



4MP IP Camera Series

Transcendent Series 4 Megapixel
Indoor / Outdoor WDR IP Cameras
with GEN IV Advanced Analytics



**For a full list of models covered in this manual, see inside of cover.*

FEATURES

- 1/3" 4.0 Megapixel CMOS Image Sensor
- Up to 30fps @ 4 MegaPixel (2592x1520)
- 3.6 / 2.8mm Fixed Lens, or 2.8~12mm Motorized Varifocal Lens Options
- Matrix IRs with up to 165' IR Range (model dependent)
- True Wide Dynamic Range
- True Mechanical Day/Night function by ICR
- XD-DNR (2D & 3D Digital Noise Reduction)
- GEN IV Advanced Analytics: Regional Entrance / Exit Detection, Line Crossing, Target Counting (All by Human / Motor Vehicle Classification) Face Detection, Video Blur, Video Color Cast Detection, Abnormal Video, and more!
- 1 Channel Audio In / In + Out / Built-in Mic* (model dependent)
- Smart H.265 / H.265+ / H.265 / Smart H.264 / H.264+ / H.264 / MJPEG
- Remote Viewing via CMS, Internet Explorer, and iOS & Android Apps
- ONVIF Compliant
- MicroSD Card Slot for Local Recording (up to 256GB)
- IP67 Weather Resistance (+ IK10 on Vandal Dome Models)
- Optional Mounts and Junction Boxes Available (see rear pages)
- 12VDC & PoE (Power over Ethernet) Operation
- 3 Year Warranty

**Please research local, state and federal laws regarding the implementation of audio surveillance.*



VITEK NETWORK CAMERA MODELS COVERED IN THIS MANUAL

VTC-TNB4RFA4 4MP 3.6mm Fixed IP Bullet Camera

VTC-TNB4RFA4-2 4MP 2.8mm Fixed IP Bullet Camera

VTC-TNB4RFA4B 4MP 3.6mm Fixed IP Bullet Camera (Charcoal)

VTC-TNB4RFA4B-2 4MP 2.8mm Fixed IP Bullet Camera (Charcoal)

VTC-TNT4RFA4 4MP 3.6mm Fixed IP Turret Camera

VTC-TNT4RFA4-2 4MP 2.8mm Fixed IP Turret Camera

VTC-TNT4RFA4B 4MP 3.6mm Fixed IP Turret Camera (Charcoal)

VTC-TNT4RFA4B-2 4MP 2.8mm Fixed IP Turret Camera (Charcoal)

VTD-TND4RFA4 4MP 3.6mm Fixed IP Vandal Dome Camera

VTD-TND4RFA4-2 4MP 2.8mm Fixed IP Vandal Dome Camera

VTD-TND4RFA4B 4MP 3.6mm Fixed IP Vandal Dome Camera (Charcoal)

VTD-TND4RFA4B-2 4MP 2.8mm Fixed IP Vandal Dome Camera (Charcoal)

VTD-TNMD4RFA4-2 4MP 2.6mm Fixed IP Mini Saucer Dome Camera

VTC-TNB4RMA4 4MP 2.8~12mm Motorized AF IP Bullet Camera

VTC-TNB4RMA4B 4MP 2.8~12mm Motorized AF IP Bullet Camera (Charcoal)

VTC-TNT4RMA4 4MP 2.8~12mm Motorized AF IP Turret Camera

VTC-TNT4RMA4B 4MP 2.8~12mm Motorized AF IP Turret Camera (Charcoal)

VTD-TND4RMA4 4MP 2.8~12mm Motorized AF IP Vandal Dome Camera

VTD-TND4RMA4B 4MP 2.8~12mm Motorized AF IP Vandal Dome Camera (Charcoal)

Notes on Safety

Please read this manual carefully for correct use of the product.

Notes

- Please use the specified power supply to connect the device.
- 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 incorrect operation, shock vibration, heavy loads which can cause damage to the camera.
- Do not use corrosive detergent to clean 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 the sun, this may damage the image sensor.
- Please follow the instructions to install the camera.
- Do not operate if temperature, humidity or the power supply are beyond the limited stipulations.
- Keep away from heat sources such as radiators, heat registers, stoves, etc.
- Do not expose the product to the direct airflow from an air conditioner.
- We reserve the right to amend 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 notification.
- The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google belong to the above-mentioned companies.
- This manual is suitable for IR weather-resistant network cameras. All pictures and examples used in the manual are for reference only.

