ZKTeco's LPR introduction

ZKTeco's license plate recognition products adopted independent research and development, first-class industry's license plate recognition algorithm, and combined with years of experience in industry application. License plate recognition speed is less than 200ms. License plate recognition accuracy rate is over 99.7%. No need to park and swipe card, automatic license plate recognition mode and fast access to parking lot provide users with more intelligent, more convenient, more perfect experience.

What is LPR?

License plate recognition technology (Abbreviated as LPR) is an application of computer video image recognition technology in vehicle number plate identification field. License plate recognition technology through license plate extraction, image preprocessing, regional location and tilt correction, binarization, character segmentation, feature extraction and database matching techniques, finally output license plate number, color and other information. The whole process is based on the license plate recognition algorithm.

Why we need LPR?

With the increasing number of motor vehicle, how to make the vehicle management more safe and efficient has become a problem. In order to solve this problem, license plate recognition appeared and quickly became a tendency in industry. Nowadays, most of cities in China adopts license plate recognition in vehicle management. While, in foreign countries, they still use the traditional vehicle management ,such as manual release, ticket box, etc.
Compared with manual release and ticket box model, the LPR vehicle management has many advantages. This model gets rid of guards and ticket box, improves the efficiency, reduces labor costs and solves the traffic jam problem.

LPR Camera

Feature

- 1080P 1/2.8"CMOS with WDR
- Four Fill Light with Photoresistor
- Low Light
- Motorized Lens 3.2-11.1 mm
- IP 65 Protection Level

LPRC100

ZKTeco license plate recognition camera adopts two million pixel wide dynamic CMOS sensor, with automatic zoom lens with four fill light, and the highest resolution is up to1920*1080P, with IP65 waterproof and dust proof grade design and integrated industry-leading automatic license plate recognition algorithm.

Specifications

Model	LPRC100
Technical Specifications	
Image Sensor	1/2.8"CMOS
Resolution	1920×1080P
Lens	3.2mm-11.1mm, Automatic Focus
Communication	TCP/IP (10/100Mbps)
I/O Interface	Two Relays, Two 485 Output, Audio I/O, Two Auxiliary Input, Wiegand Out, TF card
Working Voltage	12V DC
Working Temperature	-20 C -+55 C
Working Humidity	≤90%
Dimension	452mm*145mm*133mm (±5)
License Plate Recognition Specifications	
Recognition Distance	3-10meters(Recommend: 3.5-4m)
Recognition Time	≤200ms
Recognition Rate	Day≥96%, Night≥95%
Output Information	Images of Vehicle, Car Number, Types of car, Entrance and Exit Time
Support Countries	Thailand, Argentina, Mexico, Indonesia, etc.
Adaptable Speed of Car	≤15Km/h

LPR Integrated Machine

LPRS1000

LPRS1000 integrated with license plate recognition camera, LED display, voice broadcast, fill light, fixed base and other integrated structure, and has a simple and elegant appearance and multi-functional design. It is convenient for the installation of the engineering business and get rid of the large ticket box, which is widely used in parking lot management.

Feature

Easy Installation and Connectivity
- Camera, LED display, voice broadcast, fill light, fixed base as integrated design

Applicable to Outdoor
- Camera: IP65
- Integrated Machine: IP54

Industry-leading LPR Algorithm
- Dr. team for algorithm development
- License plate recognition accuracy is over 99.7%
- License plate recognition speed is less than 200 ms

Parking Management Software
- Customizable diversity of parking charging rules
- Can export various financial statements

Automatic License Plate Recognition Mode
- No need to park and swipe card
- Quick access to the parking lot
- More intelligent, more convenient, more perfect user experience

Localized Display and Voice
- Real-time display of license plate number, time record, remaining empty parking spaces, parking fee and other information
- Localized voice broadcast

Database Server
Switch
Property Management Computer
Switch
License Plate Recognition Integrated Machine
Entrance
Workstation Computer
License Plate Recognition Integrated Machine
Exit

