How to Configure DS-TMC403-E(/WG)

1. Installation

Installation Standard

- Choose a horizontal installation floor
- Pre-embedded cables, the conduit should be 50 mm above the ground to prevent water from entering the cable and causing a short circuit
- When installing against a wall, at least 200mm of space should be reserved between the back cover and the wall to facilitate wiring and other operations
- When installing this device, the fuselage needs to be turned sideways to align with the capture position;

(1) Capture Distance

- The capture position is 3.5-5m away from the capture unit

2. Fixed Base

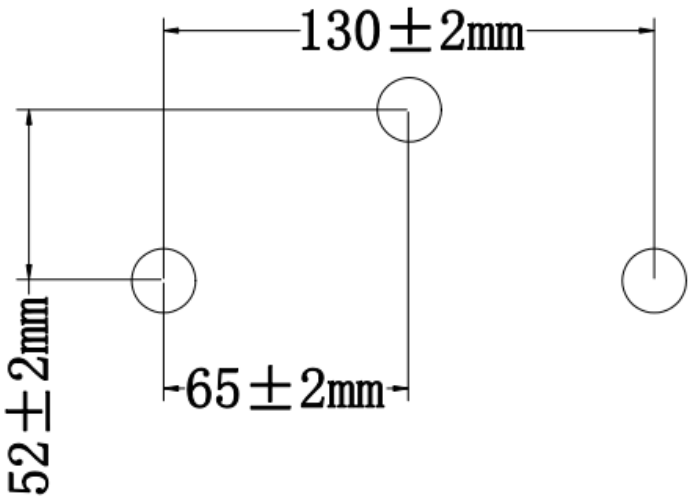
The camera needs to be fixed to the mounting surface with expansion screws.

(1) According to the general direction of the all-in-one chassis on the safety island, punch 3 holes in the safety island, as shown in the figure below

(2) Use an impact drill to drill holes on the installation holes with a depth of about

120mm; for the 3 racetrack holes at the bottom

(3) Insert the expansion bolts with a diameter of 12mm into the installation holes, and tighten the nuts to fix them.



3. Cable Connection

This equipment is equipped with a special terminal block, and all wiring needs to be completed on the terminal block.

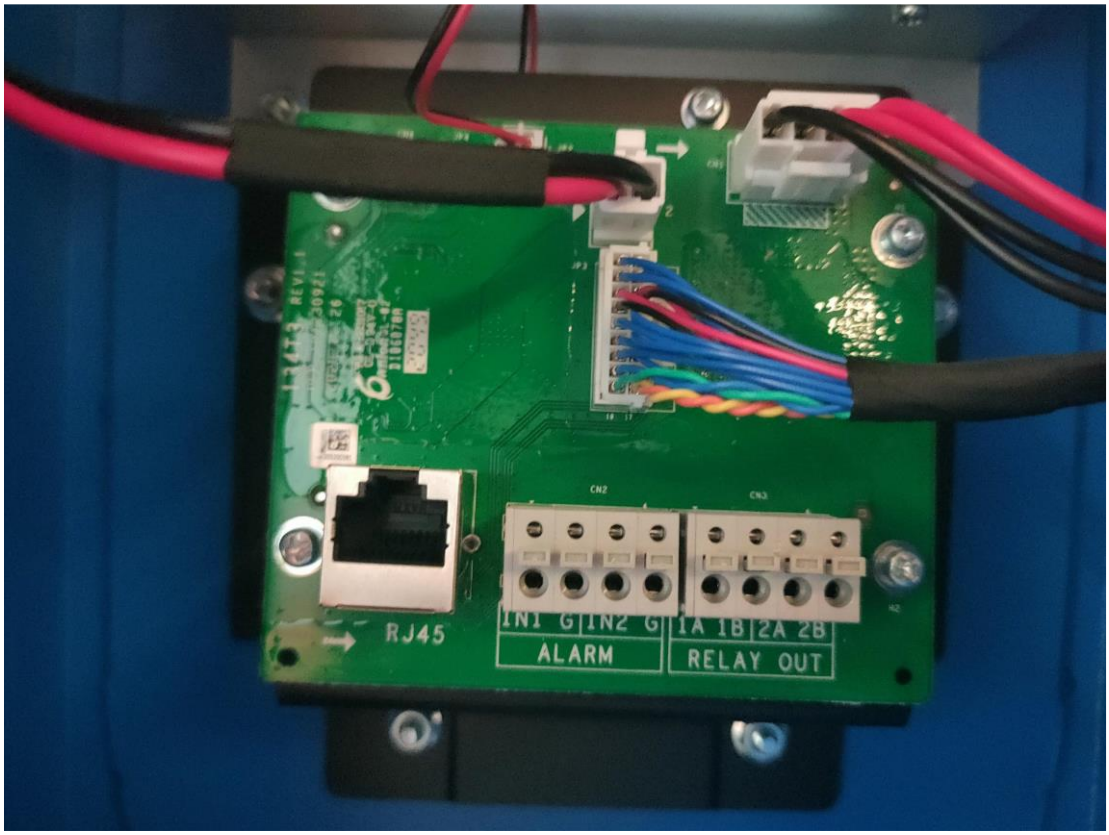
(1) Trigger mode wiring:

- IO trigger: the trigger device is connected to IN1 and G of the ALARM port;

(2) Gate control and gate signal wiring:

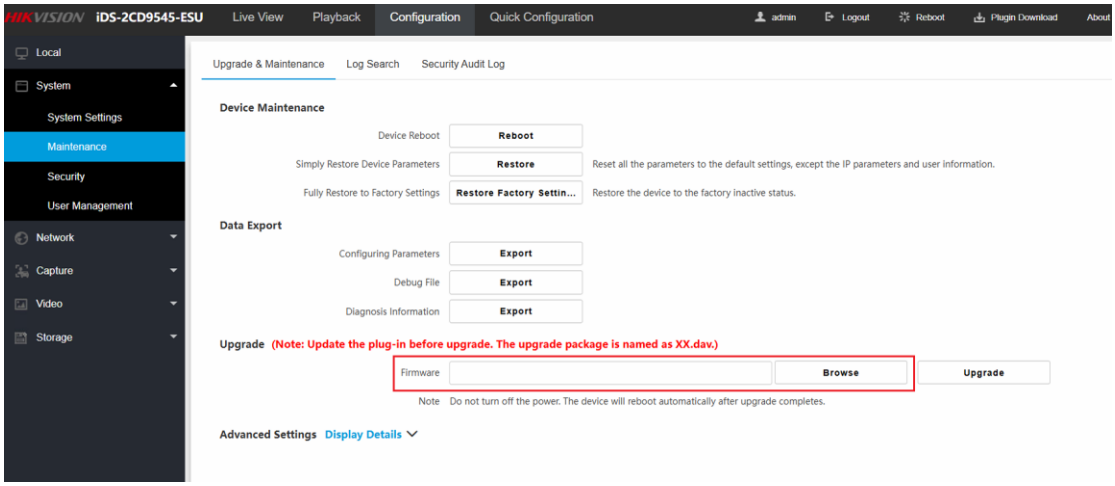
- **Control gate:** the corresponding 1A1B2A2B corresponding to the opening and closing of the gate
- The wiring of the **remote control** alarm signal of the gate: the output of the gate is opened in place (remote control alarm) and connected to the camera ALARM IN1, G

After the gate signal wiring is completed, you need to configure the relevant functions in the Device **Configuration - Entrances and Exits - Entrance and Exit - Barrier Status - IO** associated with the barrier, as shown in the following figure. In addition, the network interface of the device can be accessed from the reserved network port on the patch panel, and other network ports in the device are not allowed to be wired additionally.

