2024

Gtekesens®

Company Profile

天津杰泰高科传感技术有限公司
TIANJIN G-TEK SENSOR TECHNOLOGY CO,.LTD

01

About G-TEK Sensor

20 **years**

Core technology & products **3**

30 **Technical patents**

Founded in 2003

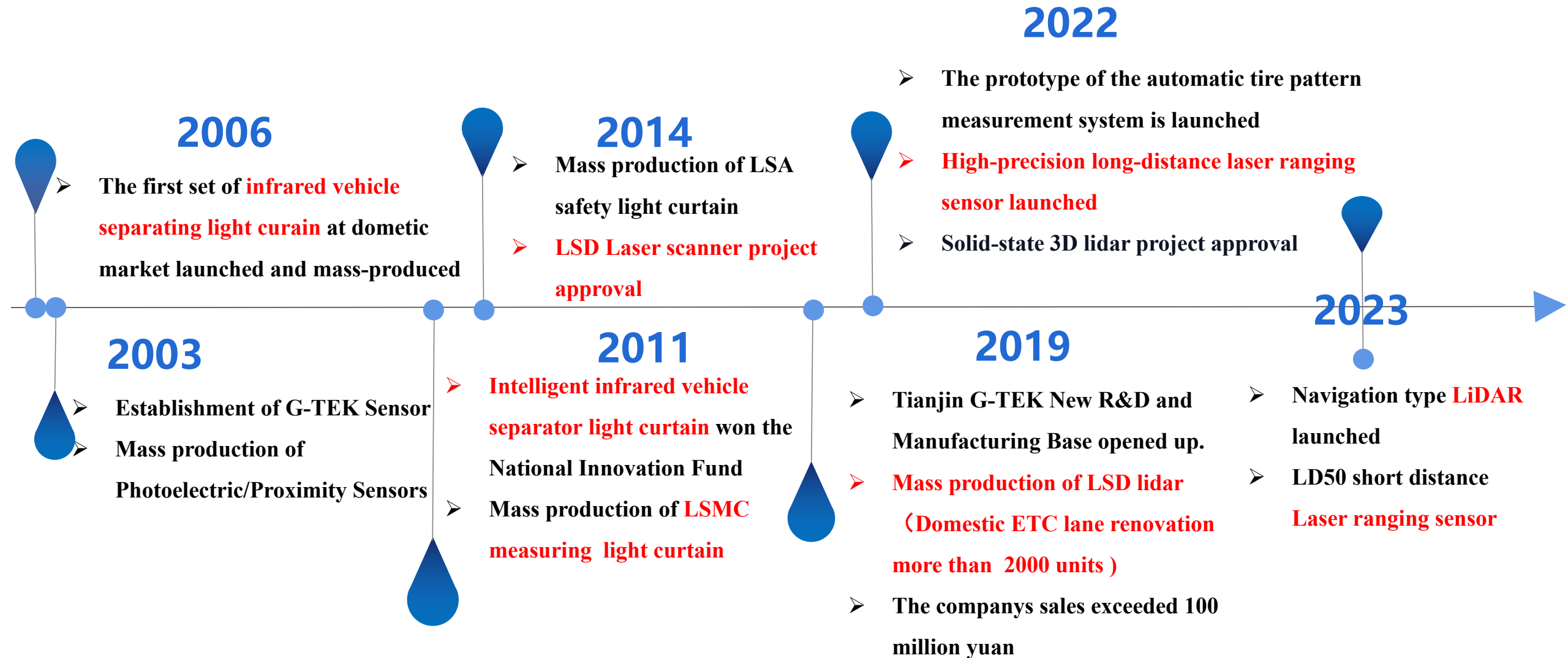**Lidar & Light Curtain & Sensor**

Independent Intellectual Property

G-TEK is a scientific and technological enterprise specialized in intelligent **sensor products R&D, manufacture and customized system solutions provision**. We master the core technologies of key products such as **laser scanner, laser distance sensor, infrared light curtains, safety light curtains, photoelectric sensor and proximity switch**. 20 years of deep cultivation in the field of sensors, we have because one of the **top domestic sensor brands** , served in different industry fields such as **intelligent transportation, warehousing logistics, factory automation, industrial robots, Safety and security, etc**., meanwhile established long-term and stable international trade cooperation with **overseas customers** all around the world.

Adhering to the core philosophy of "**devotion with enthusiasm , pursuit of perfection** "and the business purpose of "**customer priority, quality first**". G-TEK will continuously meet customers demands with high quality product and service , creating potential value for customers by technological innovation and cooperation.

Company History

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2006
- The first set of **infrared vehicle separating light curain** at dometic market launched and mass-produced

2003
- Establishment of G-TEK Sensor
- Mass production of Photoelectric/Proximity Sensors

2014
- Mass production of LSA safety light curtain
- **LSD Laser scanner project approval**

2011
- **Intelligent infrared vehicle separator light curtain** won the National Innovation Fund
- Mass production of **LSMC measuring light curtain**

2022
- The prototype of the automatic tire pattern measurement system is launched
- **High-precision long-distance laser ranging sensor launched**
- Solid-state 3D lidar project approval

2019
- Tianjin G-TEK New R&D and Manufacturing Base opened up.
- **Mass production of LSD lidar （Domestic ETC lane renovation more than 2000 units ）**
- The companys sales exceeded 100 million yuan

2023
- Navigation type **LiDAR** launched
- LD50 short distance **Laser ranging sensor**

Company Overview

122 employees (More than 50% are bachelor's degree or above);

4 operation teams (R&D center/ Manufacturing center/ Sales& Marketing center/ Administration center);

MATERIAL CONTROL

PRODUCTION CONTROL

INSPESTION CONTROL

Sales & Marketing

6 sales teams : Transportation Division, Tianjin headquarters , East China Region, South China Region, international business and Key account.

Market development : Intelligent transportation, automobile inspection lines, security, and automatic doors, logistics automation, AGV, industrial robots, and factory automation.

