

# Secure the word with you

4 Megapixel Network Camera User Manual

- This product is intended to be supplied by a Listed Power Unit, marked with 'Limited Power Source', 'LPS' on unit, output rated minimum 12V/2 A or POE 48V/ 350mA or AC24V (depending on models), no more than 2000m altitude of operation and Tma=60 Deg.C.
- As for the modes with PoE function, the function of the ITE being investigated to IEC 60950-1 standard is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment and the ITE is to be connected only to PoE networks without routing to the outside plant.
- Do not attempt to disassemble the camera; in order to prevent electric shock, do not remove screws or covers.
- There are no user-serviceable parts inside. Please contact the nearest service center as soon as possible if there is any failure.
- Avoid from incorrect operation, shock vibration, heavy pressing which can cause damage to product.
- Do not use corrosive detergent to clean main body of the camera. If necessary, please use soft dry cloth to wipe dirt; for hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.
- Avoid aiming the camera directly towards extremely bright objects, such as, sun, as this may damage the image sensor.
- Please follow the instructions to install the camera. Do not reverse the camera, or the reversing image will be received.
- Do not operate it in case temperature, humidity and power supply are beyond the limited stipulations.
- Keep away from heat sources such as radiators, heat registers, stove, etc.
- Do not expose the product to the direct airflow from an air conditioner.
- This manual is for using and managing the product. We may reserve the rights of amending the typographical errors, inconsistencies with the latest version, software upgrades and product improvements, interpretation and modification. These changes will be published in the latest version without special notification.
- All pictures, charts, images in this manual are only for description and explanation of our products. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google belong to the above-mentioned companies.

# Disclaimer

- With regard to the product with internet access, the use of product shall be wholly at your own risks. Our company shall be irresponsible for abnormal operation, privacy leakage or other damages resulting from cyber attack, hacker attack, virus inspection, or other internet security risks; however, Our company will provide timely technical support if necessary.
  - Surveillance laws vary from country to country. Check all laws in your local region before using this product for surveillance purposes. We shall not take the responsibility for any consequences resulting from illegal operations.

# **Regulatory Information**

# FCC Marking

The products have be tested and found in compliance with the council FCC rules and regulations part 15 subpart B. Operation of this product is subject the following two conditions: (1) this device may not cause harmful interface, and (2) this device must accept any interference received, including interference that may cause undesired operation.

# **CE Marking**

**CE** The products have been manufactured to comply with the following directives. EMC Directive 2014/30/EU

# RoHS

The products have designed and manufactured in accordance with Directive EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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# **1** Introduction

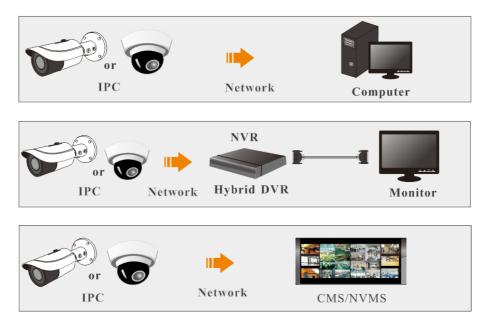
This IP-CAMERA (short for IP-CAM) is designed for high performance CCTV solutions. It adopts state of the art video processing chips, integrated with the most advanced technologies (like video encoding and decoding technology) to make the image transmission more stable and smooth. Moreover, the built-in WEB server of this series improves the performance of the traditional surveillance system so that users can be easy to operate and monitor.

This product is widely used in banks, telecommunication systems, electricity power departments, law systems, factories, storehouses, uptowns, etc. In addition, it is also an ideal choice for surveillance sites with middle or high risks.

#### **Main Features**

- 4MP (2592×1520) @30fps
- Smart H.265 /H.264 coding
- ICR auto switch, true day/night
- 3D DNR, true WDR, ROI coding, BLC, HLC, Defog, Smart IR, NIR, Anti-flicker
- Intelligent analytics
- Support mobile surveillance by smart phones with iOS and Android OS

Surveillance Application



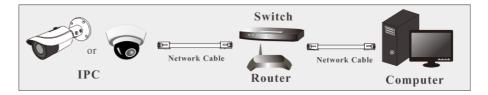
Connect IP-Cam via LAN or WAN. Here only take IE browser for example. The details are as follows:

# 2.1 LAN

In LAN, there are two ways to access IP-Cam: 1. access through IP-Tool; 2. directly access through IE browser.

## 2.1.1 Access through IP-Tool

Network connection:



1 Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.

② Double click the IP-Tool icon on the desktop to run this software as shown below:

Immediate Refre	mmediate Refresh 🗸 🧻 About									
Device Name	Device Type	Product Model	IP Address	Http Port	Data Port		Modify Networl	k Parameter	▲	
	IPC		192.168.226.201			255.255	Mac Address			
	IPC		192.168.1.2		9008	255.255.	IP Address	192.168.22	26.201	
name	IPC	unknown	192.168.1.3	80	9008	255.255	Subnet Mask	255.255.2	55.0	
							Gateway	192.168.22	26.1	
									1odify	
							Tip: Enter the a then modify the	administrator pa e network paran		
							Restore IPC De	fault Configural	tion 🔻	
						8				

(3) Modify the IP address. The default IP address of this camera is 192.168.226.201. Click the information of the camera listed in the above table to show the network information on the right hand. Modify the IP address and gateway of the camera and make sure its network address is in the same local network segment as the computer's. Please modify the IP address of your device according to the practical situation.

Modify Network Parameter 🛛 🔺					
192.168. 1 .201					
255.255.255.0					
192.168. 1 . 1					
Modify					

For example, the IP address of your computer is 192.168.1.4. So the IP address of the camera shall be changed to 192.168.1.X. After modification, please enter the password of the administrator and click the "Modify" button to modify the setting.

(P

The default password of the administrator is "123456".

(4) Double click the IP address and then the system will pop up the IE browser to connect IP-CAM. Follow directions to download, install and run the Active X control.

Name:	admin				
Password:	•••••				
Stream Type:	2592x1520 25fps 🗸 🗸				
Language:	English 🗸				
	Remember me				
Login					

Enter the username and password in the login window to log in.

<b>F</b>	The default	t username is " <i>admin</i> "; the default password is "123456".				
		Please change the default password	×			

Please change the de	tault password	
New Password		
Confirm Password		
Do not show again	OK Cancel	

The system will pop up the above-mentioned textbox to ask you to change the default password. It is strongly recommended to change the default password for account security. If "Do not show again" is checked, the textbox will not appear next time.

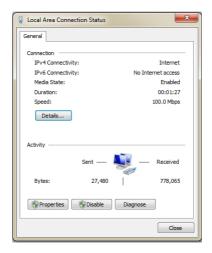
### 2.1.2 Directly Access through IE

The default network settings are as shown below: IP address: **192.168.226.201** Subnet Mask: **255.255.255.0** Gateway: **192.168.226.1** HTTP: **80** Data port: **9008** 

Use the above default settings when logging in the camera for the first time. Directly connect the camera to the computer through network cable.



① Manually set the IP address of the PC and the network segment should be as the same as the default settings of the IP camera. Open the network and share center. Click "Local Area Connection" to pop up the following window.



Select "Properties" and then select internet protocol according to the actual situation (for example: IPv4). Next, click the "Properties" button to set the network of the PC.

Internet Protocol Version 4 (TCP/IPv4) Properties										
General	General									
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.										
Obtain an IP address automatically										
Ouse the following IP address: -										
IP address:	192 . 168 . 226 . 4									
Subnet mask:	255.255.255.0									
Default gateway:	192 . 168 . 226 . 1									
Obtain DNS server address aut	omatically									
Ouse the following DNS server a	ddresses:									
Preferred DNS server:	192 . 168 . 226 . 1									
Alternate DNS server:										
Validate settings upon exit Advanced										
	OK Cancel									

- ② Open the IE browser and enter the default address of IP-CAM and confirm.
- (3) Follow directions to download and install the Active X control.
- ④ Enter the default username and password in the login window and then enter to view.

# 2.2 WAN

#### > Access through the router or virtual server



① Make sure the camera is connected to the local network and then log in the camera via LAN and go to Config $\rightarrow$ Network $\rightarrow$ Port menu to set the port number.

HTTP Port	80
HTTPS Port	443
Data Port	9008
RTSP Port	554



(2) Go to Config  $\rightarrow$ Network $\rightarrow$ TCP/IP menu to modify the IP address.

IPv4 IPv	6 PPPoE C	onfig IP	Change <mark>N</mark>	otification Config					
Obtain	O Obtain an IP address automatically								
• Use the	Use the following IP address								
IP Address	5	192.168.	226.201	Test					
Subnet Ma	ask	255.255.2	255.0						
Gateway		192.168.	226.1						
Preferred	DNS Server	210.21.1	96.6						
Alternate	DNS Server	8.8.8.8							

**IP** Setup

(3) Go to the router's management interface through IE browser to forward the IP address and port of the camera in the "Virtual Server".

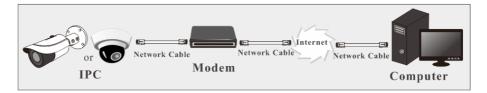
Port Range								
Application	Start	End	Protocol	IP Address	Enable			
1	9007	to 9008	Both 👻	192.168.1.201				
2	80	to 81	Both 👻	192.168.1.201				
3	10000	to 10001	Both 👻	192.168.1.166				
4	21000	to 21001	Both 💌	192.168.1.166				



(4) Open the IE browser and enter its WAN IP and http port to access. (for example, if the http port is changed to 81, please enter "192.198.1.201:81" in the address bar of web browser to access).

#### Access through PPPoE dial-up

Network connection



Access the camera through PPPoE auto dial-up. The setup steps are as follow:

(1) Go to Config $\rightarrow$ Network $\rightarrow$ Port menu to set the port number.

② Go to Config  $\rightarrow$ Network $\rightarrow$ TCP/IP $\rightarrow$ PPPoE Config menu. Enable PPPoE and then enter the user name and password from your internet service provider.

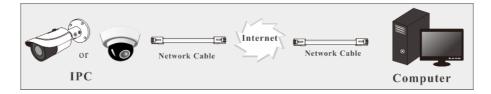
IPv4	IPv6	PPPoE C	onfig	IP Change Notification Cor	nfig
🗷 En	able				
User Name			xxxxx	¢X	
Passw	Password			••	
				Save	

③ Go to Config →Network→DDNS menu. Before configuring the DDNS, please apply for a domain name first. Please refer to DDNS configuration for detail information.

④ Open the IE browser and enter the domain name and http port to access.

#### Access through static IP

Network connection



The setup steps are as follow:

(1) Go to Config $\rightarrow$ Network $\rightarrow$ Port menu to set the port number.

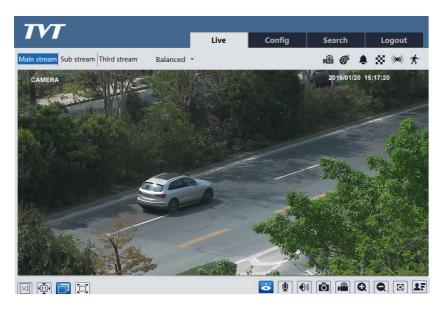
② Go to Config →Network→TCP/IP menu to set the IP address. Check "Use the following

IP address" and then enter the static IP address and other parameters.

3 Open the IE browser and enter its WAN IP and http port to access.

# 3 Live View

After logging in, the following window will be shown.



The following table is the instructions of the icons on the live view interface.

Icon	Description	Icon	Description
$\times 1$	Original size	((11))	Sensor alarm indicator
	Fit correct scale	オ	Motion alarm indicator
	Auto (fill the window)	٨	Color abnormal indicator
	Full screen		Abnormal clarity indicator
Ŏ	Start/stop live view	8	Scene change indicator
¥	Start/stop two-way audio (only available for the model with audio input connector)		Line crossing indicator
<b>(</b> )	Enable/disable audio	\$	Intrusion indicator
Ō	Snapshot	Ţ	Region entrance indicator
	Start/stop local recording	Ţ	Region exiting indicator

Icon	Description	Icon	Description
Q	Zoom in		Face detection indicator
Q	Zoom out	~.	Target counting indicator
$\Xi$	AZ control (only available for the model with motorized zoom lens)	2	Face capture
(A)	SD card recording indicator		

Those smart alarm indicators will flash only when the camera supports those functions and the corresponding events are enabled.

In full screen mode, double click on the mouse to exit or press the ESC key on the keyboard.

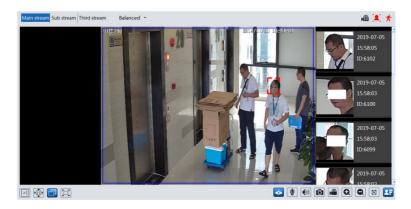
Click AZ control button to show AZ control panel. The descriptions of the control panel are as follows:

Icon	Description	Icon	Description
***	Zoom -	*	Zoom +
1	Focus -		Focus +
C	One key focus (used when in	nage is out of focu	s after manual adjustment

Face Capture View

(1) Go to Config $\rightarrow$ Event $\rightarrow$ Face Detection interface. Check "Enable".

(2) Return to the live view interface. Click **b** to go to the following interface. When there are faces detected, the face pictures will be listed on the right.