Specifications

Model	LPRS1000
Recognition Rate	Day≥99.99%; Night≥99.7%
Recognition Distance	3-10meters
Recognition Time	≤200ms
Communication	TCP/IP (10/100Mbps)
Interface	Two Relays, Two Aux Input, Audio Input and Output Two 485 Output, Wiegand Out
Camera Lens	2MP, Auto Focus, Best Snap Range: 3-10meters
Standard Function	Automatic License Plate Recognition, Real-Time Display Information, Voice Broadcast, Customizable Charging Rules, Export Various Financial Statements, Blacklist And Whitelist Function, Fill Light, Automatic Control Parking Barrier
Support Countries	Thailand, Argentina, Mexico, Indonesia, etc.
Support Speed	15 km/h
Software	ZKParking C/S software
Power Consumption	80W
Power Supply	220V AC 50Hz
Operation Temperature	-20 C -+55 C
Relative Humidity	10%-90%
Weight	30Kg
Package Dimension	340mm*220mm*1600mm (L×W×H)

ZKParking Software

ZKParking Overview

ZKParking is a Client/Server architecture parking lot management software self-developed by ZKTeco. It contains six function modules: system management, personnel, authorization module, financial module, terminal management and reports. With user-friendly UI and automatic parking lot management function, ZKParking provides user with simple and convenient user experience in LPR parking lot area.

Function

- Vehicle Authorization: temporary and fixed vehicles authorization, fixed car extension
- Flexible and Customized Charge Rules: support various charge rules , meet different parking lot
- Black List and White List
- Real-time Monitoring: monitor the entrance and exit
- Reports Management: Export kinds of reports, facilitate the statistics of financial staff
- Car Park Area Linkage Management

Specifications

Software Specifications		Minimum PC Requirements	
Version	ZKParking 1.7.8	CPU	Dual Core Processor
System Architecture	Client/Server		Processing Speed with 2.4GHz
Database	PostgreSQL	Memory	4GB or Above
Supported OS	Windows 7/8/10 (32/64)	Storage	30GB Free Space or More

Case Study

China
Bai Se City Public Security
Two LPRS1000 with PB1000 for fixed car management

JiangSu Province, China
Simon Electric Branch Office in NanTong City
Two LPRS1000 with PB2000 for company internal staff's vehicle management

XiZang Province, China
Government Agency
Two LPRS1000 with ZK-BAR-A1-3 for public car management

JiangXi Province, China
Residential underground parking lot
Two LPRS1000 with PB1000 for fixed car management

Government   School   Hospital   Hotel   Building   Public Security   Industrial Area
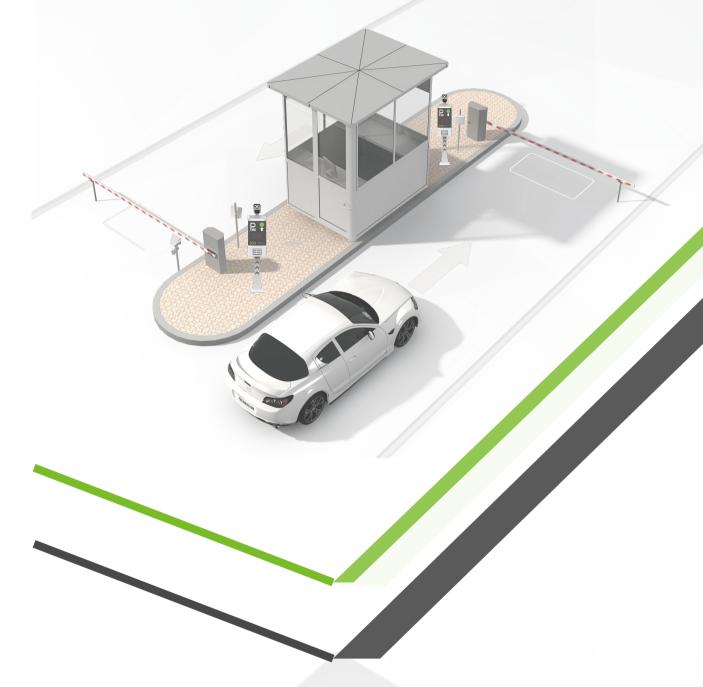
ZKTeco

LICENSE PLATE RECOGNITION PRODUCT CATLOGUE

More Intelligent, More Convenient and More Perfect Experience