CLASS A DIGITAL DEVICE (INDUSTRIAL & COMMERCIAL ENVIRONMENT)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to CE and FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Regulatory Information

FCC Marking



These products have been tested and found to be compliant 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



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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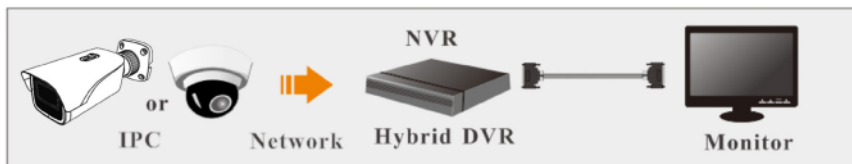
1 Introduction

This IP-CAM (short for IP CAMERA) 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 smoother. Moreover, the built-in WEB server of this series improves the performance of the traditional surveillance system so that use can be easy to operate and monitor.

Main Features

- Smart H.265 / H.264 coding
- ICR auto switch, true day/night
- XD DNR, true WDR, ROI coding, BLC, HLC, Defog, Smart IR, NIR, Anti-flicker
- GEN IV Advanced Analytics
- Support for mobile surveillance by smart phones with iOS and Android OS

Surveillance Application



2 Network Connection

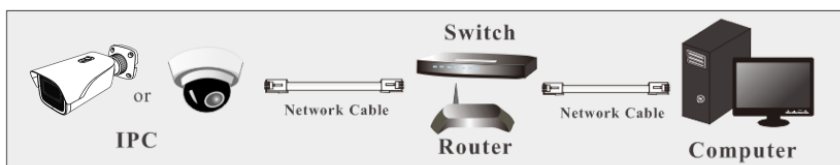
Connect IP-Cam via LAN or WAN. Use Edge in IE mode for example. The details are as follows:

2.1 LAN

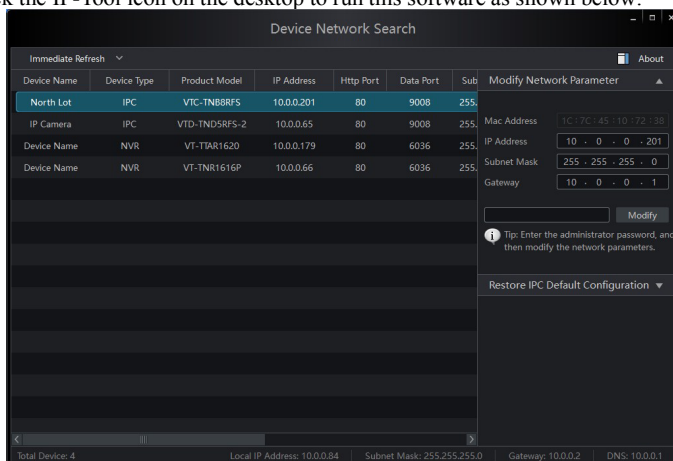
In LAN, there are two ways to access IP-Cam: 1. access through IP-Tool; 2. directly access through Edge in IE Mode browser.

2.1.1 Access through IP-Tool

Network connection:

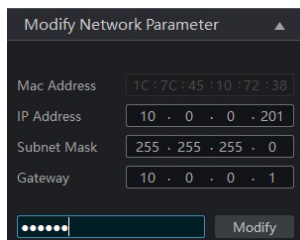


- 1) Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC.
- 2) Double click the IP-Tool icon on the desktop to run this software as shown below:



- 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 side. 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.

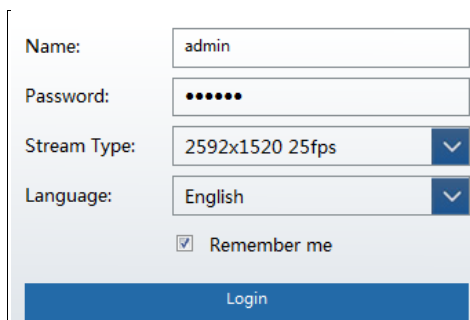


For example, the IP address of your computer is 192.168.1.4. So, the IP address of the camera should be changed to 192.168.1.X. After modification, please enter the password of the administrator and click the “Modify” button to modify the setting.