In the Webcam client, choose "Config" to go to the configuration interface. **Note**: Wherever applicable, click the "Save" button to save the settings.

# 4.1 System Configuration

# 4.1.1 Basic Information

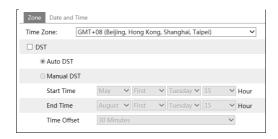
In the "Basic Information" interface, the system information of the device is listed.

Device Name	IPC
Product Model	IPC
Brand	Customer
Software Version	5.0.1.0(3192)
Software Build Date	2019-09-17
Kernel Version	20190906
Hardware Version	1.4-1424321
Onvif Version	18.12
structuredVersion	1.1.6
faceDetectVersion	1.1.25
OCX Version	2.0.7.1
MAC	00:18:ae:a6:6f:fd

Some versions may support device ID and QR code. If P2P is enabled (see Network Configuration-<u>P2P</u>), the network camera can be quickly added to mobile surveillance client, by scanning the QR code or entering device ID.

## 4.1.2 Date and Time

Go to Config $\rightarrow$ System $\rightarrow$ Date and Time. Please refer to the following interface.



Select the time zone and DST as required. Click the "Date and Time" tab to set the time mode.

Zone Date and Time	
Time Mode:	
○ Synchronize with NTP server	
NTP server: time.windows.com	Update period: 1440 Minutes
O Synchronize with computer time	
Date 2018-01-08 Time 14:58:21	
Set manually	
Date 2018-01-09 III Time 15:03:28	

## 4.1.3 Local Config

Go to Config $\rightarrow$ System $\rightarrow$ Local Config to set up the storage path of captured pictures and recorded videos on the local PC. There is also an option to enable or disable the bitrate display in the recorded files.

Save snapshots to	C:\Program Files\M	NetIPCamera	Browse
Save recording files to	C:\Program Files\M	NetIPCamera	Browse
Audio Recording	Open	Close	
Bitrate Overlay	Open	Close	
Local Smart Snapshot Storage	Open	Close	
		Save	

Additionally, "Local smart snapshot storage" can be enabled or disabled here. If enabled, the captured pictures triggered by smart events (like line crossing detection, region intrusion, etc.) will be saved to the local PC.

### 4.1.4 Storage

Go to Config $\rightarrow$ System $\rightarrow$ Storage to go to the interface as shown below.

Management Record Sna	apshot	
Total picture capacity	14829 MB	
Picture remaining space	5068 MB	]
Total recording capacity	14784 MB	
Record remaining space	0 MB	]
State	Normal	
Snapshot Quota	50	]%
Video Quota	50	]%
Changes in the quota ratio nee	d to be formatted before	e they become effective.
	Eject Format	

#### • SD Card Management

Click the "Format" button to format the SD card. All data will be cleared by clicking this button.

Click the "Eject" button to stop writing data to SD card. Then the SD card can be ejected safely.

Snapshot Quota: Set the capacity proportion of captured pictures on the SD card.

Video Quota: Set the capacity proportion of record files on the SD card.

#### • Schedule Recording Settings

1. Go to Config $\rightarrow$ System $\rightarrow$ Storage $\rightarrow$ Record to go to the interface as shown below.

Management Rec	ord Snapshot	
Record Parameter	5	
Record Stream	Main	~
Pre Record Time	No Pre Record	<ul> <li>(H264,H265,MJPEG)</li> </ul>
Cycle Write	Yes	•
Timing		
Enable Schedul	e Record	

2. Set record stream, pre-record time, cycle writing.

Pre Record Time: Set the time to record before the actual recording begins.

3. Set schedule recording. Check "Enable Schedule Record" and set the schedule.

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#### Weekly schedule

Set the alarm time from Monday to Sunday for a single week. Each day is divided in one hour increments. Green means scheduled. Blank means unscheduled.

"Add": Add the schedule for a special day. Drag the mouse to set the time on the timeline.

"Erase": Delete the schedule. Drag the mouse to erase the time on the timeline.

Manual Input: Click it for a specific day to enter specific start and end times. This adds more granularities (minutes).

#### Day schedule

Set the alarm time for alarm a special day, such as a holiday. Note: Holiday schedule takes priority over weekly schedule.

#### Snapshot Settings

Go to Config $\rightarrow$ System $\rightarrow$ Storage $\rightarrow$ Snapshot to go to the interface as shown below.

Management Reco	ord Snapshot	
Snapshot Paramete	ers	
Image Format	JPEG -	
Resolution	704x576	
Image Quality	Low	
Event Trigger		
Snapshot Interval	1	Second
Snapshot Quantity	5	
Timing		
Enable Timing S	napshot	
Snapshot Interval	5	Second

Set the format, resolution and quality of the image saved on the SD card and the snapshot interval and quantity and the timing snapshot here.

**Snapshot Quantity**: The number you set here is the maximum quantity of snapshots. The actual quantity of snapshots may be less than this number. Supposing the occurrence time of an alarm event is less than the time of capturing pictures, the actual quantity of snapshots is less than the set quantity of snapshots.

**Timing Snapshot**: Enable timing snapshot first and then set the snapshot interval and schedule. The setup steps of schedule are the same as the schedule recording (See <u>Schedule</u> <u>Recording</u>).

# 4.2 Image Configuration

Image Configuration includes Display, Video/Audio, OSD, Video Mask and ROI Config.

# 4.2.1 Display Configuration

Go to Image  $\rightarrow$  Display interface as shown below. The image's brightness, contrast, hue and saturation and so on for common, day and night mode can be set up separately. The image effect can be quickly seen by switching the configuration file.

Camera Parameters Schedule				
04/28/2018	Config File	Comr	non	~
	Brightness			25
	Contrast			50
	Hue			50
	Saturation			50
	Sharpness		-0	50
	Noise Reduction			- 30
	Defog		-0	50
IF Canera02	Lens Distortion Correction			80
	Auto Iris		(disable without	auto iris lens)
	BLC		Off	~
	HFR		Off	~
	Antiflicker		Off	~
	Smart IR		Off	~
	White Balance		Auto	~
	Frequency		50HZ	~
	Day/Night Mode	e	Auto	~
	Sensitivity		Mid	~
	Delay Time(Seco	nd)	•	2
	Infra-red Mode		Auto	~
	Exposure Mode		Auto	~
	Gain Limit			50
	Corridor Pattern		0	~
	Image Mirror		O Open	Close
	Image Flip		O Open	Close

Brightness: Set the brightness level of the camera's image.

Contrast: Set the color difference between the brightest and darkest parts.

Hue: Set the total color degree of the image.

Saturation: Set the degree of color purity. The purer the color, the brighter the image is.

**Sharpness**: Set the resolution level of the image plane and the sharpness level of the image edge.

**Noise Reduction**: Decrease the noise and make the image more thorough. Increasing the value will make the noise reduction effect better but it will reduce the image resolution.

**Defog:** Activating this function and setting an appropriate value as needed in foggy, dusty, smoggy or rainy environment to get clear images.

**Lens Distortion Correction:** When the image appears distortion to some extent, please enable this function and adjust the level according to the actual scene to correct the distortion. (Only some version may support this function. If your camera doesn't support it, please skip this instruction.)

Auto Iris: If your camera is auto Iris, please enable it.

#### **Backlight Compensation (BLC):**

- Off: disables the backlight compensation function. It is the default mode.
- HWDR: WDR can adjust the camera to provide a better image when there are both very

bright and very dark areas simultaneously in the field of the view by lowering the brightness of the bright area and increasing the brightness of the dark area.

Recording will be stopped for a few seconds while the mode is changing from non-WDR to WDR mode.

• HLC: lowers the brightness of the entire image by suppressing the brightness of the image's bright area and reducing the size of the halo area.

• BLC: If enabled, the auto exposure will activate according to the scene so that the object of the image in the darkest area will be seen clearly.

**HFR**: High Frame Rate. If "ON" is selected, the system will restart and then the maximum value of the frame rate of the main stream can be set to 60 fps /50fps.

#### Antiflicker:

- Off: disables the anti-flicker function. This is used mostly in outdoor installations.
- 50Hz: reduces flicker in 50Hz lighting conditions.
- 60Hz: reduces flicker in 60Hz lighting conditions.

**Smart IR**: Choose "ON" or "OFF". This function can effectively avoid image overexposure and underexposure by controlling the brightness of the IR lights according to the actual conditions to make the image more realistic. Please enable it as needed.

White Balance: Adjust the color temperature according to the environment automatically. **Frequency**: 50Hz and 60Hz can be optional.

Day/Night Mode: Choose "Auto", "Day", "Night" or "Timing".

Infra-red Mode: Choose "Auto", "ON" or "OFF".

**Exposure Mode**: Choose "Auto" or "Manual". If manual is chosen, the digital shutter speed can be adjusted.

**Corridor Pattern**: Corridor viewing modes can be used for situations such as long hallways. 0, 90, 180 and 270 are available. The default value is 0. The video resolution should be 1080P or below if this function is used.

Image Mirror: Turn the current video image horizontally.

Image Flip: Turn the current video image vertically.

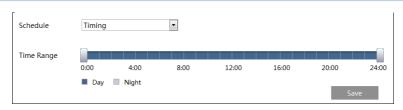
Schedule Settings of Image Parameters:

Click the "Schedule" tab as shown below.

Camera Paramet	ers Schedule	
Schedule	Full Time	~
Config File	Common	~

Set full time schedule for common, day, night mode and specified time schedule for day and night. Choose "Schedule" in the drop-down box of schedule as shown below.

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Drag " )" icons to set the time of day and night. Blue means day time and blank means night time. If the current mode of camera parameters is set to schedule, the image configuration mode will automatically switch between day and night according to the schedule.

### 4.2.2 Video / Audio Configuration

Go to Image  $\rightarrow$  Video / Audio interface as shown below. In this interface, set the resolution, frame rate, bitrate type, video quality and so on subject to the actual network condition.

stre 2592	x1520 🗸	25	CBR 🗸					
		23	CBR 🗸	5120 ~	Highest 🗸	100	H264 🗸	High Profile 🗸
tream 704x	576 🗸	25	CBR 🗸	768 ~	Highest ∨	100	H264 🗸	High Profile 🗸
stre 352x	288 🗸	25	CBR 🗸	512 ~	Higher ∨	100	H264 🗸	High Profile 🗸
	stre 352x	stre 352x288 V		stre 352x288 V 25 CBR V	stre 352x288 v 25 CBR v 512 v	stre 352x288 v 25 CBR v 512 v Higher v	stre 352x288 ♥ 25 CBR ♥ 512 ♥ Higher ♥ 100	stre 352x288 v 25 CBR v 512 v Higher v 100 H264 v

Click the "Audio" tab to go to the interface as shown below.

Video Aud	io				
🗹 Enable					
Audio Encoding	G711A	~	Audio Type	LIN	~
			Save		

Three video streams can be adjustable.

Resolution: The size of image.

Frame rate: The higher the frame rate, the video is smoother.

**Bitrate type**: CBR and VBR are optional. Bitrate is related to image quality. CBR means that no matter how much change is seen in the video scene, the compression bitrate will be kept constant. VBR means that the compression bitrate will be adjusted according to scene changes. For example, for scenes that do not have much movement, the bitrate will be kept at a lower value. This can help optimize the network bandwidth usage.

**Bitrate**: it can be adjusted when the mode is set to CBR. The higher the bitrate, the better the image quality will be.

**Video Quality**: It can be adjusted when the mode is set to VBR. The higher the image quality, the more bitrate will be required.

**I Frame interval**: It determines how many frames are allowed between a "group of pictures". When a new scene begins in a video, until that scene ends, the entire group of frames (or pictures) can be considered as a group of pictures. If there is not much movement in the scene, setting the value higher than the frame rate is fine, potentially resulting in less bandwidth usage. However, if the value is set too high, and there is a high frequency of movement in the video, there is a risk of frame skipping.

Video Compression: MJPEG, H264+, H264, H264S (Smart H.264), H265, H265+ or H265S (Smart H.265) can be optional. MJPEG is not available for main stream. If H.265/H.265+/ H.265S is chosen, make sure the client system is able to decode H.265/H.265+/ H.265S. Compared to H.265+/H.265, smart H.265 can spontaneously adjust the bitrate distribution according to the requirements of the actual scene. For example, when there is no human or vehicle detected, the bitrate will be automatically reduced with no effect on image quality by using H.265S. Compared to H.265, H.265+ saves more storage space with the same maximum bitrate in most scenes. Compared to H.264, H.265 reduces the transmission bitrate under the same resolution, frame rate and image quality.

Profile: For H.264. Baseline, main and high profiles are selectable.

Send Snapshot: How many snapshots to generate for an event.

**Video encode slice split**: If this function is enabled, smooth image can be gotten even though using the low-performance PC.

**Watermark**: When playing back the local recorded video in the search interface, the watermark can be displayed. To enable it, check the watermark box and enter the watermark text.

Audio Encoding: G711A and G711U are selectable.

Audio Type: LIN. MIC can be optional for the model with built-in MIC.

# 4.2.3 OSD Configuration

Go to Image $\rightarrow$ OSD interface as shown below.

