Radar ANPR System Installation Manual

Overseas Business Center

目录

Radar ANPR System (radar detection and radar video switch) Installation Manual

1.1 System Comosition

1.2 System Installation

1.3 System Testing

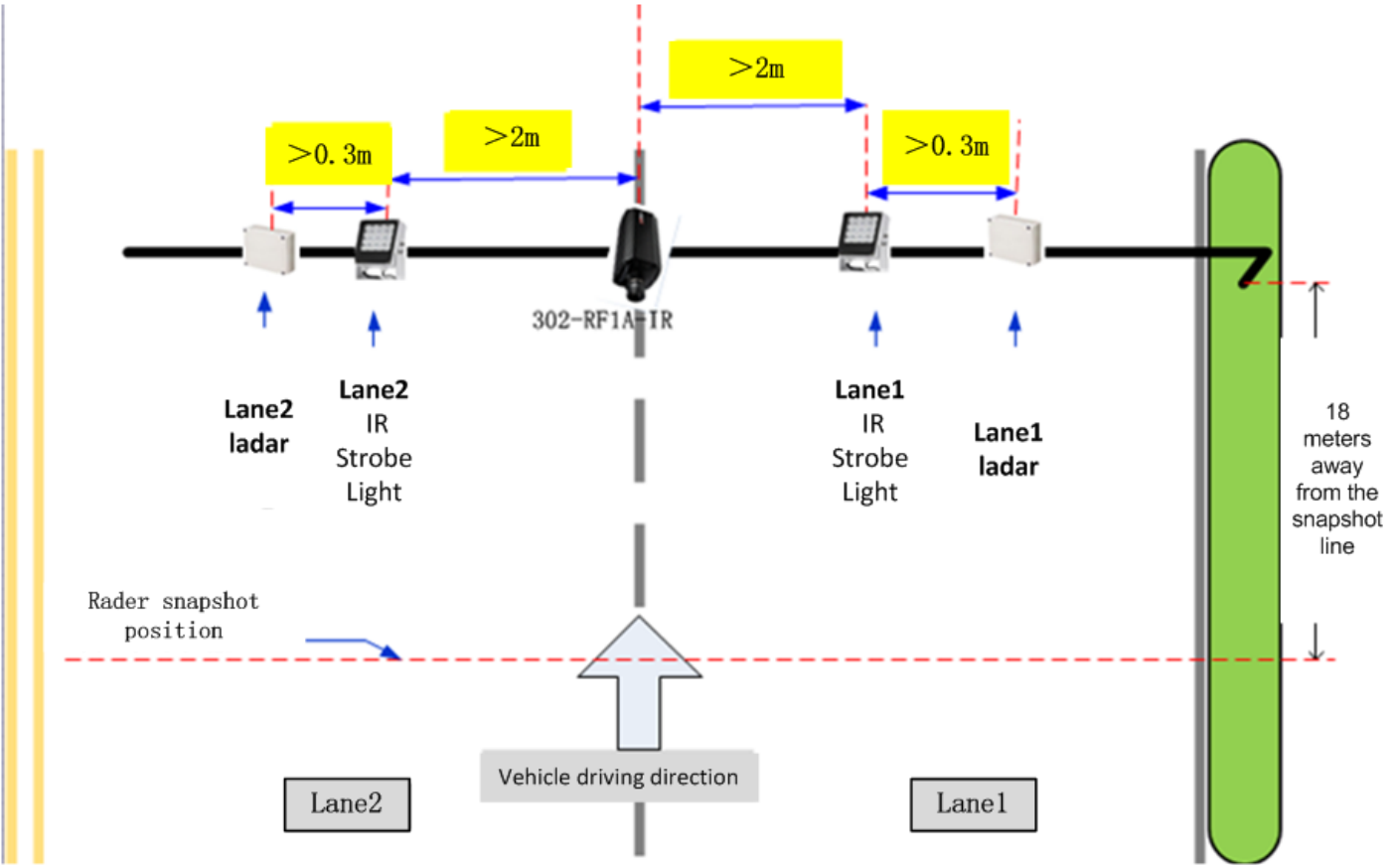
2.1 System Composition

- 3MP Front-end System composition(Two lanes)

No.	Device Name	Model	Q'ty	Note
1	HD Camera	DHI-ITC302-RF1A-IR	1	
2	16mm HD Fixed-focal Lens	OPT-11C16M-MP	1	C port
3	Ladar	DHI-ITARD-024SA	2	One per each lane
4	Power adapter	AC90~300V-DC12V/40W-V	2	Power for ladar
5	IR strobe light	DHI-ITALE-080BA-IR7-P	2	One per each lane
6	Housing	DHI-ITABX-018BA	1	
7	Front-end storage device	DHI-ITSE0804-GN5B-D	1	Support Max 12 HD cameras、4 analog cameras; With Max four 3.5〃/2.5〃Hard Disks.

2.2 System Installation

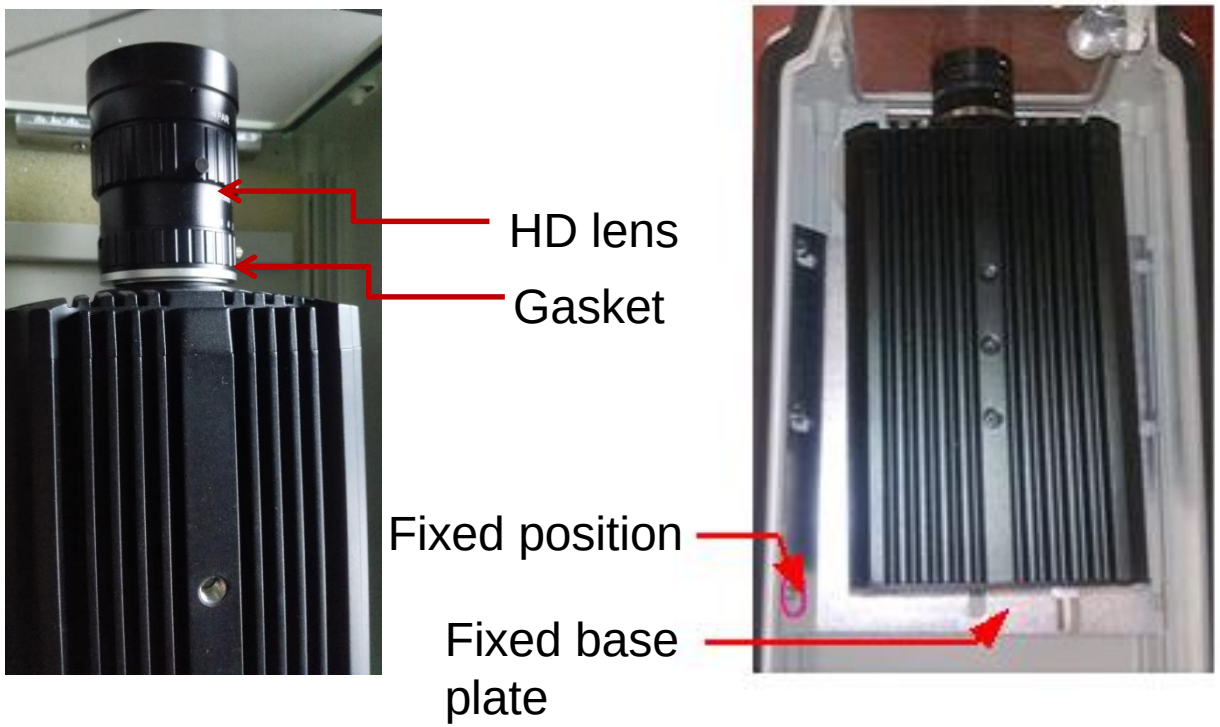
- Radar、camera and strobe light Installation planform



- Note：080 strobe light 2m away from camera; Ladar 0.3m away from other devices .