The default password of the administrator is “**123456**”.

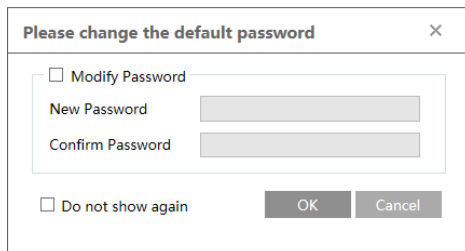
4) Double click the IP address and then the system will pop up the IE to connect IP-CAM. Follow directions to download, install and run the Active X control.



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



The default username is “**admin**”; the default password is “**123456**”.



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 Edge in IE Mode

The default network settings are as shown below:

IP address: **192.168.226.201**

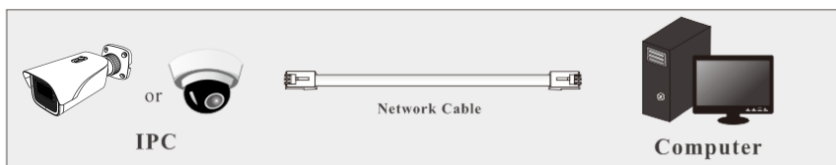
Subnet Mask: **255.255.255.0**

Gateway: **192.168.226.1**

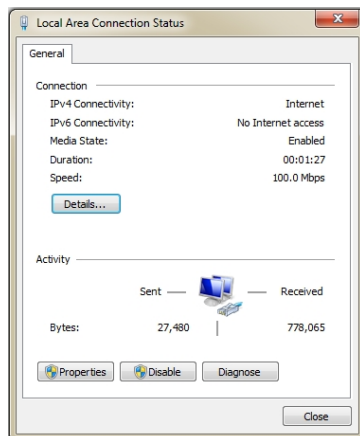
HTTP: **80**

Data port: **9008**

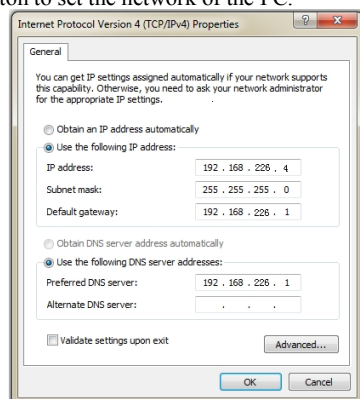
Use the above default settings when logging into the camera for the first time. Directly connect the camera to the computer through network cable.



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 (actual pop-up may differ depending on your computer’s operating system).



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.



- 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→Network→Port menu to set the port number.

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

Port Setup

- ② Go to Config →Network→TCP/IP menu to modify the IP address.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☐ Obtain an IP address automatically			
☒ Use the following IP address			
IP Address	192.168.226.201	Test	
Subnet Mask	255.255.255.0		
Gateway	192.168.226.1		
Preferred DNS Server	210.21.196.6		
Alternate DNS Server	8.8.8.8		

IP Setup

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

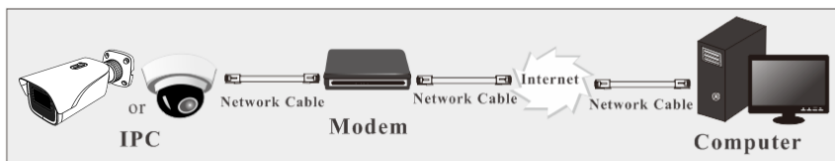
Port Range					
Application	Start	End	Protocol	IP Address	Enable
1	9007	to 9008	Both	192.168.1.201	☒
2	80	to 81	Both	192.168.1.201	☒
3	10000	to 10001	Both	192.168.1.166	☐
4	21000	to 21001	Both	192.168.1.166	☐

Router Setup

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:

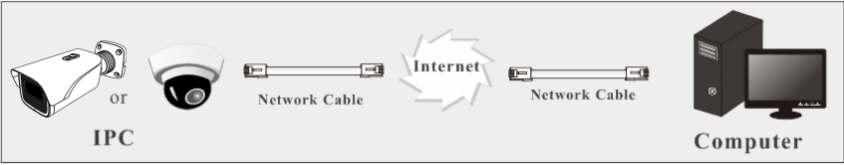
- ① Go to Config→Network→Port menu to set the port number.
- ② Go to Config →Network→TCP/IP→PPPoE Config menu. Enable PPPoE and then enter the username and password from your internet service provider.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☒ Enable			
User Name		xxxxxxxx	
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 Edge in IE mode 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→Network→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 Edge in IE Mode 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
	Original size		Sensor alarm indicator
	Fit correct scale		Motion alarm indicator
	Auto (fill the window)		Color abnormal indicator
	Full screen		Abnormal clarity indicator
	Start/stop live view		Scene change indicator
	Start/stop two-way audio (only available for the model with audio input connector)		Line crossing indicator
	Enable/disable audio		Intrusion indicator
	Snapshot		Region entrance indicator
	Start/stop local recording		Region exiting indicator
	Zoom in		Face detection indicator
	Zoom out		Target counting indicator
	AZ control (only available for the model with motorized zoom lens)		Face capture
	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.

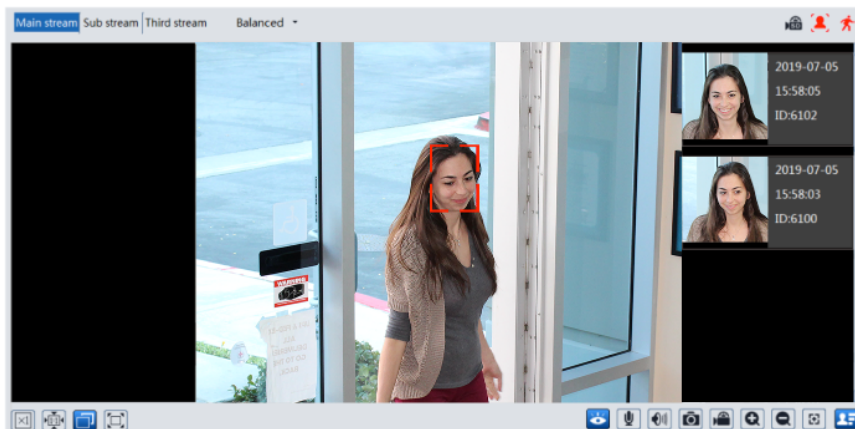
Click PTZ control button to show PTZ control panel. The descriptions of the control panel are as follows:

Icon	Description	Icon	Description
	Zoom -		Zoom +
	Focus -		Focus +
	One key focus (used when image is out of focus after manual adjustment)		

Face Capture View

① Go to Config→Event→Face Detection interface. Check “Enable”.

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



4 Network Camera Configuration

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	IP Camera
Product Model	VTC-TNB8RMA4
Brand	VITEK
Software Version	5.0.1.0(24435)
Software Build Date	2021-10-22
Kernel Version	04040107
Hardware Version	1.5-1428321
Onvif Version	20.12
Video Structured Version	1.1.6
Face Detection Version	1.1.4
OCX Version	2.2.6.8
MAC	

Some versions may support device ID and QR code. If P2P is enabled (see Network Configuration-[P2P](#)), 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→System→Date and Time. Please refer to the following interface.

Zone

Date and Time

Zone

GMT-08 (Las Vegas, San Francisco, Vancouver)

☒ DST

☒ Auto DST

☐ Manual DST

Start Time

January

First

Sunday

00

Hour

End Time

February

First

Monday

00

Hour

Time Offset

120 Minutes

Save

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: Update period: Minutes

☐ Synchronize with computer time

Date Time

☒ Set manually

Date Time

Save

4.1.3 Local Config

Go to Config→System→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.

Config Home ▶ System ▶ Local Config

Save snapshots to

Browse

Save recording files to

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→System→Storage to go to the interface as shown below.