Professional Pre sales and after-sales team: Plan the company's promotion and marketing activities, and provide pre-sales and after-sales services

R&D Center

24 professional R&D engineers including optics, mechanics, electronic hardware, software, etc.

Multiple patents of laser radar, high-precision laser measurement, infrared scanning light curtain, photoelectric switch, etc.

Manufacturing

Advanced production facilities and equipment:

- Photoelectric Sensor production line;
- Infrared light curtain production line;
- Laser scanner production line

One professional and young **technician team**;

Q&C team; **Logistics supply chain team.**

Company Overview

The company currently has 122 employees, of which more than 50% are technicians with a bachelor's degree or above. Sales from 2018 to 2022 will be 53 million, 105 million, 112 million, 121 million, and 130 million, respectively.

Marketing

In addition to the sales team in Tianjin headquarters, there are offices in Shenzhen and Suzhou. At present, in addition to consolidating and expanding markets such as road transportation, automobile inspection lines, security, and automatic doors, the focus is on opening up markets such as logistics automation, AGV, robots, and factory automation.

Technology R&D

It has 24 professional R&D engineers including optics, mechanics, electronic hardware, software, etc. It has many patents in the technical fields of laser radar, high-precision laser measurement, infrared scanning light curtain, photoelectric switch, etc., and has formed a certain leading edge in technology.

Manufacturing

Has more advanced production facilities and equipment. We have a professional and young production technology, quality control, and logistics chain control team.
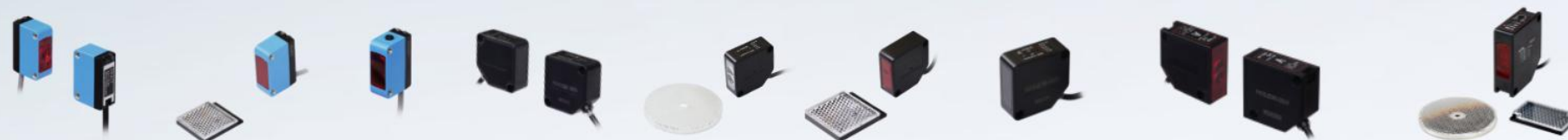
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接近传感器产品：
Proximity sensor

光电传感器产品：
Photoelectric sensor

红外扫描光幕产品：
Infrared Light Curtain

激光雷达产品：
Laser Scanner

激光测距产品：
Laser Ranging Sensor

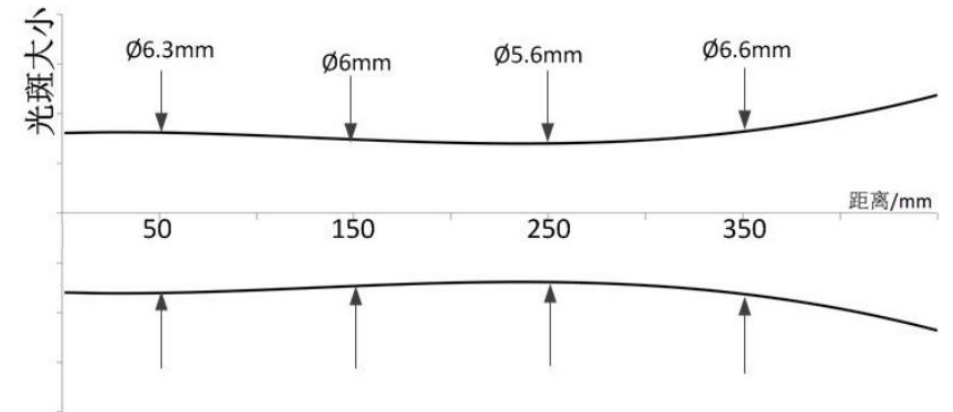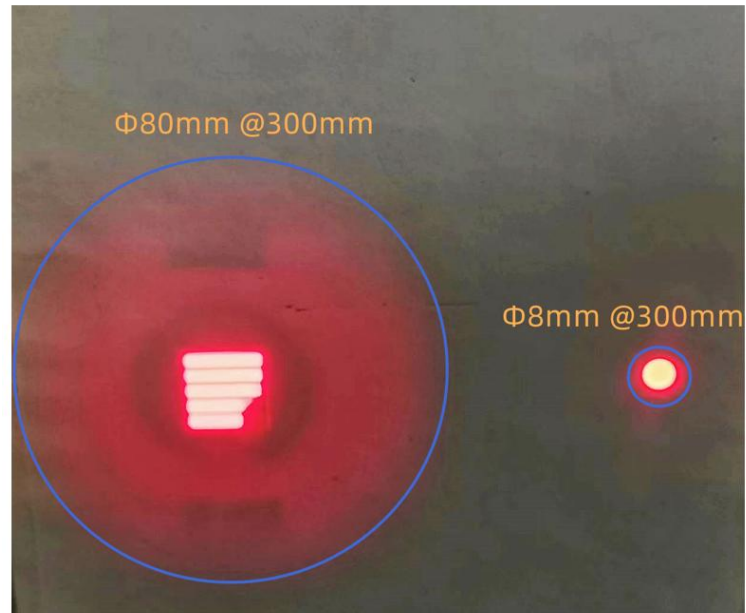# 光电传感器 Photoelectric sensor

- 距离最远：200M
- 高低温：-40℃-80℃
- 多种光源,国际最先进的pinpoint-LED

PF21/50/55/80 series photo sensors with application in automation door, turnstile gate, parking, warehousing logistics, etc

Photoelectric sensor - PF21 series

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Features

- ⚑ **Compact, small size**
- ⚑ **Three detection types are complete**
- ⚑ **Background suppression**
- ⚑ **Laser-like source**
- ⚑ **Control anti-crosstalk technology**
- ⚑ **Extreme blind zone technique**