300Mega camera System Installation

- **Fix the camera**



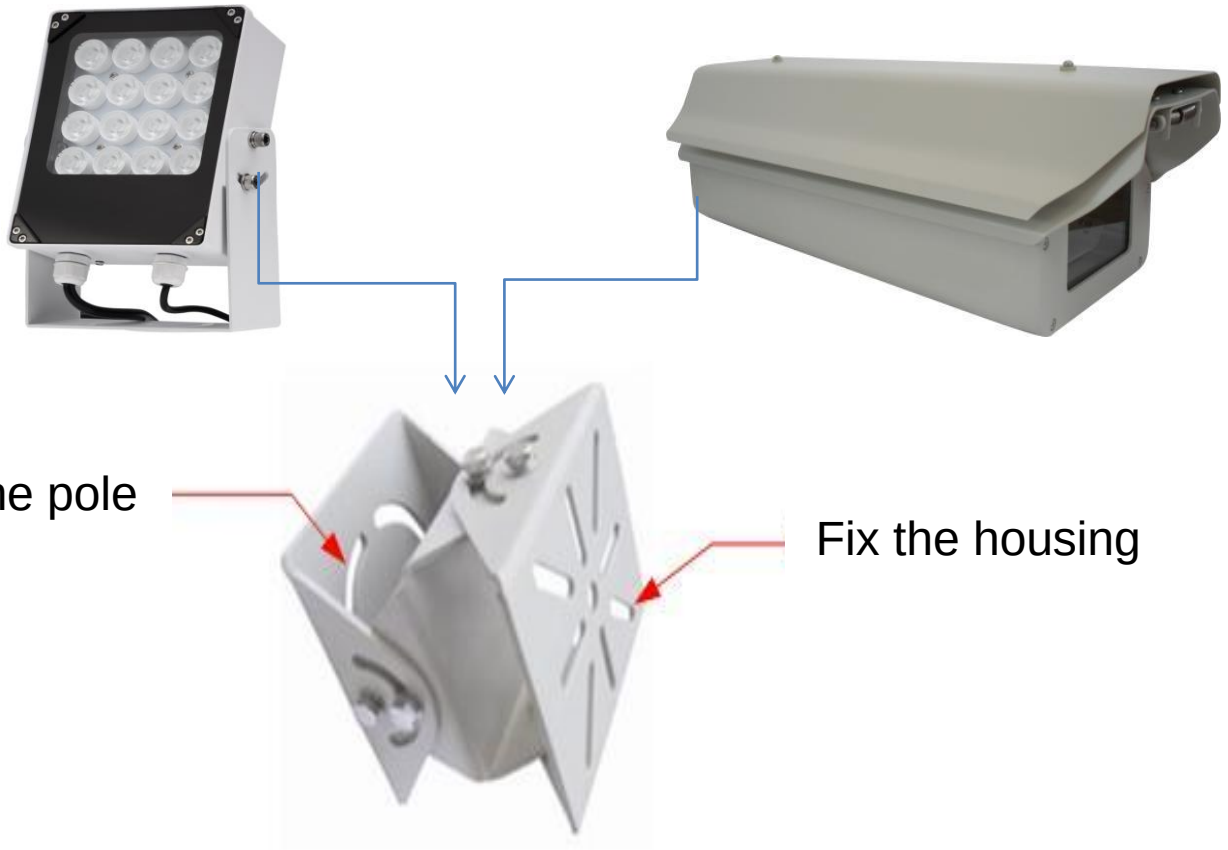
- Please note that the distance between the lens and cover glass, if the distance is too large, the vehicle's headlights at night will reflect on the glass, which can lead to form a "light" in the picture, affect image quality. So, appress the lens to the glass to the greatest extent.

- Fix the camera

Fix the camera on the plate

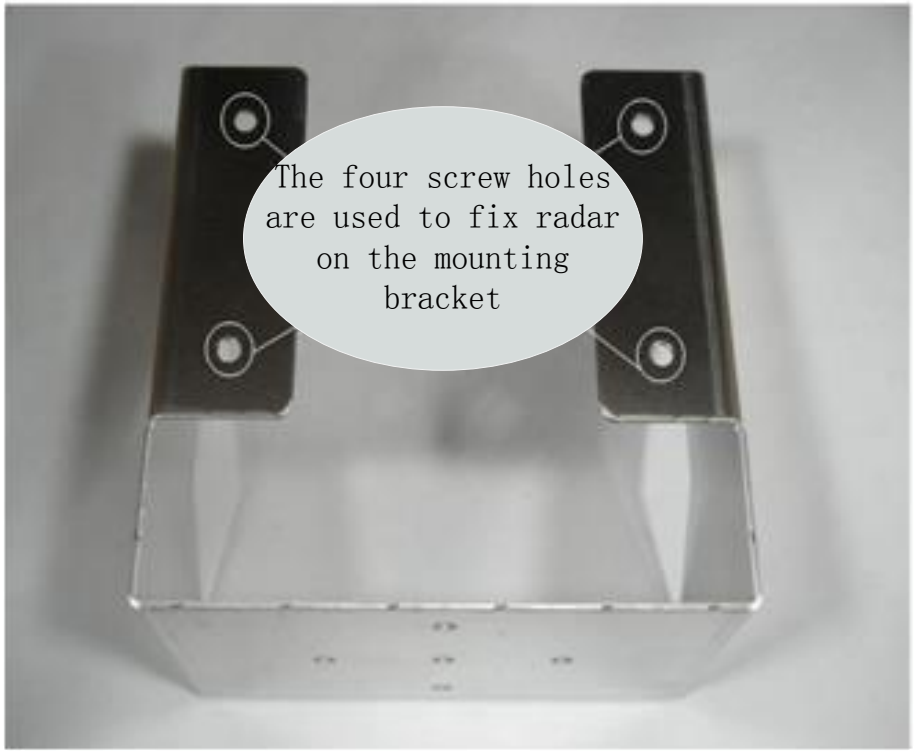
Install the thermal-protective coating

- Fix housing and LED lamp

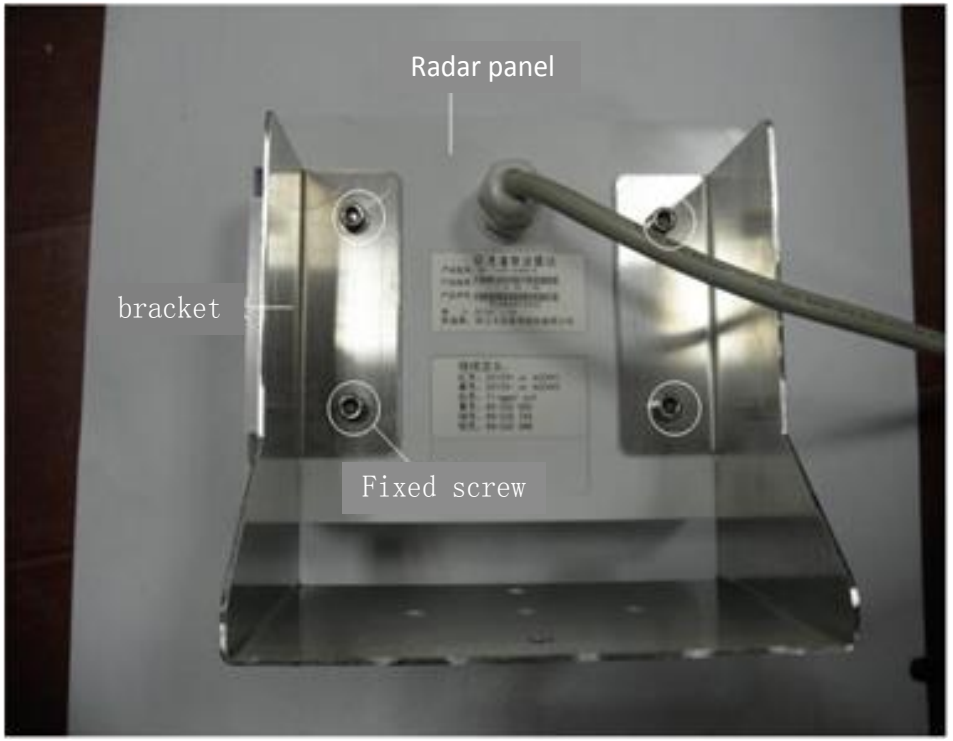


Universal joint is divided into two sides, one side is used to install the housing or lamp, the other side is fixed on the pole

- Radar Istallation (1)

