Product
Profile

HHBD

Smart Transportation Products and Solutions

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Company Introduction

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Introduction to the company

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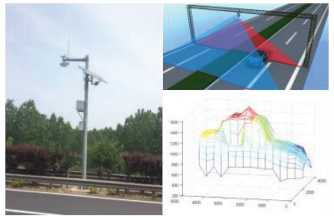
Company Profile

About Us

Founded in 2011 and headquartered in Nanshan District, Shenzhen, Shenzhen Xinlong System Co., Ltd. is a dual-certified enterprise in China's national high-tech and specialized, refined, distinctive, and innovative (SRDI) industries. Specializing in digital transformation and technological innovation for smart transportation, the company leverages "AI + IoT + big data" as its core engine, integrating cutting-edge technologies like computer vision to deliver comprehensive solutions spanning traffic monitoring, safety surveillance, intelligent overload control, and smart parking systems. Its young yet highly professional R&D team has secured multiple proprietary patents and core technologies, establishing the company as an industry leader in transportation digitization, digital twin applications, and AI implementations.

Core products have obtained authoritative certifications from the Ministry of Transport and the Ministry of Public Security, with the traffic monitoring system consistently featured in the Ministry's recommended lists for years. Operating across over 20 provinces, municipalities, and autonomous regions nationwide, the company has earned widespread trust from both government and corporate clients.



Laser traffic survey system

Science and technology over-limit governance

Leye Traffic Event Detection

Smart parking

Holographic perception platform

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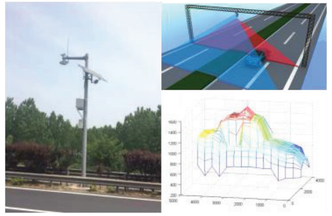
Company Profile

Core Business Areas Intelligent Traffic Flow Monitoring: Developed a multifunctional traffic monitoring system integrating "LIDAR + HD AI video + multi-dimensional sensing" technologies. Featuring four core capabilities—vehicle flow detection, vehicle type recognition, license plate recognition, and weather monitoring—this system combines weather monitoring and license plate recognition functions. Leveraging large-scale model technology, it achieves "data collection-analysis-service" to meet national and provincial highway traffic management requirements, with products certified by the Ministry of Transport. Technology-Driven

Overload Control: Independently developed an off-site enforcement system integrating dynamic weighing, contour detection, video surveillance, fixed-point speed measurement, and interval speed measurement modules, enabling unmanned on-site overload control and precise management.

Road & Bridge Safety Monitoring: Focused on safety management of highways, bridges, tunnels, and high-risk sections, this unified monitoring platform utilizes smart sensors, IoT, and digital twin technologies to serve as a "guardian" for road and bridge safety.

Intelligent Parking: Harnessing the potential of vehicle perception, edge computing, and AI recognition technologies, it provides intelligent urban on-street parking solutions certified by the Ministry of Public Security.



Laser traffic survey system

Science and technology over-limit governance

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Smart parking

Holographic perception platform

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Introduction to the company

Company development history

2011

1

coil traffic survey system

Based on the Coil Traffic Situation Investigation System, the Ministry of Transport detects and recommends entries to the list.

2012

2

video traffic survey system

Based on the video traffic situation investigation system, it detects entries into the recommended list.

The first video recognition cross-talk enterprise

2013

3

axle load traffic condition survey series

Based on the piezoelectric traffic monitoring system and axle load traffic survey system, the Ministry of Transport has detected and included the recommended list.

2014/2016

4

Laser Traffic Survey Series

Based on laser and laser video traffic survey systems, the recommended list was entered through the detection of the Ministry of Transport; the contour detection system was developed.

The first batch of laser-based intermodulation technology was included in the Ministry of Transport's recommended list of enterprises; it is also the first company in China with container classification capabilities.

2017-2020

5

Traffic Safety Series

The side wave monitoring system, bridge monitoring system, technology-based overload control system, and smart parking system have passed the inspection by the Ministry of Public Security.

2021-2026

6

Digital Transportation Series

Multifunctional Intermodulation System, Integrated Radar and Vision Traffic Flow Detection System, Holographic Tunnel Monitoring System, UAV Inspection System

PART
02

Product Solutions

2.1

PART

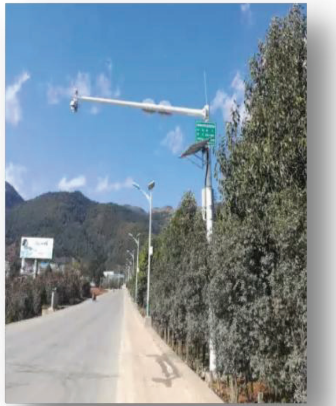
Traffic Condition Survey System--laser video combinationVL2100

summary

The VL2100 video-laser hybrid multifunctional traffic survey device, independently developed by Xinlong Company, is a fully automated, multi-source data acquisition solution specifically designed for continuous Class I observation stations. Strictly compliant with industry standards such as the Ministry of Transport's "Highway Traffic Condition Survey Equipment" specifications, it enables precise vehicle classification and comprehensive traffic parameter output, providing critical data support for intelligent highway management.

This system integrates a "LIDAR + HD video + multi-dimensional sensing" technology framework, featuring four core modules: "precise traffic flow detection, intelligent vehicle classification, high-accuracy license plate capture, and full-element weather monitoring." By innovatively combining AI large model algorithms with edge computing capabilities, it processes real-time multi-source data including vehicle contours, trajectories, and environmental parameters, effectively overcoming detection limitations of traditional single devices in complex scenarios.

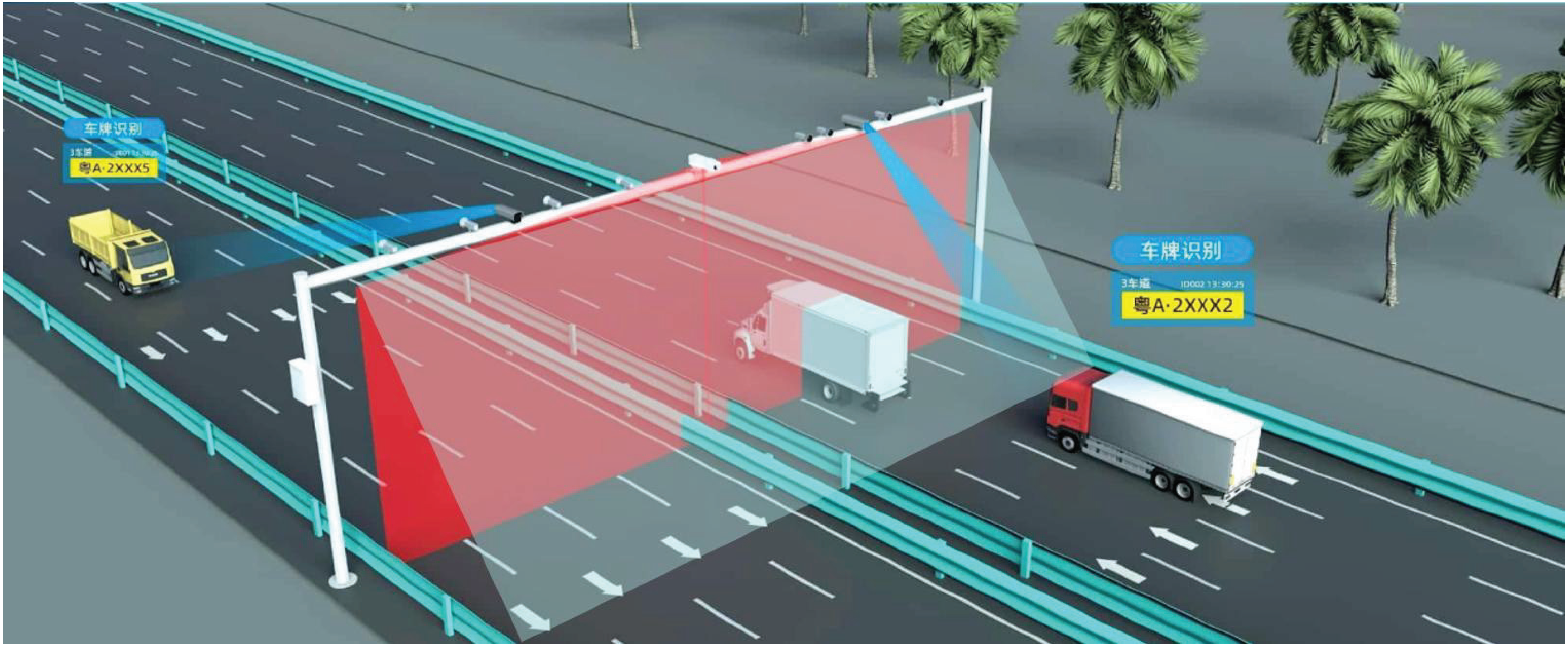
In deployment applications, the VL2100 supports both overhead and side-mounted installation modes. Through coordinated operation of high-speed LIDAR and HD video sensors, it maintains stable detection performance in adverse weather conditions (rain, snow, fog) while accurately capturing 3D point cloud data and dynamic driving characteristics. This upgrade from "single-source data collection" to "multi-source data fusion analysis" provides a technically adaptable and scenario-comprehensive implementation solution for multi-functional traffic survey stations on national/provincial highways, driving digital transformation and comprehensive enhancement of highway traffic monitoring capabilities.