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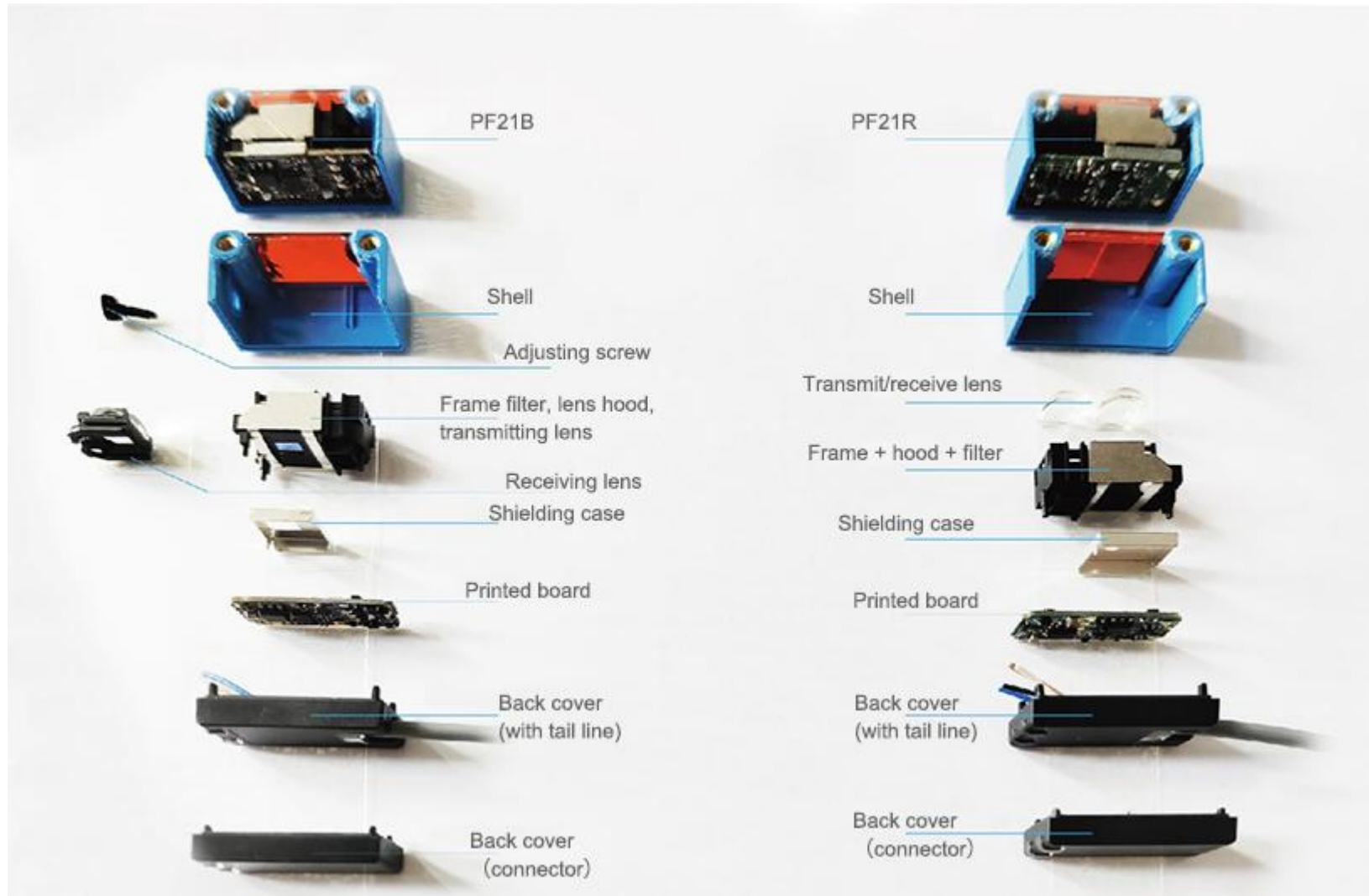Φ80mm @300mm

Φ8mm @300mm

光斑大小

Ø6.3mm   Ø6mm   Ø5.6mm   Ø6.6mm

距离/mm

50   150   250   350

①	5				350		
②	10				280		

100   200   300

① 90% reflectivity whiteboard ② 6% reflectivity blackboard
PF21B-350A detection range

①	2			150		
②	3			143		

50   100   150   200

① 90% reflectivity whiteboard ② 6% reflectivity blackboard
PF21B-150A detection range

PF21B SERIES

PF21R SERIES

Features

- **⚑ Compact, small size**

- **⚑ Detection distance 900mm**

- **⚑ TOF principle**

- **⚑ Infrared laser source**

- **⚑ Control anti-crosstalk technology**
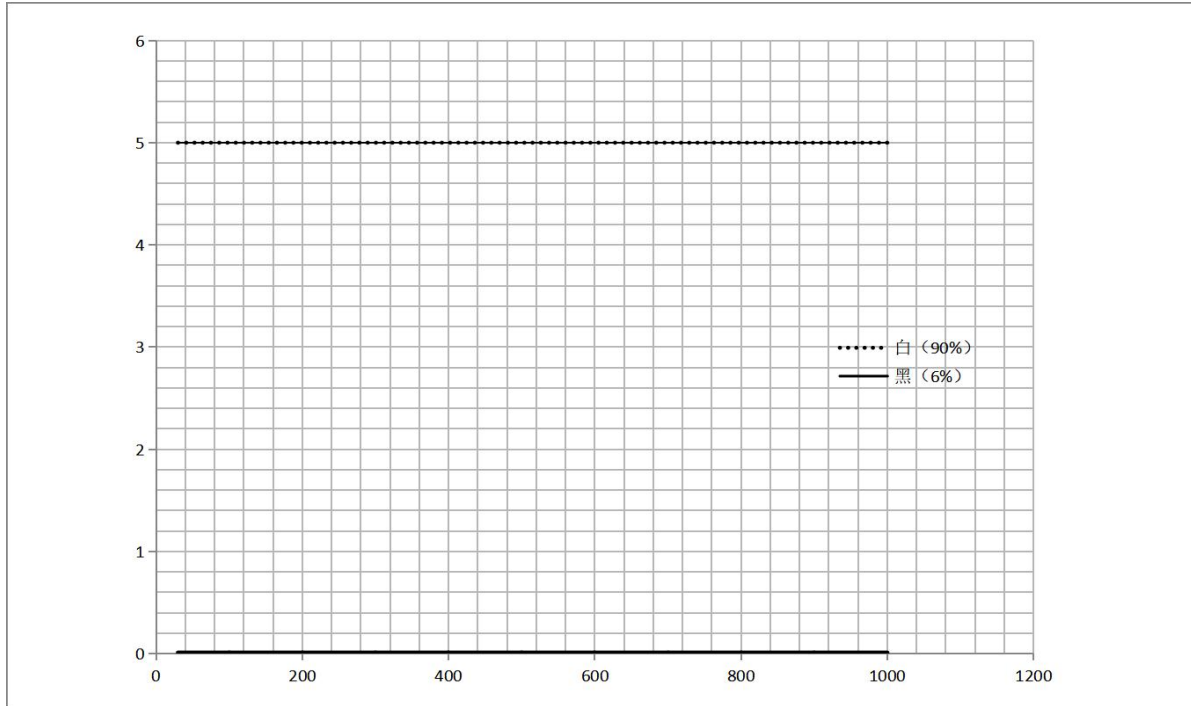
- **⚑ Wiring tape guides light spots**