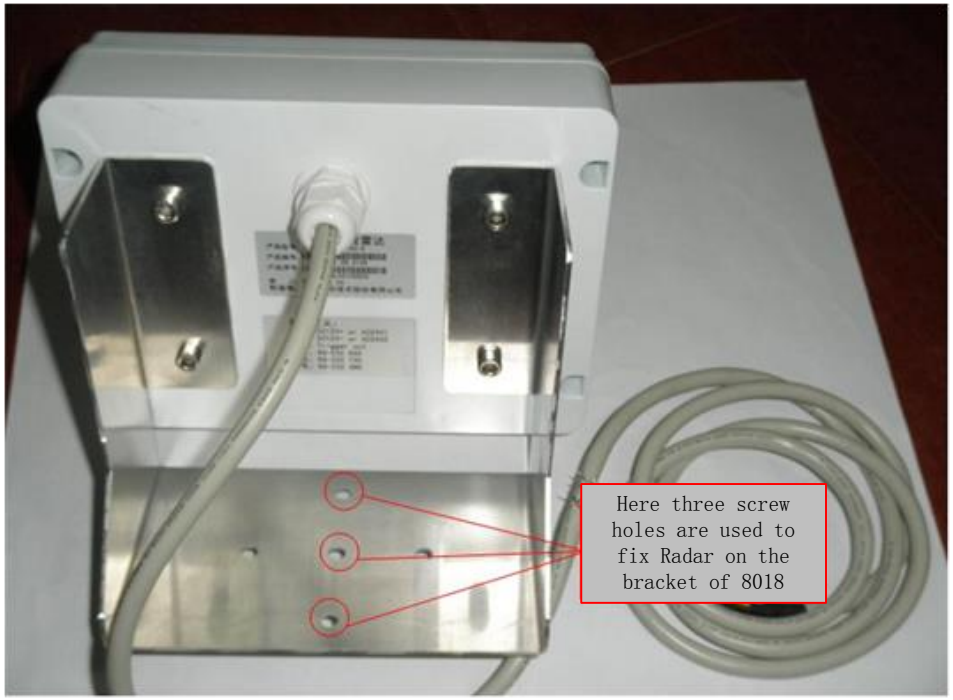


Radar Bracket



Bracket Fixed

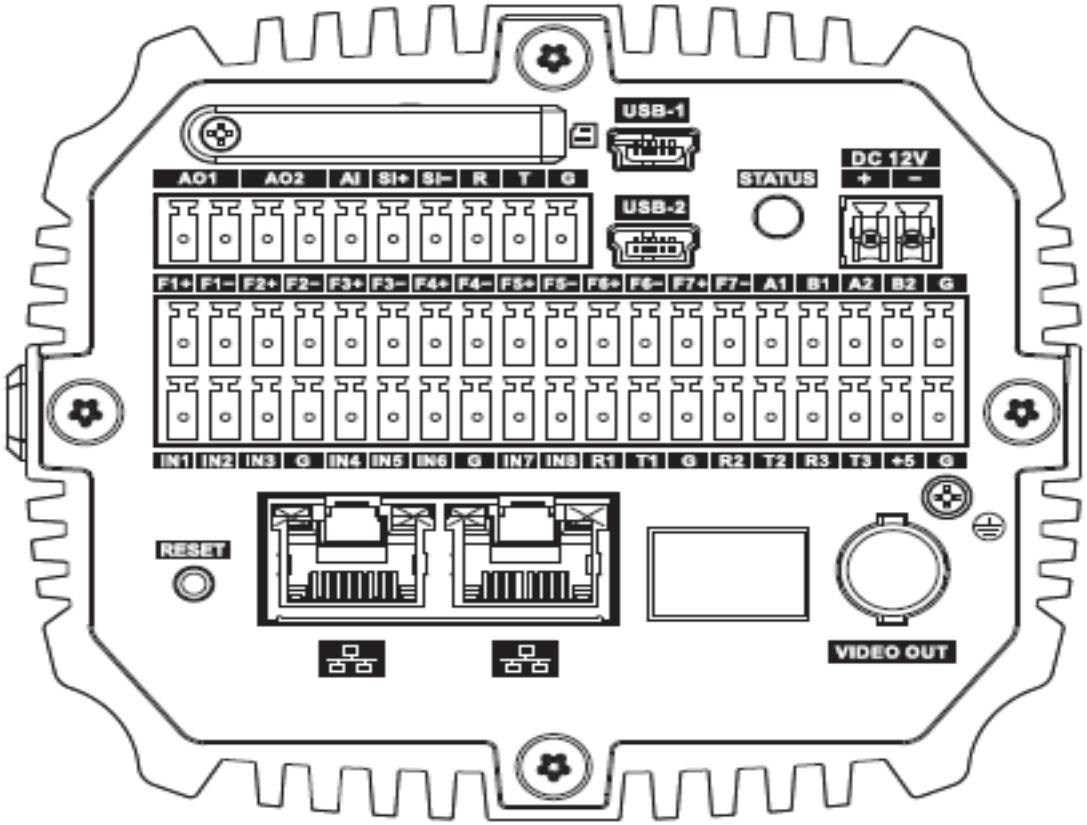
- Radar Istallation （2）



Radar Bracket

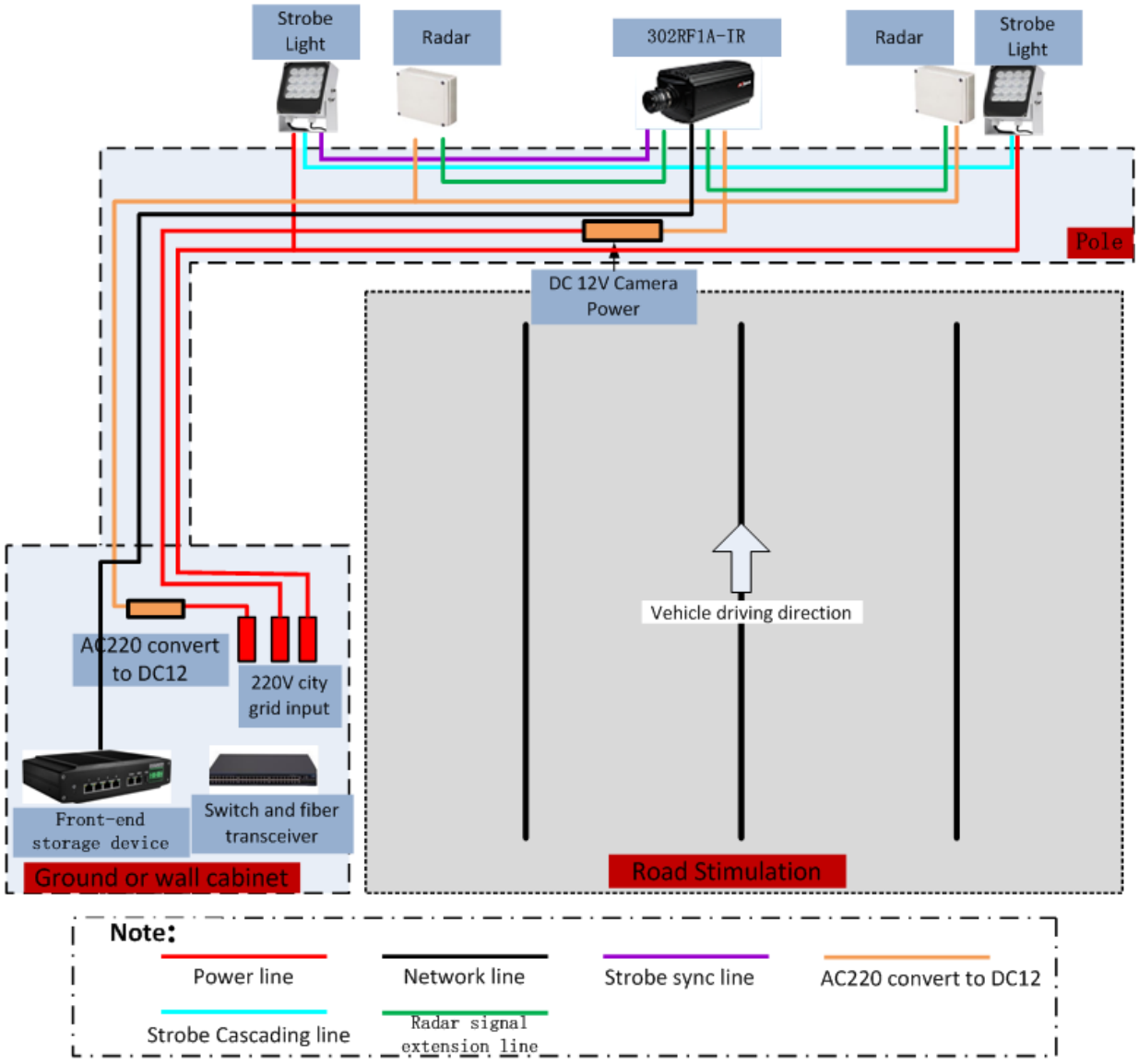
Fixed Radar bracket and 8018 bracket

- Camera Rear Panel interface

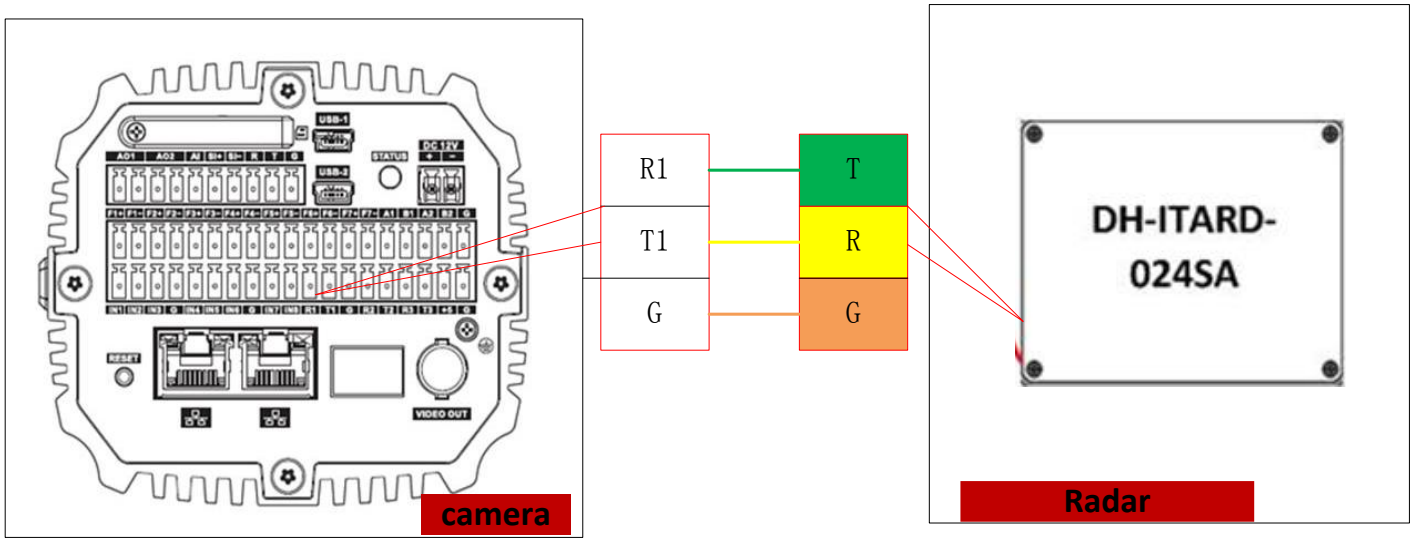


A、B—RS485 interface， external signal detectors, vehicle detector and so on； **F1-7**—strobe light interface； **R1-3、T1-3、G** —RS232 (Radar)

- System Wiring （1）



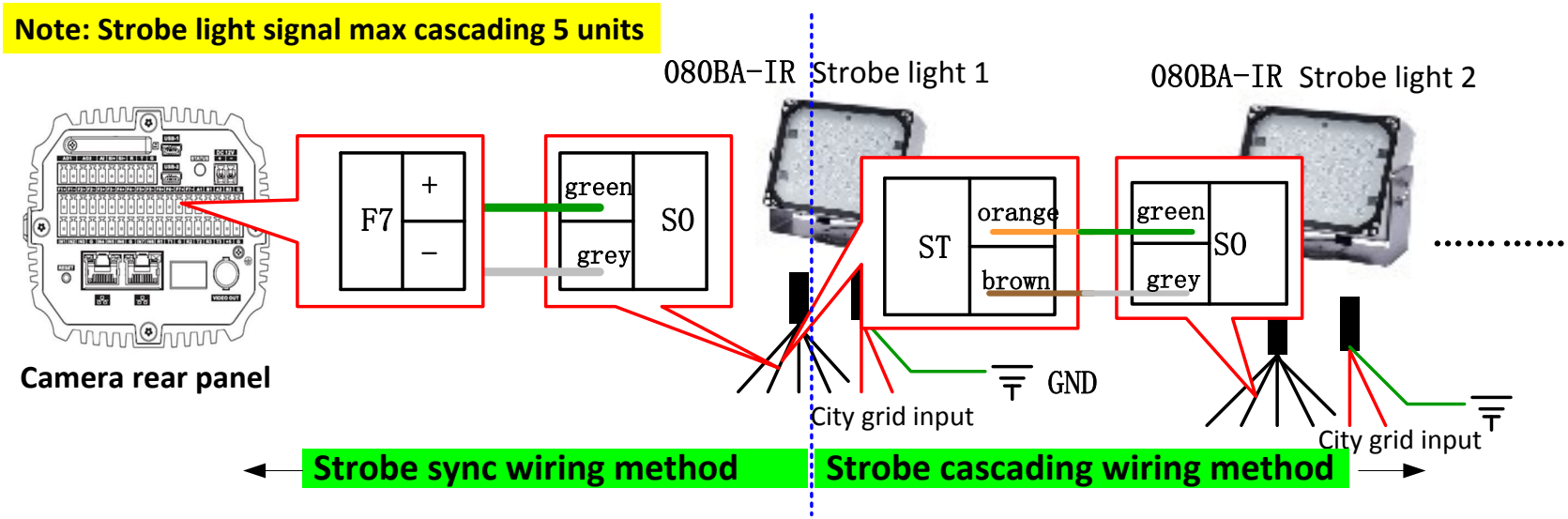
- System Wiring （2）



Radar Side		Wire	Host Side
Line color	Terminal		Terminal
Yellow	RXD	↔	TXD
Green	TXD	↔	RXD
Brown	GND	↔	GND

Connection structure between Radar and Camera

- System Wiring （3）



Strobe light wiring

- System Wiring

Line type	Line specification	Line function	quantity
Camera power line	RVV3*1.5²	cabinet led to the corresponding installation rod hole	1
Strobe light power line	RVV3*1.5²	cabinet led to the corresponding installation rod hole	1
Network line	Outdoor super five types of copper wire twisted pair	cabinet led to the corresponding installation rod hole	1

3.3 System Testing

- Strobe Light Testing

Adjust the lighting Angle to make the strongpoint of light on the head of the car , and make the license plate won't excessive exposure, if license plate still exposure, Angle to fine tune.

- Lens testing

Fixed focal lens has too rotary knobs,the inner is aperture rotary knob, the outer is focus rotary knob. Firstly, adjust the aperture, make sure the brightness of the picture is suitable, then,adjust the focus rotary knob until the picture is clear. At last, lock the focus rotary knob and aperture rotary knob

