Gocator 2320®

SEE THE BIGGER PICTURE

The all-in-one 3D scanning and inspection solution that delivers exceptional speed, precision and ease-of-use for manufacturers of electronics devices.

Gocator

COMPLEX PARTS, SIMPLE SOLUTION

Increase your product performance, productivity and profitability with a 3D Smart Sensor that's fully adaptable to the unique demands of your manufacturing process.

The Challenge

Electronic small parts manufacturers need reliable, repeatable inspection results.

Electronics small parts assemblies are notoriously difficult for traditional dimensional inspection techniques. Irregular curves, bevels, angles, and surface reflectivity can make it very challenging to automate precision measurement and quality control. What's more, electronics assembly lines process a high volume of parts per minute and require rapid and continuous scanning and measurement. The challenge then becomes how to create fast, accurate and actionable 3D data of these intricate electronics devices without jeopardizing product quality or disrupting the production process.

The Solution

The smartest 3D sensor in the market.

The Gocator 2320 overcomes all of your inspection, automation and quality control challenges with its simple integration, single package industrial design, real-time deterministic performance, plus all-in-one scanning, measuring and control capability that delivers repeatable results on small electronic parts of any size, shape, or material.

The result? Faster time-to-market and increased productivity for your business.

Compact, Durable & Easy-to-Integrate.

The Gocator 2320's rugged IP67-rated, compact housing make it easy to mount into small spaces or embed into existing machines without having to do any redesign or reconfiguration. Set-up is quick and intuitive, and each sensor only requires one cable to operate.

High Accuracy & Repeatability.

The Gocator 2320 produces repeatable results under high production volume on your electronics assembly line. It can easily achieve outstanding Z repeatability under 5um and X resolution under 20um for non-contact scans of even the smallest, most complex parts.

Larger Field-of-View & Higher Resolution.

The Gocator 2320 has a 67% larger field-of-view than Keyence's LJ-V7060. And, when using an LMI Master Hub, you can automatically network anywhere from 2 to 24 sensors for an even larger field-of-view, without ever sacrificing the quality of your scan result.

Some Gocator 2320 Small Parts Applications:

• Solder paste inspection
• Connector pin co-planarity
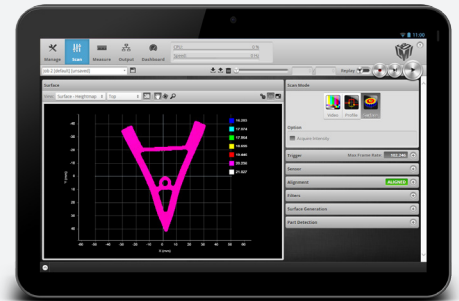• PCB inspection
• Cell phone assemblies

BOLD ALL-IN-ONE FUNCTIONALITY WITH BIG IMPACT RESULTS

Unlike other solutions that use multiple interlinked components, the Gocator 2320 is a true all-in-one solution — with scan, measurement and control data processing all included within a single device that doesn't require any external controllers to operate.

Scan, Measure & Control

Electronic small parts manufacturers need reliable, repeatable inspection results.

The Gocator 2320 has an advanced scanning and measurement engine that scans at rates up to 5kHz, delivering the same uncompromising performance no matter what volume of incoming data, inlcuding a simple web-based user interface — all within a single device. Conversely, competitor solutions rely on controllers or PC-based Windows® operating systems that buckle under high data loads. The 2320 also interfaces seamlessly with your existing systems, supporting a wide variety of communication protocols such as TCP, EtherNet/IP, Modbus, ASCII, digital output and more.

Better Tools For The Best Measurement Results.
The smartest 3D sensor in the market.

Gocator 2320 offers application-designed measurement tools to quickly generate results on a number of common measurement tasks required in real-world production environments. The sensor's dedicated hardware pipeline for 3D point generation offers powerful features like the ability to isolate a specific data area and filter out any noise or outliers; adapt to and measure different materials (such as reflective and non-reflective); as well as built-in measurement tools that are ready to use in production out-of-the-box. For example, countersunk hole tool measures the center position, depth, outside diameter and bevel angle of features such as the screw holes on the casing of a mobile phone.

SEE HOW THE GOCATOR 2320 STACKS UP AGAINST THE TOUGHEST COMPETITION

The Smartest 3D Sensor for Small Parts Inspection

Compared to the Keyence LJ-V7060, the **Gocator 2320 is significantly more cost-effective to implement and easier to operate**. With superior resolution and repeatability, significantly larger field-of-view and MR, the Gocator 2320 is the clear winner. Check out the chart below to see for yourself.

SPECIFICATIONS	GOCATOR 2320	KEYENCE LJ-V7060	THE GOCATOR ADVANTAGE
Imager Resolution	1280 x 1024	640 x 480	Higher imager resolution delivers higher X and Z repeatability for the same scanning volume.
FOV (mm)	18 - 25	13.5 - 15	67% larger FOV with zero data loss or image degradation. Expands even larger with multiple networked sensors.
MR (mm)	25	16	56% larger MR provides more flexibility in mounting and can scan wider variety of parts.
X Resolution (Profile Data Interval)	15 - 20	20	Same data density even at 67% larger FOV.
Ethernet Output	High bandwidth, streaming design with open protocol.	Limited buffers.	Reliably handles heavy data traffic, whereas limited buffer can lead to data loss.
Intensity Image Output	Yes	No	Use 2D and 3D data to improve measurement results.
Industrial Ethernet Protocol	Built-in EtherNet/IP, Modbus, ASCII and growing.	Requires additional module.	Cost-effective and easy to integrate. No extra modules and complicated cabling required.
3D Part Segmentation and Shape Matching	Smart segmentation of parts, even ones that overlap or with random orientation.	Fixed number of profiles only.	Improves measurement accuracy by using information from the whole part, whereas fixed number of profiles can lead to incorrect measurments.
Measurement Tools	Built-in cross-section and surface measurement tools.	Cross-section measurement only.	Intelligent surface measurement tools are ready for industrial use out-of-the box, even for complicated situations, whereas cross-section only tools require another dimension of data to handle real production variations and environments.
Flexible scanning configurations	Fine control of scanning area size and positions. Tune exposure at microsecond level.	3 pre-set levels.	Fine-tune setup to prevent outside (ambient light) from affecting measurement accuracy.
Dimensions (mm) (width x height x length)	35 x 124 x 135	42 x 80 x 110	Narrow package allows stacking sensors to increase scan density.
Networking	Native support up to 24 sensors with one external hub. Hubs can be daisy chained.	Requires external controller for every two scanners.	Built-in networking distributes power, synchronization, and safety interlocks with minimum cables. Expand up to 24 sensors to maximize FOV or inspect multiple features simultaneously.
	NO SETUP REQUIRED! Uses a simple device agnostic web-based interface.	Multiple Component Setup and Software Installation Required.	