Strong metal through holes

Universal standard hole position, versatility is guaranteed.
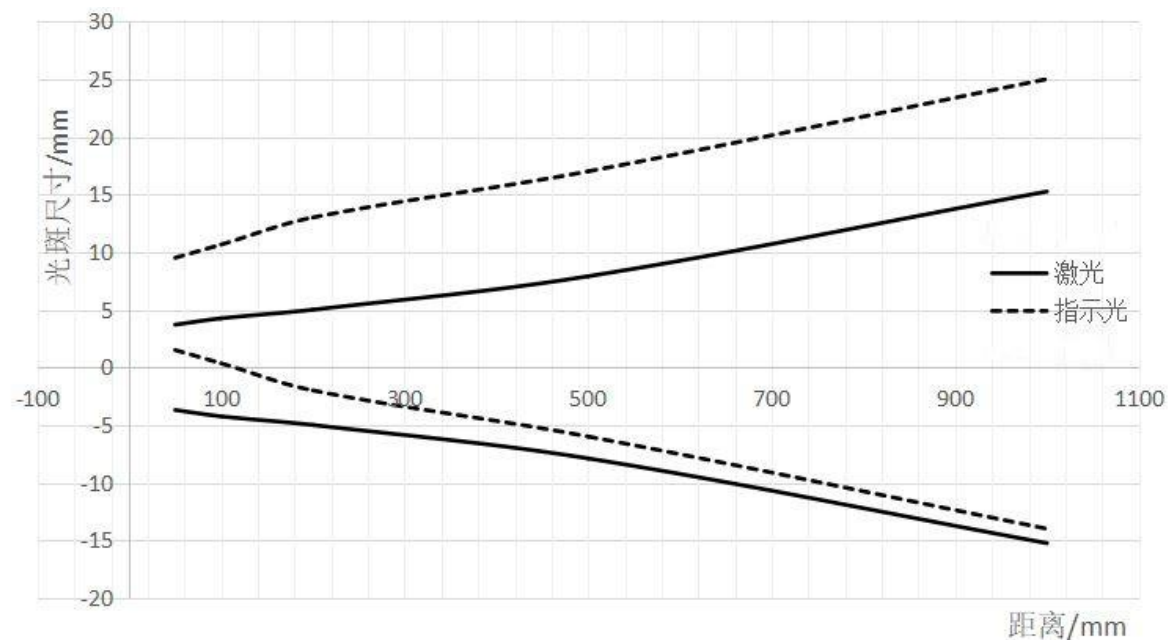
Spot size: Φ16mm@500mm

PF21B-900A detection distance difference curve (6% black /90% white)

① 90% reflectivity whiteboard ② 6% reflectivity blackboard
PF21B-900A detection range

LSMC measurement light curtain

LSA/LDA safety light curtain

LSE slim type light curtain

CE ISO 9001 RS-485 PROFINET®

Features

➤ Minimum resolution : 5mm

➤ Maximum detection height :1920mm

➤ Response frequency up to 2ms a frame

➤ Strong metal case

➤ Multiple interface

Features

➢ Minimum resolution 20mm

➢ Maximum distance is 8 meters

➢ The shortest length can be 160mm

➢ Slim shape, Section size 20*20mm

➢ Integrated housing, high waterproof rating

CE

ISO 9001

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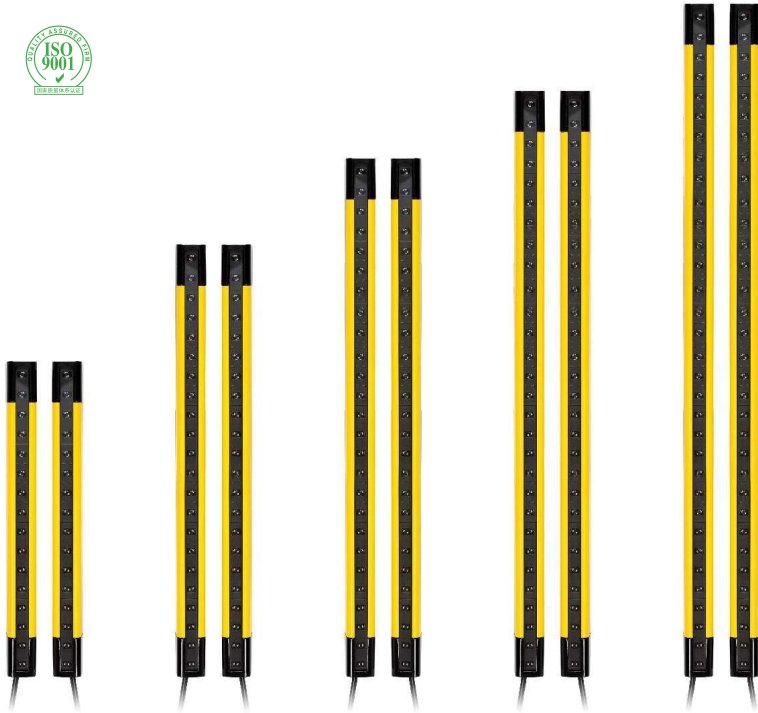
Features