FC	Date Format	MM/DD/YYYY	
		Show Timestamp	
	Device Name	IPC	
		Show Device Name	
Mullius St.	☑ OSD Content1 ∨		Add One Line
	OSD Content2		Add One Line
	OSD Content3		Add One Line
	OSD Content4		Add One Line

Set time stamp, device name, OSD content and picture overlap here. After enabling the corresponding display and entering the content, drag them to change their position. Then click the "Save" button to save the settings.

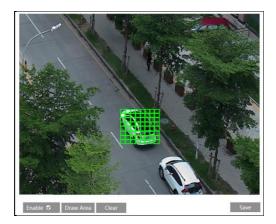
FC DIFFERENCE	Date Format	MM/DD/YYYY	]
		Show Timestamp	
Prod	Device Name	IPC	]
		Show Device Name	
Human	☑ Picture Overlay ∨		Browse Upload
	OSD Content2		Add One Line
	OSD Content3		Add One Line
	OSD Content4		Add One Line

Picture Overlay Settings:

Check "OSD Content1", choose "Picture Overlay" and click "Browse" to select the overlap picture. Then click "Upload" to upload the overlap picture. The pixel of the image shall not exceed 200\*200, or it cannot be uploaded.

## 4.2.4 Video Mask

Go to Image→Video Mask interface as shown below. A maximum of 4 zones can be set up.



To set up video mask:

- 1. Enable video mask.
- 2. Click the "Draw Area" button and then drag the mouse to draw the video mask area.

3. Click the "Save" button to save the settings.

4. Return to the live to verify that the area have been drawn as shown as blocked out in the image.



To clear the video mask:

Click the "Clear" button to delete the current video mask area.

# 4.2.5 ROI Configuration

Go to Image  $\rightarrow$  ROI Config interface as shown below. An area in the image can be set as a region of interest. This area will have a higher bitrate than the rest of the image, resulting in better image quality for the identified area.



- 1. Check "Enable" and then click the "Draw Area" button.
- 2. Drag the mouse to set the ROI area.
- 3. Set the level.
- 4. Click the "Save" button to save the settings.



## 4.2.6 Lens Control

This function is only available for the model with motorized zoom lens. Within this section, zoom and focus can be controlled. If the image is out of focus after a manual adjustment, one key focus can be used to set the focus automatically. Go to Config $\rightarrow$ Image $\rightarrow$  Zoom/Focus interface to set.



# 4.3 PTZ Configuration

This function is only available for the model with RS485 interface. It can be used with a compatible external PTZ enclosure. Go to  $PTZ \rightarrow Protocol$  interface as shown below.

Protocol	PELCOD V
Address	1
Baud-Rate	2400 🗸
	Save

# 4.4 Alarm Configuration

# 4.4.1 Motion Detection

Go to Alarm $\rightarrow$ Motion Detection to set motion detection alarm.

Alarm Config Area and Sensitivity Schedule
🗹 Enable
Alarm Holding Time 5 Seconds v
Trigger Alarm Out
☐ Alarm Out
Trigger Snap
Trigger SD Recording
Trigger Email
Trigger FTP
Save

1. Check "Enable" check box to activate motion based alarms. If unchecked, the camera will not send out any signals to trigger motion-based recording to the NVR or CMS, even if there is motion in the video.

**Alarm Out:** If selected, this would trigger an external relay output that is connected to the camera on detecting a motion based alarm.

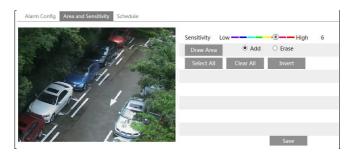
**Trigger Snap:** If selected, the system will capture images on motion detection and save the images on an SD card.

**Trigger SD Recording:** If selected, video will be recorded on an SD card on motion detection.

**Trigger Email**: If "Trigger Email" and "Attach Picture" are checked (email address must be set first in the Email configuration interface), the captured pictures and triggered event will be sent into those addresses.

**Trigger FTP**: If "Trigger FTP" and "Attach Picture" are checked, the captured pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

2. Set motion detection area and sensitivity. Click the "Area and Sensitivity" tab to go to the interface as shown below.



Move the "Sensitivity" scroll bar to set the sensitivity. Higher sensitivity value means that motion will be triggered more easily.

Select "Add" and click "Draw". Drag the mouse to draw the motion detection area; Select "Erase" and drag the mouse to clear motion detection area.

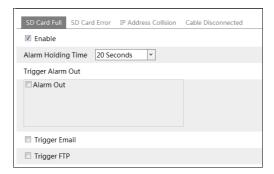
After that, click the "Save" to save the settings.

3. Set the schedule for motion detection. The schedule setup steps of the motion detection are the same as the schedule recording setup (See <u>Schedule Recording</u>).

# 4.4.2 Other Alarms

#### • SD Card Full

1. Go to Config $\rightarrow$ Alarm $\rightarrow$ Anomaly $\rightarrow$ SD Card Full.



2. Click "Enable" and set the alarm holding time.

3. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

#### • SD Card Error

When there are some errors in writing SD card, the corresponding alarms will be triggered. 1. Go to Config $\rightarrow$ Alarm $\rightarrow$ Anomaly $\rightarrow$ SD Card Error as shown below.

SD Card Full	SD Card Error	IP Address Collision	Cable Disconnected
🗷 Enable			
Alarm Holding	g Time 20 Se	conds 🗸	
Trigger Alarm	Out		
🗆 Alarm Out			
🔲 Trigger Em	nail		
Trigger FT	Р		

2. Click "Enable" and set the alarm holding time.

3. Set alarm trigger options. Trigger alarm out, Email and FTP. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

#### • IP Address Conflict

#### This function is only available for the models with Alarm Out interface.

1. Go to Config $\rightarrow$ Alarm $\rightarrow$ Anomaly $\rightarrow$ IP Address Collision as shown below.

SD Card Full	SD Card	Error	IP Address Collisio	an a	Cable Disconnected
SD Card Full	SD Caru	LITOI	IF Address Collisio		cable Disconnected
🗹 Enable					
Alarm Holding	g Time	20 Se	conds 👻		
Trigger Alarm	Out				
🗆 Alarm Out					

2. Click "Enable alarm" and set the alarm holding time.

3. Trigger alarm out. When the IP address of the camera is in conflict with the IP address of other devices, the system will trigger the alarm out.

#### • Cable Disconnection

#### This function is only available for the models with Alarm Out interface.

1. Go to Config $\rightarrow$ Alarm $\rightarrow$ Anomaly $\rightarrow$ Cable Disconnected as shown below.

-	SD Card Full SD Card Error IP Addr	ess Collision	Cable Disconnected
	🔽 Enable		
	Alarm Holding Time 20 Seconds	~	
	Trigger Alarm Out		
	Alarm Out		

- 2. Click "Enable" and set the alarm holding time.
- 3. Trigger alarm out. When the camera is disconnected, the system will trigger the alarm out.

### 4.4.3 Alarm In

This function is only available for some models. To set sensor alarm (alarm in): Go to Config  $\rightarrow$  Alarm  $\rightarrow$  Alarm In interface as shown below.

Alarm Config Schedu	ıle		
Enable			
Alarm Type	NO	•	
Alarm Holding Time	20 Seconds	*	
Sensor Name			
Trigger Alarm Out			
🗖 Alarm Out			
🗖 Trigger Snap			
Trigger SD Recordin	Trigger SD Recording		
🗖 Trigger Email			
🗖 Trigger FTP			

1. Click "Enable" and set the alarm type, alarm holding time and sensor name.

2. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

3. Click "Save" button to save the settings.

4. Set the schedule of the sensor alarm. The setup steps of the schedule are the same as the schedule recording setup. (See <u>Schedule Recording</u>).

## 4.4.4 Alarm Out

This function is only available for some models. Go to  $Config \rightarrow Alarm \rightarrow Alarm Out$ .

Alarm Out Mode	Alarm Linkage	
Alarm Out Name	alarmOut1	
Alarm Holding Time	20 Seconds	~
Alarm Type	NC	•
	Save	

Alarm Out Mode: Alarm linkage, manual operation, day/night switch linkage and timing are optional.

**Alarm Linkage**: Having selected this mode, select alarm out name, alarm holding time at the "Alarm Holding Time" pull down list box and alarm type.

**Manual Operation**: Having selected this mode, select the alarm type and click "Open" to trigger the alarm out immediately; click "Close" to stop alarm.

Alarm Out Mode	m Out Mode Manual Operation	
Alarm Type	NC	•
Manual Operation	Open	Close
		Save

**Day/Night Switch Linkage**: Having selected this mode, select the alarm type and then choose to open or close alarm out when the camera switches to day mode or night mode.

Alarm Out Mode	Day/night switch linkage	•
Alarm Type	NC	•
Day	Close	•
Night	Close	•

**Timing**: Select the alarm type. Then click "Add" and drag the mouse on the timeline to set the schedule of alarm out; click "Erase" and drag the mouse on the timeline to erase the set time schedule. After this schedule is saved, the alarm out will be triggered in the specified time.

Erase 🖲 Add
21 22 23 24 Manual Input
Save
2

# 4.4.5 Alarm Server

Go to Alarm $\rightarrow$ Alarm Server interface as shown below.

Set the server address, port, heartbeat and heartbeat interval. When an alarm occurs, the camera will transfer the alarm event to the alarm server. If an alarm server is not needed, there is no need to configure this section.

-		
Server Address		
Port	0	
Heartbeat	Disable	$\checkmark$
Heartbeat interval	30	Second

# 4.5 Event Configuration

For more accuracy, here are some recommendations for installation.

- Cameras should be installed on stable surfaces, as vibrations can affect the accuracy of detection.
- Avoid pointing the camera at the reflective surfaces (like shiny floors, mirrors, glass, lake surfaces and so on).
- Avoid places that are narrow or have too much shadowing.
- Avoid scenario where the object's color is similar to the background color.
- At any time of day or night, please make sure the image of the camera is clear and with adequate and even light, avoiding overexposure or too much darkness on both sides.

# 4.5.1 Exception

This function can detect changes in the surveillance environment affected by the external factors.

To set exception detection:

Go to Config $\rightarrow$ Event $\rightarrow$ Exception interface as shown below.

Detection Config Sensitivity			
Scene change detection			
Video blur detection			
Enable video color cast detection			
Alarm Holding Time 20 Seconds v			
Trigger Alarm Out			
Alarm Out			
🗏 Trigger Snap			
Trigger SD Recording			
🗐 Trigger Email			
Trigger FTP			
Save			

1. Enable the applicable detection that's desired.

Scene Change Detection: Alarms will be triggered if the scene of the monitor video has changed.

Video Blur Detection: Alarms will be triggered if the video becomes blurry.

Enable Video Color Cast Detection: Alarms will be triggered if the video becomes obscured.

2. Set the alarm holding time and alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

3. Click "Save" button to save the settings.

4. Set the sensitivity of the exception detection. Click "Sensitivity" tab to go to the interface as shown below.

Detection Co	nfiguration	Sensitivity	
Sensitivity		28	
			Save

Drag the slider to set the sensitivity value or directly enter the sensitivity value in the textbox. Click "Save" button to save the settings.

**The sensitivity value of Scene Change Detection**: The higher the value is, the more sensitive the system responds to the amplitude of the scene change.

**The sensitivity value of Video Blur Detection**: The higher the value is, the more sensitive the system responds to the blurriness of the image.

The sensitivity value of Video Color Cast Detection: The higher the value is, the more sensitive the system responds to the obscuring of the image.

#### **%** The requirements of camera and surrounding area

- 1. Auto-focusing function should not been enabled for exception detection.
- 2. Try not to enable exception detection when light changes greatly in the scene.
- 3. Please contact us for more detailed application scenarios.

## 4.5.2 Line Crossing

**Line Crossing**: Alarms will be triggered if the target crosses the pre-defined alarm lines. Go to Config $\rightarrow$ Event $\rightarrow$ Line Crossing interface as shown below.

Detection Config Area Schedule					
☑ Enable					
□ Save Panoramic Picture	Save Panoramic Picture				
Save Target Cutout					
Detection Target					
🗹 Human	Sensitivity	50			
Motor Vehicle	Sensitivity	50			
Motorcycle/Bicycle	Sensitivity	50			
Alarm Holding Time	20 Seconds 👻				
Trigger Alarm Out					
□ Alarm Out					
Trigger Snap					
Trigger SD Recording					
Trigger Email					
Trigger FTP					
Save					

1. Enable line crossing detection and select the snapshot type and the detection target.

**Save Panoramic Picture**: If it is enabled, the detected panoramic pictures will be captured and saved to the SD card when the targets cross the alarm line.

**Save Target Cutout**: If it is enabled, the detected target cutout pictures will be captured and saved to the SD card when the targets cross the alarm line.

**Note**: To save snapshots to the local PC, please enable "Local Smart Snapshot Storage" in the local config interface first. To save snapshots to the SD card, please install an SD card first.

#### **Detection Target**:

**Human:** Select it and then alarms will be triggered if someone crosses the pre-defined alarm lines.

**Motor Vehicle**: Select it and then alarms will be triggered if a vehicle with four or more wheels (eg. a car, bus or truck) crosses the pre-defined alarm lines.

Motorcycle/Bicycle: Select it and then alarms will be triggered if a vehicle with two wheels

(eg. a motorcycle or bicycle) crosses the pre-defined alarm lines.