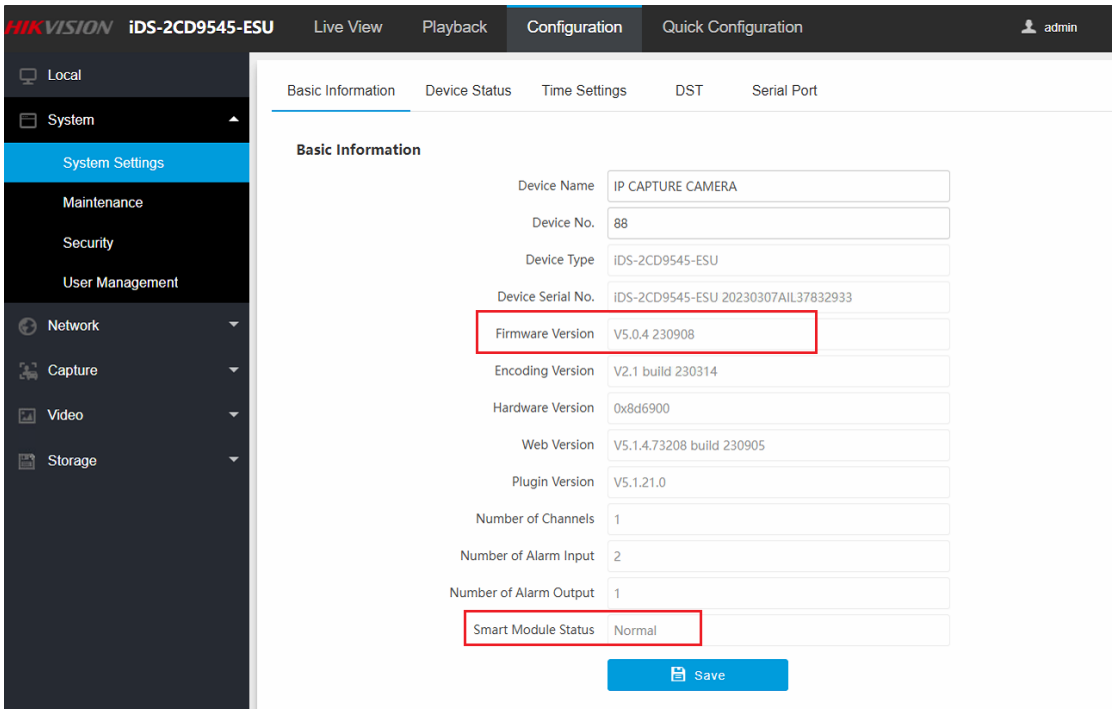


4. Upgrade FW

After the upgrade is successful, you will be prompted to restart, first choose not to restart, simply restore and then restart, and then re-configure.



Check the **firmware version** and make sure the **Smart Module Status** is **Normal.**



5. Application Mode

(1) Trigger type

- I/O coil: trigger camera capture by external switch signal, coil or radar
- Video Detection: trigger camera capture through pure video
- Radar mixed operation: select this triggering method for radar mixed operation

(2) I/O Trigger Default Status

- Falling Edge is selected by default

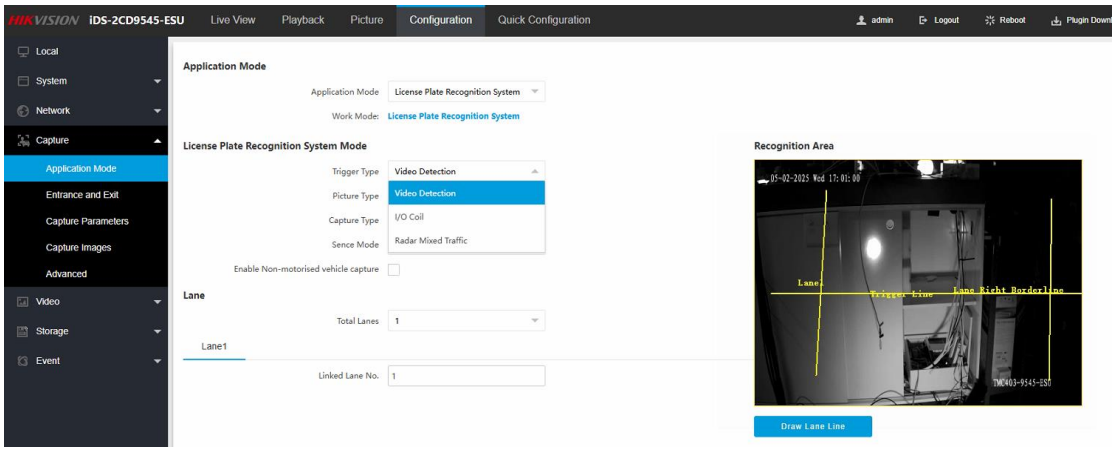
(3) Linked I/O No

- According to the trigger signal access selection, ALARM IN1 corresponds to IO1,

and so on

(4) Radar hybrid configuration and wiring

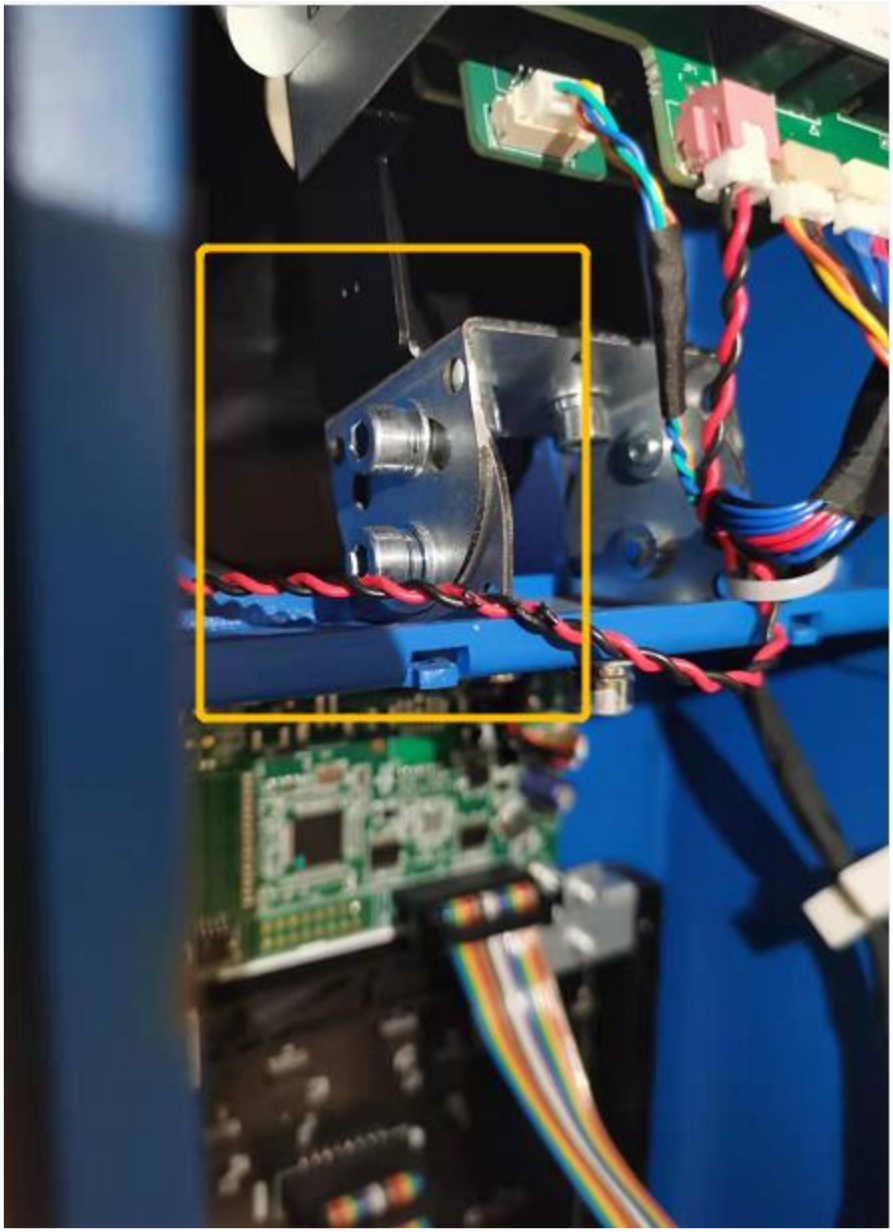
- Select IO1 for the radar mixed forward radar, connect IN1 and GND for the corresponding trigger radar, select IO2 for the backward radar, and connect IN2 and GND for the corresponding logic radar