➢ TYPE 4

➢ Protection height 320-1920 mm

➢ No blind zone at the upper and lower ends

➢ Resolution :10mm (fingers) 20mm (palms)

40mm (arms) 80mm (body)

Features

- ➢ TYPE 4

- ➢ Minimum protection height 160mm

- ➢ Maximum protection height 1920mm

- ➢ No blind zone at the upper and lower ends

- ➢ Resolution 10mm (fingers) 20mm (palms) 40mm (arm

  80mm (body)

- ➢ MUTING and blanking function

- ➢ Switch A/B frequencies by wiring

Safety light curtain -LDA series blanking function

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Function pack	LDAXXX552	LDAXXX58A	LDAXXX58P
OSSD (2X)	■	■	■
Distance adjustment	■	■	■
Beam coding	■	■	■
Automatic reset	■		
RESET		■	■
EDM		■	
Blanking		■	
Shield			■

LSD measurement Lidar

LND detection & measurement Lidar

LMO obstacle avoidance type Lidar

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CE   ISO 9001

Features

➤ Detection distance up to 50M

➤ Cast aluminum metal housing, durable

➤ Built-in self-heating system for harsh outdoor conditions (-30°~60°)

➤ Independently developed optical system, anti-light interference

➤ Protection level IP68

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Features

- ➤ Detection distance up to 20M
- ➤ Small size, light weight, easy to integrate
- ➤ Protection class IP67, outdoor use
- ➤ Anti-light interference
- ➤ With three way relay outputs
- ➤ Measurement type and obstacle avoidance type

Features

- ➢ High precision
- ➢ 270° view angle
- ➢ Detection distance10M(90% reflectivity)
- ➢ Anti-light interference:80000LUX
- ➢ 31/15 set areas can be set to meet the requirements of various scene settings
- ➢ Raw data output can be used for measurement algorithms

CE ISO 9001

Lens cover

Detection angle

OUTPUT1 Indicator

OUTPUT2 Indicator

Blue： Power indicator

OUTPUT3 Indicator

USB socket

SFL Long-distance Laser Ranging Sensor

在定位堆垛机、起重机、自动驻车系统等其他移动机器时，除了准确性和重复性外，快速和停机短时间也是考虑的重要部 分。SFL 系列专为在动态控制回路中实现较高驱动速度和快速处理信号而设计开发。实时的将信息发送至控制台，便于维 护。丰富的接口和创新方案满足客户不同场景的需求。
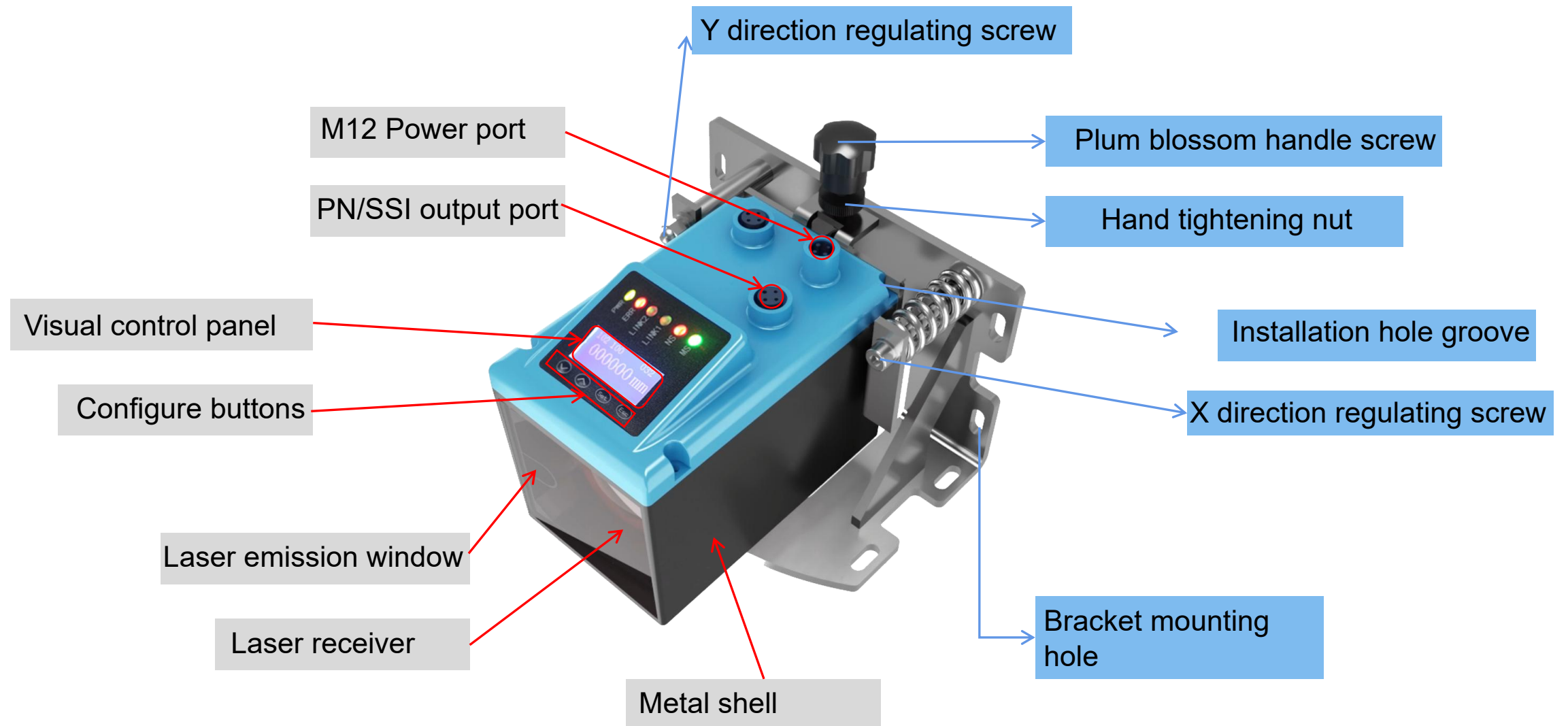
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Features

➢ High precision

➢ Multiple interfaces

➢ Working temprature ： -20℃~50℃

➢ 100m/60m version

Y direction regulating screw

M12 Power port

PN/SSI output port

Plum blossom handle screw

Hand tightening nut

Visual control panel

Installation hole groove

Configure buttons

X direction regulating screw

Laser emission window

Laser receiver

Bracket mounting hole

Metal shell

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PART 02

Security Industry

CE ISO 9001

Product Features

🚩 Diffused type, through beam type, retro-reflective type.