2.1
PART

Traffic Condition Survey System--laser video combinationVL2100

Product Scenario Deployment Render

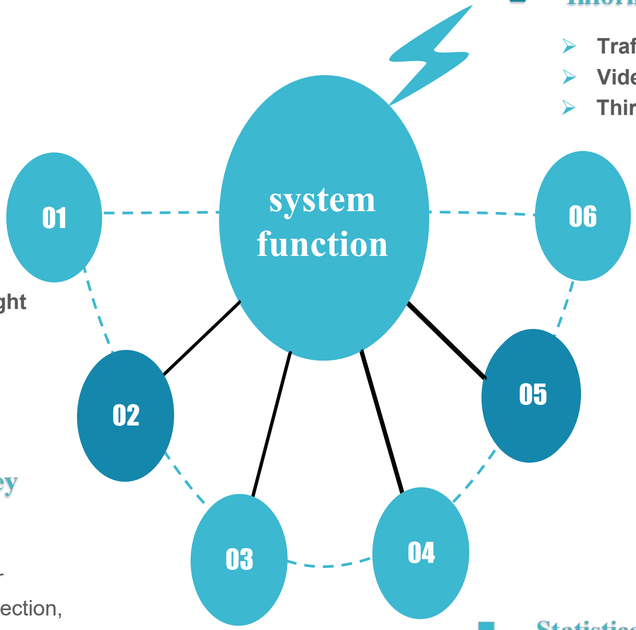


2.1
PART

Traffic Condition Survey System--laser video combinationVL2100

Functions and Features

system function



Vehicle model and license plate recognition

- Laser data acquisition
- video data acquisition
- vehicle length*width*height data output
- extensible vehicle model definition
- license plate recognition

Traffic Survey

- Based on the mutual verification of dual laser detection and video detection, the flow is more accurate,
- multi-lane statistics are performed simultaneously,
- vehicle lane changes are identified.

Location and Speed

- Double laser velocimetry is stable and reliable with high precision

Statistical Data

- Car-following percentage,
- Time occupancy,
- Headway,
- Head distance

Video surveillance

- Real-time video surveillance
- historical video retrieval
- road network monitoring are integrable

Meteorological Information

- Temperature, humidity,
- wind speed, wind direction,
- rainfall

Information Transmission

- Traffic situation data transmission
- Video data transmission
- Third-party data integration

System advantages

Advanced laser video fusion technology

Innovatively combines video vehicle detection with laser detection technology, fully leveraging the advantages of both, and has excellent fault tolerance；

Precise license plate recognition

Equipped with advanced AI high-precision license plate recognition system, it can quickly and accurately identify all kinds of license plate information, and can maintain excellent recognition rate in complex environment；

Meteorological information monitoring

It has the function of real-time monitoring of road meteorological information， and can accurately detect the meteorological parameters such as road surface temperature， humidity and visibility；

Highly system scalability

The system is highly flexible in design and can be interfaced with weighing systems and other types of transportation platforms to achieve deep integration of multi-functional traffic information, meeting the diversified needs of different traffic scenarios.

2.1
PART

Traffic Survey System--Laser Video Composite VL2100

Main equipment parameters

Project	Explanation
one Lidar	
Number of lidars	Lidar, effectively ensuring speed and vehicle type accuracy.
Scanning angle	0-180°
Scanning frequency	100Hz
Measure distance	0.5m-65m
Systematic error	±30mm
Persistent error	±12mm
Laser class	905nm，Class I, safe for human eyes;
Time synchronization function	With NTP time synchronization function
Two Video systems	
Sensor type	1/3 inch CMOS
resolution	2 million pixels (optional)
Electronic shutter	1s~1/100000s; can be adjusted manually or automatically
Minimum illumination	0. 01Lux(color mode);0.001Lux(monochrome mode);
Noise reduction	3D denoising
Wide dynamic range	120dB

Project	Explanation
Three Main Control	
CPU	2GHz high-performance processor
memory	8G memory
storage	32G SSD storage
interface	Ethernet、Serial port、Wireless
Four Meteorological monitoring	
Meteorological monitoring	Rainfall, wind speed, wind direction, etc. (optional)
Four Dynamic weighing system (scalable)	
Axle load weighing	Total system weight; axle weight of vehicle (optional)
Five System parameter indicators	
Model/flow accuracy	Meet the standard requirements of the Ministry of Transport, vehicle type＞90%, vehicle flow＞95%, etc
License plate recognition	99% (optional)
Power	50W

2.2
PART

Traffic condition survey system -- axle load survey system

Overview

The axle load traffic survey system is an automatic unmanned axle load survey equipment launched by Shenzhen Xinlong System Co., Ltd. which is designed for axle load survey stations. It has the functions of data collection, data statistics and data transmission, and can provide 10 types of vehicle classification for axle load and 21 types of vehicle classification for secondary axle load. At the same time, it provides traffic flow, vehicle speed and other indicator parameters, and uses communication protocol specified by the transportation industry standard for data transmission.

This system uses imported American piezoelectric sensor components, which have the advantages of high sensitivity, water resistance, corrosion resistance, stable operation, strong adaptability, service life, and high accuracy of measurement.。

The system is based on embedded industrial control system, with high-speed microprocessor, optimized vehicle type recognition algorithm, which has the characteristics of high recognition rate vehicle type, low power consumption, stable performance, reliable work, strong adaptability, long service life, and easy maintenance.

System composition

The main components of the traffic condition statistics and axle load survey system include: ring coil, piezoelectric sensor, coil detection module, piezoelectric module, central processing module, power supply module, etc., which can be expanded according to actual needs.

2.2

PART

Traffic condition survey system -- axle load survey system

working principle

Using dual coils to measure vehicle length and speed: calculate vehicle speed based on the time difference between the vehicle passing through the two coils, and calculate vehicle length based the time it takes the vehicle to pass through a single coil.

The axle load and axle spacing of a vehicle are measured with a piezoelectric strip sensor, a narrow strip sensor, or a quartz sensor the axle spacing and the number of axles are calculated from the time interval of the sensing signal of the piezoelectric strip sensor and the vehicle speed, and the axle and the total load are calculated from the strength and duration of the sensing signal.

System features

- Detectable axle load for class one and class two vehicles；
- Adaptive and high dynamic weighing accuracy；
- Good linearity; wide dynamic range；
- Millisecond-level sampling frequency, the sampled data is more accurate；
- Optimized algorithm is adopted, and the shaft load detection is more accurate.；
- Adopt the latest microprocessor, more powerful data processing；
- Use a general-purpose graphical operating system, which makes management simpler.；
- Support remote graphical management of devices to reduce on-site operations；
- Modular design, can be expanded to multiple lanes.

