

USER'S MANUAL

Gocator 2075 Version 3.6.4.178 Revision: A Copyright, © 2012, LMI Technologies, Inc. All rights reserved.

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This product is designated for use solely as a component and as such it does not comply with the standards relating to laser products specified in U.S. FDA CFR Title 21 Part 1040.

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Introduction

1 Introduction

This document provides supplementary information for using Gocator 2075.

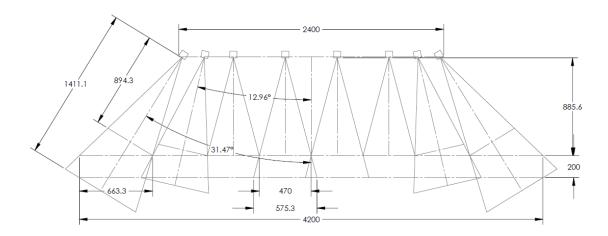
Reader should refer to Gocator user manual and quick start guide for descriptions and safety precautions of Gocator. Cited sections from the User Manual are shown in *italics*.

Rut Scanning System Setup

2 Rut Scanning System Setup

2.1 Layout

The Gocator 2075 is designed to cover a scan width of up to 4.2m by using 8 sensors mounted in parallel.



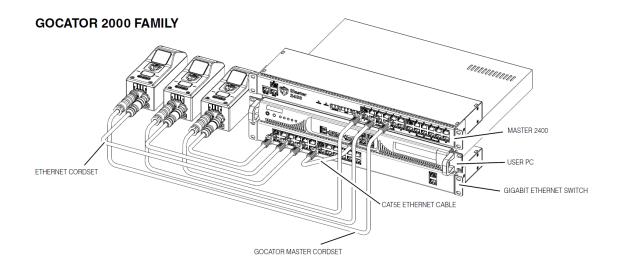
A Gocator 2075 for rut scanning should typically set the clearance distance (CD) to 800mm and measurement range (MR) to 625mm. With this combination, the FOV and resolutions are:

Specifications	CE	FE
FOV	430.39	758.34
X-Resolution	0.67	1.18
Z-Resolution	0.16	0.44

Users can use the specification estimator (*Gocator-2075_Specification_Estimator.xlsx*) to calculate the X and Z resolution of the sensors with different combination of clearance distance and measurement range.

2.2 System Setup

A typical Gocator 2075 system is setup as a multi-sensor system. The sensors are powered up using a Master 400/800/1200/2400.



To wire up a Gocator 2075:

- 1. Connect the Gocator Power to Master cordset between the Power connector and an unused port on the Master.
- 2. Connect the Gocator Ethernet cordset between the LAN connector and an Ethernet switch.

Refer to the *Master 400/800* and the *Master 1200/2400* sections for more information on how to install a Master.

2.3 Software Configuration

Each sensor is shipped with the default IP address of **192.168.1.10**. Before putting a sensor into a multi-sensor system, its firmware version must match with that of the other sensors and its IP address must be unique.

To configure a Gocator 2075 for the first time:

- 1. Setup the sensor's IP address.
 - a. Follow the steps in the *Running a Standalone Sensor System* section.
 - b. Make sure that there is no other sensor in the network with the IP address 192.168.1.10.
- 2. Upgrade the firmware.
 - a. Follow the steps in the Firmware Upgrade section.
 - b. Visit http://www.lmi3d.com/product/gocator-2000-family/support/files/all to download the latest firmware.
- 3. Setup profiling parameters.
 - a. Follow the steps in the *Setup and Calibration* chapter on how to setup profiling parameters. Typically *Trigger*, *Active Area* and *Exposure* will need to be adjusted.

System Operation

3 System Operation

The isolated layout should be used. Under this layout, each sensor can be independently controlled by the SDK. The following application notes explain how to operate a multi-sensor system using the SDK.

Gocator-2000-2300_Appnote_Multi-Sensor-System_R1.0.zip Explains how to use the SDK to create a multi-sensor system, and multiplex their timing.

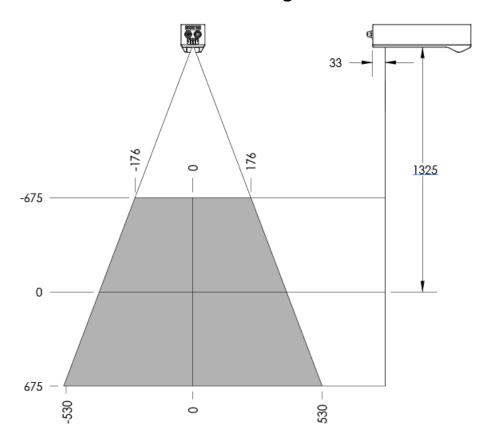
Gocator-2000-2300_Appnote_Multi-Sensor_Alignment_Calibration_R1.0.zip Explains how to use the SDK to perform alignment calibrate a multi-sensor system.

Example code is included with both of the above application notes.

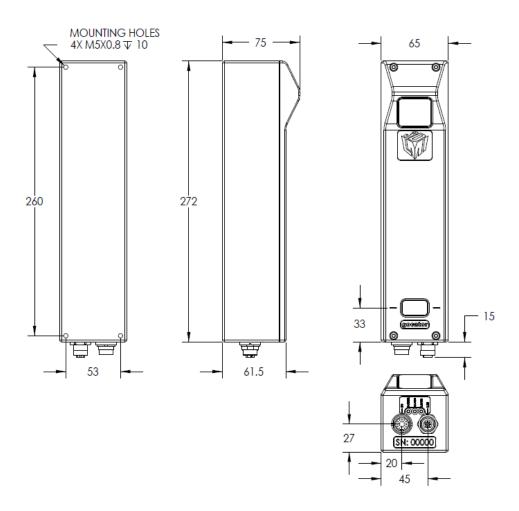
Specifications

4 Specifications

4.1 Field of View / Measurement Range



4.2 Dimensions



4.3 Envelope