🚩 Max. detection distance 50m(through beam type).

🚩 12-240VDC/AC free power supply.

🚩 Wide operating temperature:-20°C-60°C.

🚩 Waterproof and protecting rating IP67.

Product Features

⚑ A/B adjustable frequency technology to prevent crosstalk.

⚑ Retro-reflective type and through beam type, max. detection distance 200m(through beam type).

⚑ Wide operating temperature:-30℃~65℃

⚑ Anti light interference(sunlight: MAX.100000Lux).

CE ISO 9001

Railway protection

Security Precautions

Aircraft hangar door anti smashing

Product Features

- ⚑ A/B adjustable frequency technology to prevent crosstalk.

- ⚑ 12-240V DC/AC free power supply.

- ⚑ Through beam type, Max. detection distance 60M.

- ⚑ Operating temperature:-40℃~80℃.

- ⚑ Waterproof and protecting rating IP67.

For suspension door

For suspension door

Product Features

⚑ Through beam type.

⚑ Operating temperature:-20℃-60℃.

⚑ Detection distance 20M.

⚑ Waterproof and protecting rating IP67.

- Long distance laser light curtain, max. detection distance120M.

- Automatic defrosting and heating function.

- Single cycle1.2ms，response can be set to 1-255 cycles.

- The optical axis can be opened or closed at will.

- RS485, 2-way relay output.

- Sturdy aluminum alloy housing with floor stand.

- Extremely suitable for harsh outdoor conditions.

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PART 03

Intelligent Transportation

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Features

➢ Intelligent heating defrosting function

➢ 4-level beam strength indicator setting, easy for on-site installation and maintenance

➢ RS485 serial communication

➢ Self-diagnosis function

➢ Parallel scanning and cross scanning options

Features

➢ 2-way switch output, NO/NC option

➢ Automatic heating function ensures normal operation in low-temperature environments

➢ Device self-learning without debugging

➢ Application as high-speed toll collection,over limit detection, and source control
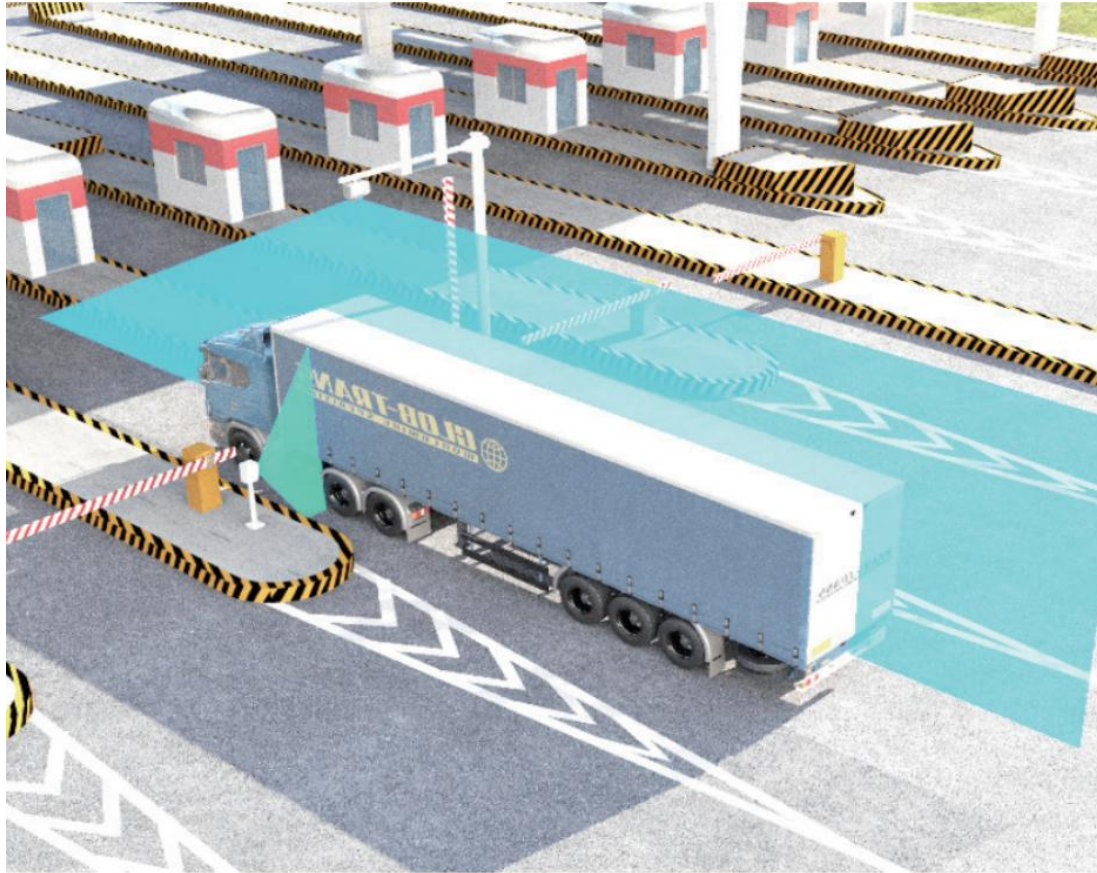
Features

➢ Real time output of shaft type and drive shaft information

➢ Vehicle separation, triggering

➢ Ethernet and serial port communication

➢ System stability, 24/7 operation.