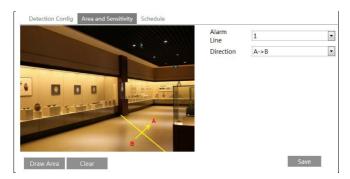
All of the three types of objects can be selected simultaneously. Please select the detection objects as needed. If no object/target is selected, alarms will not be triggered even if line crossing detection is enabled.

2. Set the alarm holding time.

3. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

4. Click "Save" button to save the settings.

5. Set area and sensitivity of the line crossing alarm. Click the "Area and Sensitivity" tab to go to the interface as shown below.



Set the alarm line number and direction. Up to 4 lines can be added. Multiple lines cannot be added simultaneously.

**Direction:** A<->B, A->B and A<-B optional. This indicates the direction of someone or a vehicle crosses over the alarm line.

A<->B: Alarms will be triggered when someone or a vehicle crosses over the alarm line from B to A or from A to B.

**A->B**: Alarms will be triggered when someone or a vehicle crosses over the alarm line from A to B.

**A**<-**B**: Alarms will be triggered when someone or a vehicle crosses over the alarm line from B to A.

Click the "Draw Area" button and then drag the mouse to draw a line in the image. Click the "Stop Draw" button to stop drawing. Click the "Clear" button to delete the lines. Click the "Save" button to save the settings.

6. Set the schedule of the line crossing alarm. The setup steps of the schedule are the same as the schedule recording setup (See <u>Schedule Recording</u>).

#### **X** Configuration of camera and surrounding area

1. Auto-focusing function should not be enabled for line crossing detection.

2. Avoid the scenes with many trees or the scenes with various light changes (like many flashing headlights). The ambient brightness of the scenes shouldn't be too low.

3. Cameras should be mounted at a height of 2.8 meters or above.

4. Keep the mounting angle of the camera at about 45  $^\circ\!.$ 

5. The detected objects should not be less than 1% of the entire image and the largest sizes of the detected objects should not be more than 1/8 of the entire image.

6. Make sure cameras can view objects for at least 2 seconds in the detected area for accurate detection.

7. Adequate light and clear scenery are crucial for line crossing detection.

## 4.5.3 Intrusion

**Intrusion**: Alarms will be triggered if the target intrudes into the pre-defined areas. This function can be applicable to important supervision places, danger areas and prohibited areas, like military administrative zones, high danger areas, no man's areas, etc.

Go to Config→Event→Intrusion interface as shown below.

Detection Config Area Schedule					
☑ Enable					
Save Panoramic Picture					
Save Target Cutout					
Detection Target					
🗹 Human	Sensitivity	50			
Motor Vehicle	Sensitivity	50			
Motorcycle/Bicycle	Sensitivity 📃	50			
Alarm Holding Time	20 Seconds v				
Trigger Alarm Out					
□ Alarm Out					
Trigger Snap					
Trigger SD Recording					
Trigger Email					
Trigger FTP					
Save					

1. Enable intrusion detection and select the snapshot type and the detection target.

**Save Panoramic Picture**: If it is enabled, the detected panoramic pictures will be captured and saved to the SD card when the targets intrude into the pre-defined areas.

**Save Target Cutout**: If it is enabled, the detected target cutout pictures will be captured and saved to the SD card when the targets intrude into the pre-defined areas.

**Note**: To save snapshots to the local PC, please enable "Local Smart Snapshot Storage" in the local config interface first. To save snapshots to the SD card, please install an SD card first. **Detection Target**:

Human: Select it and then alarms will be triggered if someone intrudes into the pre-defined area.

**Motor Vehicle**: Select it and then alarms will be triggered if a vehicle with four or more wheels (eg. a car, bus or truck) intrudes into the pre-defined area.

**Motorcycle/Bicycle**: Select it and then alarms will be triggered if a vehicle with two wheels (eg. a motorcycle or bicycle) intrudes into the pre-defined area.

All of the three types of objects can be selected simultaneously. Please select the detection objects as needed. If no object/target is selected, alarms will not be triggered even if intrusion detection is enabled.

2. Set the alarm holding time.

3. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

4. Click the "Save" button to save the settings.

5. Set the alarm area of the intrusion detection. Click the "Area" tab to go to the interface as shown below.



Set the alarm area number on the right side. Up to 4 alarm areas can be added.

Click the "Draw Area" button and then click around the area where you want to set as the alarm area in the image on the left side (the alarm area should be a closed area). Click the "Stop Draw" button to stop drawing. Click the "Clear" button to delete the alarm area. Click the "Save" button to save the settings.

6. Set the schedule of the intrusion detection. The setup steps of the schedule are the same as schedule recording setup (See <u>Schedule Recording</u>).

### X Configuration requirements of camera and surrounding area

1. Auto-focusing function should not be enabled for intrusion detection.

2. Avoid the scenes with many trees or the scenes with various light changes (like many flashing headlights). The ambient brightness of the scenes shouldn't be too low.

3. Cameras should be mounted at a height of 2.8 meters or above.

4. Keep the mounting angle of the camera at about 45  $^\circ\!\!.$ 

5. The detected objects should not be less than 1% of the entire image and the largest sizes of the detected objects should not be more than 1/8 of the entire image.

6. Make sure cameras can view objects for at least 2 seconds in the detected area for accurate detection.

7. Adequate light and clear scenery are crucial to line crossing detection.

## 4.5.4 Region Entrance

**Region Entrance**: Alarms will be triggered if the target enters the pre-defined areas. Go to Config $\rightarrow$ Event $\rightarrow$ Region Entrance interface as shown below.

Detection Config Area Sch	edule
✓ Enable	
Save Panoramic Picture	
Save Target Cutout	
Detection Target	
✓ Human	Sensitivity 50
Motor Vehicle	Sensitivity 50
Motorcycle/Bicycle	Sensitivity 50
Alarm Holding Time	20 Seconds Y
Trigger Alarm Out	
Alarm Out	
Trigger Snap	
Trigger SD Recording	
Trigger Email	
Trigger FTP	Save

1. Enable region entrance detection and select the snapshot type and the detection target.

**Save Panoramic Picture**: If it is enabled, the detected panoramic pictures will be captured and saved to the SD card when the targets enter the pre-defined areas.

**Save Target Cutout**: If it is enabled, the detected target cutout pictures will be captured and saved to the SD card when the targets enter the pre-defined areas.

**Note**: To save snapshots to the local PC, please enable "Local Smart Snapshot Storage" in the local config interface first. To save snapshots to the SD card, please install an SD card first. **Detection Target**:

Human: Select it and then alarms will be triggered if someone enters the pre-defined area.

**Motor Vehicle**: Select it and then alarms will be triggered if a vehicle with four or more wheels (eg. a car, bus or truck) enters the pre-defined area.

**Motorcycle/Bicycle**: Select it and then alarms will be triggered if a vehicle with two wheels (eg. a motorcycle or bicycle) enters the pre-defined area.

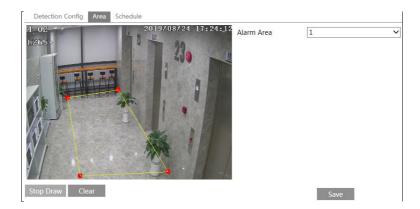
All of the three types of objects can be selected simultaneously. Please select the detection objects as needed. If no object/target is selected, alarms will not be triggered even if region entrance detection is enabled.

2. Set the alarm holding time.

3. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

4. Click the "Save" button to save the settings.

5. Set the alarm area of the region entrance detection. Click the "Area" tab to go to the interface as shown below.



Set the alarm area number on the right side. Up to 4 alarm areas can be added.

Click the "Draw Area" button and then click around the area where you want to set as the alarm area in the image on the left side (the alarm area should be a closed area). Click the "Stop Draw" button to stop drawing. Click the "Clear" button to delete the alarm area. Click the "Save" button to save the settings.

6. Set the schedule of the region entrance detection. The setup steps of the schedule are the same as schedule recording setup (See <u>Schedule Recording</u>).

\* The configuration requirements of camera and surrounding area are the same as intrusion detection.

## 4.5.5 Region Exiting

**Region Exiting**: Alarms will be triggered if the target exits from the pre-defined areas. Go to Config $\rightarrow$ Event $\rightarrow$ Region Exiting interface as shown below.

Detection Config Area Sc	hedule	
☑ Enable		
Save Panoramic Picture		
Save Target Cutout		
Detection Target		
✓ Human	Sensitivity	50
Motor Vehicle	Sensitivity	50
Motorcycle/Bicycle	Sensitivity	50
Alarm Holding Time	20 Seconds 💙	
Trigger Alarm Out		
□ Alarm Out		
Trigger Snap		
Trigger SD Recording		
Trigger Email		
Trigger FTP	Save	

1. Enable region exiting detection and select the snapshot type and the detection target.

Save Panoramic Picture: If it is enabled, the detected panoramic pictures will be captured and saved to the SD card when the targets exit from the pre-defined areas.

Save Target Cutout: If it is enabled, the detected target cutout pictures will be captured and saved to the SD card when the targets exit from the pre-defined areas.

Note: To save snapshots to the local PC, please enable "Local Smart Snapshot Storage" in the local config interface first. To save snapshots to the SD card, please install an SD card first.

**Detection Target:** 

Human: Select it and then alarms will be triggered if someone exits from the pre-defined area.

Motor Vehicle: Select it and then alarms will be triggered if a vehicle with four or more wheels (eg. a car, bus or truck) exits from the pre-defined area.

Motorcycle/Bicycle: Select it and then alarms will be triggered if a vehicle with two wheels (eg. a motorcycle or bicycle) exits from the pre-defined area.

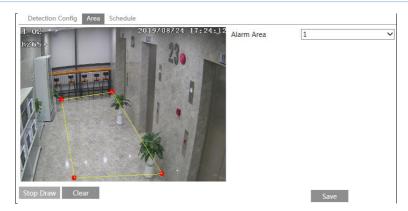
All of the three types of objects can be selected simultaneously. Please select the detection objects as needed. If no object/target is selected, alarms will not be triggered even if region exiting detection is enabled.

2. Set the alarm holding time.

3. Set alarm trigger options. The setup steps are the same as motion detection. Please refer to motion detection chapter for details.

4. Click the "Save" button to save the settings.

5. Set the alarm area of the region exiting detection. Click the "Area" tab to go to the interface as shown below.



Set the alarm area number on the right side. Up to 4 alarm areas can be added.

Click the "Draw Area" button and then click around the area where you want to set as the alarm area in the image on the left side (the alarm area should be a closed area). Click the "Stop Draw" button to stop drawing. Click the "Clear" button to delete the alarm area. Click the "Save" button to save the settings.

6. Set the schedule of the region exiting detection. The setup steps of the schedule are the same as schedule recording setup (See <u>Schedule Recording</u>).

\* The configuration requirements of camera and surrounding area are the same as intrusion detection

## 4.5.6 Target Counting

This function is to calculate the number of the people or vehicles crossing the alarm line through detecting, tracking and counting the shapes of the people or vehicles.

1. Go to Config $\rightarrow$ Event $\rightarrow$ Target Counting as shown below.

Detection Config Area Schedule
☑ Enable
Save Panoramic Picture
Save Target Cutout
Detection Target
Human Sensitivity 50
Motor Vehicle Sensitivity 50
Motorcycle/Bicycle Sensitivity 50
Counting Reset
Timing Off 🗸
Manual Reset
Save

2. Enable target counting and select the snapshot type and the detection target.

**Save Panoramic Picture**: If it is enabled, the detected panoramic pictures will be captured and saved to the SD card when the targets cross the pre-defined alarm line.

Save Target Cutout: If it is enabled, the detected target cutout pictures will be captured and

saved to the SD card when the targets cross the pre-defined alarm line.

**Note**: To save snapshots to the local PC, please enable "Local Smart Snapshot Storage" in the local config interface first. To save snapshots to the SD card, please install an SD card first.

**Detection Target**: Select the target to calculate. Human, motor vehicle and motorcycle/bicycle can be selected.

**Counting Reset**: The current number of the target counting can be reset. You can choose to reset the counting daily, weekly or monthly. Click "Reset" to manually reset the current number of crossing line people/car/bike counting.

3. Set the area of the target counting. Click the "Area" tab to go to the interface as shown below.



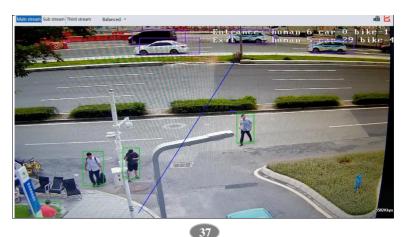
Set the alarm line number and direction. Only one alarm line can be added.

**Direction:** A->B and A<-B can be optional. The direction of the arrow is entrance. Click the "Draw Area" button and then drag the mouse to draw a line in the image. Click the

"Stop Draw" button to stop drawing. Click the "Clear" button to delete the lines.
Statistics: If enabled, you can see the statistical information in the live view interface. If disabled, the statistical information will not be displayed in the live view interface.
Check "Statistics" and then move the red box to change the position of the statistical information displayed on the screen. Click the "Save" button to save the settings.
4. Set the schedule of the target counting. The setup steps of the schedule are the same as

schedule recording setup (See Schedule Recording).