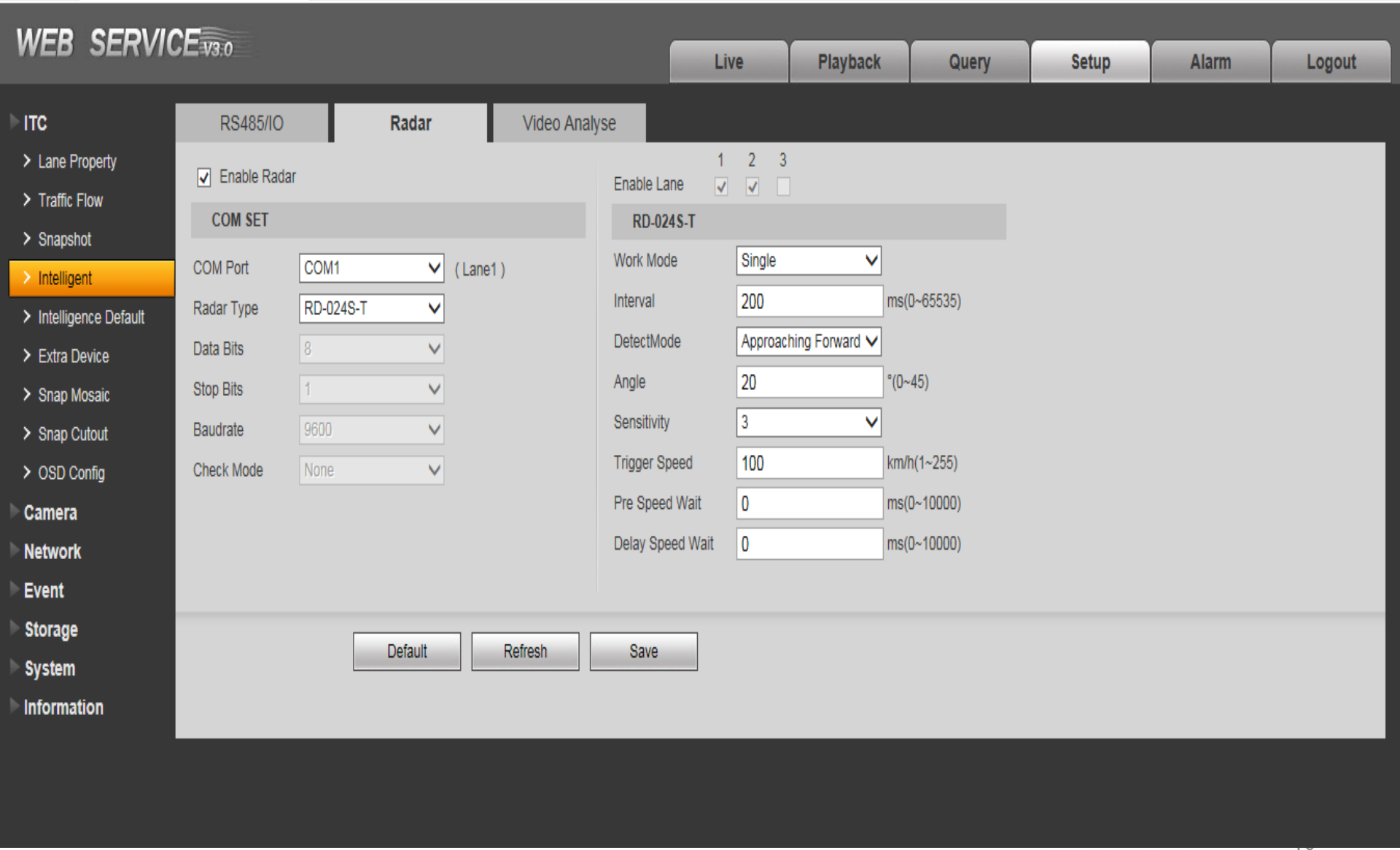
Aperture rotary knob

Focus rotary knob

- Camera Debugging (1)

Log in the WEB browser, enter the Camera IP address in the address bar, (address 1: 192.168.1.108, address 2 : 192.168.0.108), user name: admin; Password: admin.

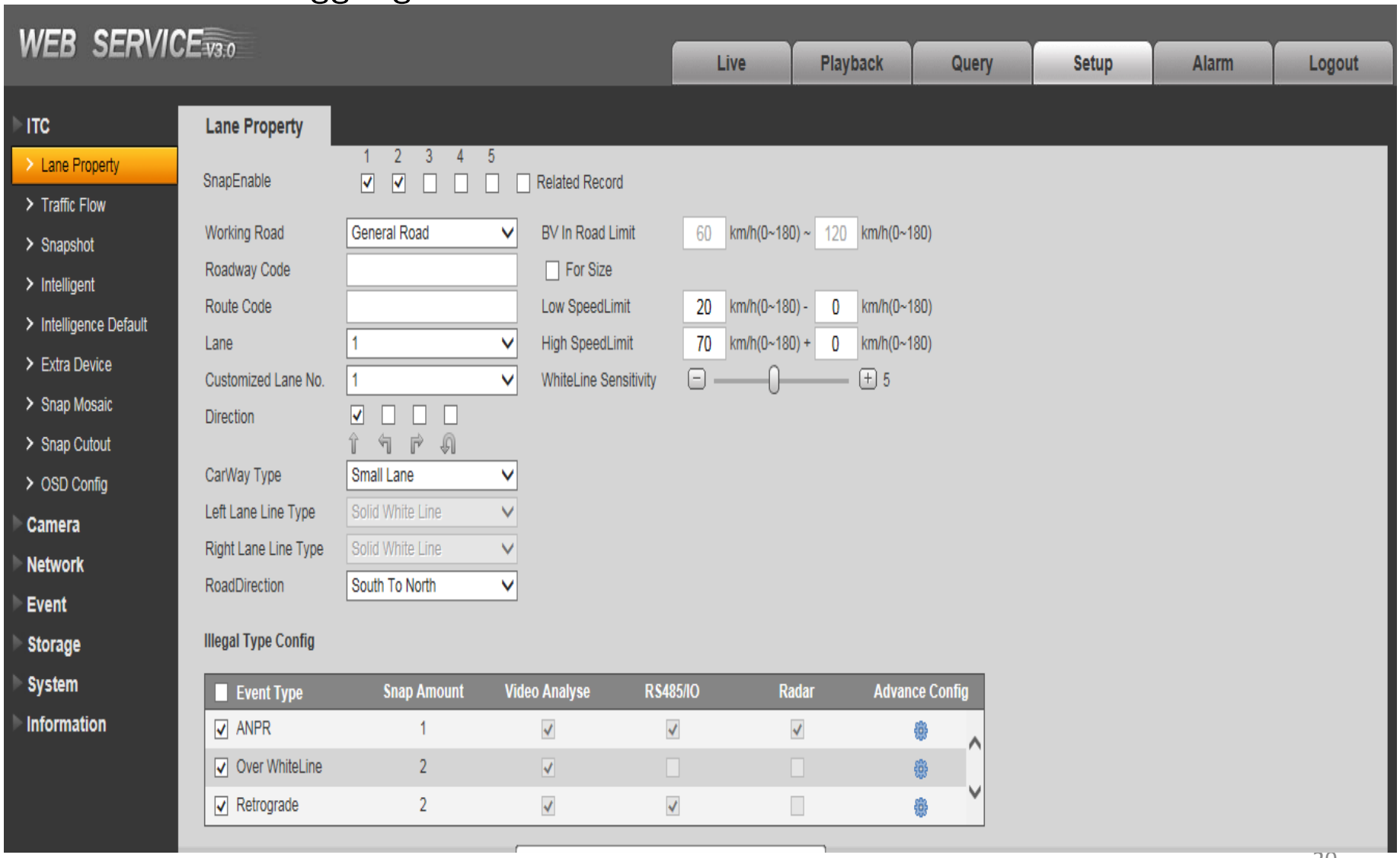
- Camera Debugging （2）



Parameter	Function
Enable radar	If select this function, radar function will be on.
Serial no.	Select corresponding serial, serial 1/2/3 correspond to lane 1/2/3 respectively.
Data bit	Cannot set and the default is 8.
Stop bit	Cannot set and the default is 1.
Baud rate	9600

Work mode	send once, send continuously and manually send Optional .choose send once.
Min interval	Defult 200
Angle	Angle between radar beam and vehicle moving direction.
Sensitivity	Defult 3

