



What can the solution do?



Improve efficiency and security while reducing costs

Automatic number-plate recognition (ANPR) is a technology that uses optical character recognition on images to read vehicle registration plates.

Rapid technological developments have allowed DaHua to enable camera-side integration of ANPR technology. This means it can be widely used to improve efficiency and security in different solutions. In addition, this camera-side ANPR is more cost-effective than traditional server-side analysis solutions.

Key Technologies



Dahua ANPR solutions include Dahua cameras and software that runs on either the camera or a server. It automatically captures license plates in real time.

Relying on big image data and well-trained deep-learning models, the ANPR engine includes the following features:

- Multilingual Recognition Recognizes English, Arabic, Chinese, Cyrillic, Thai, and other languages
- High Recognition Rate – 95%-98% with alphanumeric number plates
- Fast Recognition - The full reading process takes around 100 milliseconds
- Cost-effective Technology - Outstanding price/performance ratio

Typical Applications

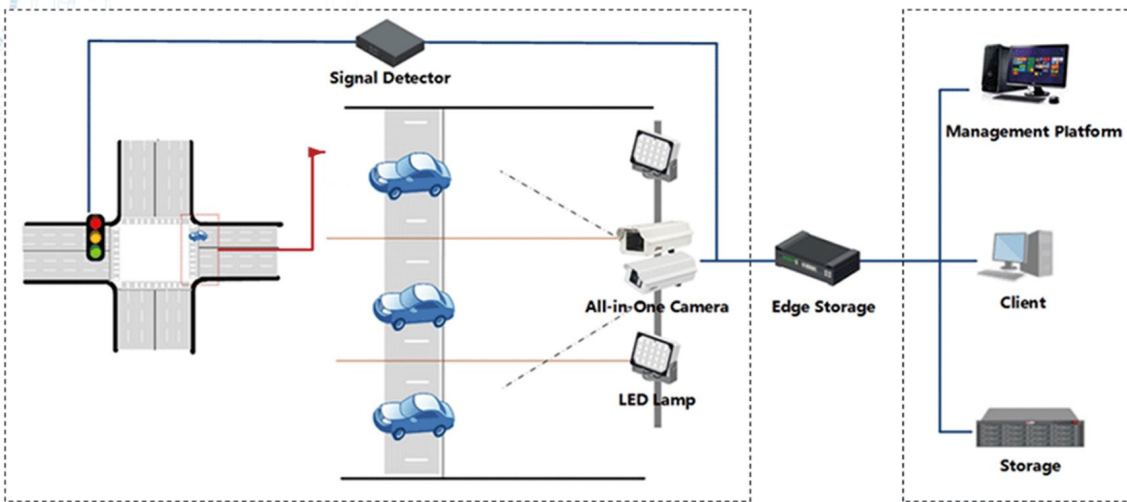


Automatic ANPR is a valuable solution for multiple applications, including:

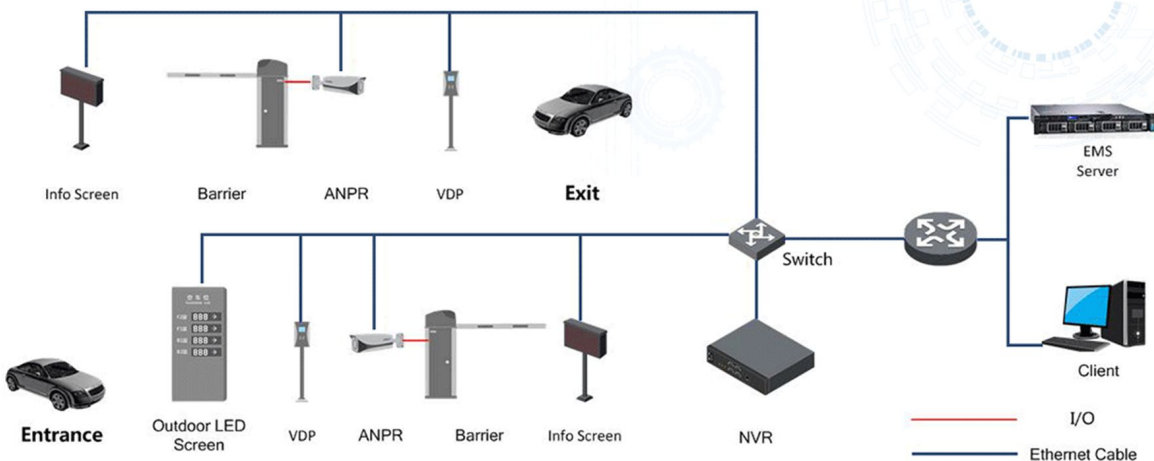
- Road Safety Enforcement, Automatically recognizes speeding and red-light violations
- Law Enforcement, Verify vehicle license and registration. Provides an automatic alert when blacklisted vehicles pass by
- Electronic Toll Collection, Enables free-flow through and catches the vehicle plate number
- Parking Guidance, Automatically recognize available parking spots and guides vehicles along the best route
- Entrance & Exit Control, Raise barriers for authorized vehicles