2.2

PART

Traffic condition survey system -- axle load survey system

Parameter index

- Detection method：Coil piezoelectric
- Sampling frequency：coil2.5ms，piezoelectric0.1ms
- Axle load detection：Speed of the car、Train length、Number of shafts、Axle weight、wheelbase、track width、Total weight、Axle load vehicle type
- Data statistics：Traffic flow、Average velocity and other parameters
- Traffic flow detection accuracy：≥98%
- Speed detection accuracy：≥95%
- Speed detection range：5～100 km/h
- Number of shafts detection accuracy：≥99%
- Axle weight detection accuracy：≥90%
- Axle distance detection accuracy：≥95%
- Total weight detection accuracy：≥90%
- Vehicle type recognition accuracy：≥95%
- Detect lane number： 2～8 lanes, configurable
- Data collection cycle：1～60 minutes, can be configured
- Data processing capability：≥500,000 vehicles/day
- Data Storage：≥1 year, scalable
- Data interface： RJ45 network transmission/USB export
- Protocol support：Transportation industry standard communication protocol.
- Connectivity： ADSL; fiber optic; 3G/4G network
- working power supply：Mains power; solar power; wind power
- mains electricity：AC220V±15%，Backup UPS
- Solar energy：DC12V，Back-up battery
- Host power consumption：Less than 30 watts
- working temperature： -55℃～+85℃
- relative humidity：0～95% No condensation
- protection：Immunity protection level IEC801-II 3rd grade
- Case housing protection level IP65
- Mean time between failures：≥50000 hours

2.3

PART

Traffic Survey Data Center Platform System

Overview

TISP™©, a new generation of traffic survey data center platform independently developed by Xinlong Company, builds its core architecture based on the information collection of multi-source front-end perception devices. It focuses on the full-link value mining of "convergence - integration - analysis - application" of traffic data, aiming to the data islands of different devices and scenarios, and create an integrated traffic data resource hub.

The platform integrates multi-dimensional information such as traffic flow data, license plate recognition data, meteorological environmental data, and vehicle weighing data collected by-end lidars, high-definition cameras, meteorological sensors, and axle load devices through efficient data fusion technology, forming a structured and reusable traffic data resource pool. On basis, the platform deeply combines the algorithm of the large-scale traffic model with the ability of big data analysis. On the one hand, it mines the trend of historical traffic data and generates the "Road Section Capacity Assessment Report", which can provide data support for decision-making such as highway expansion and network planning; on the other hand, on real-time data processing capability, it develops the "Personalized Travel Suggestions" function to provide the public with dynamic road conditions and the best route and other intelligent services realizing the value extension of traffic data from "management support" to "public service".

The platform has a perfect visualization interaction and data query function, supporting map navigation, real-time measurement and control, statistical chart display, multi-dimensional generation, historical / real-time data retrieval and other operations, which can intuitively present the operation status of the road network, equipment operation status and traffic event dynamics, providing comprehensive efficient and accurate data analysis and decision support tools for traffic management departments and scientific research institutions, and helping to promote the digital and intelligent transformation of the transportation field, laying a solid foundation for the construction of a "smart, safe and efficient" modern transportation system.

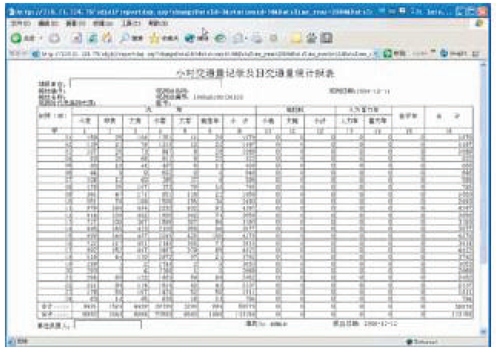
>地图导航

>实时测控

>历史数据查询

>实时数据查询

>统计图形



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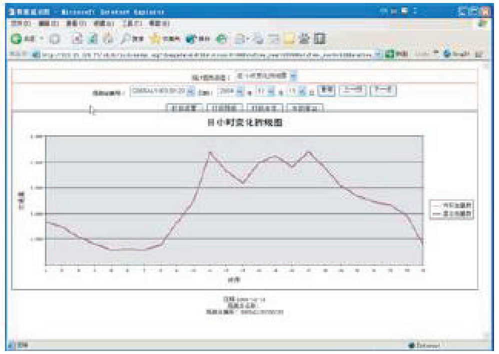


2.3

PART

Traffic Survey Data Center Platform System

Main function

- The system adopts the B/S architecture；
- The software adopts a three-tier structure, which is convenient for customization and expansion, and has good reliability and security；
- Computer software has the standard data interface of the Ministry of Transport, the data can be freely connected with the Ministry of Transport and other systems, automatically communicate the Ministry of Transport/provincial database server, and automatically transmit data in real time；
- Data from each observation station can be automatically transmitted to the user management center for unified altitude management.；
- User operation permission management with hierarchical control；
- Provide real-time refresh and automatic reporting of traffic volume survey data at each observation point.；
- Historical data can be freely queried and exported according to the traffic volume survey standards of the Ministry of Transport or the Golden Week standards；
- Various statistical reports, graphical analysis and printouts of the traffic volume survey observation points can be provided on the browser.；
- Provide electronic map navigation management functions, by clicking the corresponding observation point icon on the electronic map, you can view the observation point.
- Real-time live event images and corresponding detection data, which can achieve smooth playback effects when connected to the network.

2.4

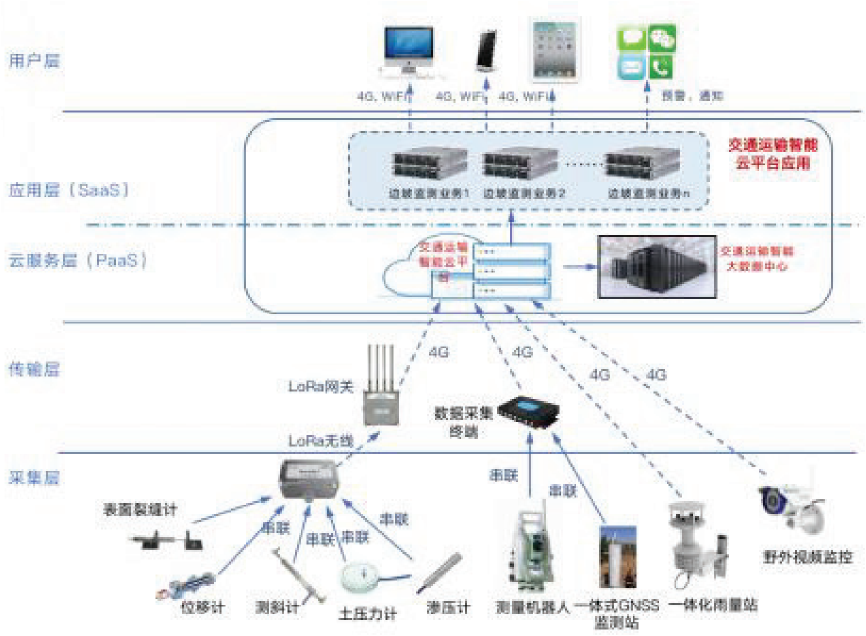
PART

Slope detection system

Overview

The dynamic monitoring system of slopes integrates high-tech such as structural analysis calculation, satellite positioning technology, edge computing technology, communication technology, network technology, sensor technology. It can realize surface displacement monitoring, deep displacement monitoring, crack displacement monitoring, rainfall monitoring, soil moisture, video monitoring, and other functions. This system is a professional for comprehensive safety slope online real-time monitoring, which has realized the digitization and networking of slope monitoring.

System architecture



❑ **Cloud platform architecture：** Roadside slope monitoring application cloud platform

❑**Reasonable hierarchical design：** Terminal, network, platform and application hierarchical architecture design, easy to expand and manage

❑**Advanced network design**：

The network is organized by combining a local area network with a telecommunications network.

❑**Full monitoring terminal：** The monitoring terminal covered cracks, surface position, depth displacement, meteorology, rainfall, video, etc.

2.4

PART

Slope detection system

Product features

All-weather automatic monitoring

- No attendant, automatic operation, the annual operation reliability is more than 99%, the system can meet the long-term reliable operation of 7x4 hours, and the continuous fault-free operation time exceeds 100,000 hours.
- Monitoring real-time displacement, rate of change, and long-term deformation trends to automatically alarm and take preventive measures in a timely manner when exceeding predetermined limit.

High concurrency; high reliability; high precision.

- Adopt distributed cloud computing technology, support large-scale user access requests, and can respond quickly; through elastic scaling, it can handle short-term ultra- traffic access requests, and achieve massive user concurrent processing.
- Scientific and comprehensive post-processing high-precision positioning algorithm, by multi-reference station networking, to improve the calculation accuracy and reliability, horizontal accuracy up to2mm 0.5ppm.

High-precision post-processing algorithm

- Beidou GPS GLONASS multi-satellite system solution, giving full play to the advantages of Beidou applications
- Data processing capability of different length baselines, multi-arc segments, multi-frequency and multi-base station
- Fusion data analysis based on multi-source sensor positioning data，making the monitoring results more accurate.