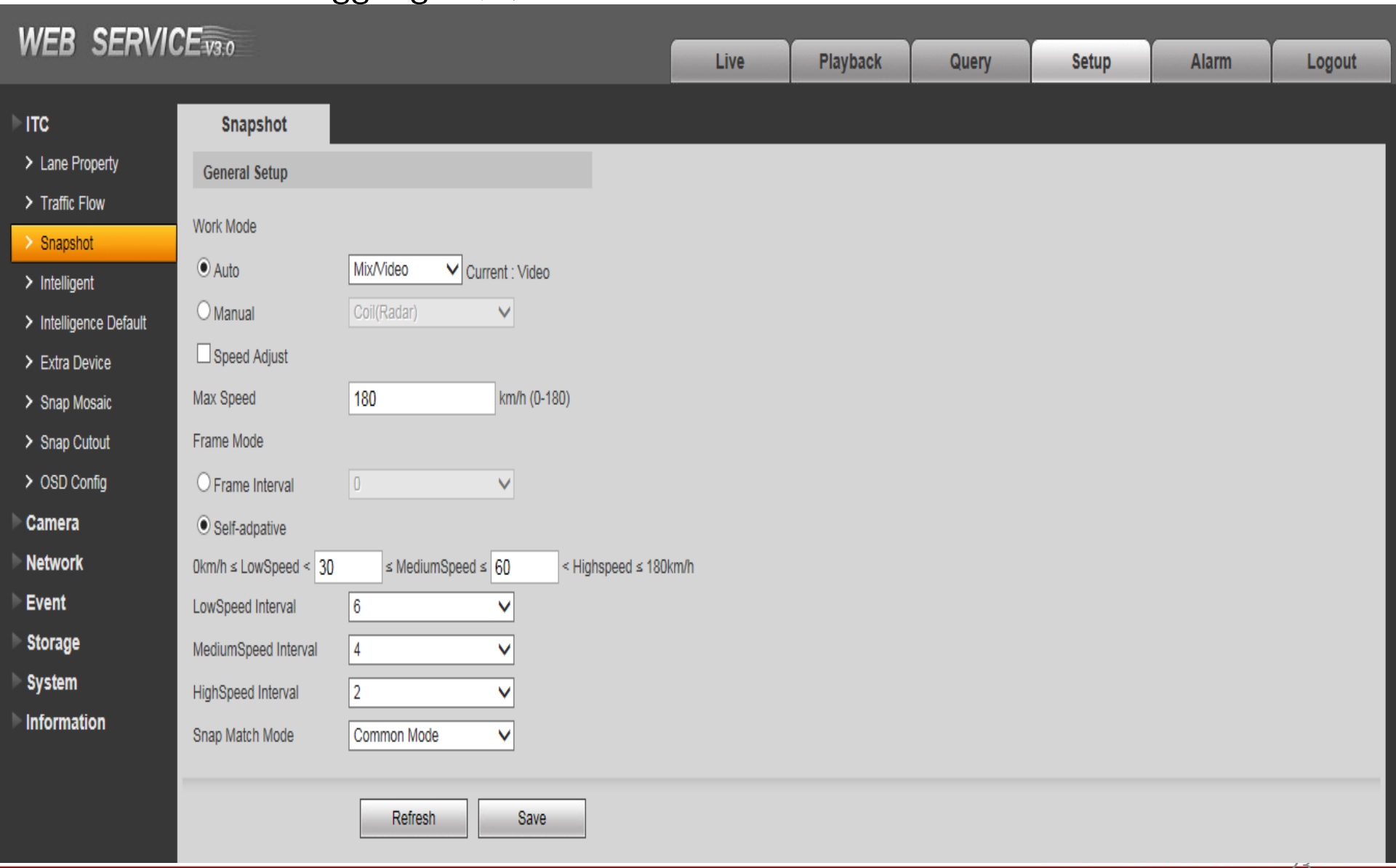
- Camera Debugging （3）



Parameter	Function	Parameter	Function
Enable snapshot	Select lane to enable. The no. corresponds to actual lane no.	vehicle direction	Set vehicle direction.
Working road	Select road type.		
Lane	Select lane to snapshot.	Lower limit	Set lower speed limit.
Customized lane no.	Set different no. for each lane.		
Direction	Select lane direction to snapshot.	Upper limit	Set upper speed limit.

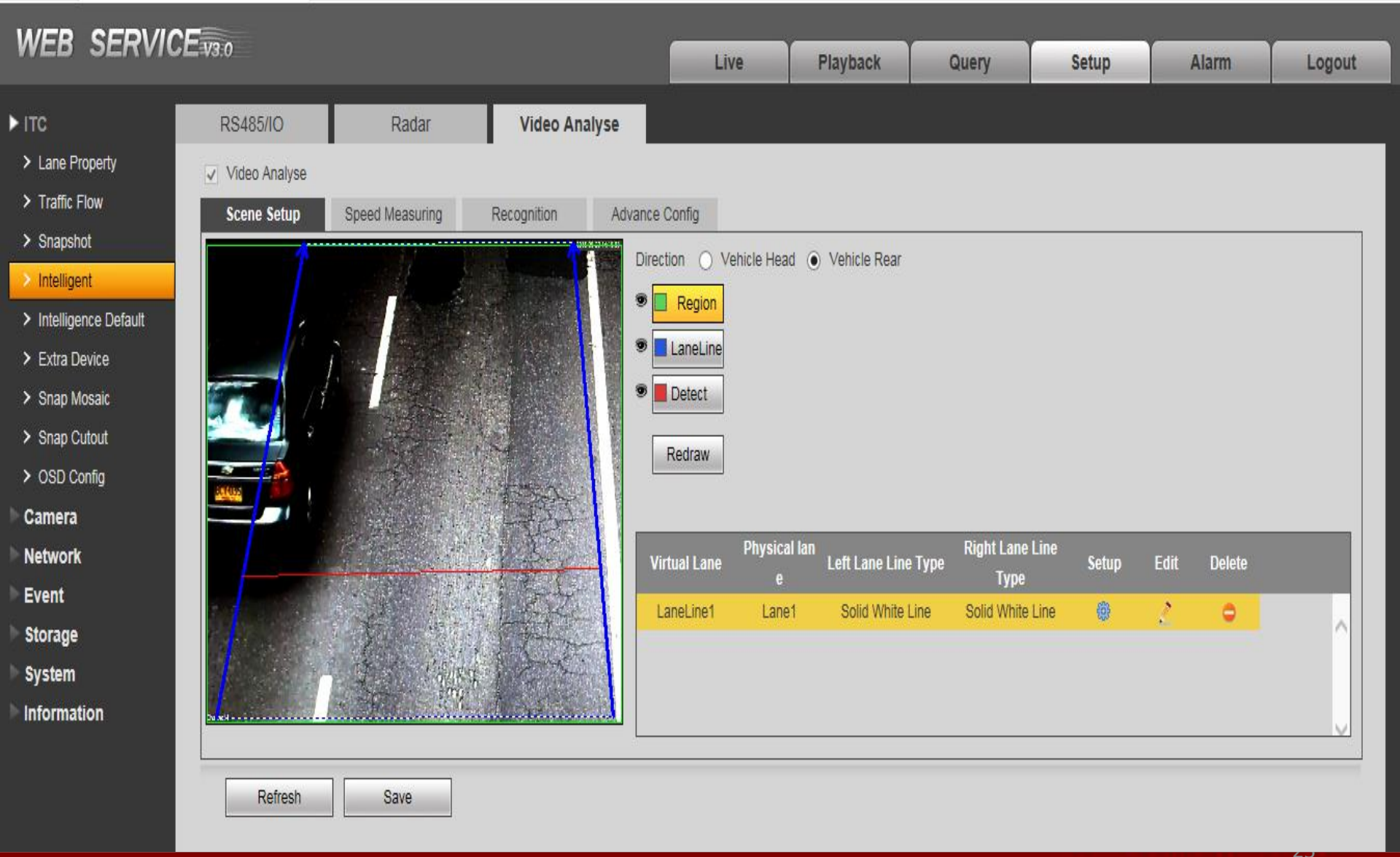
Event	Function	Note
ANPR	Select snapshot ANPR vehicle.	
Retrograde	Choose whether to capture retrograde vehicles.	Invalid for Radar detection mode
Under Speed	Choose whether to capture less speed vehicles.	
Over Speed	Choose whether to capture speeding vehicles.	

