

Features

- Designed for outdoor environment (up to 100Klux)
- Integrate a powerful application processor to offload external high expensive processor requirement.
- Supports TCP/IP industrial ethernet interface port for easy long-distance deployment.

• Applications

- Industrial safety area protection
- Outside engineering car driving assistance and protection
- Unmanned Delivery Vehicle
- Industrial distance measurement



Technical Specifications

Depth Resolution	640x480	640x480
Range	0.3-4m, outdoor	0.3-10m, outdoor
VCSEL Wavelength	940nm	940nm
Accuracy	±1% @ 90% reflectivity	±1% @ 90% reflectivity
FoV	H90° x V70°	H72° x V55°
Interface	100M Ethernet, RS485	1000M Ethernet, RS485
Operation System	Windows, Linux, ROS	Windows, Linux, ROS
Working Temperature	-20 ~ 75°C	-40 ~ 85°C
IP Rating	IP67	IP67

CS40: Applications



Electric Power Inspection Robot



Quadruped Robot Obstacle Avoidance



Mechanical Arm Visual Guidance



Safety Area Protection



Unmanned Delivery Vehicle

CS40-Pro: Applications



Smart Roads



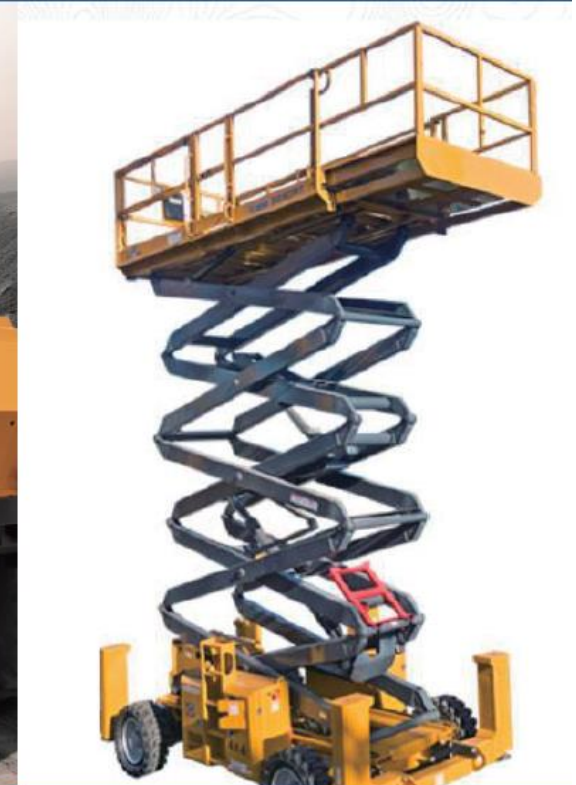
Distance Monitoring



Edge Detection

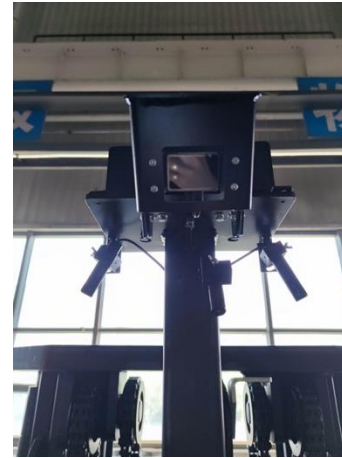


Obstacle Detection and Avoidance



High Altitude Obstacle Avoidance

Unmanned forklift



Pallet identification and obstacle avoidance

Robot arm



Visual Guidance

Companion robot



obstacle avoidance

Quality Control



- **Synexens** always adheres to the principle of “Quality First” with strict requirements first
- ROHS、CE、FCC、Laser CLASS 1 Certification



Product Name: CS20
 Serial No. : 

 **RoHS**
 **CE**  **FCC**
 CLASS 1 LASER PRODUCT

Test Report issued under the responsibility of:



TEST REPORT IEC 60825-1 Safety of laser products - Part 1: Equipment classification and requirements	
Report Number.....	GZEE211100325231
Tested by (name + signature).....	Simon Chen / Project Engineer <i>Simon Chen</i>
Approved by (name + signature).....	Alex Tan / Reviewer <i>Alex Tan</i>
Date of Issue.....	2021-12-02
Total number of pages.....	11
Name of Testing Laboratory preparing the Report.....	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
Address.....	198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China
Applicant's name.....	Shanghai XiYin Technology Co., Ltd.
Address.....	Building C, No. 888, Huanhu West 2 nd Road, Special Area of China (Shanghai) Pilot Free Trade Zone, Shanghai, China
Manufacturer's name.....	Same as applicant
Address.....	Same as applicant
Test specification:	
Standard.....	<input type="checkbox"/> IEC 60825-1:2014 <input checked="" type="checkbox"/> EN 60825-1: 2014
Test procedure.....	Test Report
Non-standard test method.....	N/A
Test Report Form No.....	IECEN50825-1A
Test Report Form(s) Originator.....	SGS-CSTC
Master TRF.....	Dated 2021-09-02
Copyright © 2021 SGS-CSTC Standards Technical Services Co., Ltd. (SGS-CSTC), Guangzhou, P. R. China. All rights reserved.	
This publication may be produced in whole or in part for non-commercial purposes as long as SGS-CSTC is acknowledged as copyright owner and source of the material. SGS-CSTC takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	

Confidential

 Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed on the reverse side of the report and is the property of the Company. It is to be used for the specific purpose for which it was issued and is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and each sample(s) is/are tested by 30 days only.

Member of the SGS Group (SGS SA)