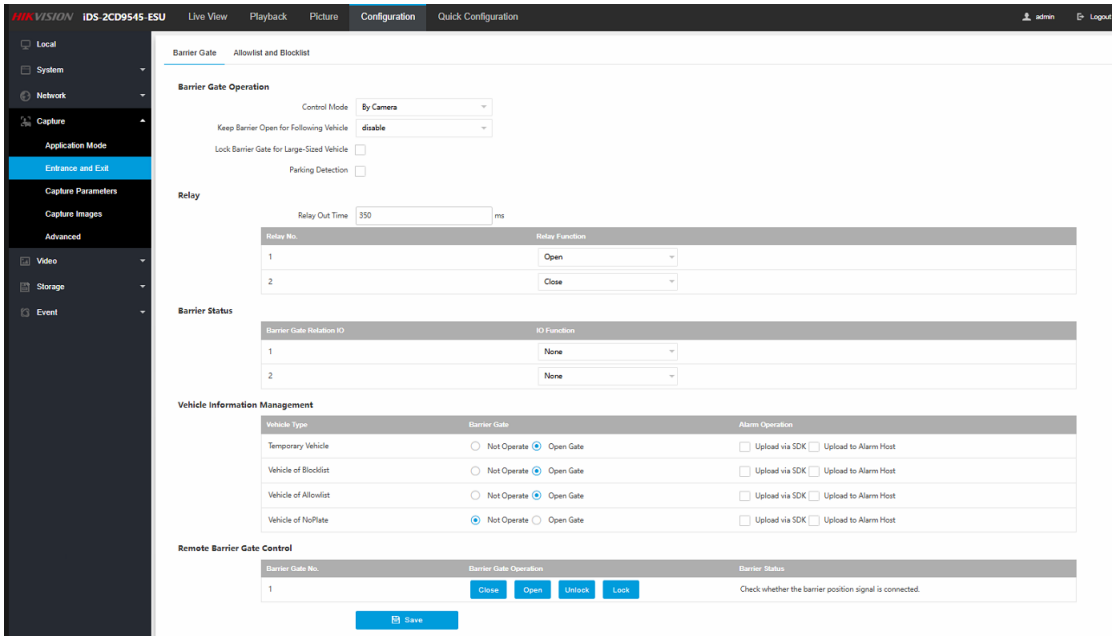


6. Angle adjustment

The optimal recognition effect requires the license plate to be placed in the lower 1/3 of the center of the image, as shown in the following figure

- Adjust the camera orientation by rotating the fuselage left and right, and adjust the internal up and down by adjusting the screws as shown in the figure.





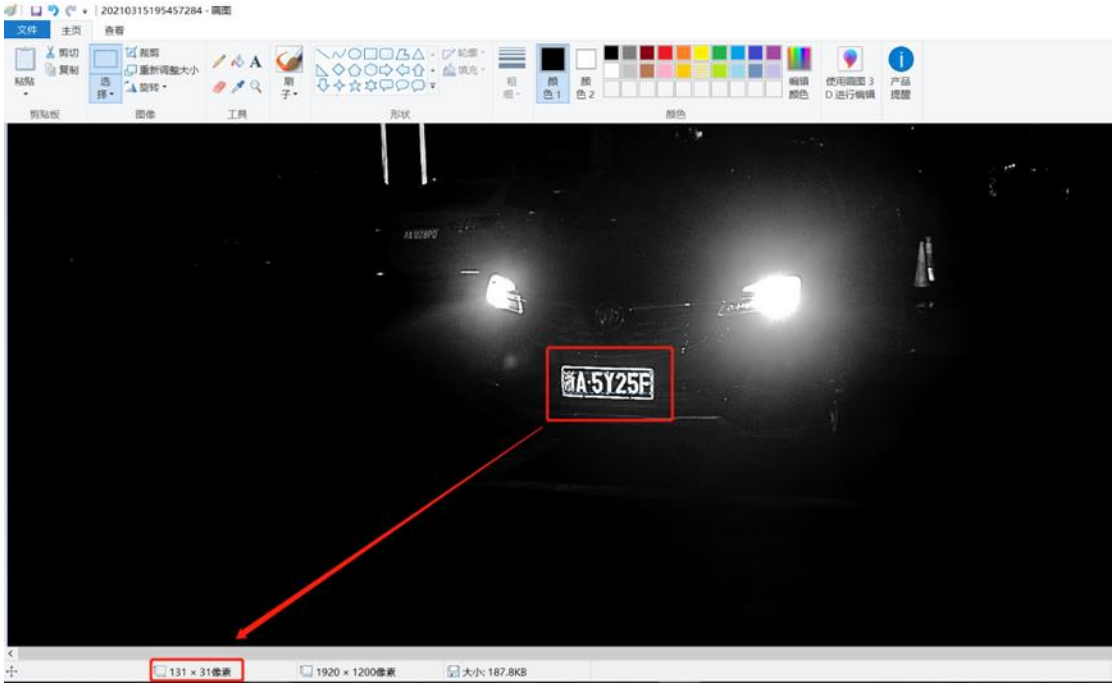
7. Pixel adjustment

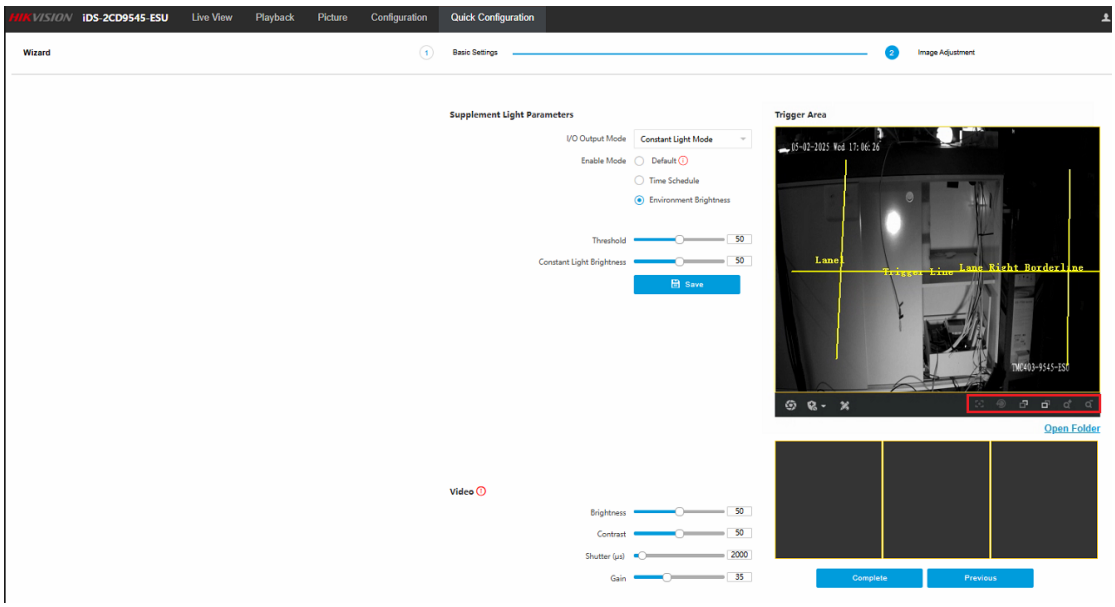
(1) License plate recognition position and pixel points

- The trigger recognition range of the capture camera is 3.5-5 meters, and the best position is 4 meters (the distance between the trigger capture and the camera); the capture position of the capture camera is best at the lower 1/3 of the overall image;
- The pixel size of plate character height should be between 25~30.

(2) Pixel adjustment and picture clarity

- If the recognition trigger position is in the best state and the pixels are still not satisfied, you can adjust the pixel point and the clarity of the picture by adjusting the focus. The specific adjustment position is shown in the figure on the right.