Management

Record

Snapshot

Total picture capacity

Picture remaining space

Total recording capacity

Record remaining space

State

Snapshot Quota

%

Video Quota

%

Changes in the quota ratio need to be formatted before 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→System→Storage→Record to go to the interface as shown below.

Management Record Snapshot

Record Parameters

Record Stream: Main

Pre Record Time: No Pre Record (H264,H265,MJPEG)

Cycle Write: Yes

Timing

☒ Enable Schedule 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.

Week Schedule

Sun. 00:00-24:00 Manual Input

Mon. 00:00-24:00 Manual Input

Tue. 00:00-24:00 Manual Input

Wed. 00:00-24:00 Manual Input

Thu. 00:00-24:00 Manual Input

Fri. 00:00-24:00 Manual Input

Sat. 00:00-24:00 Manual Input

Holiday Schedule

Date: 07-12 Add Delete

00:00-24:00 Manual Input

Weekly schedule

Set the alarm time from Sunday to Saturday for a single week. Each day is divided in to 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.

Day schedule

Set the alarm time for alarm on a special day, such as a holiday.

Note: Holiday schedule takes priority over weekly schedule.

● Snapshot Settings

Go to Config→System→Storage→Snapshot to go to the interface as shown below.

Management	Record	Snapshot
Snapshot Parameters		
Image Format	JPEG	
Resolution	704x576	
Image Quality	Low	
Event Trigger		
Snapshot Interval	1	Second
Snapshot Quantity	5	
Timing		
☒ Enable Timing Snapshot		
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.

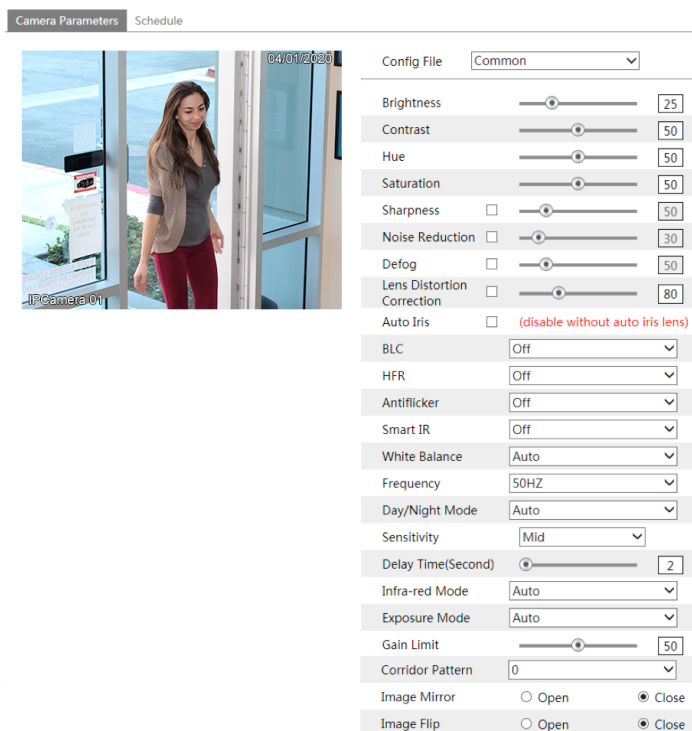
Timing Snapshot: Enable timing snapshot first and then set the snapshot interval and schedule. The setup steps of schedule are the same as the schedule recording (See [Schedule Recording](#)).

4.2 Image Configuration

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

4.2.1 Display Configuration

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



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 detailed. 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 clearer images.

Lens Distortion Correction: When the image appears distorted 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. Off 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 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 mainstream 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 Parameters	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.

Drag “” icons to set the time of day and night. Blue means daytime and blank means nighttime. 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→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.

Index	Stream Name	Resolution	Frame Rate	Bitrate Type	Bitrate(Kbps)	Video Quality	I Frame Interval	Video Compression	Profile
1	Main stream	3840x2160	30	VBR	5120	Higher	60	H265	High Profile
2	Sub stream	1280x720	30	VBR	1024	Higher	60	H265	High Profile
3	Third stream	704x480	30	CBR	512	Higher	60	H265	High Profile

Send Snapshot ☒ Sub stream Size: (1280x720)

☐ Video encode slice split

☐ Watermark (H264, H265) Watermark content:

Click the “Audio” tab to go to the interface as shown below.