High scalability

- Support massive monitoring points access, can gateway and computing unit horizontal expansion; unified management and configuration of monitoring information, visual display, real-time monitoring and early, and can provide secondary development API.

Bridge inspection system

Overview

The monitoring items of the bridge monitoring system are mainly determined according to the structural characteristics and mechanical performance analysis of the bridge, while taking into account the environmental conditions the bridge site and the project funding constraints.

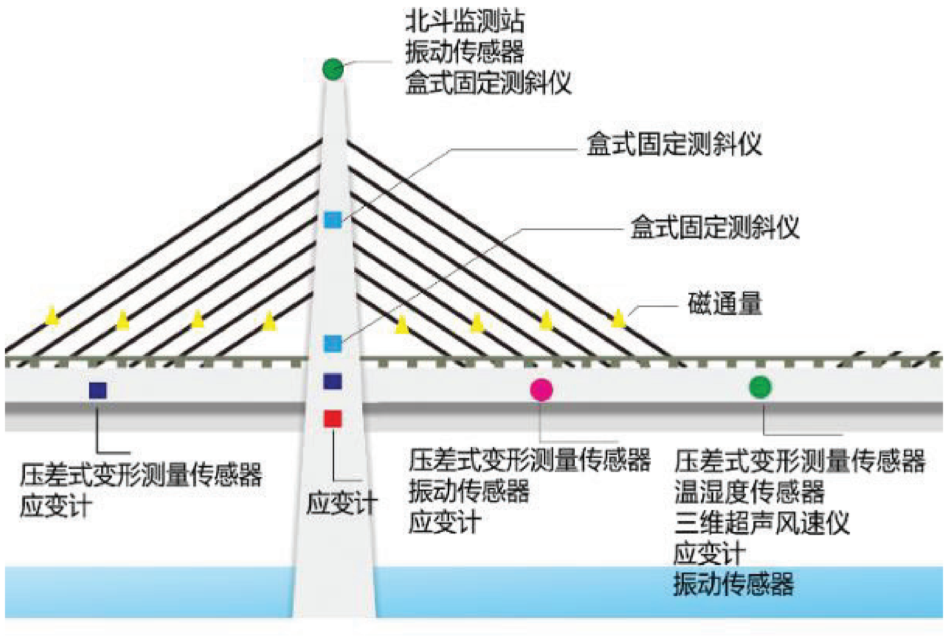
The health monitoring system divides the monitoring content into three categories: external force action, bridge component response, and overall bridge response.

(1)External force： Video monitoring

(2) Bridge component response: Structural stress monitoring、Structural temperature monitoring

(3) Bridge global response: Deformation monitoring、Vibration monitoring

Bridge monitoring content

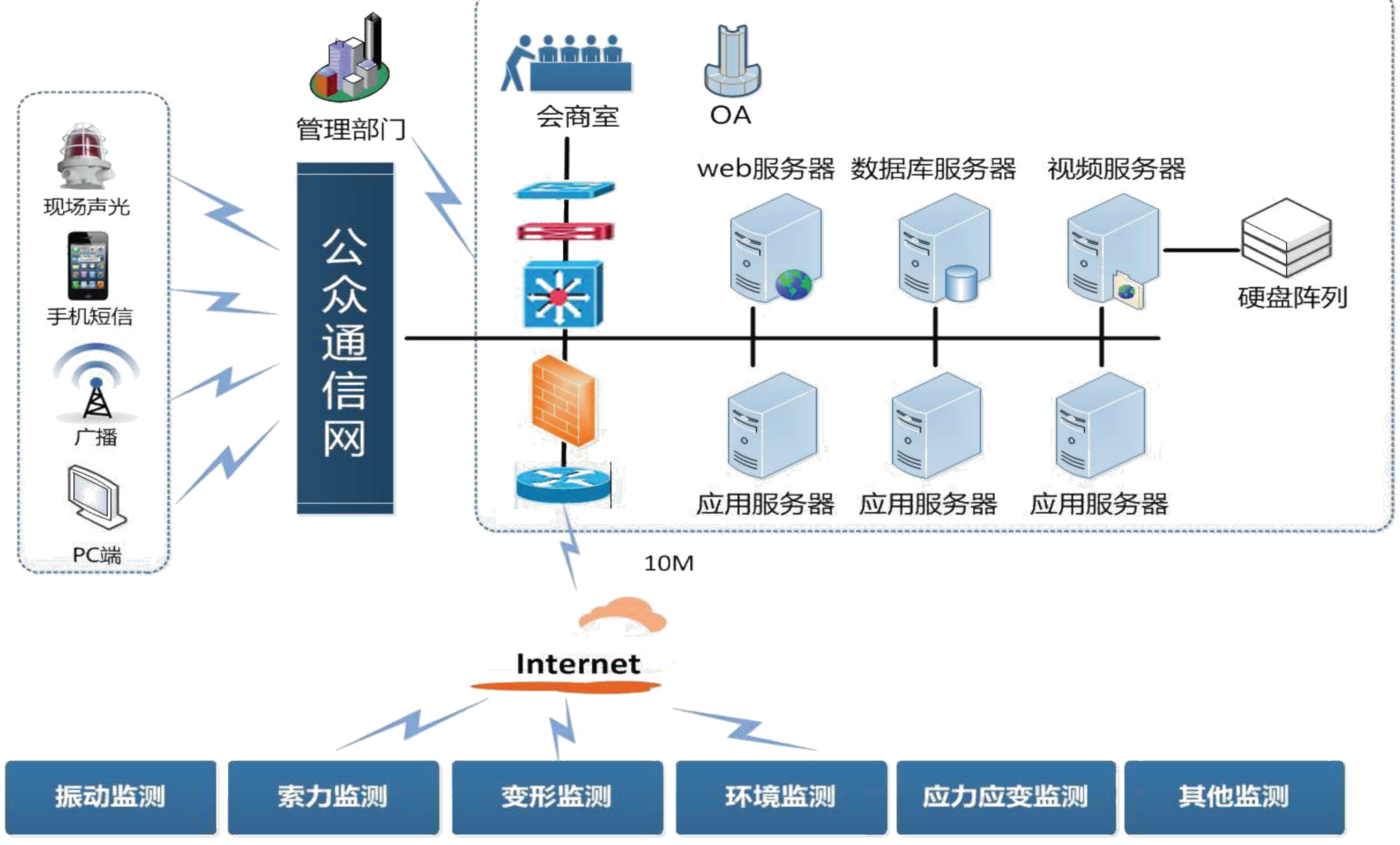


2.5

PART

Bridge inspection system

Bridge monitoring system network formation



2.6
PART

Tunnel intelligent monitoring and patrol inspection system

Overview

With the continuous growth of the mileage of highway tunnels nationwide, the problem of traffic safety in tunnel sections has gradually become apparent, and the consequences of are serious. In recent years, all kinds of traffic accidents in tunnels have occurred frequently, and safety supervision and maintenance inspection have received increasing attention. Users are concerned about the following of the current status of tunnel supervision and maintenance: comprehensively, uniformly and effectively carry out tunnel operation safety supervision; improve the convenience and accuracy of tunnel inspection and maintenance; and carry long-term and accurate monitoring of tunnel structure damage health. The General Office of the Ministry of Transport has issued the "Technical Guidelines for the Quality Improvement of Highway Tunnels"Jiao Ban Gong Lu [2019] No. 28), and the special action for the quality improvement of highway tunnels has now entered the stage of implementation. Based on this, Xinlong Company has developed a smart monitoring and inspection system for tunnels, which provides an efficient traffic management, control, monitoring and guidance system for traffic.

working principle

The tunnel intelligent monitoring and patrol inspection system is an important part of the highway control system and is an excellent monitoring system for efficient traffic management, control, monitoring guidance of traffic operation. The system uses independently developed laser video fusion AI algorithms to unify and integrate environmental perception, modeling, three-dimensional vehicle reorganization, edge computing cloud server.

2.6
PART

Tunnel intelligent monitoring and patrol inspection system

Functional features

1 The system mainly includes comprehensive control of emergency support, road abnormal event alarm, emergency event review and disposal, comprehensive data dashboard, and query of vehicle operation trajectory。

2 The display interface of this system platform can directly understand the statistical data of the day's traffic flow, the distribution of tunnel event types, the proportion of types in the past, event notifications, equipment working status, event alarms, and the analysis of historical data.