GVTI-V101 License Plate/model Recognition Device Gtekesens®

Front HD camera

Rear HD camera

Side HD camera

Intelligent fill light

Intelligent fill light

Features

- ➢ Image acquisition, image processing, vehicle positioning, vehicle detection, video recording, license plate recognition, model recognition, axle number recognition, axle type recognition, hazardous chemical vehicle recognition
- ➢ Working in rainy, snowy, and foggy weather
- ➢ Easy installation without damaging the toll island
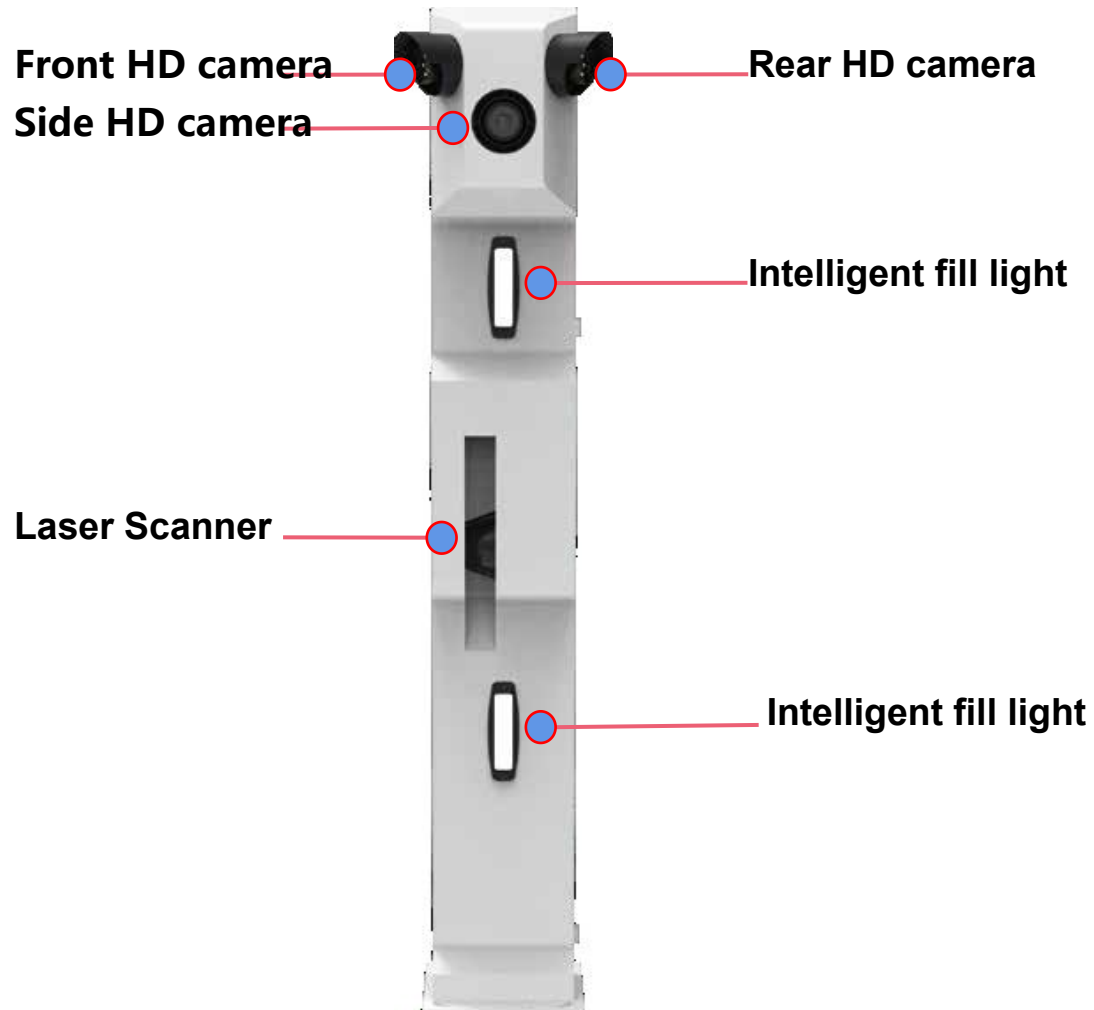
Features

➢ Automatic and accurate recognition of vehicle information

➢ Automatically and accurately identify axis information, and output vehicle laser point cloud data

➢ Working in rainy, snowy, and foggy weather

Front HD camera

Side HD camera

Rear HD camera

Intelligent fill light

Laser Scanner

Intelligent fill light

Features

➢ Improve the accuracy of vehicle separation

➢ Vehicle drive shaft recognition

➢ Vehicle outer contour detection

➢ Improved the accuracy of vehicle model and axle

type recognition

Features

- ➤ Vehicle length, width, height, vehicle speed, and driving direction parameters output
- ➤ Built in intelligent defrosting function, stable operation in low temperature environments
- ➤ Self start function
- ➤ System stability, 24/7 operation