Three video streams can be adjustable.

Resolution: The size of image.

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

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 mainstream. 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 received even though using a low-performance PC.

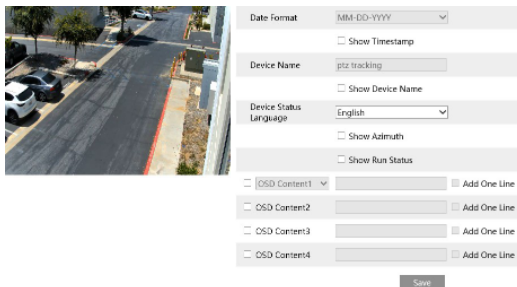
Watermark: When playing back the local recorded video in the search interface, the watermark can be displayed. To enable it, check the watermark box and enter the watermark text.

Audio Encoding: G711A and G711U are selectable.

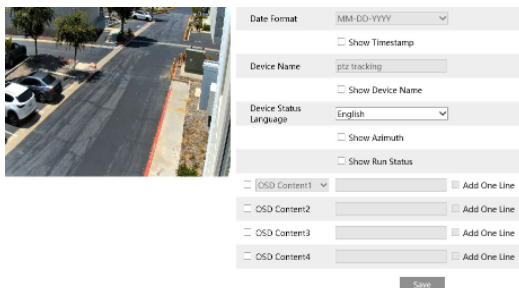
Audio Type: LIN. MIC can be optional for the model with built-in MIC.

4.2.3 OSD Configuration

Go to Image→OSD interface as shown below.



Set time stamp, device name, OSD content and picture overlay 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.

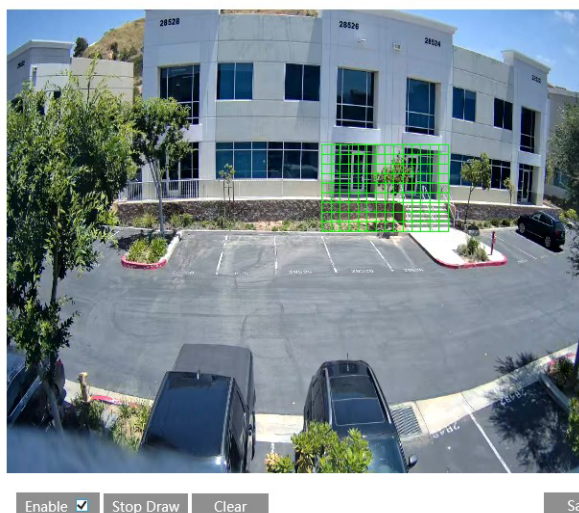


Picture Overlay Settings:

Check “OSD Content1”, choose “Picture Overlay” and click “Browse” to select the overlay picture. Then click “Upload” to upload the overlay picture. The pixel of the image should not exceed 200*200, or it cannot be uploaded.

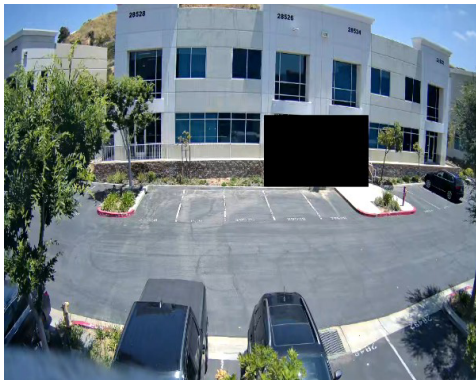
4.2.4 Video Mask

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 live to verify that the area has 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→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.