Deployable System Design

Road Safety Enforcement



Entrance & Exit Control

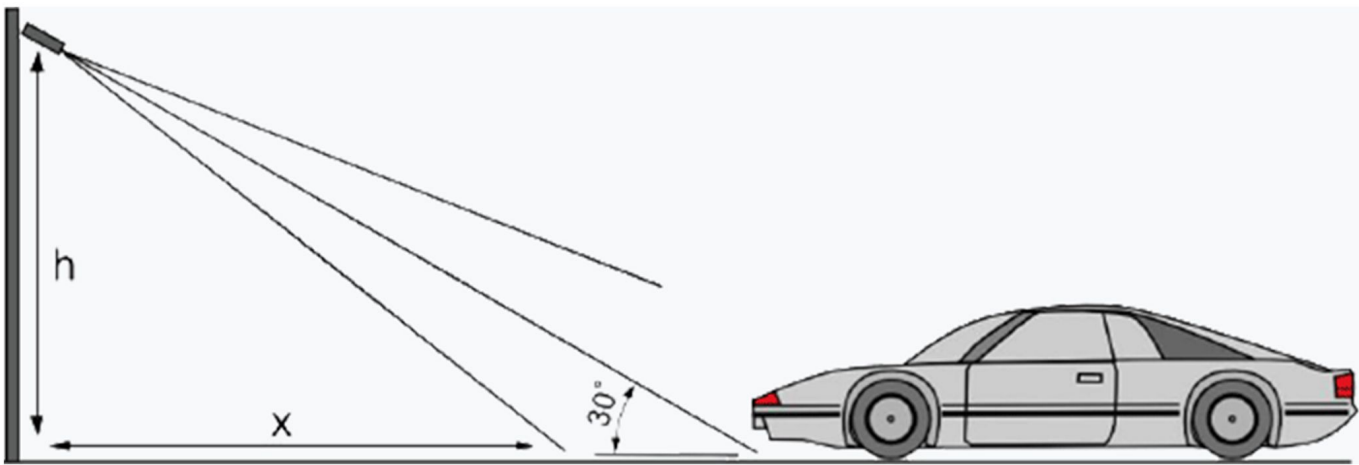


Typical Applications

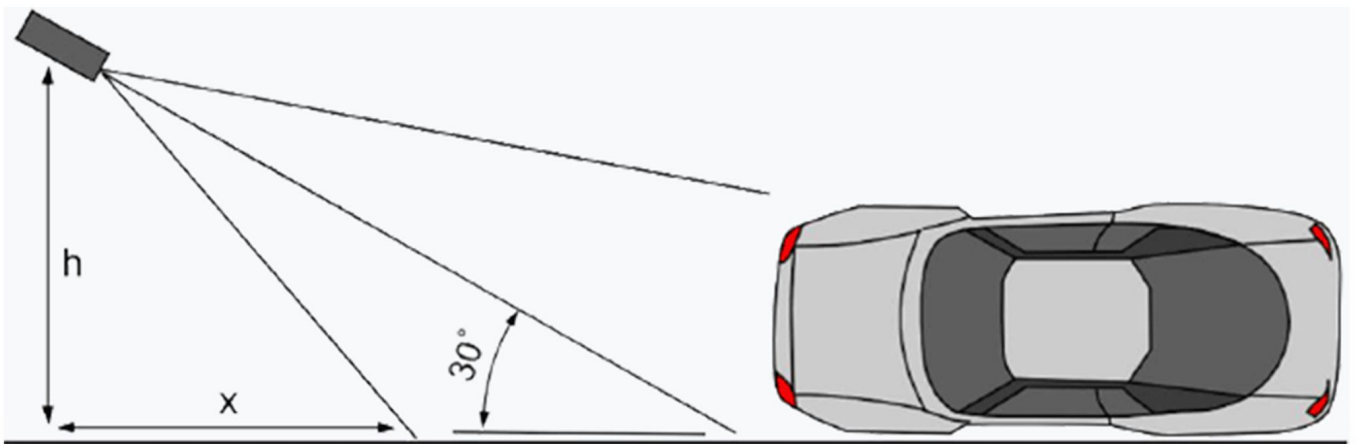
To guarantee optimal high plate recognition rates, the plate angle should be less than 5° .



At the front-side installation, the horizontal angle should be less than 30° , which means if the height is 6m, the minimum snapshot distance is 10.2m. We recommend a standard horizontal distance of 25m.



In side installations, the angle between the camera and lane line should be less than 30° , which means if the height of pole is 2m, the minimum image capture distance should be at least 7m.



For optimal recognition, the plate must have 70-250 pixels. Different countries have different requirements, such as EU: 130pixel-250pixel, CIS: 150pixel-250pixel, etc.

Specifications

DHI-ITC231-RU1A-L/IRL

General	
Resolution	1920×1080
Image Sensor	1/1.9inch CMOS(8.58mm)
Sensor pixel size	3.75×3.75
Image Compress Mode	JPEG
HD Video Compression	H.264/H.265/MJPEG
HD Image Resolution	1920×1080
HD Video Resolution	1920×1080
HD Video Frame Rate	25/30fps
Image parameter	
Multi-channel Integration	Support
Edge Enhancement	Support
Dead Pixel Correction	Support
Automatic Noise Reduction	Support(3D Noise Reduction)
Auto Exposure(AE)	Support(Fully auto/ Custom interval auto/Custom)
Auto White Balance(AWB)	Support(Fully auto/color temperature range auto/Custom)
Interface	
Alarm Input	2 input (switch)
Network interface	1 100/1000M Ethernet port
Data interface	1 RS232 serial port , 2 RS485 ports,1 GPS
Auto Iris	Support P-Iris, DC-Iris
Lens Interface	CS
Video Detection Trigger	Support
Main Function	
ANPR	Support
Vehicle Logo Recognizing	Support
Traffic Data Counting	Performance: Up to 3 lanes for traffic data counting Vehicle type: Passenger Car, Large Truck, Mid Truck, Saloon Car, Micro bus, Micro Truck, Motorbike, Pedestrian Statistical data of each lane: time, date, statistical period, lane, Traffic flow, occupancy, headway, average speed, queue length, vehicle type of each line
SD Card Storage	Support
Remote Control Function	Support through Web client config and control
OSD information superimpose	Support, Information of the video include time and place (channel address), Lane information (number)
Image Records Tamper-resistance	Support, Video/Image with watermark tech and check function
ABF Auto Focus	Support
Environmental	
Power Supply	DC12V or POE
Average Power Consumption	<25W
Operating Environment	Temperature - 40°C~ + 80°C, humidity10%~90%
Dimension	447mm ×240mm ×233mm
Weight	4.1 kg with packaging

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