20210315195457284 - 画图
文件
主页
查看
A·5Y25F
131 × 31像素
1920 × 1200像素
大小: 187.8KB


HIKVISION
iDS-2CD9545-ESU
Live View
Playback
Picture
Configuration
Quick Configuration
Wizard
Basic Settings
Image Adjustment
Supplement Light Parameters
I/O Output Mode
Constant Light Mode
Enable Mode
Default
Time Schedule
Environment Brightness
Threshold
50
Constant Light Brightness
50
Save
Trigger Area
05-02-2025 Wed 17:06:26
Lane1
Trigger Line
Lane Right Borderline
Open Folder
Video
Brightness
50
Contrast
50
Shutter (μs)
2000
Gain
35
Complete
Previous

8. Recognition Area

The identification area must be drawn according to the actual scene of the scene, and it is forbidden to use the default area or doodle randomly.

- When taking pictures, the license plate and the front of the car must be inside the recognition area.
- The recognition area includes the track area before the snapshot; do not over-draw the irrelevant area, which will affect the recognition speed
- The quadrilateral formed by lane line 1 and the right boundary line of the lane is the detection area
- Trigger line: In coil mode, the trigger line is configured as the actual trigger position and inside the quadrilateral surrounded by lane lines; in video trigger mode, the trigger line is set at half of the quadrilateral formed by the lane lines, and is guaranteed to be within the quadrilateral

9. Capture Parameters

(1) License Parameters

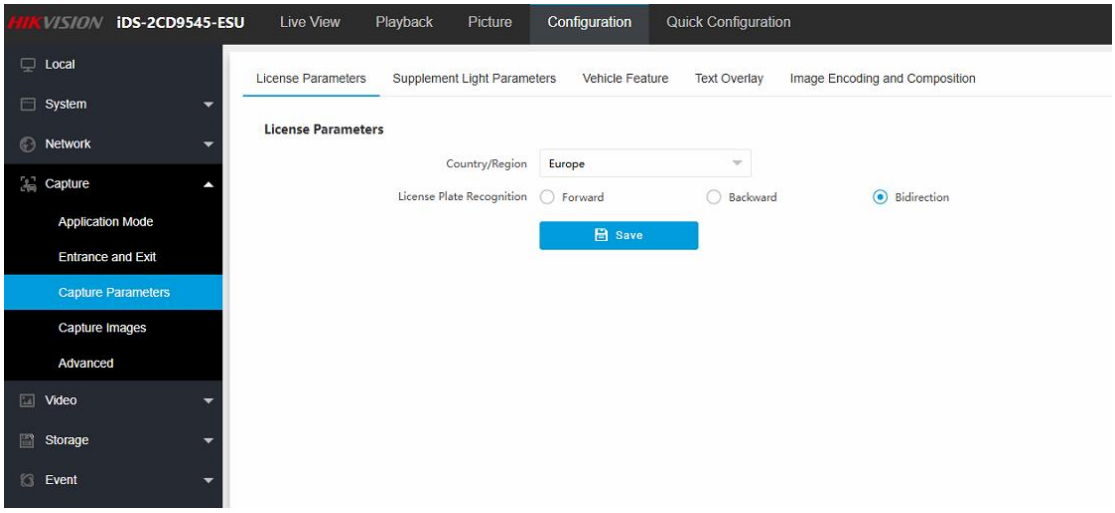
- License plate direction: generally choose the front and back license plates. When the video triggers mixed traffic and needs to filter the tail license plate, select the forward license plate.

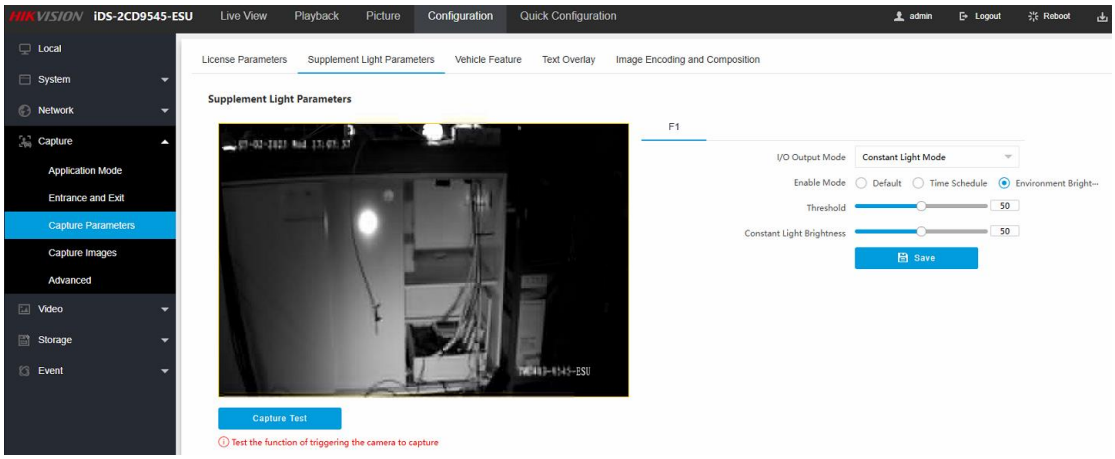
(2) Supplement Light

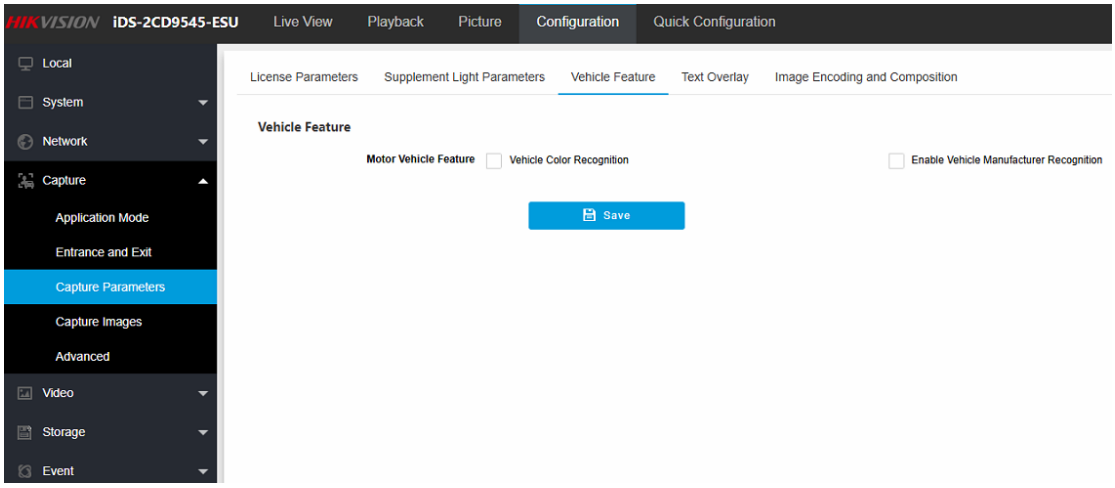
- Control Constant Light by Brightness: the lower the brightness threshold, the easier the fill light is to light up. When the threshold is 0, the fill light is always on.
- Control Constant Light by Schedule: enable it according to actual needs, it is recommended to enable it by schedule

(1) Vehicle Feature

- If you want to identify the car model, you need to open any feature parameter here. After the car logo sub-brand and other information are checked, it can also be recognized. You can superimpose the relevant information on the character overlay, and you can see it on the original snapshot.