length:17.4015

speed:11.91

model:4-1

disToLidar:1.03684

windows:0
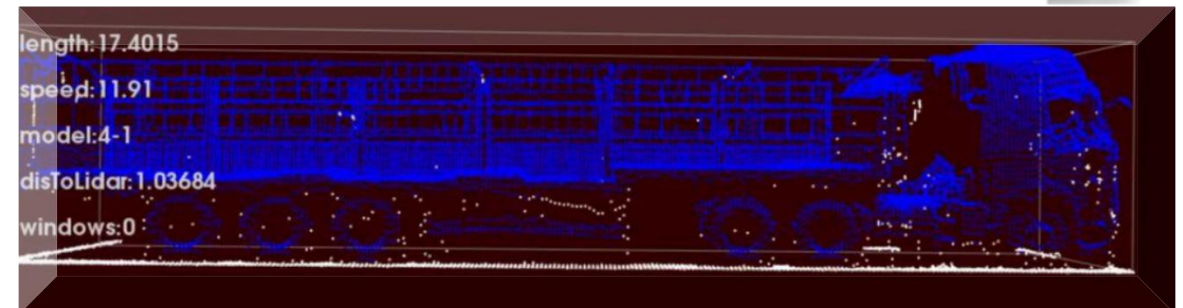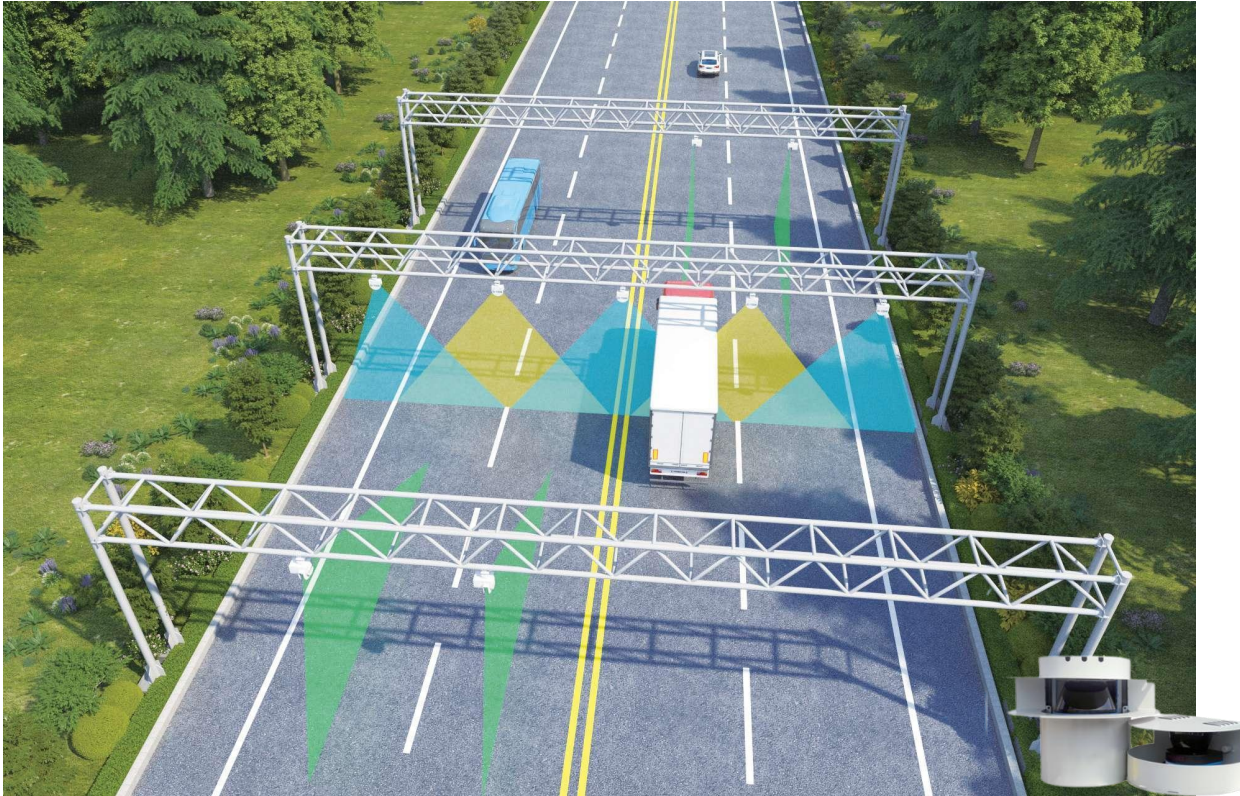
Features

➢ Output of parameters such as vehicle length, width, height, vehicle speed, and driving direction

➢ Built in intelligent defrosting function, stable operation in low temperature environments

➢ Self start function

➢ System stability, 24/7 operation

Features

➢ Monitoring the travel path of the crane to prevent collisions between the crane and other objects

➢ Built in intelligent defrosting function, stable operation in low temperature environments

➢ Dual output, graded protection

➢ System stability, 24/7 operation

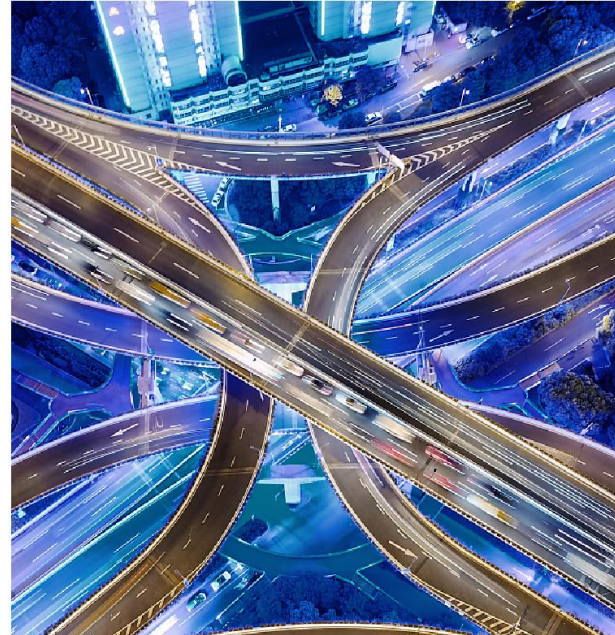|					智慧安防
捷顺 JIESHUN	百胜智能 BISEN SMART ACCESS	ZKTeco	HONG MEN 红门	德宝门控 Turboo Automation	
山东高速 SDHS	中天高科 ZHONG TIAN HIGH-TECH	千方科技 CHINA TRANSINFO	INTELLY 因泰立	北京中山 BeiJing ZhongShan	智慧交通
XIZI iParking 西子智能	P No.1 伟创股份	大洋泊车 DAYANG PARKING	TOPP	志泰车库 CITY AUTO PARKING	立体停车
安车检测 anche technologies	Nanhua	简蓝科技 J-BLUE TECH	成都新成 CHENGDU XINCHENG		汽车检测线
JDL	CAINIAO 菜鸟	唯品会 品牌特卖	SIASUN 新松	BlueSword 兰剑智能 / AVIC 沈飞物流	仓储物流

Thanks

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www.gteksensor.cn