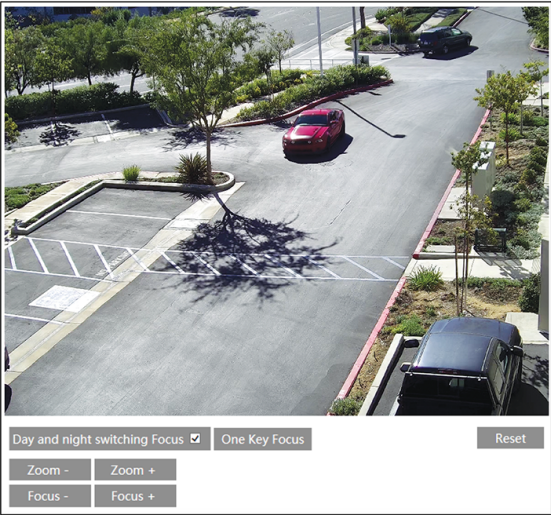


1. Check “Enable” and then click the “Draw Area” button.
2. Drag the mouse to set the ROI area.
3. Set the level.
4. Click the “Save” button to save the settings.



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→Image→ 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→Protocol interface as shown below.

Protocol	PELCOD ▼
Address	1
Baud-Rate	2400 ▼
Save	

4.4 Alarm Configuration

4.4.1 Motion Detection

Go to Alarm→Motion Detection to set motion detection alarm.

Alarm Config	Area and Sensitivity	Schedule
☒ Enable		
Alarm Holding Time 5 Seconds ▼		
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.

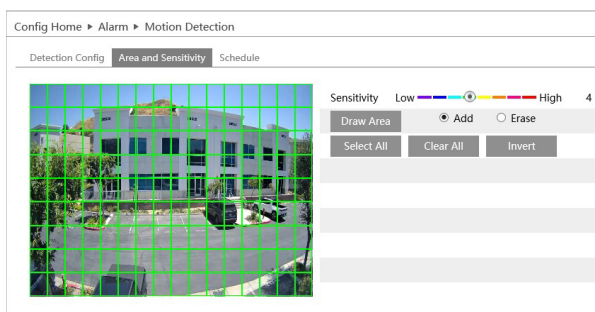
Trigger SD Recording: If selected, video will be recorded on an SD card on motion detection.

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 to those addresses.

Trigger FTP: If “Trigger FTP” and “Attach Picture” are checked, the captured pictures will be sent to the 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.

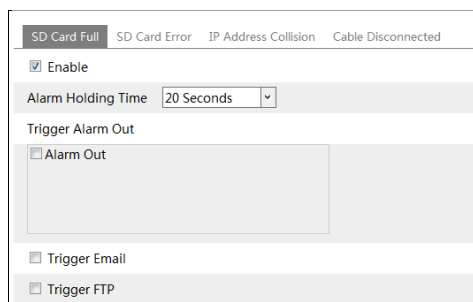
After that, click the “Save” to save the settings.

3. Set the schedule for motion detection. The schedule setup steps of the motion detection are the same as the schedule recording setup (See [Schedule Recording](#)).

4.4.2 Other Alarms

● SD Card Full

1. Go to Config→Alarm→Anomaly→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 to the SD card, the corresponding alarms will be triggered.

1. Go to Config→Alarm→Anomaly→SD Card Error as shown below.

SD Card Full SD Card Error IP Address Collision Cable Disconnected

☒ Enable

Alarm Holding Time 20 Seconds ▾

Trigger Alarm Out

☐ Alarm Out

☐ Trigger Email

☐ Trigger FTP

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→Alarm→Anomaly→IP Address Collision as shown below.

SD Card Full SD Card Error IP Address Collision Cable Disconnected

☒ Enable

Alarm Holding Time 20 Seconds ▾

Trigger Alarm Out

☐ Alarm Out

☐ Trigger Email

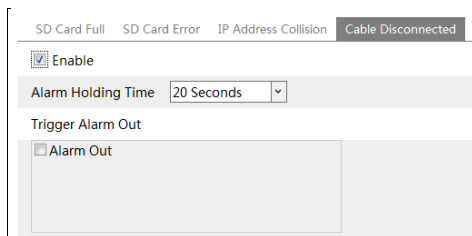
☐ Trigger FTP

2. Click “Enable alarm” and set the alarm holding time.
3. Trigger alarm out. When the IP address of the camera conflicts 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→Alarm→Anomaly→Cable Disconnected as shown below.