10.Image Parameters

(1) General parameters

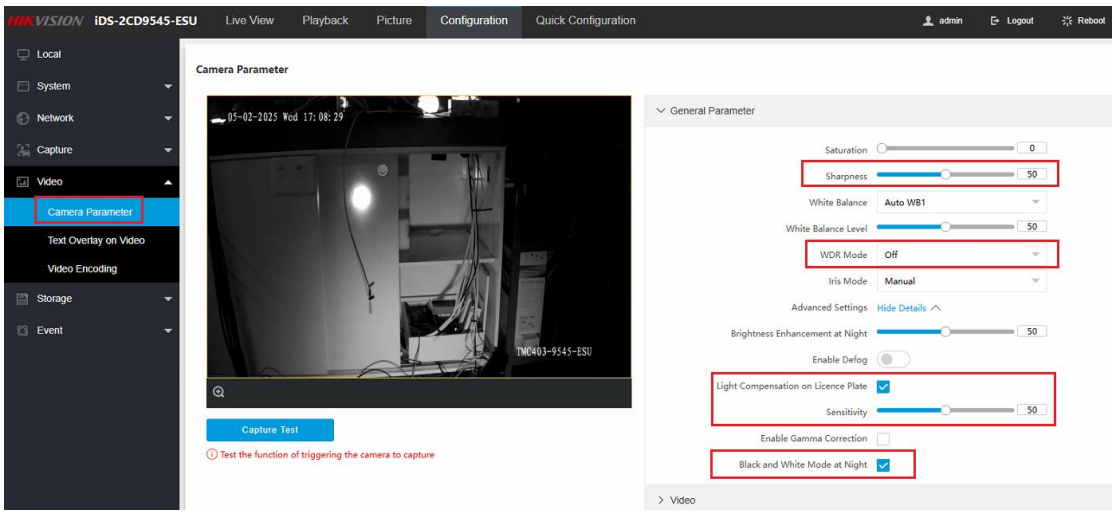
- WDR: If the lights are too bright at night and the image is too explosive, the WDR can be turned on to suppress the lights according to the time.

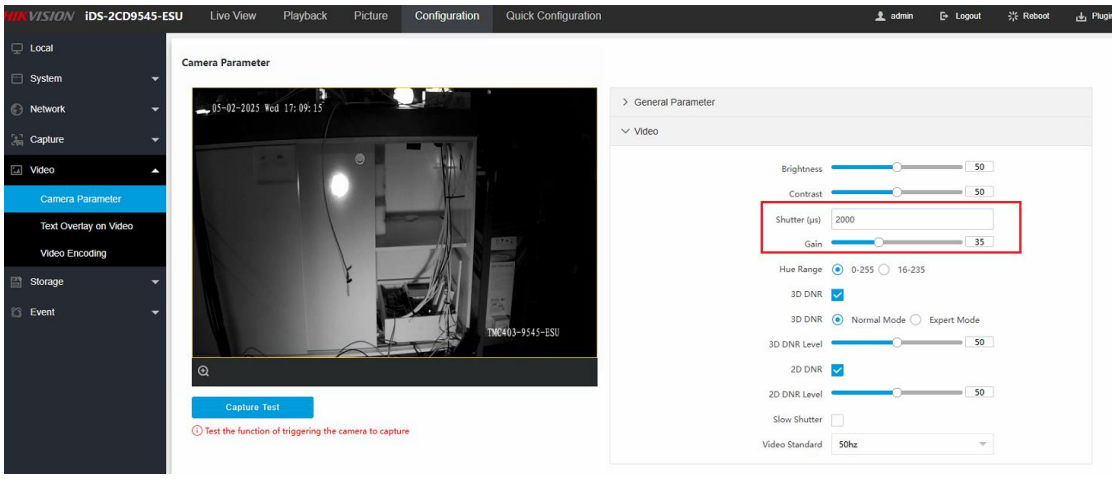
Note: Turning on WDR will cause the image noise to increase, so you don't need to turn it on when it's not necessary

- Iris Type: If the image is whitish in strong light, select Manual for lens type
- Enable license plate brightness compensation: Solve the problem of forward and backward lighting: suppress excessive explosion when forward lighting;

(2) Video image parameters

- Shutter Speed (μs): If the image is too explosive at night, you can lower the shutter appropriately
- Gain: If the image is too explosive at night, the gain can be appropriately reduced



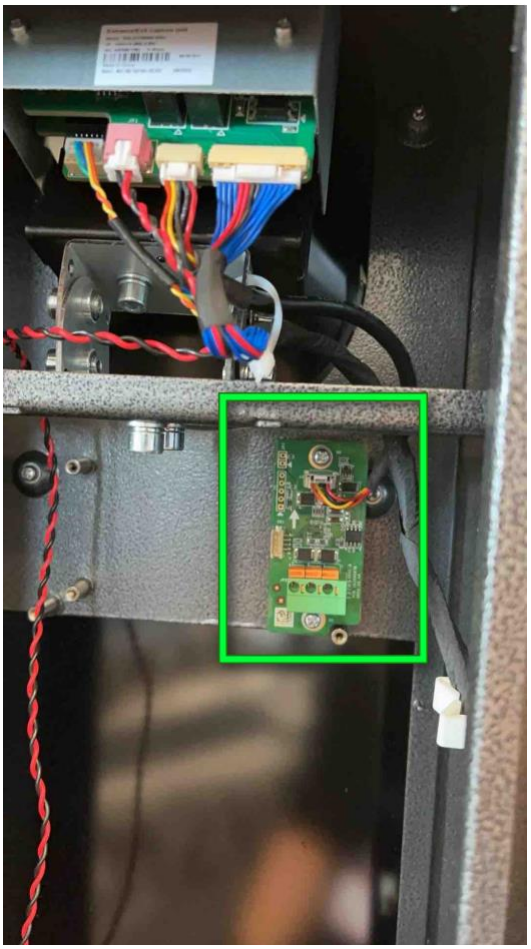


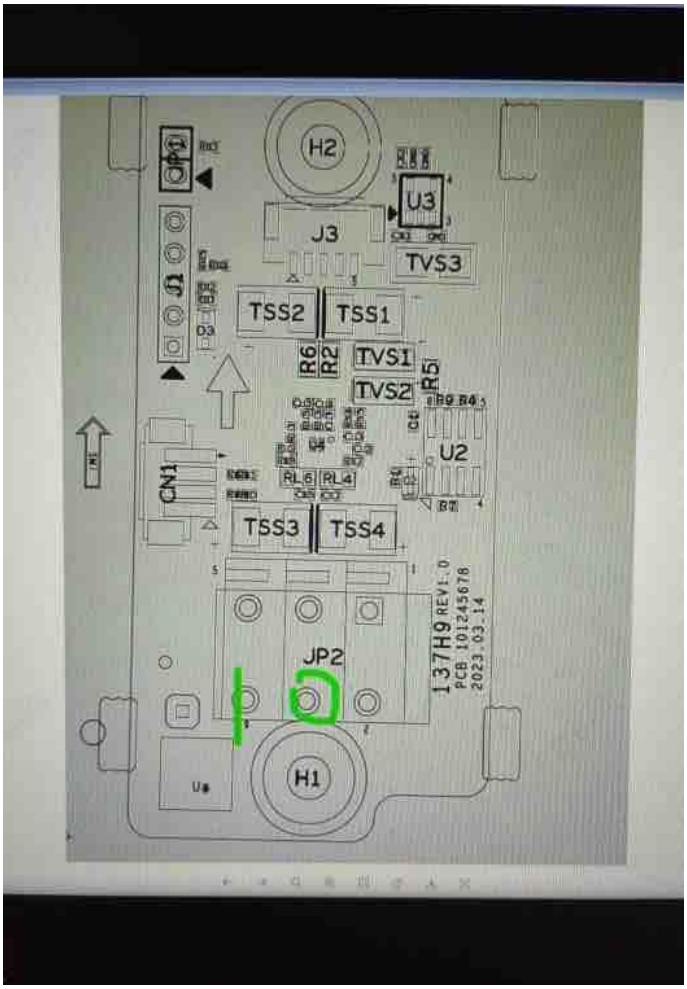
Enterances and Exits

- Control mode: The platform control corresponding to the opening signal is sent by the platform; the camera control is controlled by the camera according to the vehicle information management to determine the opening of the gate itself
- Keep Barrier Open for Following Vehicle: the anti-following function switch, the IO video detection mode are all valid
- Relay: Corresponds to the function type of the relay; Relay 1 corresponds to 1A-1B; Relay 2 corresponds to 2A-2B
- Vehicle Information Management: vehicle release rule setting, valid in camera control mode
- Remote Control Barrier Gate: You can check whether the line connection between the camera and the barrier is normal through this function