3 Specifically combined with the requirements of data empowerment, the historical data are integrated and analyzed to realize the empowerment of data to provide big data support for the daily inspection maintenance of the tunnel for users.

4 When there are abnormal parking, traffic congestion, accidents and other events in the tunnel, the system will automatically pop up the monitoring screen, and clearly indicate the of the event, the location of the event, the lane where the event occurs and the license plate information of the relevant vehicles involved in the event.

5 Full trajectory tracking of vehicles is a highlight of the entire system, which can present the vehicle's position, license plate information, and the position of the it belongs to in the tunnel in real time in the form of data fitting on the top of the system platform.

2.7

PART

Radar + AI video fusion traffic event detection system scheme

Overview

The lightning vision fusion traffic event detection system scheme aims to provide excellent perception and supervision solutions for various traffic scenarios, integrating millimeter wave radar, high- AI camera units, and edge detection units. The millimeter wave radar has strong penetration and can accurately detect beyond the line of sight; the high-definition AI camera unit identifies traffic and events through artificial intelligence; the edge detection unit further optimizes the data processing flow, performing efficient preprocessing and preliminary analysis on massive data near the data source at the edge.

2.7

PART

Radar + AI video fusion traffic event detection system scheme

The characteristics of the function

- ### All-in-one integrated

1.Road video surveillance: Record the road conditions in real time through high-definition camera units, facilitating real-time monitoring and post-event retrospective analysis.

2.Traffic target recognition: With the help of AI image recognition technology and radar data fusion, accurately identify including license plate number, different types of vehicles (such cars, trucks, buses, motorcycles, etc.), pedestrians, non-motor vehicles, etc., to provide accurate target classification information for traffic flow statistics, event judgment.

3. Traffic flow detection: It can accurately collect traffic flow data of each lane, including the number of vehicles in and out, vehicle type distribution and other information to provide data support for traffic signal timing optimization, road planning and design, etc., and effectively improve the road traffic efficiency.。

4.Traffic event detection: Fully support the automatic detection of various traffic events, covering congestion status monitoring, which can promptly detect road blockage points and assess extent of congestion; road obstacle detection, quickly detect and warn road obstacles to avoid accidents; abnormal pedestrian behavior monitoring, such as jaywalking and loitering on the road litter detection, timely clean up road debris to reduce safety hazards; accident detection, automatically judge the occurrence of traffic accidents and promptly alarm; monitoring of illegal behaviors such as reversing parking, zigzagging, driving at low speed, speeding, etc., to maintain traffic order; emergency lane occupancy detection, to ensure that the emergency channel is unobed.

- ### Precise traffic parameter collection

The system can accurately collect a variety of road traffic parameters, such as lane flow information, to provide a basis for traffic flow control; vehicle type data, helps to develop targeted traffic management strategies; vehicle speed data, which can be used for speeding monitoring and speed management, to effectively prevent traffic accidents and ensure road traffic safety and smoothness

2.8

PART

Overload and Overweight Non-site Enforcement System

Overview

Due to the particularity of road bridge transportation, the traffic flow is large, and the management of over-limit is very complicated. Illegal over- and overloading transportation of road freight vehicles has become a "chronic disease" that endangers the sustainable development of road traffic. The effect of manual governance is very little, the demand for scientific and technological governance to change the backward situation of personnel governance is urgent. Based on the deep understanding of market demand, combined with the development trend of the intelligent traffic, Xinlong launched the non-site law enforcement system for the governance of over-limit and overloading.

Road non-site law enforcement overload detection equipment includes dynamic weighing equipment, laser contour detection equipment, high-definition vehicle recognition equipment, video surveillance, information release equipment, data collection equipment, and data center management equipment. When the vehicle passes through, it realizes full-process high-definition video monitoring, video recording, number recognition, axle weight, vehicle axle total weight, vehicle axle number, vehicle contour, and data is automatically superimposed on high-definition video images. It supports frontend data caching and transmits the data collected by the front-end to the central management platform through the transmission network. The system integrates dynamic weighing system, contour detection system, video system and comprehensive management platform, and realizes unmanned monitoring at the site of illegal vehicle management.

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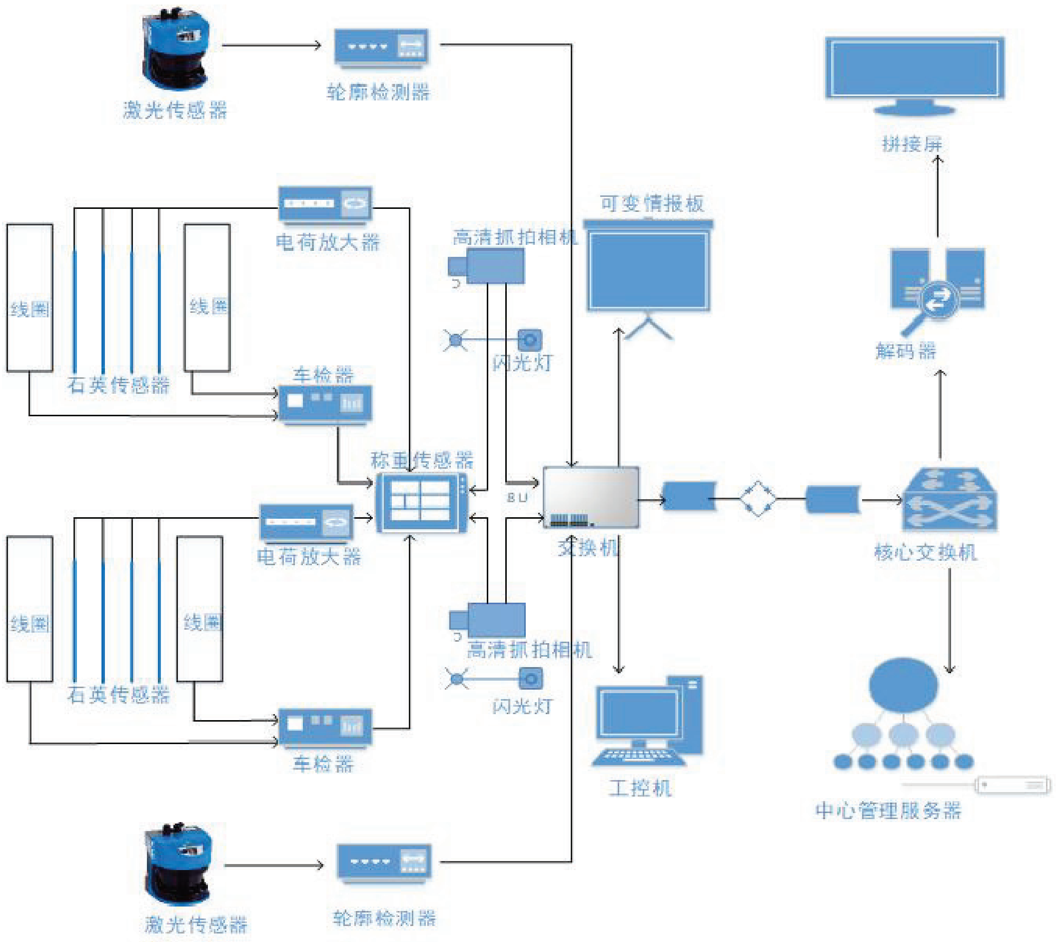
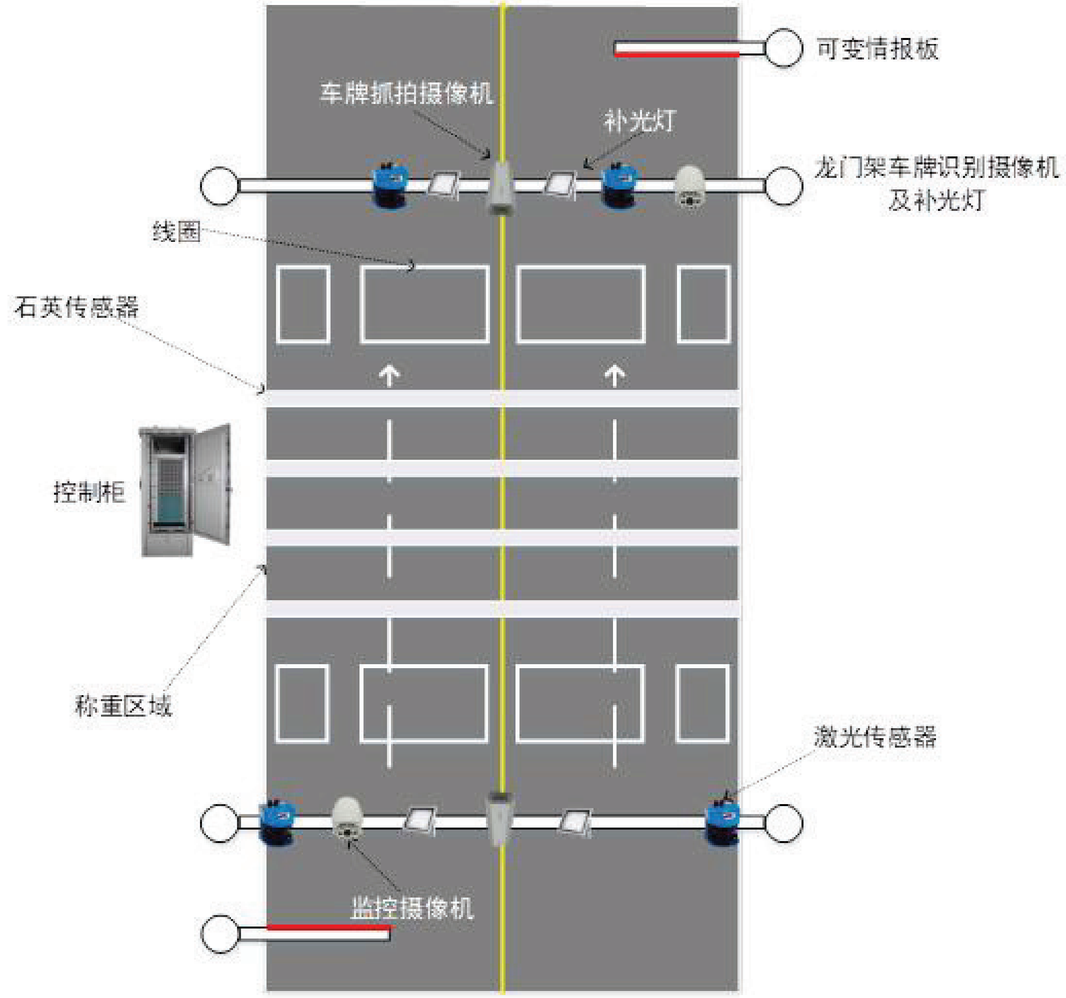
Overload and Overweight Non-site Enforcement System