5. View the statistical information in the live view interface.



## 4.5.7 Face Detection

Face detection function is to detect the face appearing in the surveillance scene. Alarms will be triggered when a face is detected.

The setting steps are as follows:

1.Go to Config $\rightarrow$ Event $\rightarrow$ Face Detection as shown below.

Detection Config	Area	Advanced	Schedule
State	W	orking	
Enable			
Save Source In	formati	on	
Save Face Info	rmatior	n	
Alarm Holding Tir	ne 20	Seconds	~
Trigger Alarm Out	:		
🗖 Alarm Out			
Trigger Snap			
Trigger SD Rec	ording		
🔲 Trigger Email			
Trigger FTP			
		Save	

2. Enable the face detection function.

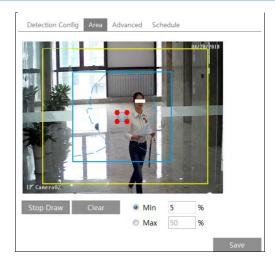
Save Source Information: if checked, the whole picture will be saved to the SD card when detecting a face.

Save Face Information: if checked, the captured face picture will be saved to the SD card when detecting a face.

Note: To save images to the local PC, please enable the local smart snapshot storage first (Config $\rightarrow$ System $\rightarrow$ Local Config). To save images to the SD card, please install an SD card first.

3. Set alarm holding time and alarm trigger options. The alarm trigger setup steps are the same as motion detection setup. Please refer to <u>motion detection</u> chapter for details.

4. Set alarm detection area.



Click "Draw Area" and drag the border lines of the rectangle to modify its size. Move the rectangle to change its position. Click "Stop Draw" to stop drawing the area. Click "Clear" to clear the area. Then set the detectable face size by defining the maximum value and the minimum value (The default size range of a single face image occupies from 3% to 50% of the entire image).

5.Advanced settings. Choose the snapshot interval and number as needed to avoid capturing multiple similar pictures in a very short period of time.

Deduplication Perio	d		
Snapshot Interval	5 Seconds	~	
Snapshot Number	3	$\checkmark$	

Snapshot Interval: If 5 seconds is selected, the camera will capture the same target once every 5 seconds during its continuous tracking period.

Snapshot Number: If the snapshot number is enabled and set (eg. 3), the camera will capture the same target once every 5 seconds and it will capture this target 3 times at most during its continuous tracking period. If the snapshot number is disabled, the camera will capture the same target once every 5 seconds until the target disappears in the detected area.

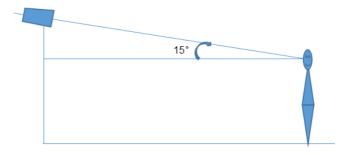
6. Set the schedule of the face detection. The setup steps of the schedule are the same as schedule recording setup (See <u>Schedule Recording</u>).

#### X Configuration requirements of camera and surrounding area

1. Cameras must be installed in the area with stable and adequate light sources.

2. The installation height ranges from 2.0m to 3.5m, adjustable according to the focal-length of different lenses and object distances.

3. The depression angle of the camera shall be less than or equal to 15  $^\circ$ .



4. The object distance depends on the focal-length of the lens mounted in the camera.

5. To ensure the accuracy of face detection, the captured faces are only allowed to deviate less than 30 °leftward or rightward or 20 °upward or downward.

6. The following scenes are not applicable, like crowded scenes (airport, railway station, square, etc), backlight scenes, crossroads and so on.

# 4.6 Network Configuration

## 4.6.1 TCP/IP

Go to Config $\rightarrow$ Network $\rightarrow$ TCP/IP interface as shown below. There are two ways for network connection.

IPv4 IPv6 PPPoE C	onfig IP Change Notification Config
○ Obtain an IP addre	ess automatically
• Use the following I	P address
IP Address	192.168.226.201 Test
Subnet Mask	255.255.255.0
Gateway	192.168.226.1
Preferred DNS Server	210 21 195 6
Freieneu Divs Server	210.21.190.0
Alternate DNS Server	8.8.8.8

Use IP address (take IPv4 for example)-There are two options for IP setup: obtain an IP address automatically by DHCP and use the following IP address. Please choose one of the options as needed.

Test: Test the effectiveness of the IP address by clicking this button.

Use PPPoE-Click the "PPPoE Config" tab to go to the interface as shown below. Enable

PPPoE and then enter the user name and password from your ISP.

IPv4 IPv6	PPPoE Config	IP Change Notification Config
🗵 Enable		
User Name	XXXXX	xx
Password	••••	••
		Save

Either method of network connection can be used. If PPPoE is used to connect internet, the camera will get a dynamic WAN IP address. This IP address will change frequently. To be notified, the IP change notification function can be used.

Click "IP Change Notification Config" to go to the interface as shown below.

IPv4 IPv6 PPPoE Config	IP Change Notification Config
Trigger Email	
Trigger FTP	
	Save

**Trigger Email**: when the IP address of the device is changed, the new IP address will be sent to the email address that has been set up.

**Trigger FTP**: when the IP address of the device is changed, the new IP address will be sent to FTP server that has been set up.

## 4.6.2 Port

Go to Config $\rightarrow$ Network $\rightarrow$ Port interface as shown below. HTTP port, Data port and RTSP port can be set.

HTTP Port	80
HTTPS Port	443
Data Port	9008
RTSP Port	554

**HTTP Port**: The default HTTP port is 80. It can be changed to any port which is not occupied.

**HTTPS Port**: The default HTTPs port is 443. It can be changed to any port which is not occupied.

Data Port: The default data port is 9008. Please change it as necessary.

RTSP Port: The default port is 554. Please change it as necessary.

## 4.6.3 Server Configuration

This function is mainly used for connecting network video management system.

✓ Enable	
Server Port	2009
Server Address	
Device ID	1
	Save

1. Check "Enable".

2. Check the IP address and port of the transfer media server in the ECMS/NVMS. Then enable the auto report in the ECMS/NVMS when adding a new device. Next, enter the remaining information of the device in the ECMS/NVMS. After that, the system will automatically allot a device ID. Please check it in the ECMS/NVMS.

3. Enter the above-mentioned server address, server port and device ID in the corresponding boxes. Click the "Save" button to save the settings.

## 4.6.4 DDNS

If the camera is set up with a DHCP connection, DDNS should be set for the internet. 1. Go to Config $\rightarrow$ Network $\rightarrow$  DDNS.

Port Server	DDNS	SNMP	802.1X	RTSP	UPnP	Email	FTP	HTTPS	QoS
Enable									
Server Type	wv	vw.dyndi	ns.com	4	·				
User Name									
Password									
Domain									
				Save					

2. Apply for a domain name. Take www.dvrdyndns.com for example.

Enter www.dvrdydns.com in the IE address bar to visit its website. Then Click the "Registration" button.

JSER NAME	XXXX		
ASSWORD	•••••	0	
ONFIRM	•••••		1
FIRST NAME	XXX		
LAST NAME	XXX		
SECURITY QUESTION.	My first phone nu	ımber. ⊻	
A N S W E R	XXXXXXXX		
CONFIRM YOU'RE HUMAN	718408 New Captcha Enter the text you se	e above	

Create domain name.

You must create a domain name to continue.		
Domain name must start with (a-z, 0-9). Cannot end or start, but may contain a hyphen and is not case-sensitive.		
. dvrdydns.c	om 👻 Request Domain	

After the domain name is successfully applied for, the domain name will be listed as below.

Search by Domain. Search				
		Click a name to edit your domain settings.		
NAME	STATUS	DOMAIN		
654321ABC	۲	654321abc.dvrdydns.com		
Last Update: Not yet updated IP	Address: 210.21.2	29.138		
Create additional domain names				

3. Enter the username, password, domain you apply for in the DDNS configuration interface.

4. Click the "Save" button to save the settings.

## 4.6.5 SNMP

To get camera status, parameters and alarm information and remotely manage the camera, the SNMP function can be used. Before using SNMP, please install an SNMP management tool and set the parameters of the SNMP, such as SNMP port, trap address.

1. Go to Config  $\rightarrow$  Network  $\rightarrow$  SNMP.

SNMP v1/v2	
Enable SNMPv1	
Enable SNMPv2	
Read SNMP Community	
Write SNMP Community	
Trap Address	
Trap Port	0
Trap community	
SNMP v3	
Enable SNMPv3	
Read User Name	
Security Level	auth, priv 🗸
Authentication Algorithm	◎ MD5 ○ SHA
Authentication Password	
Private-key Algorithm	● DES ○ AES
Private-key Algorithm	
Write User Name	
Security Level	auth, priv 🗸
Authentication Algorithm	◎ MD5 ○ SHA
Authentication Password	
Private-key Algorithm	• DES AES
Private-key Algorithm	
Other Settings	
SNMP Port	0

2. Check the corresponding version checkbox (Enable SNMPv1, Enable SNMPv2, Enable SNMPv3) according to the version of the SNMP software that will be used.

3. Set the values for "Read SNMP Community", "Write SNMP Community", "Trap Address", "Trap Port" and so on. Please make sure the settings are the same as that of the SNMP software.

**Note**: Please use the different version in accordance with the security level you required. The higher the version is, the higher the level of the security is.

## 4.6.6 802.1x

If it is enabled, the camera's data can be protected. When the camera is connected to the network protected by the IEE802.1x, user authentication is needed.

EAP_MD5
1 ~
test
•••••
•••••

To use this function, the camera shall be connected to a switch supporting 802.1x protocol. The switch can be reckoned as an authentication system to identify the device in a local network. If the camera connected to the network interface of the switch has passed the authentication of the switch, it can be accessed via the local network.

Protocol type and EAPOL version: Please use the default settings.

User name and password: The user name and password must be the same with the user name and password applied for and registered in the authentication server.

## 4.6.7 RTSP

Go to Config $\rightarrow$ Network $\rightarrow$ RTSP.

🗹 Enable			
Port	554		
Address	rtsp://IP or domain name:port/profile1		
	rtsp://IP or domain name:port/profile2		
	rtsp://IP or domain name:port/profile3		
Multicast add	ress		
Main stream	239.0.0.0	50554	Automatic start
Sub stream	239.0.0.1	51554	Automatic start
Third stream	239.0.0.2	52554	Automatic start
Audio	239.0.0.3	53554	Automatic start
Allow anor	nymous login (No username or password	required	)
_	Save		

Select "Enable" to enable the RTSP function.

Port: Access port of the streaming media. The default number is 554.

**RTSP Address**: The RTSP address (unicast) format that can be used to play the stream in a media player.

### **Multicast Address**

Main stream: The address format is "rtsp://IP address: rtsp port/profile1?transportmode=mcast". Sub stream: The address format is "rtsp://IP address: rtsp port/profile2?transportmode=mcast". Third stream: The address format is

"rtsp://IP address: rtsp port/profile3?transportmode=mcast".

Audio: Having entered the main/sub stream in a VLC player, the video and audio will play automatically.

If "Allow anonymous login..." is checked, there is no need to enter the username and password to view the video.

If "auto start" is enabled, the multicast received data should be added into a VLC player to play the video.

**Note:**1. This camera support local play through a VLC player. Enter the RTSP address (unicast or multicast, eg. rtsp://192.168.226.201:554/profile1?transportmode=mcast) in a VLC player to realize the simultaneous play with the web client.

2. The IP address mentioned above cannot be the address of IPv6.

3. Avoid the use of the same multicast address in the same local network.

4. When playing the video through the multicast streams in a VLC player, please pay attention to the mode of the VLC player. If it is set to TCP mode, the video cannot be played.

5. If the coding format of the video of the main stream is MJPEG, the video may be disordered at some resolutions.

## 4.6.8 UPNP

If this function is enabled, the camera can be quickly accessed through the LAN. Go to Config $\rightarrow$ Network $\rightarrow$ UPnP. Enable UPNP and then enter UPnP name.

✓ Enable	
UPnP Name	
	Save

### 4.6.9 Email

If you need to trigger Email when an alarm happens or IP address is changed, please set the Email here first.

Go to Config $\rightarrow$ Network  $\rightarrow$ Email.

Sender	
Sender Address	XXX@126.com
User Name	XXX@126.com
Password	• • • • • •
Server Address	smtp.126.com
Secure Connection	Unnecessary V
SMTP Port	25 Default
Send Interval(S)	0 (0-3600)
	Clear Test
Recipient	
XXXX@126.com	
Recipient Address	
	Add Delete
	Save

Sender Address: sender's e-mail address.

User name and password: sender's user name and password.

Server Address: The SMTP IP address or host name.

Select the secure connection type at the "Secure Connection" pull-down list according to what's required.

SMTP Port: The SMTP port.

**Send Interval(S)**: The time interval of sending email. For example, if it is set to 60 seconds and multiple motion detection alarms are triggered within 60 seconds, they will be considered as only one alarm event and only one email will be sent. If one motion alarm event is triggered and then another motion detection alarm event is triggered after 60 seconds, two emails will be sent. When different alarms are triggered at the same time, multiple emails will be sent separately.

Click the "Test" button to test the connection of the account.

Recipient Address: receiver's e-mail address.