11. Wiegand (Default as Wiegand 26 bits Sha-1)

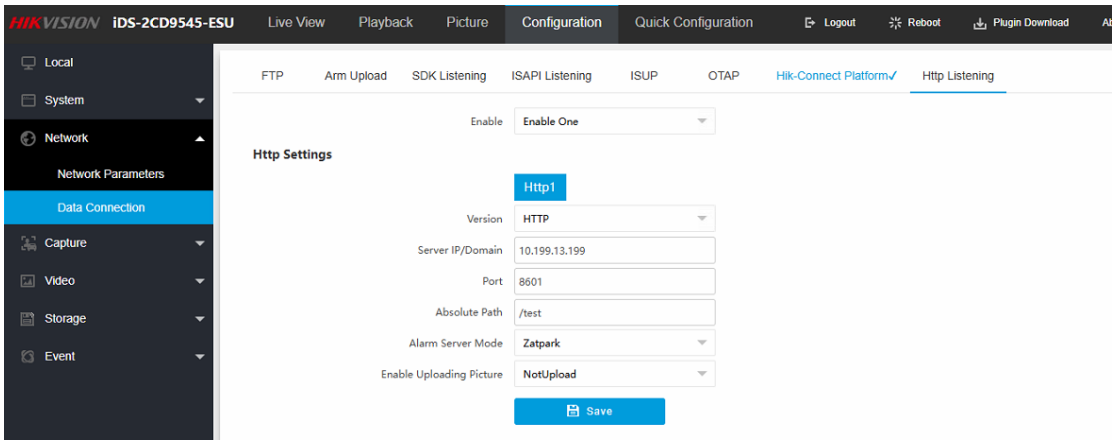
- **Interface location**





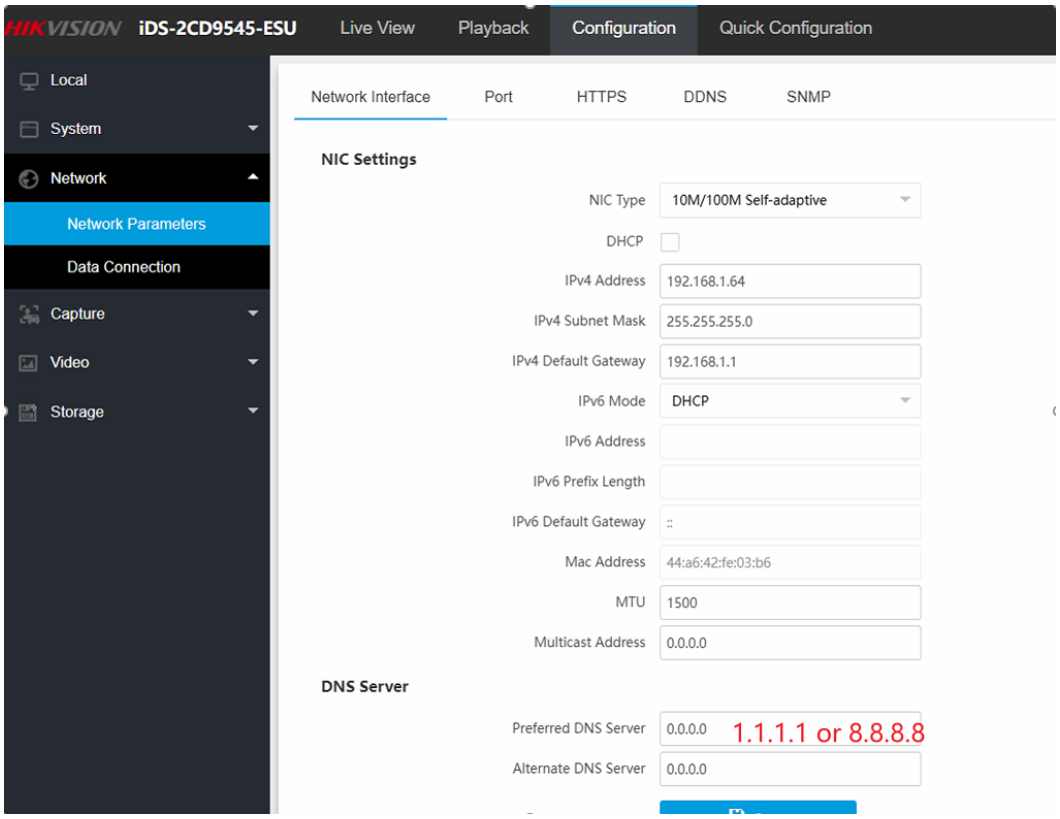
12.How to setup camera to work with HTTP POST

➢ Go to **Network Parameters > Data Connection > HTTP Listening.**



- Select **Enable One** if you are sending the data to one server only. Select **Enable Two** if you will also send the data to another server.

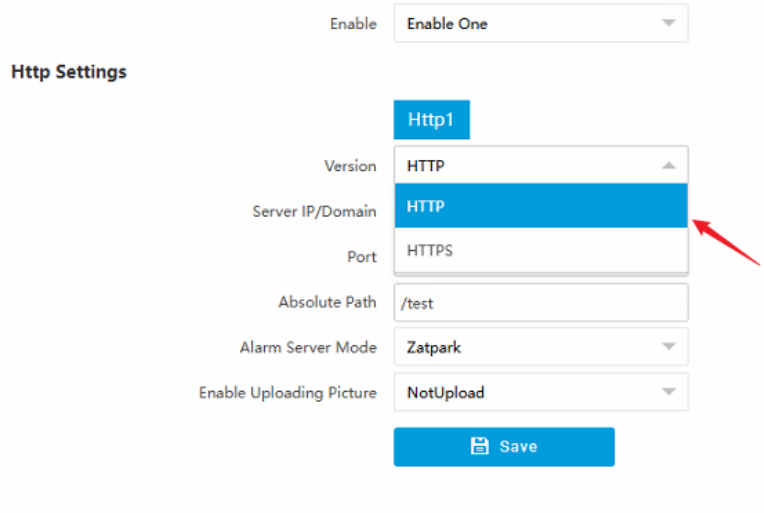
- Set the preferred **DNS Server** to **1.1.1.1 or 8.8.8.8**



➢ Configure the **Server IP**, **port** and **Absolute Path (URL)** on camera webpage.

The following is an example of **configuring HTTP listening parameters for Zatpark:**

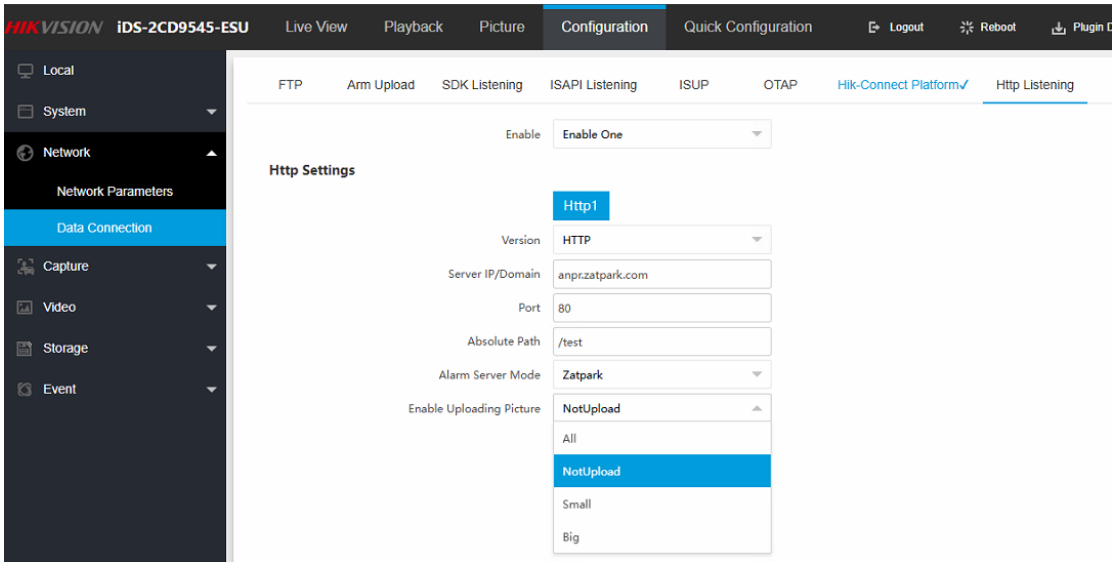
- Select **HTTP** If it's requested by **Zatpark** that the ANPR data be sent over **HTTP**. Select **HTTPS** If it's requested by **Zatpark** that the ANPR data be sent over **HTTPS.**
  *This camera support send ANPR message by **both HTTP and HTTPS**