System topology



System equipment installation plan



2.8

PART

Overload and Overweight Non-site Enforcement System

Functional features

1.The non-stop weighing device shall be able to accurately detect and output the total mass of the truck when the truck passes through normally within the running speed range of1 to 100 km/h；

2. Quartz dynamic weighing, weighing accuracy of national standard grade 5；

3.Detection of standard compliance for over-limit transport vehicles driving on highways management regulations；

4. When freight vehicles pass through the over-limit detection area without stopping, automatic number plate capture and automatic vehicle separation can automatically complete the real-time rapid detection the axle weight, total weight, axle spacing, vehicle speed, vehicle length, vehicle width, vehicle height and other geometric dimensions of the vehicle；

5.Provide vehicle overloading, overwidth, overheight vehicle information；

6.The system can automatically detect the total number of vehicles, axle weight, bogie information, bogie weight, number of axle tires, wheelbase, speed and other information；

7.Vehicles can be captured from multiple angles, including front, side, and rear, as they pass through the non-stop weighing detection area. The front image should allow the license plate to be clearly seen, and based on the image information, the number of axles of freight vehicles, the color of the vehicle body, and the situation of the transported goods should be clearly discernible；

8. No attendant; provide high-definition real-time vehicle images and videos.；

9.Display vehicle information such as speeding, overloading, overwidth and overheight on the LED signboard；

10.With the function of breaking the network to continue uploading, the data will automatically resume uploading from the breakpoint when the network is restored；

11.The functional requirements of vehicle number plate recognition and capture equipment shall comply with the relevant provisions and requirements of GB/T 28649 "Automatic Number Plate Recognition System"；

12.The non-stop weighing device shall be able to automatically store the current set parameters and evidence information, and the storage time shall be ≥72h；

13.The average time between failures of the overall non-stop weighing equipment should be ≥30000h.；

14.The working ambient temperature range of the weighing device shall meet -40℃～ 80℃.

2.9

PART

High-speed vehicle contour detection system

Overview

Overweight vehicles pose a severe threat to the safety of roads and bridges, even endangering the lives of drivers. Overweight vehicle transportation seriously traffic safety, reduces the road's traffic capacity, and induces a large number of road traffic safety accidents, causing harm to social and economic development. Currently, road and bridge protection still at the stage of manual re-verification by installing height limit poles, so it is imperative to build a fully automatic free-flow vehicle contour detection system. Based on this Xinlong Company adopts non-contact laser scanning technology. Through dynamic and real-time laser measurement point cloud data acquisition, vehicles can be detected without stopping, and they can pass the detection area at normal vehicle speed. Through AI algorithms, it can accurately obtain the length, width, height, and vehicle type of the vehicle。

The system consists of a laser sensor and a processor. The system detects vehicles that meet the relevant requirements of the current "GB/T2186-2014 Inspection Items and Methods for Safety Technology of Motor Vehicles" and "GB1589-2016 Limits of Vehicle Dimensions,le Loads and Masses on Roads" vehicle classification standards.

Parameter characteristics

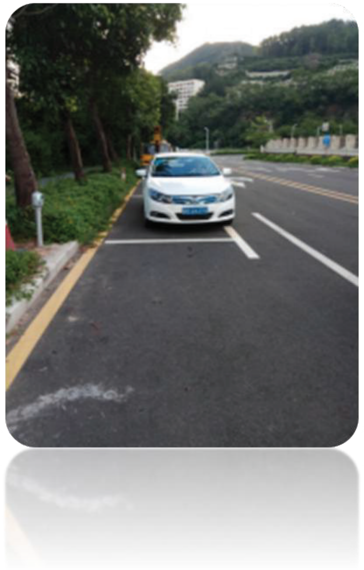
- **Detection method：** Non-contact; free flow
- **measure time：** After the vehicle passes the detection area within 200ms。
- **Measurement range：** Length: 1m-30m; width: 1m-6m; height: 1m-6m
- **Measurement error：** Length: ±1% or ±300mm; width: ±1% or ±50mm; height: ±1% or ±5mm;
- **Detection speed：** 1-120km/h
- **Detection frequency：** 100Hz
- **Laser wavelength：** 905nm
- **protection level：** IP67

2.10
PART

City Intelligent Parking System -- Video Pillar VP9800

Overview

Our company's independently developed XLXT-VP9800 600W pixel road parking recognition all-in-one machine, with camera and auxiliary light integrated design, has the main functions of image acquisition, vehicle detection, license plate recognition, parking photo taking, parking space occlusion detection and sending occlusion, and parking space occupancy status display, mainly for intelligent management of parking spaces parallel to the road direction, automatically detecting and recording vehicle information entering and leaving the parking space, suitable for entry and exit judgment of vehicles in fully open areas.



2.10
PART

City Intelligent Parking System -- Video Pillar VP9800

System features

1） Vehicle detection

The model can monitor parking spaces set parallel to the direction of road travel, detect the state of the space being idle or occupied, and record the time of vehicle and exit.

2） Vehicle capture rate

Under clear weather conditions, with no obstructions or damage to the license plate, capture tests are conducted with ambient light conditions not less than 200 l during the day and auxiliary lighting not less than 50 lx at night, ensuring a capture rate of not less than 99% in both daytime and nighttime scenarios.

3） Inspection of vehicle direction of travel

The model can judge the direction of vehicle travel, entering and leaving the parking space.

4) Picture record

The picture uses JPEG encoding, and the device supports image tamper-proofing by default (use a tamper-proof test tool to open original picture to detect that it has not been tampered with, and then detect after modifying the picture, it prompts that it has been tampered with). It has a character function, and the final recorded picture should at least contain: date and time, device number, berth number, device location number, license plate number, license plate color and detailed information, OSD black and white color automatic change, size can be set. When the video is triggered to capture, the output, result big picture (two panoramic big of the vehicle entering and leaving the berth), license plate color small picture, license plate result text, additional information text, etc. License plate color small picture, license plate text, additional information text.