### 4.6.10 FTP

After an FTP server is set up, captured pictures from events will be uploaded to the FTP server.

Go to Config $\rightarrow$ Network  $\rightarrow$ FTP.

Server Name	Server Address	Port	User Name	Upload Path
-	Add FTP Server Name Server Address Upload Path Port User Name Password	Example:/Dir/folda	er [ Anon	ymous
		ОК Са	ancel	

Server Name: The name of the FTP server.

Server Address: The IP address or domain name of the FTP.

Upload Path: The directory where files will be uploaded to.

Port: The port of the FTP server.

User Name and Password: The username and password that are used to login to the FTP server.

## 4.6.11 HTTPS

HTTPs provides authentication of the web site and protects user privacy. Go to Config  $\rightarrow$ Network $\rightarrow$ HTTPS as shown below.



There is a certificate installed by default as shown above. Enable this function and save it. Then the camera can be accessed by entering https://IP: https port via the web browser (eg. https://192.168.226.201:443).

A private certificate can be created if users don't want to use the default one. Click "Delete" to cancel the default certificate. Then the following interface will be displayed.

Enable		
Installation type	$\ensuremath{ \bullet }$ Have signed certificate, install directly	
	<ul> <li>Create a private certificate</li> </ul>	
	<ul> <li>Create a certificate request</li> </ul>	
Install certificate		Browse Install
		Save

\* If there is a signed certificate, click "Browse" to select it and then click "Install" to install it. \* Click "Create a private certificate" to enter the following creation interface.

Enable		
Installation type	$\bigcirc$ Have signed certificate, install directly	
	<ul> <li>Create a private certificate</li> </ul>	
	O Create a certificate request	
Create a private certificate	e Create	
_		Save

Click the "Create" button to create a private certificate. Enter the country (only two letters available), domain (camera's IP address/domain), validity date, password, province/state, region and so on. Then click "OK" to save the settings.

\* Click "Create a certificate request" to enter the following interface.



Click "Create" to create the certificate request. Then download the certificate request and submit it to the trusted certificate authority for signature. After receiving the signed certificate, import the certificate to the device.

## 4.6.12 P2P (Optional)

If this function is enabled, the network camera can be quickly accessed by adding the device ID in mobile surveillance client or CMS/NVMS client via WAN. Enable this function by going to Config $\rightarrow$ Network $\rightarrow$ P2P interface.

✓ P2P	
	Save

## 4.6.13 QoS

QoS (Quality of Service) function is used to provide different quality of services for different network applications. With the deficient bandwidth, the router or switch will sort the data streams and transfer them according to their priority to solve the network delay and network congestion by using this function.

Go to Config $\rightarrow$ Network $\rightarrow$ QoS.

Video/Audio DSCP	13
Alarm DSCP	35
Manager DSCP	53

Video/Audio DSCP: The range is from 0 to 63.

Alarm DSCP: The range is from 0 to 63.

Manager DSCP: The range is from 0 to 63.

Generally speaking, the larger the number is, the higher the priority is.

## 4.7 Security Configuration

## 4.7.1 User Configuration

Go to Config $\rightarrow$ Security $\rightarrow$ User interface as shown below.

Add	Modify Delet	te	
Index	User Name	User Type	Binding MAC
	admin	Administrator	

#### Add user:

1. Click the "Add" button to pop up the following textbox.

Add User		×
User Name		
Password		
Level		
	9~15 characters, including at least two of the following categories: numbers, special characters, upper case letters, lower case letters.	
Confirm Password		
User Type	Administrator 🗸	
Bind MAC	00:00:00:00:00	
-	OK Cancel	
	50	

2. Enter user name in "User Name" textbox.

3. Enter the password in the "Password" and "Confirm Password" textbox. Please set the password according to the requirement of the password security level (Go to Config $\rightarrow$ Security Management $\rightarrow$ Password Security interface to set the security level).

It is recommended to set a high level password that shall be composed of numbers, special characters, upper or lower case letters for your account security.

4. Choose the user type. Administrator has all permissions. Normal user can only view the live video. Advanced user has the same permissions as an Administrator except for; user, backup settings, factory reset, and upgrading the firmware.

5. Enter the MAC address of the PC in the "Bind MAC" textbox.

If this option is enabled, only the PC with the specified MAC address can access the camera for that user.

6. Click the "OK" button and then the newly added user will be displayed in the user list.

#### Modify user:

1. Select a user to modify password and MAC address if necessary in the user configuration list box.

2. The "Edit user" dialog box pops up by clicking the "Modify" button.

E	dit User		×
	Modify Password		
	User Name	admin	
	Old Password		
	New Password		
	Level		
		9~15 characters, including at least two of the following categories: numbers, special characters, upper case letters, lower case letters.	
	Confirm Password		
	Bind MAC	00:00:00:00:00	
		OK Cancel	

- 3. Enter the old password of the user in the "Old Password" text box.
- 4. Enter the new password in the "New password" and "Confirm Password" text box.
- 5. Enter computer's MAC address as necessary.
- 6. Click the "OK" button to save the settings.

**Note**: To change the access level of a user, the user must be deleted and added again with the new access level.

#### Delete user:

- 1. Select the user to be deleted in the user configuration list box.
- 2. Click the "Delete" button to delete the user.

Note: The default administrator account cannot be deleted.

## 4.7.2 Online User

Go to Config $\rightarrow$ Security $\rightarrow$ Online User to view the user who is viewing the live video.

Index	Client Address	Port	User Name	User Type	
1	192.168.17.232	55760	admin	Administrator	Kick Out

An administrator user can kick out all the other users (including other administrators).

## 4.7.3 Block and Allow Lists

Go to Config $\rightarrow$ Security $\rightarrow$ Block and Allow Lists as shown below.

IP/MAC Address Filter Settings		
✓ Enable address filtering		
Block the following address      Allo	ow the following address	
	Add	
	Delete	
	0.0.0.0	● IPv4 ○ IPv6 ○ MAC
	Save	

The setup steps are as follows:

Check the "Enable address filtering" check box.

Select "Block/Allow the following address", IPv4/IPv6/MAC and then enter IP address or MAC address in the address box and click the "Add" button.

## 4.7.4 Security Management

Go to Config $\rightarrow$ Security $\rightarrow$ Security Management as shown below.



In order to prevent against malicious password unlocking, "locking once illegal login" function can be enabled here. If this function is enabled, login failure after trying six times will make the login interface locked. The camera can be logged in again after a half hour or after the camera reboots.

For some specified versions, anonymous login with a private protocol can be enabled here. If this function is enabled, enter http://host:port/Anonymous/1[2/3] (eg.

http://192.168.226.201:80/Anonymous/1) via web browser to access the camera. 1 indicates main stream; 2 indicates sub stream; 3 indicates third stream. Only video can be viewed by this means and no other operations can be done. If no such function, please skip the instruction.

#### Password Security

Security Service	Passwo	rd Security	
Password Lev	vel	Weak	~
Expiration Tir	ne	Never	~

Please set the password level and expiration time as needed.

Password Level: Weak, Medium or Strong.

Weak level: Numbers, special characters, upper or lower case letters can be used. You can choose one of them or any combination of them when setting the password.

Medium Level: 9~15 characters, including at least two of the following categories: numbers, special characters, upper case letters, lower case letters.

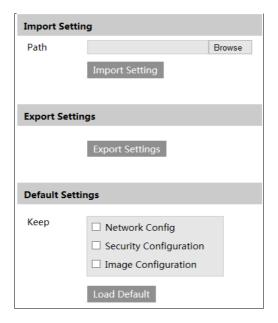
Strong Level: 9~15 characters. Numbers, special characters, upper case letters and lower case letters must be included.

For your account security, it is recommended to set a strong password and change your password regularly.

## 4.8 Maintenance Configuration

## 4.8.1 Backup and Restore

Go to Config→Maintenance→Backup & Restore.



### • Import & Export Settings

Configuration settings of the camera can be exported form a camera into another camera.

- 1. Click "Browse" to select the save path for import or export information on the PC.
- 2. Click the "Import Setting" or "Export Setting" button.

#### • Default Settings

Click the "Load Default" button to restore all system settings to the default factory settings except those you want to keep.

### 4.8.2 Reboot

Go to Config→Maintenance→Reboot. Click the "Reboot" button to reboot the device.

#### **Timed Reboot Setting:**

If necessary, the camera can be set up to reboot on a time interval. Enable "Time Settings", set the date and time and then click the "Save" button to save the settings.

## 4.8.3 Upgrade

Go to Config $\rightarrow$ Maintenance $\rightarrow$ Upgrade. In this interface, the camera firmware can be updated.

Local upgrade		
Path	Browse	Upgrade

1. Click the "Browse" button to select the save path of the upgrade file

2. Click the "Upgrade" button to start upgrading the firmware.

3. The device will restart automatically

**Caution!** Do not close the browser or disconnect the camera from the network during the upgrade.

## 4.8.4 Operation Log

To query and export log:

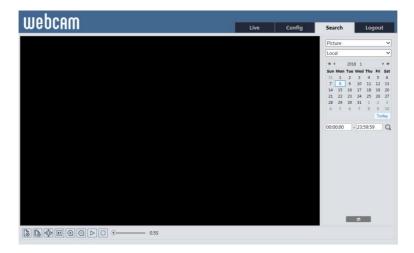
1. Go to Config  $\rightarrow$  Maintenance  $\rightarrow$  Operation Log.

Main Ty Start Tim		Sub Ty		<b>∨</b> 3:59:59 <b>■</b> Se	arch Export
Index	Time	Main Type	Sub Type	User Name	Login IP
1	2015-07-14 11:15:18	Operation	Log in	admin	192.168.12.53
2	2015-07-14 11:12:02	Exception	Disconnected		192.168.12.53
3	2015-07-14 19:12:17	Exception	Disconnected		192.168.12.52

- 2. Select the main type, sub type, start and end time.
- 3. Click "Search" to view the operation log.
- 4. Click "Export" to export the operation log.

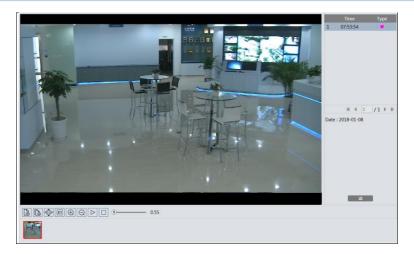
## 5.1 Image Search

Click Search to go to the interface as shown below. Images that are saved on the SD card can be found here.



## • Local Image Search

- 1. Choose "Picture"—"Local".
- 2. Set time: Select date and choose the start and end time.
- 3. Click  $\mathbf{Q}$  to search the images.
- 4. Double click a file name in the list to view the captured photos as shown above.



Click to return to the previous interface.

## • SD Card Image Search

1. Choose "Picture"—"SD Card".

	_				_
	Pictur				~
	SD Ca	rd			~
		201	8 1	,	• •
	Sun M	on Tue	Wed Th	Fri	Sat
	31	1 2	3 4	5	6
		8 9 5 16	10 11 17 18	12 19	13 20
		2 23	24 25		27
	28 2	9 30	31 1	2	3
	-4	5 6	7 8		10
				Too	lay
	00:00:	. 00	23:59:5	9	Q,
		_			
			\$		
I Select All I Sensor I ■ Event I ■ Motion Detection I ■ Common					

- 2. Set time: Select date and choose the start and end time.
- 3. Choose the alarm events at the bottom of the interface.
- 4. Click  $\bigcirc$  to search the images.
- 5. Double click a file name in the list to view the captured photos.

Click to return to the previous interface.

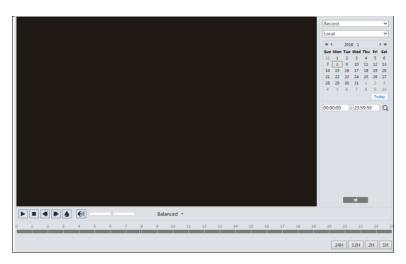
The descriptions of the buttons are shown as follows.

Icon	Description	Icon	Description		
$\mathbb{A}\otimes$	Close: Select an image and click this button to close the image.	Ľ⊗	Close all: Click this button to close all images.		
E	Save: Click this button to select the path for saving the image on the PC.	E	Save all: Click this button to select the path for saving all pictures on the PC.		
₹	Fit size: Click to fit the image on the screen.	×1	Actual size: Click this button to display the actual size of the image.		
$( \div )$	Zoom in: Click this button to digitally zoom in.	$\Theta$	Zoom out: Click this button to digitally zoom out.		
$\triangleright$	Slide show play: Click this button to start the slide show mode.		Stop: Click this button to stop the slide show.		
• <u>5.55</u>	Play speed: Play speed of the slide show.				

## 5.2 Video Search

## 5.2.1 Local Video Search

Click Search to go to the interface as shown below. Videos were recorded locally to the PC can be played in this interface.



- 1. Choose "Record"—"Local".
- 2. Set search time: Select the date and choose the start and end time.
- 3. Click  $\bigcirc$  to search the images.
- 4. Double click on a file name in the list to start playback.

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Icon	Description	Icon	Description	
	Play button. After pausing the video, click this button to continue playing.		Pause button	
	Stop button	▼	Speed down	
	Speed up		Watermark display	
	Enable / disable audio; drag the slider to adjust the volume a enabling audio.			