- Add **Server Address** provided by **ZatPark**. Normally it is **anpr.zatpark.com**. If you would

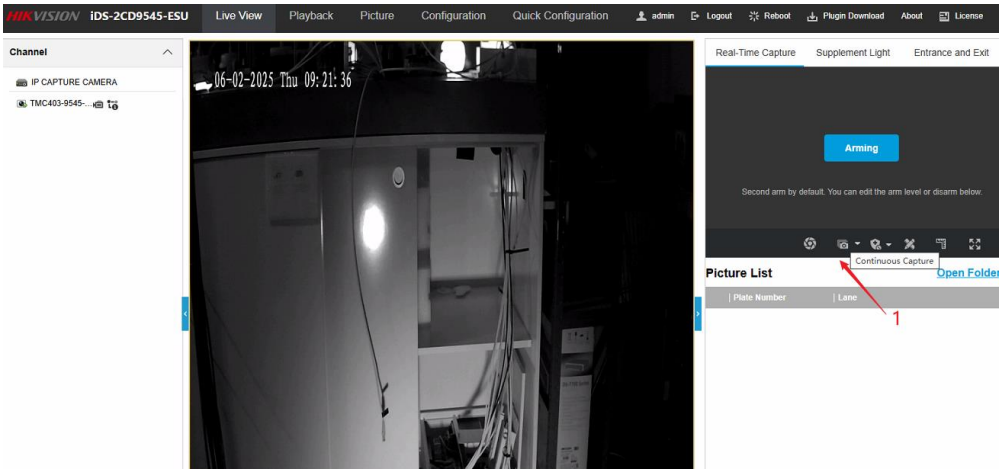
like to use host name instead, please setup DNS server in advance.

- Add **Port** provided by ZatPark. Normally it is **80**
- Add **Absolute Path** provided by ZatPark.(Also known as URL.): **/xxxx/xxxx/xxxx**;
- Set **Alarm Server Mode** to **ZatPark**
- Select **Uploading Picture Type**
  a) Big: complete image captured by the camera
  b) Small: license plate image cropped from the complete image
  c) All: both big and small images
  d) NotUpload: not upload images only upload the message.

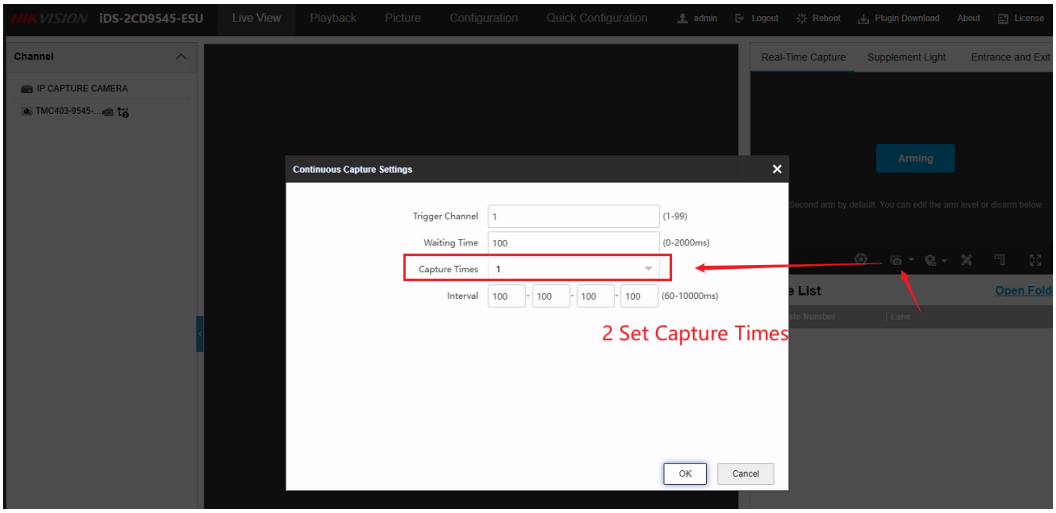


13.How to send test data to HTTP server

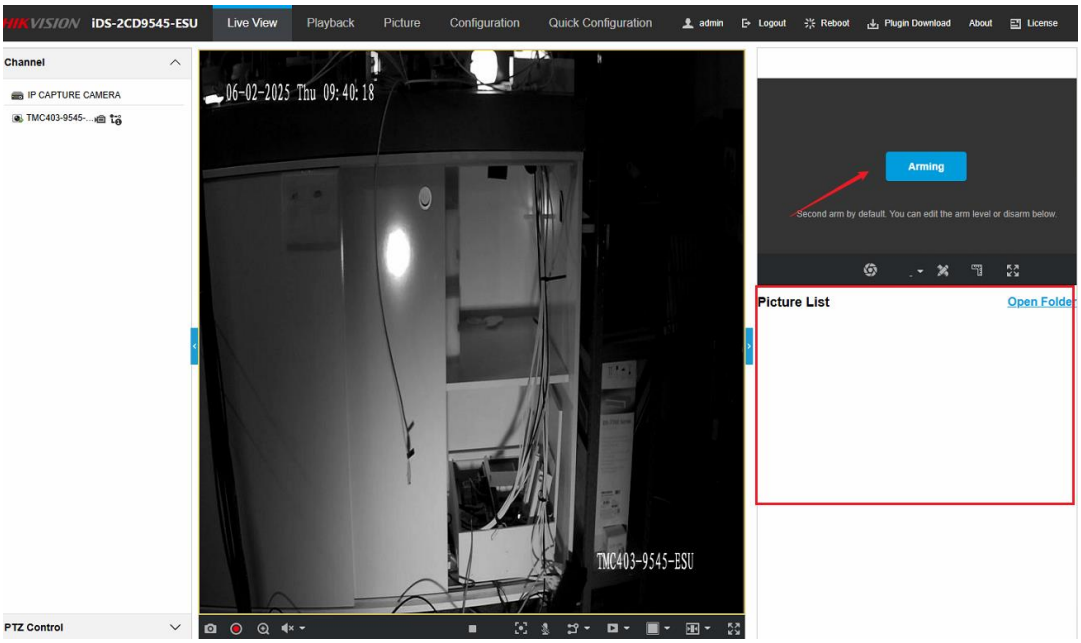
1. **How to check if I have configured correctly**
   TMC403-E
   - Go to **Live View > Live Traffic Statistics > Continuous Capture**



