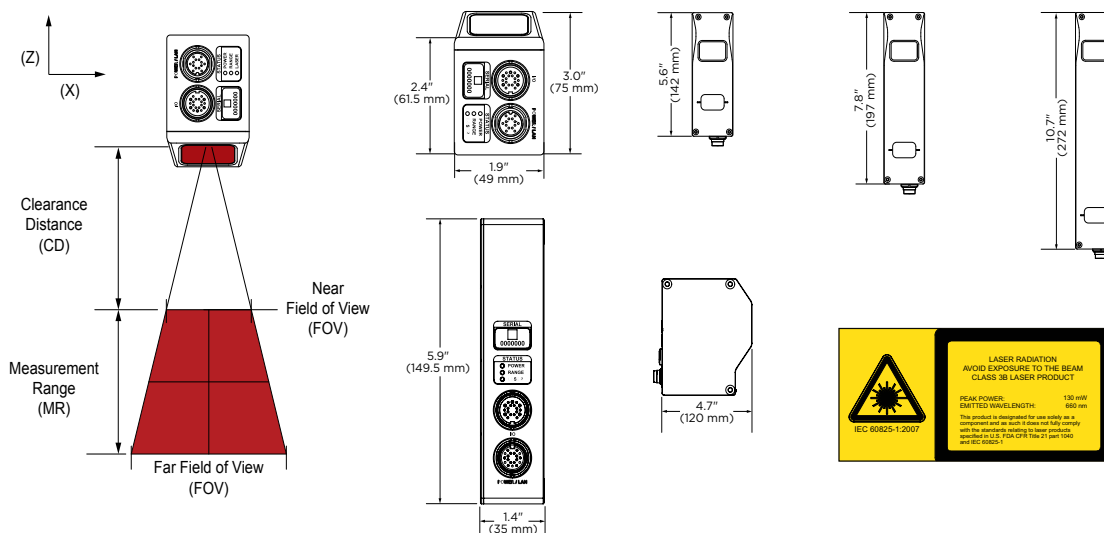
Optical models, laser classes, and packages can be customized. Contact LMI for more details.

Specifications stated are based on standard laser classes. Linearity Z, Resolution Z, and Repeatability Z may vary for other laser classes.

Refer to specifications in the Gocator Line Profile Sensor user manual for more details.

ALL 2300 SERIES MODELS

Scan Rate	Approximately 170 Hz to 5000 Hz
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 (13 Watts); Ripple +/- 10%
Housing	Gasketed aluminum enclosure, IP67
Operating Temperature	32 to 122°F (0 to 50°C)
Storage Temperature	-22 to 158°F (-30 to 70°C)
Vibration Resistance	10 to 55 Hz, 0.059" (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, and PLCs.



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