## 5.2.2 SD Card Video Search

Click Search to go to the interface as shown below. Videos that were recorded on the SD card can be played in this interface.

- 1. Choose "Record"—"SD Card".
- 2. Set search time: Select the date and choose the start and end time.
- 3. Click  $\bigcirc$  to search the images.

					Record V
					SD Card 🗸
					≪ 4 2018 1 → >>
					Sun Mon Tue Wed Thu Fri         Sat           31         1         2         3         4         5         6
					7 8 9 10 11 12 13 14 15 16 17 18 19 20
					21 22 23 24 25 26 27
					28 29 30 31 1 2 3 4 5 6 7 8 9 10
					Today
				Q	0:00:00 - 23:59:59 Q
0					#
	Balanced -			6	00:00:00 - 00:00:00
1 2 3 4 5 6 7	8 9 10 11 1	12 13 14 15	16 17	18 19	20 21 22 23 2
🗹 Select All  🖬 Sensor 🗹 📕 Event 🐼 💻 Mo	tion Detection 🗹 🗖 Common				24H 12H 2H 1H

- 4. Select the alarm events at the bottom of the interface.
- 5. Select mix stream (video and audio stream) or video stream as needed.
- 6. Double click on a file name in the list to start playback.



The time table can be shown in 24H/12H/2H/1H format by clicking the corresponding buttons.

Video clip and downloading

- 1. Search the video files according to the above mentioned steps.
- 2. Select the start time by clicking on the time table.
- 3. Click > to set the start time and then this button turns blue (> ).
- 4. Select the end time by clicking on the time table. Then click (>>>> to set the end time.
- 5. Click **I** to download the video file in the PC.

## Network Camera User Manual

1 10	00% Cut	2018-01-16 01:1	. 2018-01-16 01:1	Favorites	Open
Set up D:\Fa	vorites			Clear Lis	st Close

Click "Set up" to set the storage directory of the video files.

Click "Open" to play the video.

Click "Clear List" to clear the downloading list.

Click "Close" to close the downloading window.



## **Appendix 1 Troubleshooting**

#### How to find the password?

A: Reset the device to the default factory settings. Default IP: 192.168.226.201; User name: admin; Password: 123456

#### Fail to connect devices through IE browser.

A: Network is not well connected. Check the connection and make sure it is connected well.

B: IP address is not available. Reset the IP address.

C: Web port number has been changed: contact administrator to get the correct port number.

D: Exclude the above reasons. Restore to default setting by IP-Tool.

#### IP tool cannot search devices.

It may be caused by the anti-virus software in your computer. Please exit it and try to search device again.

#### IE cannot download ActiveX control.

A. IE browser may be set up to block ActiveX. Follow the steps below.

① Open IE browser and then click Tools-----Internet Options.



- 2 Select Security-----Custom Level....
- ③ Enable all the options under "ActiveX controls and plug-ins".
- ④ Click OK to finish setup.
- B. Other plug-ins or anti-virus blocks ActiveX. Please uninstall or close them.

Internet Options	Security Settings
General Security Privacy Content Connections Programs Advanced Select a Web content zone to specify its security settings.	Settings:
Internet Local intranet Trusted sites Restricted sites	Enable     Prompt     Download unsigned ActiveX controls     Disable
Internet Internet Internet Sites_ Sites_ Security level for this zone	Enable     Frompt     Trouble and script. ActiveX controls not marked as safe     Disable     Enable
Custom settings. - To change the settings, click Custom Level. - To use the recommended settings, click Default Level.	Reset custom settings
Custom Level. Default Level OK Cancel Apply	Reset to: Medium Reset

### No sound can be heard.

- A: Audio input device is not connected. Please connect and try again.
- B: Audio function is not enabled at the corresponding channel. Please enable this function.

# **Appendix 2 Specifications**

Speci	ification /Model	O AI Box Network Camera		
	Image Sensor	1/3 " CMOS		
	Image Size	2592×1520		
	Electronic Shutter	1/30s~1/100000s		
	Iris Type	DC Iris		
Camera	Min. Ilumination	Color: 0.0028 lux@F1.2, AGC ON; 0 lux with IR; B&W: 0.001 lux@F1.2, AGC ON		
	Lens Mount	CS		
	Day&Night	ICR		
	WDR	120dB		
	Digital NR	3D DNR		
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.264/MJPEG		
	Н.264 Туре	Baseline profile/main profile/high profile		
	Video Bit Rate	64Kbps~8Mbps		
	Resolution	4MP (2592×1520), 2K(2560×1440), 3MP (2304×1296), 1080P (1920×1080), 720P(1280×720), D1, CIF, 480×240		
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); 50Hz: 4MP/2K/3MP/1080P/720P (1~25fps) HFR mode: 60Hz: 1080P/720P(1~60fps); 50Hz: 1080P/720P(1~50fps);		
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D1/CIF (1~25fps)		
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CIF/D1/ 480×240 (1~25fps)		
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser		
	ROI	Support		
	Network	RJ45		
	Auido	1CH audio input; 1CH audio output; 1CH built-in MIC		
	Video	CVBS ouput (BNC×1)		
Interfaces	RS485	Yes		
	Reset	Yes		
	Storage	Built-in micro SD card storage slot, up to 128 GB		
	Alarm	1CH Alarm input; 1CH Alarm Ouput		
	Remote Monitoring	Web browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to 10 users and multi-stream transmission		
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS, 802.1x, QoS		
	Interface Protocol	ONVIF		
	Storage	Network remote storage, micro SD card storage		
Fucntion	Smart Alarm	Motion detection, Sensor detection, SD card Full, SD card error, IP address conflict, cable disconnection, abnormal video signal detection, line crossing detection(human/vehicle classification), region entrance/exiting/intrusion detection(human/vehicle classification), people/vehicle counting, face detection, face capture		
	Power	AC24V/DC12V/PoE		
	Power Consumption	<11W		
	Opterating Environment	Temperature: -30 °C~60 °C; Relative Humidity: less than 95% (non-condensing)		
	Dimension (mm)	146.9×79×64		
	Weight ( net )	Approx. 0.65KG		

Speci	ification /Model	Bullet AI Network	Bullet AI Network	
	Image Sensor	1/3 " CMOS	Cumera	
	Image Size	2592×1520		
	Electronic Shutter	1/30s~1/100000s		
	Iris Type	Fixed Iris		
	Min. Ilumination	0.005 lux@F1.6, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR		
Camera	Lens	2.8mm@F1.6, horizontal field of view:100.4 3.6mm@F1.6, horizontal field of view: 80.6		
	Lens Mount	M12		
	Day&Night	ICR		
	WDR	120dB		
	Digital NR	3D DNR		
1	Angle Adjustment	Pan: 0 ~360 °, Tilt 0 ~80 °, Rotation:0 ~360 °		
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.26	i4/MJPEG	
	Н.264 Туре	Baseline profile/main profile/high profile           64Kbps~8Mbps           4MP         (2592×1520), 2K(2560×1440), 3MP         (2304×1296), 1080P         (1920×1080), 720P(1280×720), D1, CIF, 480×240		
	Video Bit Rate			
	Resolution			
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); HFR mode : 60Hz: 1080P/720P(1~60fps); 5		
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D1/CIF (1~25fps)		
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: C	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CIF/D1/ 480×240 (1~25fps)	
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, NR, etc. adjustable through client or web bro	Chroma, Contrast, Wide Dynamic, Sharpen, wser	
L	ROI	Support		
	Network RJ45			
Interfaces	Auido	1CH audio input		
interfaces	Reset	Yes		
L	Storage	Built-in micro SD card slot; up to 128GB		
	Remote Monitoring	Web browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to 10	) users and multi-stream transmission	
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE 802.1x, QoS	, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS,	
Fucntion	Interface Protocol	ONVIF		
	Storage	Network remote storage; micro SD card stora		
Smart Alarm Motion detection;SD card Full, SD card error, abnormal vide crossing detection(human/vehicle classification), region e detection(human/vehicle classification), people/vehicle countin capture		cation), region entrance/exiting/intrusion		
	IR Distance	20~30 m		
	Protection Grade	IP67		
	Power	DC12V/PoE		
	Power Consumption	< 7.5W		
Others	Opterating Environment	Temperature: -30 ℃~60 ℃; Relative Humic	lity: less than 95% (non-condensing)	
	Dimension (mm)	167.5×74.5×74.5	165.7×69×69	
	Weight ( net ) Approx. 0.423KG Approx. 0.40KG		Approx. 0.40KG	
	Installation	Wall mounting; ceiling mounting		

Speci	fication /Model	Bullet AI Network Camera	Bullet AI Network Camera	
	Image Sensor	1/3 " CMOS		
	Image Size 2592×1520			
	Electronic Shutter			
	Iris Type	Fixed Iris (fixed lens); DC Iris ( motorized le	ns)	
	Min. llumination	0.005 lux@F1.6, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR		
Camera	Lens	2.8mm@F1.6, horizontal field of view:100.4 3.6mm@F1.6, horizontal field of view: 80.6 2.8~12mm@F1.4, horizontal field of view:94	<b>)</b>	
	Lens Mount	M12		
	Day&Night	ICR		
	WDR	120dB		
	Digital NR	3D DNR		
	Angle Adjustment	Pan: 0 °~360 °, Tilt 0 °~90 °, Rotation:0 °~360 °		
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.26	4/MJPEG	
	Н.264 Туре	Baseline profile/main profile/high profile		
	Video Bit Rate	64Kbps~8Mbps 4MP (2592×1520), 2K(2560×1440), 3MP (2304×1296), 1080P (1920×108 720P(1280×720), D1, CIF, 480×240		
	Resolution			
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); HFR mode: 60Hz: 1080P/720P(1~60fps); 50		
	Sub Stream	i0Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D1/CIF (1~25fps)		
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CI	F/D1/ 480×240 (1~25fps)	
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser		
	ROI Support			
	Network	RJ45		
Interfaces	Auido	1CH audio input		
interfaces	Reset	Yes		
	Storage	Built-in micro SD card slot; up to 128GB		
	Remote Monitoring	Web browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to 10	) users and multi-stream transmission	
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE 802.1x, QoS	, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS,	
Fucntion	Interface Protocol	ONVIF		
	Storage	Network remote storage; micro SD card stora		
Smart Alarm Motion detection;SD card Full, SD card error, abnorn crossing detection(human/vehicle classification), re detection(human/vehicle classification), people/vehicle capture		cation), region entrance/exiting/intrusion		
	IR Distance	30~50 m		
	Protection Grade	IP67		
	Power	DC12V/PoE		
Others	Power Consumption	< 9.5W		
Others	Opterating Environment	Temperature: -30 °C~60 °C; Relative Humid	ity: less than 95% (non-condensing)	
	Dimension (mm)	217.7×80.5×80.5	218.1×79.5×70.4	
	Weight (net)	Approx. 0.69KG	Approx. 0.50KG	
	Installation	Wall mounting; ceiling mounting		

Speci	fication /Model	Bullet AI Network Camera
Image Sensor		1/3 " CMOS
	Image Size	2592×1520
	Electronic Shutter	1/30s~1/100000s
	Iris Type	DC Iris
	Min. llumination	0.005 lux@F1.4, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR
Camera	Lens	2.8~12mm@F1.4, horizontal field of view:94.2 °~29.8 °
	Lens Mount	Ø14
	Day&Night	ICR
	WDR	120dB
	Digital NR	3D DNR
	Angle Adjustment	Pan: 0 °~360 °, Tilt 0 °~90 °, Rotation:0 °~360 °
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.264/MJPEG
	H.264 Type	Baseline profile/main profile/high profile
	Video Bit Rate	64Kbps~8Mbps
	Resolution	4MP (2592×1520), 2K(2560×1440), 3MP (2304×1296), 1080P (1920×1080), 720P(1280×720), D1, CIF, 480×240
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); 50Hz: 4MP/2K/3MP/1080P/720P (1~25fps) HFR mode: 60Hz: 1080P/720P(1~60fps); 50Hz: 1080P/720P(1~50fps);
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D1/CIF (1~25fps)
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CIF/D1/ 480×240 (1~25fps)
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser
	ROI	Support
	Network	RJ45
	Auido	1CH audio input; 1CH audio output
Interfaces	Video	CVBS ouput (BNC×1)
Interfaces	Reset	Yes
	Storage	Built-in micro SD card storage slot, up to 128 GB
	Alarm	1CH Alarm input; 1CH Alarm Ouput
	Remote Monitoring	Web browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 10 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS, 802.1x, QoS
Fucntion	Interface Protocol	ONVIF
	Storage	Network remote storage, micro SD card storage
	Smart Alarm	Motion detection, Sensor detection, SD card Full, SD card error, IP address conflict, cable disconnection, abnormal video signal detection, line crossing detection(human/vehicle classification), region entrance/exiting/intrusion detection(human/vehicle classification), people/vehicle counting, face detection, face capture
	IR Distance	50~70 m
	Protection Grade	IP67
	Power	DC12V/PoE
	Power Consumption	< 10W
Others	Opterating Environment	Temperature: -30 °C~60 °C; Relative Humidity: less than 95% (non-condensing)
	Dimension (mm)	279.5×100.3×88.9
	Weight ( net )	Approx. 1.04KG
	Installation	Wall mounting; ceiling mounting