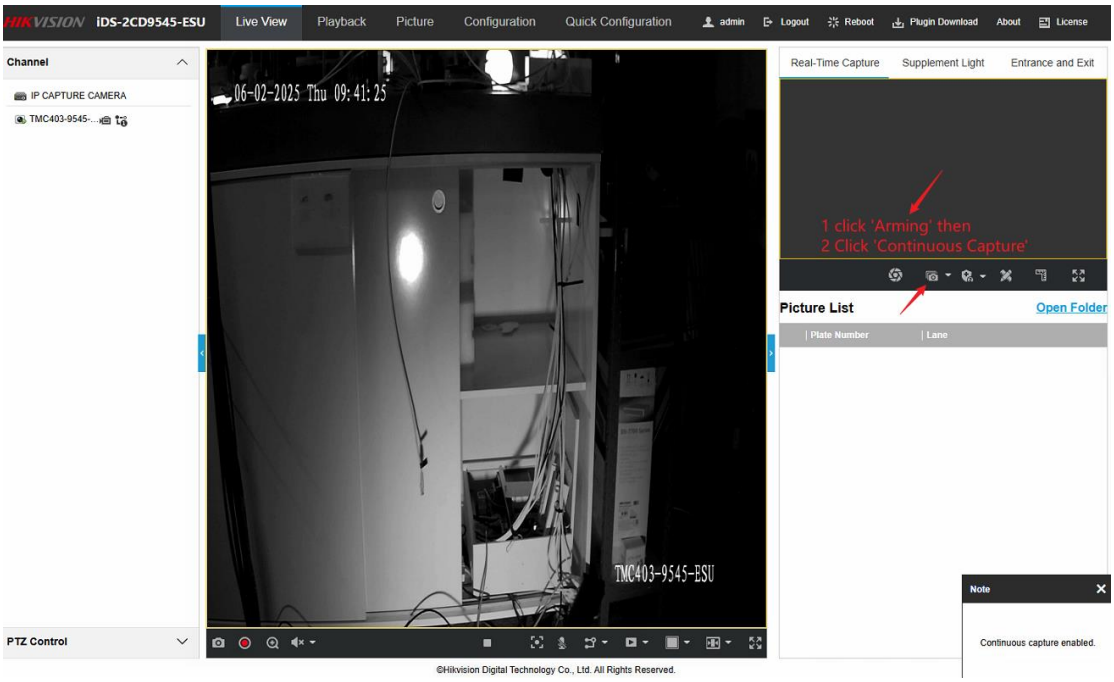
   - Set the **Capture Times** to 1, set the value of waiting time and interval as your need.



- Click '**Arming**', once there is a License plate is recognised, it will be displayed in the **Picture List**. HTTP server (like ZatPark) will also receive this ANPR reads.

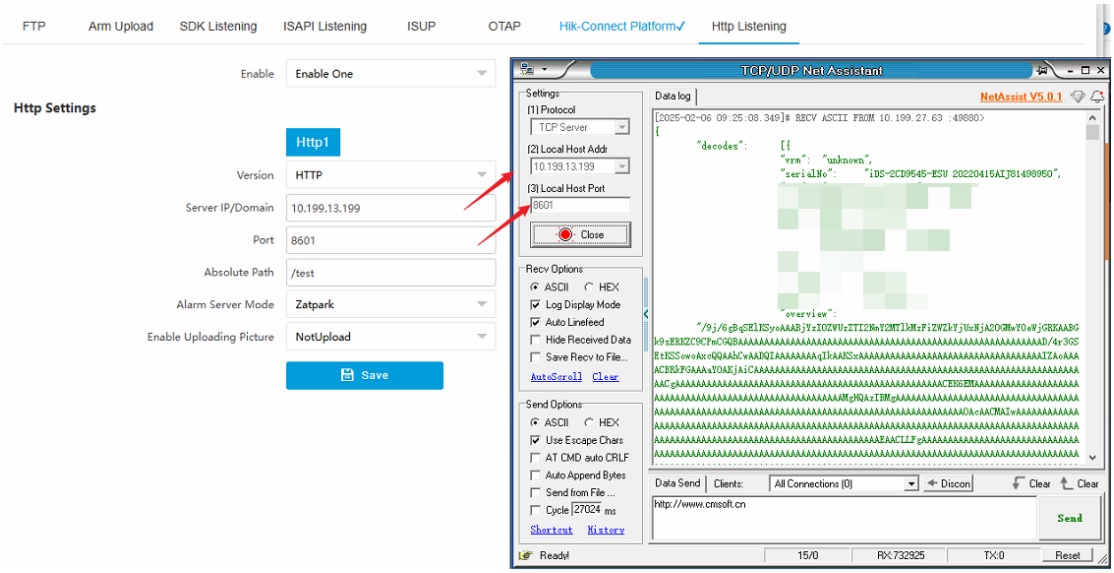


- Or you can click the '**Continuous Capture**' if there is no vehicle pass by, HTTP server (like ZatPark) will receive a **Test Data** with license plate number is **UNKNOWN**.



Option:

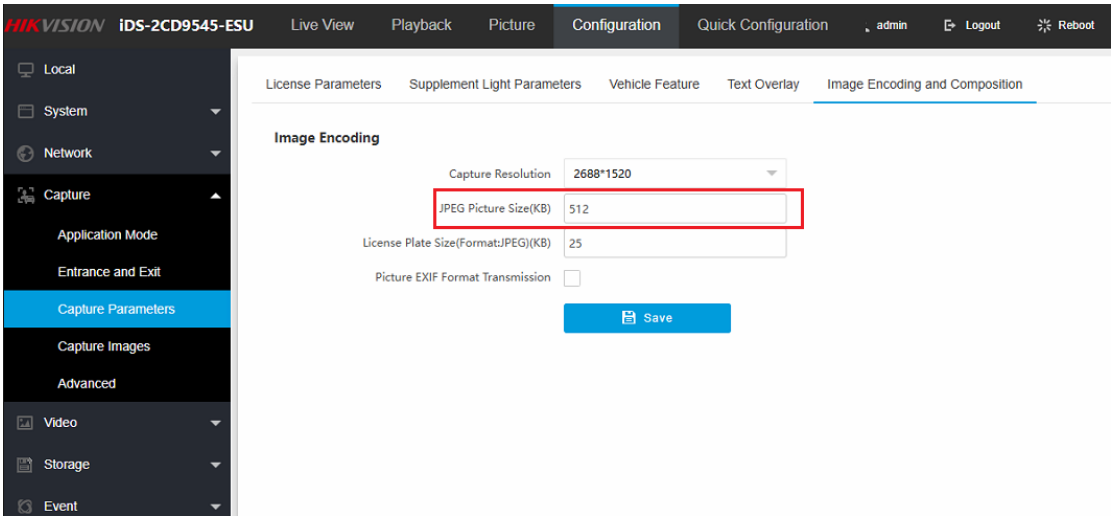
It is possible to test whether the camera sends data by using TCP server emulation software. The following are the results of an ANPR Test using the TCP Server simulation tool to receive ANPR as an HTTP server.



2. **How to reduce the data usage?**

You could reduce the data usage by lowering the **Capture Resolution** (e.g. to 1920*1080) or reducing the **Picture Size** (e.g. to 512kb).

We recommend to set the picture size greater than 100kb if it is a 2MP camera, and 300kb if it is a 4MP camera



3. What to check if the device is not sending anything to HTTP Server

(1) Check if the camera has reads locally

If device does not have any reads locally, please refer to the setup guide to setup the camera correctly.

(2) Check if the network between device and Server is connected

You could do this by pinging the server address of Server.

(3) Check if you have setup the DNS server correctly and entered the correct details provided by Server team.

Please note the difference between server address and absolute path. If you are unsure about this, please contact Server team for assistance.

(3) If all above are correct, yet not sending anything.

Please try to Set the server **ip address** instead of **domain name.** For example Set the server address to 35.246.65.96 instead of anpr.zatpark.com. Please contact Server team at this stage, even if it worked.

4. Why some of the reads and captures were not sent to HTTP Server?

Normally, the camera will always retry to send the information to HTTP Server. It could be a temporary network traffic jam stopping the information. If it has not been sent correctly for a relatively long period.

(1) You could use Wireshark to listen to the traffic between the camera and HTTP server. If you get a *500 Internal Server Error*, please contact Server support team for help.

(2) You could lower the image quality (as explained in *2.How to reduce the data usage*), just so each piece of information will take less bandwidth.

If this still not resolve the problem, please contact **Hikvision support** team.

Contact Please contact the following windows if you have any further questions or need any help.

Hikvision support: support.uk@hikvision.com