- Camera Debugging （4）



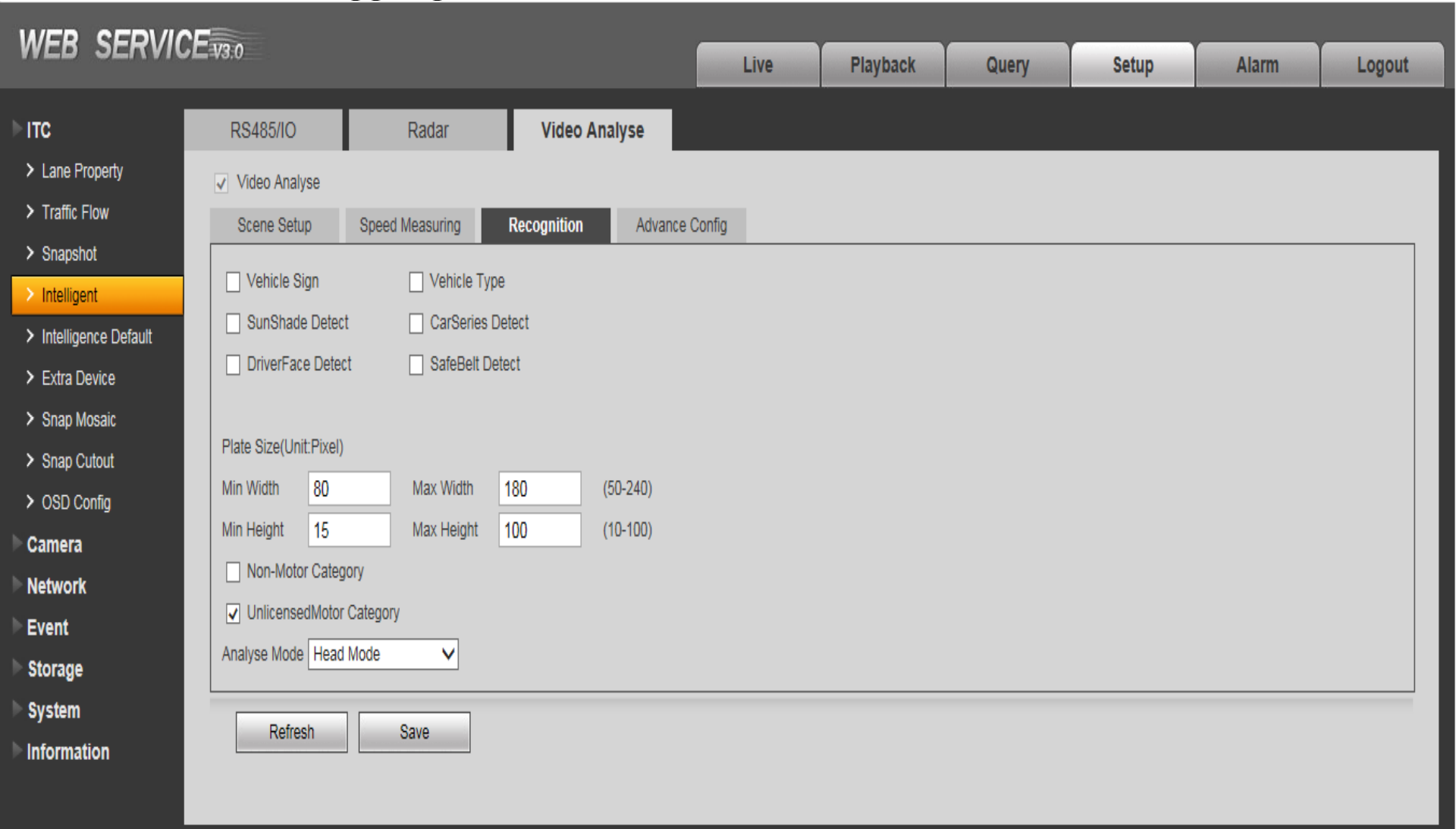
Parameter	Function
Work Mode	Select auto or manual mode. Manual mode includes video trigger and coil trigger. Note: Under auto mode, there is switch between video detect and RD485. When PR485 is abnormal, switch to video detect. IO does not support auto mode.
Max Speed	The maximum speed supported by the device speed.
Snap Match Mode	● Common mode: The default mode, it will flash when the linkage capture. ● Priority mode: In this mode, triggered by the video capture will not detect linkage flash.

- Camera Debugging （5）



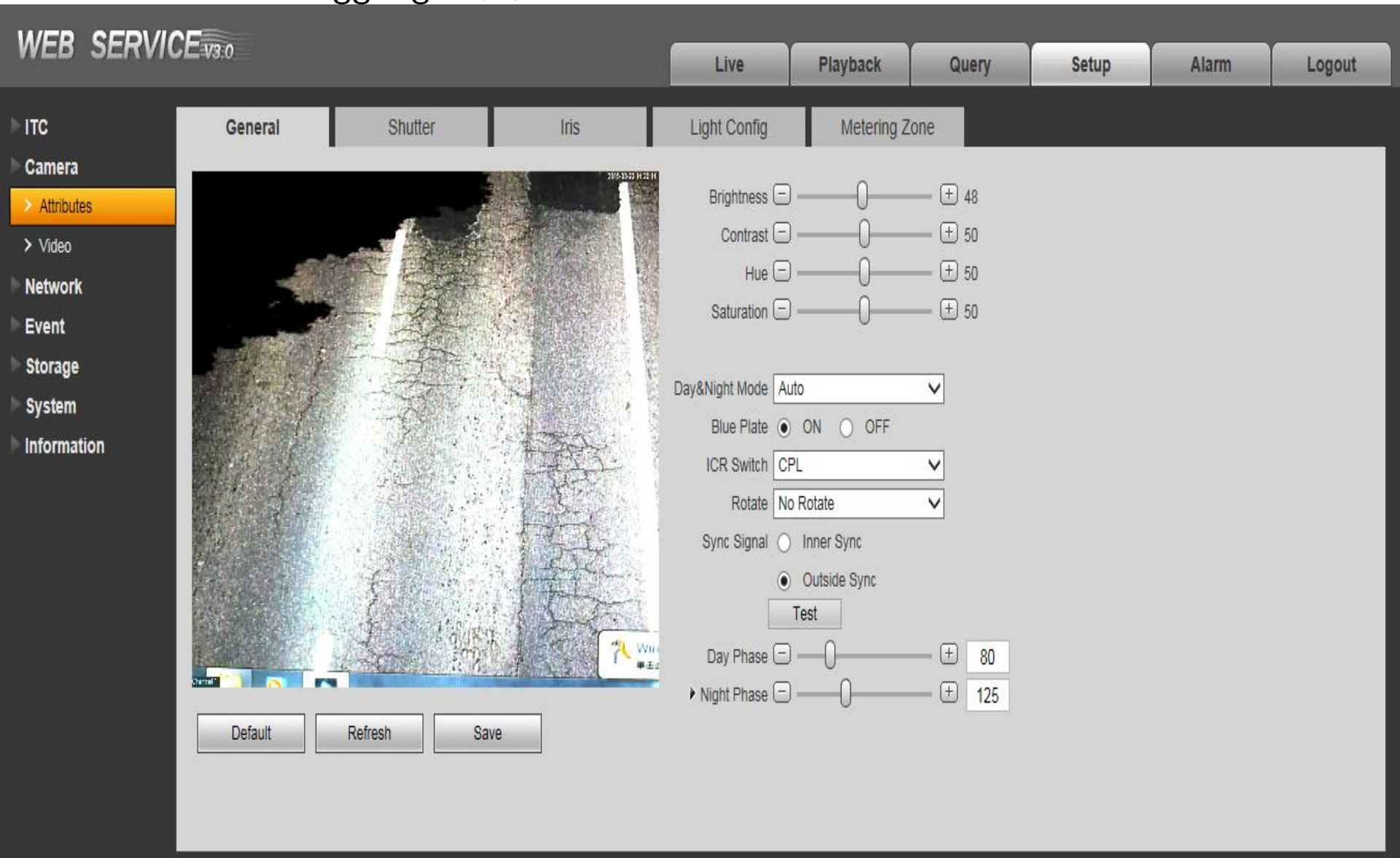
Parameter	Function	Parameter	Function
Virtual lane	Select virtual lane no. according to actual condition.	Region	Set detect region. Select and click on redraw to drawn region as green box.
Lane line	• Draw lane according to actual condition. • Each lane requires two lines. • Arrow of lane represents moving direction. • Select and click on redraw to drawn region as blue box . • You can only draw in up/down direction.	Detect line	• Draw border line to trigger snapshot which is similar to actual coil. When vehicle reach this line, snapshot will be triggered. • Detect line is available inside drawn region only. • Select and click on redraw to drawn region as red box
Front/Rear	When you select front, lane arrow is downward. When you select rear, lane arrow is upward. These are vehicle moving direction with different representations.		