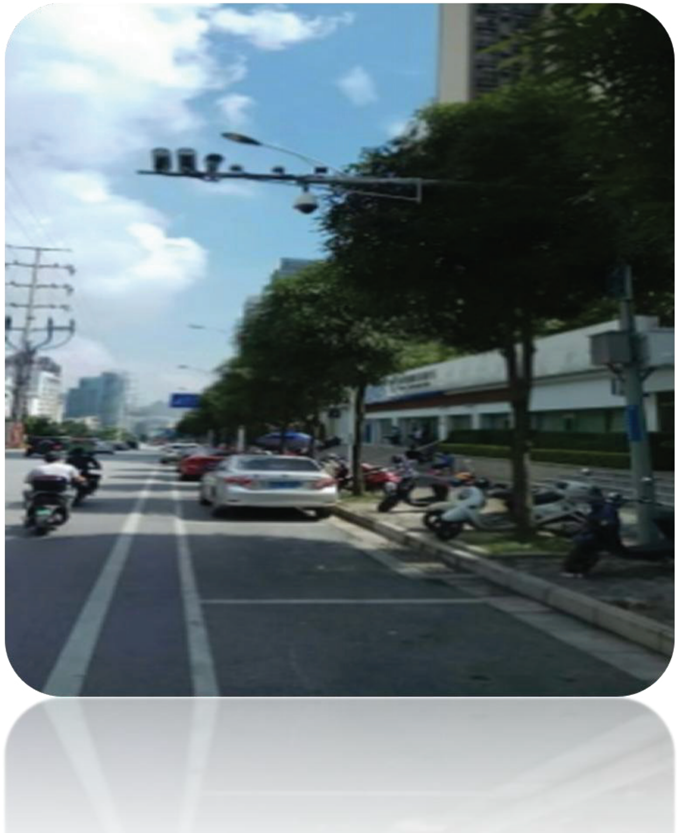
2.11

PART

City Intelligent Parking System -- Video Gun CP9800

Overview

XLXT-CP9800 roadside parking recognition all-in-one machine, consisting of 2 600W pixel DSP, integrates image acquisition, vehicle detection, license plate recognition, and vehicle type recognition functions. It mainly carries out intelligent management of parking spaces set parallel to the direction of road travel, detecting and recording vehicle information entering and leaving the parking space, and realizing intelligent management of roadside parking.



2.11

PART

City Intelligent Parking System -- Video Gun CP9800

System features

1)Vehicle capture rate: capture tests are conducted using video trigger capture, under clear weather conditions, with no obscured or damaged license plates, and with ambient conditions of no less than 200 lx during the day and no less than 50 lx at night, with a capture rate of not less than 99 in both daylight and nighttime.

2) Vehicle recognition rate: The recognition test is carried out by using video triggering to capture, under clear weather conditions, with no obstruction or damage to the license. The ambient light conditions are not less than 200 lx during the day and not less than 50 lx at night. The recognition rates during the day at night are not less than 99%.

3)Vehicle travel direction inspection: the model can judge the vehicle travel direction, drive into and drive out of the parking space.

4)Dual-camera linkage: two cameras are cascaded, the near-end camera can be associated with the far-end camera. The far-end LAN1 is close to the near-end camera LAN2, and the LAN1 of the near-end camera transmits data outward;

5)Image recording: The image uses JPEG encoding, and the image should have anti-tamper function (the modified image prompts tampering when opened an anti-tamper test tool). The image has a character overlay function, and the final recorded image should at least contain: time, license plate number, license plate, parking space number, equipment location number, equipment number, etc., OSD character color, size can be set. When the video is triggered to capture, the vehicle entering parking space captures 2 panoramic images, one license plate image, additional information text, the vehicle leaving the parking space captures 2 panoramic images, one license plate image, information text.

6)Provide parking image evidence chain function: Timed upload of result images, early warning status, can provide evidence chain image sequence for parking.

PART
03

Corporate performance case

3
PART

Project case

The company adheres to the concept of independent research and development and production, and has a complete and mature technical system, providing strong technical support and high- product services for a wide range of users. The company's traffic survey and other products, with their excellent quality and performance, have been widely and deeply used in more than 0 provinces, municipalities, and autonomous regions in the country.

The product has covered more than 20 provinces, municipalities, and regions across the country.

Deploy more than 3000 sets of traffic survey equipment.

3

PART

Project case

The company adheres to the concept of independent research and development and production, and has a complete and mature technical system, providing strong technical support and high-quality product services for a wide range of users. The company's traffic survey and other products, with their excellent quality and performance, have been widely and deeply used in more than 20 provinces, municipalities, and autonomous regions in the country.

Guangdong Province

Chongqing City

3
PART

Project case

Shandong Province




Shanxi Province



Hebei Province



2
PART

Project case

Anhui Province

Guangxi

Yunnan Province

PART 04

Enterprise qualification and intellectual property rights

4
PART

Enterprise qualification intellectual property rights

高新技术企业
证书

企业名称：深圳市信龙系统有限公司
证书编号：GR202144207360
发证时间：二〇二一年十二月二十三日
有 效 期：三年
批准机关：

深圳市科技创新委员会
深圳市财政局
国家税务总局深圳市税务局

软件企业证书

经评估，深圳市信龙系统有限公司符合《进一步鼓励软件产业和集成电路产业发展的若干政策》和《软件企业评估标准》（T/SIA002 2017）的有关规定，评估为软件企业，特发此证。

证书编号：深RQ-2020-1177
有 效 期：一年
依据2019年度的财务数据

评估机构：深圳市软件行业协会
日期：2020 年 12 月 30 日

软件产品证书

经评估，公路交通量调查设备智能管理系统平台V1.0符合《进一步鼓励软件产业和集成电路产业发展的若干政策》和《软件产品评估标准》（T/SIA003 2019）的有关规定，评估为软件产品，特发此证。

申请企业：深圳市信龙系统有限公司
软件类别：纯软件
证书编号：深RC-2020-2490
有 效 期：五年

评估机构：深圳市软件行业协会
日期：2020 年 12 月 30 日

4
PART

Enterprise qualification intellectual property rights

质量管理体系

国际标准认证证书

标准: GB/T19001-2016 idt ISO9001:2015

证书登记号： UKS001-2020Q0784

兹证明:

证书持有者：
深圳市信龙系统有限公司
组织机构（信用）代码:91440300577690878K
注册地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号
经营地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号

认证范围： 智能交通系统的技术开发，智能交通设备销售

通过优卡斯国际认证（深圳）有限公司现场审核，
证明满足了 GB/T19001-2016 idt ISO9001:2015 标准的要求

有效期：
本次发证日期：2020 年 09 月 14 日
本次有效日期：2021 年 09 月 13 日

首次注册日期：2020 年 09 月 14 日
注册有效日期：2023 年 09 月 13 日

CNCA-R-2016-268

本证书由优卡斯国际认证（深圳）有限公司注册颁发;获证组织应于证书有效日期前按规定执行监督审核并更换本证书;
认证资格是否有效应登陆优卡斯国际认证（深圳）有限公司官方网站www.uks-sz.com查询证书信息;
亦可在国家认证认可监督管理委员会官方网站（www.cnca.gov.cn）上查询。

地址：深圳市宝安区西乡街道西部国际珠宝城创意研发大厦B座702室　　邮编：518101

职业健康安全管理体系

国际标准认证证书

标准: GB/T45001-2020 idt ISO45001:2018

证书登记号： UKS001-2020S0483

兹证明:

证书持有者：
深圳市信龙系统有限公司
组织机构（信用）代码:91440300577690878K
注册地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号
经营地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号

认证范围： 智能交通系统的技术开发，智能交通设备销售及其相关管理活动

通过优卡斯国际认证（深圳）有限公司现场审核，
证明满足了 GB/T45001-2020 idt ISO45001:2018 标准的要求

有效期：
本次发证日期：2020 年 09 月 14 日
本次有效日期：2021 年 09 月 13 日

首次注册日期：2020 年 09 月 14 日
注册有效日期：2023 年 09 月 13 日

CNCA-R-2016-268

本证书由优卡斯国际认证（深圳）有限公司注册颁发;获证组织应于证书有效日期前按规定执行监督审核并更换本证书;
认证资格是否有效应登陆优卡斯国际认证（深圳）有限公司官方网站www.uks-sz.com查询证书信息;
亦可在国家认证认可监督管理委员会官方网站（www.cnca.gov.cn）上查询。