Speci	cation /Model 🛛 🐨 Dome AI Network Camera 🖉 Dome AI Network Camera		Dome AI Network Camera
	Image Sensor	1/3 " CMOS	
	Image Size	2592×1520	
	Electronic Shutter	1/30s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.005 lux@F1.6, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR	
Camera	Lens	2.8mm@F1.6, horizontal field of view:100.4 3.6mm@F1.6, horizontal field of view: 80.6	
	Lens Mount	M12	
	Day&Night	ICR	
	WDR	120dB	
	Digital NR	3D DNR	
	Angle Adjustment	Pan: 0 ~355 °, Tilt 0 ~67 °, Rotation:0 ~355 °	
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.26	4/MJPEG
	H.264 Type	Baseline profile/main profile/high profile 64Kbps~8Mbps	
	Video Bit Rate		
	Resolution	4MP (2592×1520), 2K(2560×1440), 3 720P(1280×720), D1, CIF, 480×240	MP (2304×1296), 1080P (1920×1080),
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); HFR mode: 60Hz: 1080P/720P(1~60fps); 5	
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D	1/CIF (1~25fps)
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CI	F/D1/ 480×240 (1~25fps)
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, NR, etc. adjustable through client or web bro	
	ROI	Support	
	Network	RJ45 1CH audio input; 1CH Built-in MIC 1CH alarm input; 1CH alarm output	
	Auido		
Interfaces	Alarm		
	Reset	Yes	
	Storage	Built-in micro SD card slot; up to 128GB	
	Remote Monitoring	Web browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 10	) users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE 802.1x, QoS	, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS,
	Interface Protocol	ONVIF	
	Storage	Network remote storage; micro SD card stora	ge
Fucntion	Smart Alarm entrance/exiting/intrusion detection(human/vehicle classification),		human/vehicle classification), region
	IR Distance		
	Protection Grade	IP67&IK10	
	Power	DC12V/PoE	
	Power Consumption	< 7W	
	Opterating Environment	Temperature: -30 °C~60 °C; Relative Humid	ity: less than 95% (non-condensing)
	Dimension (mm)	Ø119mm×87.8mm	Ø116.7×90
	Weight ( net )	Approx. 0.65KG	Approx. 0.60KG
	Installation	Ceiling mounting (Wall mounting available with the junction box and bracket)	

Spec	ification /Model	Dome AI Network Camera
	Image Sensor	1/3 " CMOS
	Image Size	2592×1520
	Electronic Shutter	1/30s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.005 lux@F1.4, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR
Camera	Lens	2.8~12mm@F1.4, horizontal field of view: 94.2 °~29.8 °
	Lens Mount	Ø14
	Day&Night	ICR
	WDR	120dB
	Digital NR	3D DNR
	Angle Adjustment	Pan: 0 °~360 °, Tilt 0 °~77 °, Rotation:0 °~360 °
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.264/MJPEG
	Н.264 Туре	Baseline profile/main profile/high profile
	Video Bit Rate	64Kbps~8Mbps
	Resolution	4MP (2592×1520), 2K(2560×1440), 3MP (2304×1296), 1080P (1920×1080), 720P(1280×720), D1, CIF, 480×240
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); 50Hz: 4MP/2K/3MP/1080P/720P (1~25fps) HFR mode: 60Hz: 1080P/720P(1~60fps); 50Hz: 1080P/720P(1~50fps);
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D1/CIF (1~25fps)
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CIF/D1/ 480×240 (1~25fps)
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser
	ROI	Support
	Network	RJ45
	Auido	1CH audio input; 1CH audio output;1CH Built-in MIC
Interfaces	Alarm	1CH alarm input; 1CH alarm output
	Storage	Built-in micro SD card slot; up to 128GB
	Reset	Yes
	Remote Monitoring	Web browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 10 users and multi-stream transmission
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS, 802.1x, QoS
	Interface Protocol	ONVIF
	Storage	Network remote storage; micro SD card storage
Fucntion	Smart Alarm	Motion detection; SD card Full, SD card error, abnormal video signal detection, line crossing detection(human/vehicle classification), region entrance/exiting/intrusion detection(human/vehicle classification), people/vehicle counting, face detection, face capture
	IR Distance	20~30m
	Power	DC12V/PoE
	Power Consumption	< 7.5W
	Opterating Environment	Temperature: -10 °C~40 °C; Relative Humidity: less than 95% (non-condensing)
	Dimension (mm)	Ø122mm×96mm
	Weight ( net )	Approx. 0.33KG
	Installation	Ceiling mounting

Speci	ification /Model	Dome AI Network Camera	Dome AI Network Camera	
	Image Sensor	1/3 " CMOS	-	
	Image Size	2592×1520		
	Electronic Shutter	er 1/30s~1/100000s		
	Iris Type	DC Iris		
	Min. llumination	0.005 lux@F1.4, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR		
Camera	Lens	2.8~12mm@F1.4, horizontal field of view: 9	4.2 °~29.8 °	
	Lens Mount	Ø14		
	Day&Night	ICR		
	WDR	120dB		
	Digital NR	3D DNR		
	Angle Adjustment	Pan:         0 % 345 %         Tilt         0 % 77 %         Pan:         0 % 360 %         Tilt         0 % 7           Rotation:         0 % 345 °         Rotation:         0 % 360 °         Tilt         0 % 7		
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.264/MJPEG		
	Н.264 Туре	Baseline profile/main profile/high profile 64Kbps~8Mbps		
	Video Bit Rate			
	Resolution	4MP (2592×1520), 2K(2560×1440), 3MP (2304×1296), 1080P (1920×1080), 720P(1280×720), D1, CIF, 480×240		
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); HFR mode: 60Hz: 1080P/720P(1~60fps); 5	0Hz: 1080P/720P(1~50fps);	
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D		
	Third Stream	60Hz: CIF/D1/480×240 (1~30fps); 50Hz: CIF/D1/480×240 (1~25fps)		
	Image Settings	NR, etc. adjustable through client or web bro	Chroma, Contrast, Wide Dynamic, Sharpen, wser	
ROI Support				
	Network	1CH audio input; 1CH audio output; 1CH built-in MIC		
	Auido			
Interfaces	Video	CVBS ouput (BNC×1)		
	Reset	Yes		
	Storage	Built-in micro SD card storage slot, up to 128	3 GB	
	Alarm	1CH Alarm input; 1CH Alarm Ouput		
	Remote Monitoring	Web browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to 10		
	Network Protocol	802.1x, QoS	, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS,	
	Interface Protocol	ONVIF		
	Storage	Network remote storage, micro SD card stora		
Smart Alarm Motion detection, Sensor detection, SD card Full, SD disconnection, abnormal video signal detection, line cr classification), region entrance/exiting/intrusion detection		ction, line crossing detection(human/vehicle sion detection(human/vehicle classification),		
Fucntion	IR Distance	people/vehicle counting, face detection, face capture 30~50m		
	Protection Grade	IP67&IK10		
	Power	DC12V/PoE		
	Power Consumption	< 8W		
	Opterating Environment	Temperature: -30 ℃~60 ℃; Relative Humic	lity: less than 95% (non-condensing)	
	Dimension (mm)	Ø141×100.2	Ø150.4×114.2	
	Weight ( net )	Approx. 0.89KG	Approx. 1.02KG	
	Installation	Ceiling mounting (Wall mounting available with the junction box and bracket)		

Spec	ification /Model	Dome AI Network Camera	Dome AI Network Camera	
	Image Sensor	1/3 " CMOS		
	Image Size	2592×1520		
	Electronic Shutter	tter 1/30s~1/100000s		
	Iris Type	Fixed Iris		
	Min. llumination	0.005 lux@F1.6, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR		
Camera	Lens	2.8mm@F1.6, horizontal field of view:100.4 3.6mm@F1.6, horizontal field of view: 80.6		
	Lens Mount	M12		
	Day&Night	ICR		
	WDR	120dB		
	Digital NR	3D DNR		
	Angle Adjustment	Pan: 0 ~360 °, Tilt 0 ~75 °, Rotation:0 ~360 °		
	Video Compression	H.265S/H.265+/H.265/ H.264S/H.264+/H.264/MJPEG		
	Н.264 Туре	Baseline profile/main profile/high profile		
	Video Bit Rate	64Kbps~8Mbps		
	Resolution	4MP (2592×1520), 2K(2560×1440), 3 720P(1280×720), D1, CIF, 480×240	MP (2304×1296), 1080P (1920×1080),	
Image	Main Stream	60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); HFR mode: 60Hz: 1080P/720P(1~60fps); 50		
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D1/CIF (1~25fps)		
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CIF/D1/ 480×240 (1~25fps)		
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, NR, etc. adjustable through client or web bro	Chroma, Contrast, Wide Dynamic, Sharpen, wser	
	ROI	Support		
	Network	RJ45 1CH audio input; Built-in MIC×1 Yes Built-in micro SD card slot; up to 128GB		
T . C	Auido			
Interfaces	Reset			
	Storage			
	Remote Monitoring	Web browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to 10	) users and multi-stream transmission	
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE 802.1x, QoS	, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS,	
	Interface Protocol	ONVIF		
	Storage	Network remote storage; micro SD card stora	age	
Smart Alarm         Motion detection;SD card Full, SD card error, abnorm crossing detection(human/vehicle classification), reg detection(human/vehicle classification), people/vehicle capture		ication), region entrance/exiting/intrusion		
	Protection Grade	IP67		
	Power	DC12V/PoE		
	Power Consumption	<7.5W		
	IR Distance	20~30m		
	Opterating Environment	Temperature: -30 ℃~60 ℃; Relative Humic	lity: less than 95% (non-condensing)	
	Dimension (mm)	Ø 94.6×82.8	Ø 108 ×95.7	
			Approx. 0.49KG	
	Installation Ceiling mounting (Wall mounting available with the junction box and brac		**	
		Centing mounting (wall mounting available with the junction box and bracket)		

Speci	ification /Model	Dome AI Network Camera	O Dome AI Network Camera	
	Image Sensor	1/3 " CMOS		
	Image Size	2592×1520		
	Electronic Shutter	2 Shutter 1/30s~1/100000s		
	Iris Type	DC Iris		
	Min. llumination	0.005 lux@F1.4, AGC ON; 0 lux with IR; 0.0028 lux@F1.2, AGC ON; 0 lux with IR		
Camera	Lens	2.8~12mm@F1.4, horizontal field of view: 9	4.2 °~29.8 °	
	Lens Mount	Ø14		
	Day&Night	ICR		
	WDR	120dB		
	Digital NR	3D DNR		
	Angle Adjustment	Pan: 0 ~360 °, Tilt 0 ~80 °, Rotation:0 ~360 °		
	Video Compression	n H.265S/H.265+/H.265/ H.264S/H.264+/H.264/MJPEG		
	Н.264 Туре	Baseline profile/main profile/high profile		
	Video Bit Rate	64Kbps~8Mbps 4MP (2592×1520), 2K(2560×1440), 3MP (2304×1296), 1080P (1920×1080) 730P(120, 720), D1 CIE, 400, 240		
	Resolution			
Image	Main Stream	720P(1280×720), D1, CIF, 480×240 60Hz: 4MP/2K/3MP/1080P/720P(1~30fps); J HFR mode: 60Hz: 1080P/720P(1~60fps); 50		
	Sub Stream	60Hz: 720P/D1/CIF(1~30fps); 50Hz: 720P/D	01/CIF (1~25fps)	
	Third Stream	60Hz: CIF/ D1/480×240 (1~30fps); 50Hz: CIF/D1/ 480×240 (1~25fps)		
	Image Settings	BLC, HLC, Defog, Saturation, Brightness, NR, etc. adjustable through client or web bro		
	ROI	Support		
	Network	RJ45		
Interfaces	Auido	1CH audio input; Built-in MIC×1		
interfaces	Reset	Yes		
	Storage	Built-in micro SD card slot; up to 128GB		
	Remote Monitoring	Web browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to 10	) users and multi-stream transmission	
	Network Protocol	IPv4, IPv6, UDP, DHCP, NTP, RTSP, PPPoE 802.1x, QoS	, DDNS, SMTP, FTP, SNMP, HTTP, HTTPS,	
	Interface Protocol	ONVIF		
	Storage	Network remote storage; micro SD card stora		
Fucntion	Smart Alarm	crossing detection(human/vehicle classifi	card error, abnormal video signal detection, line lassification), region entrance/exiting/intrusion ), people/vehicle counting, face detection, face	
Fuction	Protection Grade	IP67		
	Power	DC12V/PoE		
	Power Consumption	< 9.5W		
	IR Distance	30~50m		
	Opterating Environment	Temperature: -30 ℃~60 ℃; Relative Humid	ity: less than 95% (non-condensing)	
	Dimension (mm)	Ø111.5mm×99.6mm	Ø 130×110	
	Weight ( net )	Approx. 0.67KG Approx. 0.68KG		
	Installation	Ceiling mounting (Wall mounting available w	vith the junction box and bracket)	

Scan the following QRcode with your smart phone (available for iOS or Android OS) to install the mobile surveillance APP. Please refer to mobile surveillance user manual for details.



SuperCam Plus

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