- Camera Debugging （6）



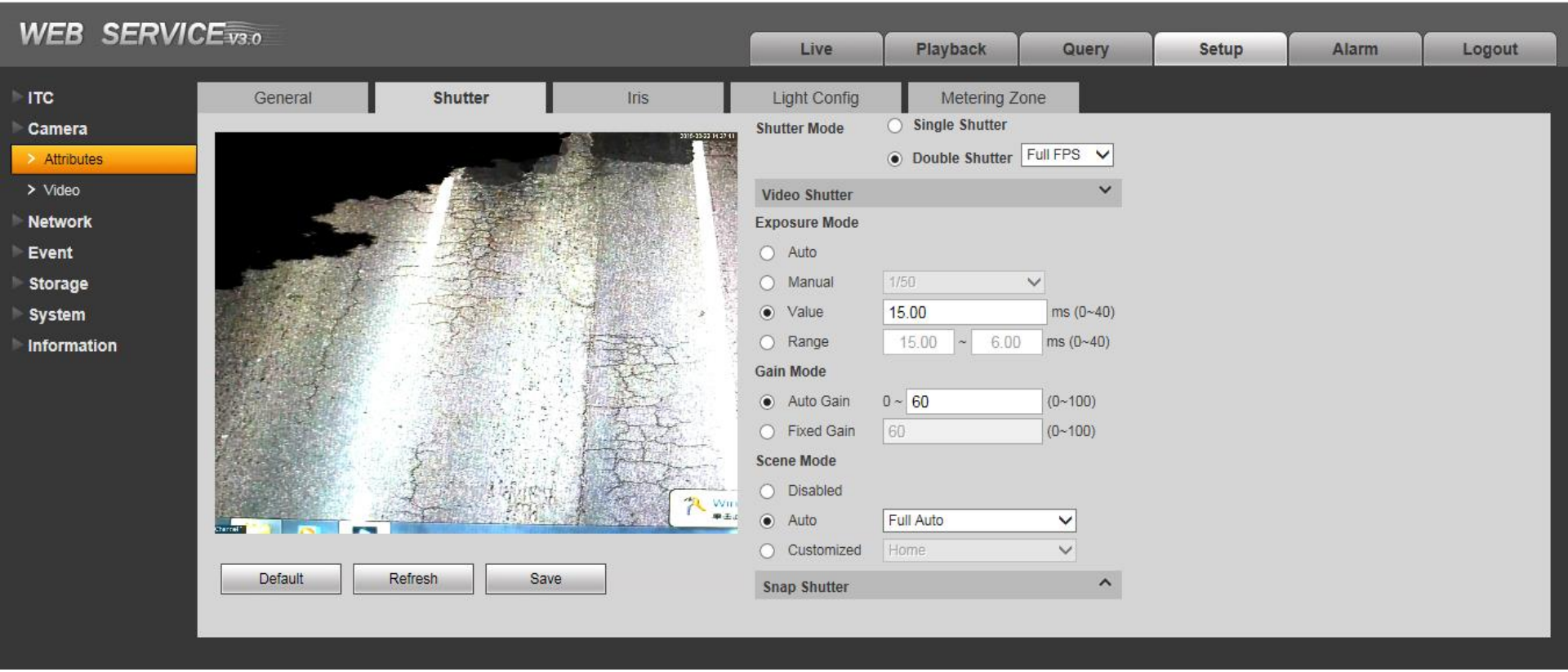
Parameter	Function
Non-motorized vehicle snapshot	Select this parameter to snapshot non-motorized vehicle.
Unlicensed motor category	Select this parameter to snapshot unlicensed motors.
Plate size	Set min width, max width, min height, and max height of plate. Only min width and max width are valid.

- Camera Debugging （7）



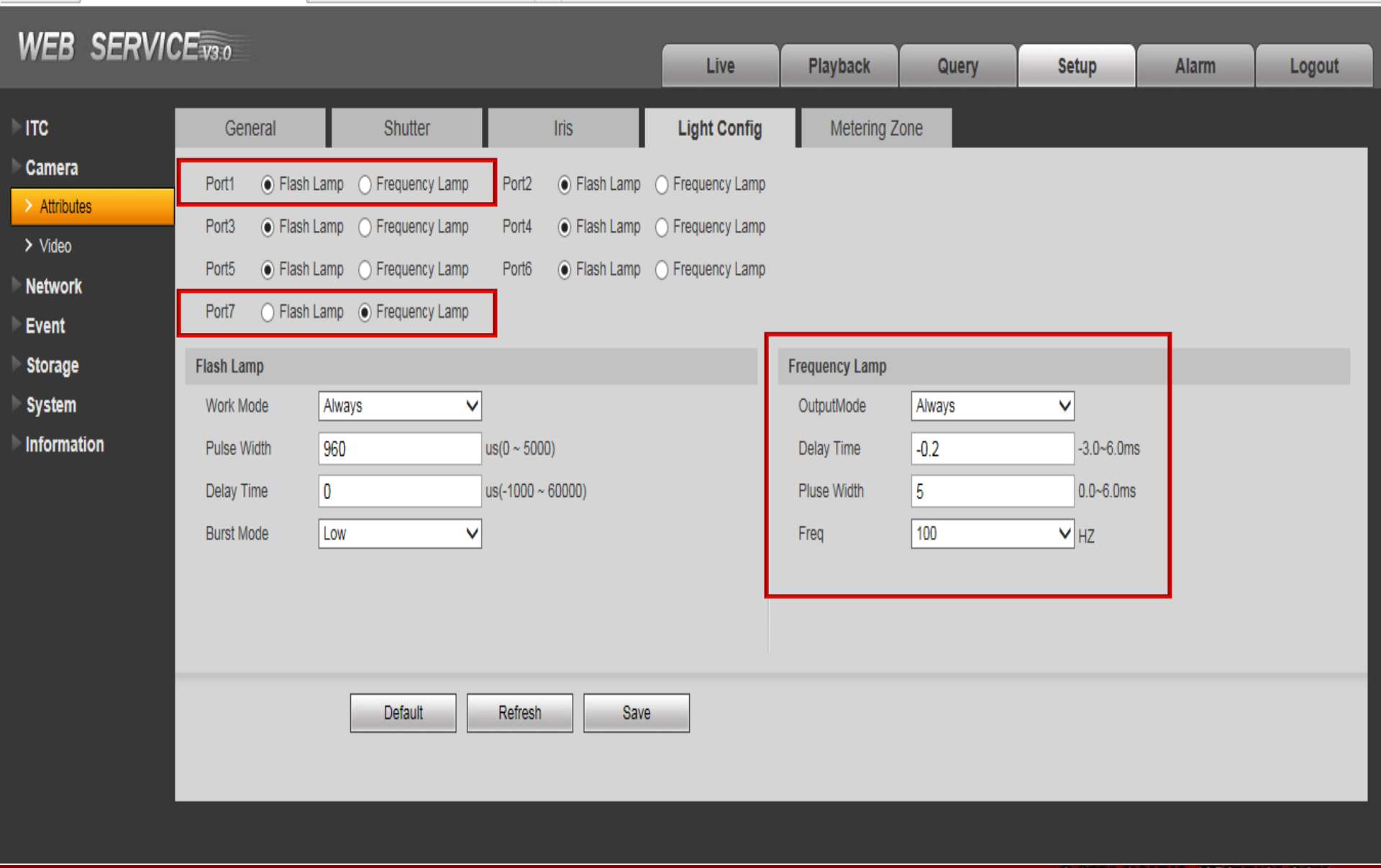
Parameter	Function	Parameter	Function
Brightness、Contrast、Hue、Saturation	**Brightness：** The value adjusts brightness of full image. Default value is 50. **Contrast：** The value adjusts contrast of full image. Default value is 50. **Hue：** The value adjusts hue of image. Default value is 50. **Saturation：** The value adjusts saturation of image. Default value is 50.	Sync signal	**Defult：** Outside Sync
		Day/Night mode	**Defult：** Color
		Rotate	默认：No Rotate

- Camera Debugging （8）



Parameter	Function	Parameter	Function
Shutter mode	single shutter and double shutter optional; **Choose:** double shutter, Half FPS.	Exposure mode	Video shutter： 0~10. Snapshot shutter： 0~3.
Gain mode	Video gain： 20 Snapshot gain： 20	Scene mode	**Defult: auto**

- Camera Debugging （9）



Parameter	Function
Output Mode	Select frequency mode. Including: OFF： disabled Always： Always ON. Auto： According to brightness turn on/off.
Delay Time	Usually set to -0.2.
Pulse Width	Set strobe pulse width value, the larger the width, strobe brighter. Usually set to 5.
Frequency	100 as the active mode, 50 to passive mode

Note：Strobe light defult interface is F7，It need to set if want to use F1-F6.

A&Q

Thanks !