地址：深圳市宝安区西乡街道西部国际珠宝城创意研发大厦B座702室　　邮编：518101

环境管理体系

国际标准认证证书

标准: GB/T24001-2016 idt ISO14001:2015

证书登记号： UKS001-2020E0502

兹证明:

证书持有者：
深圳市信龙系统有限公司
组织机构（信用）代码:91440300577690878K
注册地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号
经营地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号

认证范围： 智能交通系统的技术开发，智能交通设备销售及其相关管理活动

通过优卡斯国际认证（深圳）有限公司现场审核，
证明满足了 GB/T24001-2016 idt ISO14001:2015 标准的要求

有效期：
本次发证日期：2020 年 09 月 14 日
本次有效日期：2021 年 09 月 13 日

首次注册日期：2020 年 09 月 14 日
注册有效日期：2023 年 09 月 13 日

CNCA-R-2016-268

本证书由优卡斯国际认证（深圳）有限公司注册颁发;获证组织应于证书有效日期前按规定执行监督审核并更换本证书;
认证资格是否有效应登陆优卡斯国际认证（深圳）有限公司官方网站www.uks-sz.com查询证书信息;
亦可在国家认证认可监督管理委员会官方网站（www.cnca.gov.cn）上查询。

地址：深圳市宝安区西乡街道西部国际珠宝城创意研发大厦B座702室　　邮编：518101

4
PART

Enterprise qualification intellectual property rights

售后服务认证证书

证书号：55020F0090R0

深圳市信龙系统有限公司

统一社会信用代码：91440300577690878K

注册地址/审查地址：深圳市南山区西丽街道科苑路清华信息港研发楼 B 栋 606 号

经评价，商品售后服务能力符合 GB/T27922-2011 服务评价体系
标准规定的要求，达到五星级。

★★★★★

证书覆盖业务范围：

智能交通设备销售的售后服务

自颁证之日起，有效期内获证组织须每年至少接受一次监督审核。

本证书信息可在国家认证认可监督管理委员会官方网站 www.cnca.gov.cn 查询。

四川国鉴认证有限公司
证书专用章

证书签发人

初次获证日期：2020 年 09 月 15 日 签发日期：2020 年 09 月 15 日 有效期至：2023 年 09 月 14 日
地址:成都市锦江区驿都西路 316 号绿地云图大厦 1 栋 1505 号
网站：www.scgjrz.com 电话：028-86787921

企业信用等级证书

CREDIBILITY GRADING CERTIFICATE

证书编号：PHZX20200915036-1

深圳市信龙系统有限公司

针对该企业的信用记录、经营状况、财务指标、发展前景，结合
国家及地方政府相关政策及现状，按照信用评价标准
Q/PHZX 001-2019使用条款的要求，评级为：

AAA级

有效期：2020-09-15至2023-09-14

互认标识

证书查询

评级机构：北京普华正信国际信用评价有限公司
全国企业诚信公共服务平台：www.credit315gov.com

4 PART Enterprise qualification intellectual property rights

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计算机软件著作权登记证书

中华人民共和国国家版权局
计算机软件著作权登记证书

证书号： 软著登字第6602526号

软 件 名 称： 铁路站台两端入侵检测系统
V1.0

著 作 权 人： 深圳市信龙系统有限公司

开发完成日期： 2020年04月11日
首次发表日期： 2020年04月17日
权利取得方式： 原始取得
权 利 范 围： 全部权利
登 记 号： 2020SR1799524

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No. 06994373

2020年12月11日

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证书号： 软著登字第6602545号

软 件 名 称： 铁路异物入侵监测系统
V1.0

著 作 权 人： 深圳市信龙系统有限公司

开发完成日期： 2020年03月12日
首次发表日期： 2020年03月19日
权利取得方式： 原始取得
权 利 范 围： 全部权利
登 记 号： 2020SR1799543

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计算机软件著作权登记证书

证书号： 软著登字第6602526号

软 件 名 称： 铁路站台两端入侵检测系统
V1.0

著 作 权 人： 深圳市信龙系统有限公司

开发完成日期： 2020年04月11日
首次发表日期： 2020年04月17日
权利取得方式： 原始取得
权 利 范 围： 全部权利
登 记 号： 2020SR1799524

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No. 06994373

2020年12月11日

4
PART

Enterprise qualification intellectual property rights

证书号第19686693号

实用新型专利证书

实用新型名称：一种交通流量调查检测器

发　明　人：鹿昌义;沙晓东

专　利　号：ZL 2023 2 0151532.X

专利申请日：2023年02月08日

专利权人：深圳市信龙系统有限公司

地　　址：518000 广东省深圳市南山区西丽街道白芒社区沙河西路5318号百旺研发大厦2栋802

授权公告日：2023年09月19日　　授权公告号：CN 219716237 U

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局长
申长雨

申长雨

2023年09月19日

第1页(共2页)

其他事项参见续页

证书号第8098347号

外观设计专利证书

外观设计名称：激光检测器（交通流量调查激光检测）

设　计　人：沙晓东;鹿昌义

专　利　号：ZL 2023 3 0038560.6

专利申请日：2023年02月08日

专利权人：深圳市信龙系统有限公司

地　　址：518000 广东省深圳市南山区西丽街道白芒社区沙河西路5318号百旺研发大厦2栋802

授权公告日：2023年06月09日　　授权公告号：CN 308073406 S

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局长
申长雨

申长雨

2023年06月09日

第1页(共2页)

证书号第20360179号

实用新型专利证书

实用新型名称：一种二维码识别设备

发　明　人：鹿昌义;沙晓东

专　利　号：ZL 2023 2 1151576.9

专利申请日：2023年05月12日

专利权人：深圳市信龙系统有限公司

地　　址：518000 广东省深圳市南山区西丽街道白芒社区沙河西路5318号百旺研发大厦2栋802

授权公告日：2024年01月23日　　授权公告号：CN 220381621 U

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局长
申长雨

申长雨

2024年01月23日

第1页(共2页)

证书号第8215351号

专利公告信息

发明专利证书

发明名称：地标企业架构的数字证书认证方法、终端、系统及设备

专利权人：深圳市信龙系统有限公司;深圳市莱帝亚软件有限公司

地　　址：518000 广东省深圳市南山区西丽街道白芒社区沙河西路5318号百旺研发大厦2栋802

发　明　人：商松;沙晓东

专　利　号：ZL 2023 1 0278521.2　　授权公告号：CN 116582269 B

专利申请日：2023年03月10日　　授权公告日：2025年09月02日

申请日时申请人：深圳市信龙系统有限公司;深圳市莱帝亚软件有限公司

申请日时发明人：商松;沙晓东

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局长
申长雨

申长雨

2025年09月02日

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PART

Enterprise qualification and copyright

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（2016）国认监字（274）号

中国认可
国际互认
检测
TESTING
CNAS L0531

公京检第 1712916 号

检验报告

产品名称：智慧视频道路停车 600W 像素视频桩

型号规格：XLXT-VP9800

受检单位：深圳市信龙系统有限公司

检验类别：委托检验

检验依据：■国家标准 □行业标准
■企业标准 □技术要求

报告日期 2017 年 8 月 8 日 ［公 章］

国家安全防范报警系统产品质量监督检验中心（北京）
公安部安全与警用电子产品质量检测中心

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中国认可
检测
TESTING
CNAS L4566

交GJC交006

检测报告

交检检(W-JDSB)字［2018］第 003 号

样品名称：公路交通情况调查设备

受检单位：深圳市信龙系统有限公司

检测类别：委托检测

签发日期：2018 年 10 月 31 日

交科院检测技术（北京）有限公司
（原交通运输部科学研究院交通工程检测中心）

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160021020992
（2016）国认监字（274）号

中国认可
国际互认
检测
TESTING
CNAS L0531

公京检第 1712915 号

检验报告

产品名称：智慧视频道路停车 600 万像素视频枪

型号规格：XLXT-CP9800

受检单位：深圳市信龙系统有限公司

检验类别：委托检验

检验依据：■国家标准 □行业标准
■企业标准 □技术要求

报告日期 2017 年 8 月 8 日 ［公 章］

国家安全防范报警系统产品质量监督检验中心（北京）
公安部安全与警用电子产品质量检测中心

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