SD Card Full SD Card Error IP Address Collision **Cable Disconnected**

☒ Enable

Alarm Holding Time 20 Seconds

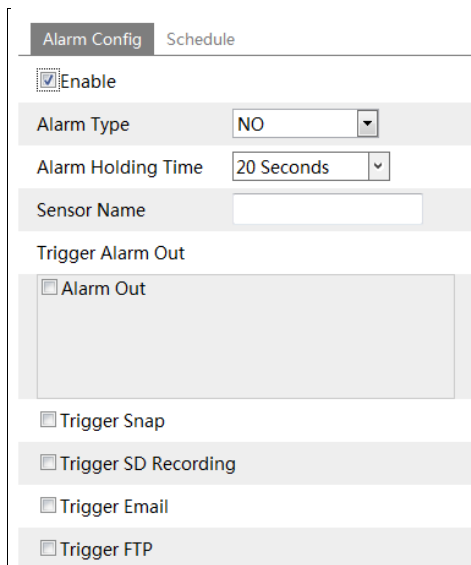
Trigger Alarm Out

☐ 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→Alarm→ Alarm In interface as shown below.



Alarm Config Schedule

☒ Enable

Alarm Type NO

Alarm Holding Time 20 Seconds

Sensor Name

Trigger Alarm Out

☐ Alarm Out

☐ Trigger Snap

☐ 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 [Schedule Recording](#)).

4.4.4 Alarm Out

This function is only available for some models. Go to Config→Alarm→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	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.

Alarm Out Mode: Timing

Alarm Type: NC

Time Range: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Manual Input

Save

4.4.5 Alarm Server

Go to Alarm→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

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→Event→Exception interface as shown below.

Detection Config Sensitivity

☐ Scene change detection

☐ Video blur detection

☐ Enable video color cast detection

Alarm Holding Time 20 Seconds

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 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 Configuration 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 be 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 line.

Go to Config→Event→Line Crossing interface as shown below.

The screenshot shows the 'Line Crossing' configuration window. It includes tabs for 'Detection Config', 'Area', and 'Schedule'. The 'Detection Config' tab is active, showing options to enable the feature, save panoramic pictures, and save target cutouts. A 'Detection Target' section allows selecting targets (Human, Motor Vehicle, Motorcycle/Bicycle) and setting their sensitivity (sliders and numeric inputs, all set to 50). Below this is the 'Alarm Holding Time' set to 20 seconds. A 'Trigger Alarm Out' section has an 'Alarm Out' checkbox and a text area. At the bottom, there are checkboxes for 'Trigger Snap', 'Trigger SD Recording', 'Trigger Email', and 'Trigger FTP', and a 'Save' button.

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

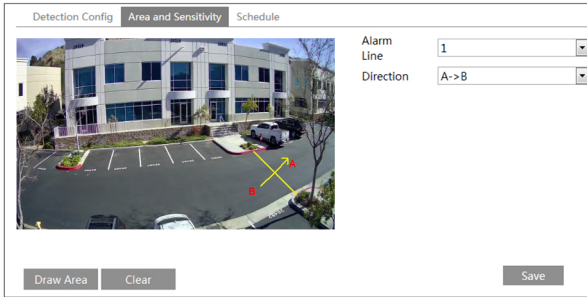
enabled.

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 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 used 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 [Schedule Recording](#)).

✳ 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). Avoid low lit areas.

3. Cameras should be mounted at a height of 8 feet or above.

4. Keep the mounting angle of the camera at about 45°.

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 trespassing areas, etc.

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

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 [Schedule Recording](#)).

✳ Configuration requirements of camera and surrounding area

1. Auto-focusing function should not be enabled for intrusion detection.
2. Avoid scenes with many trees or the scenes with various light changes (like many flashing headlights). Avoid low lit areas.
3. Cameras should be mounted at a height of 8 feet or above.
4. Keep the mounting angle of the camera at about 45°.
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→Event→Region Entrance 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

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 [Schedule Recording](#)).

* 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→Event→Region Exiting interface as shown below.

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.

Detection Config
Area
Schedule



Alarm Area

1
▼

Stop Draw
Clear

Save

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 [Schedule Recording](#)).

* 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 people or vehicles crossing the alarm line through detecting, tracking and counting the shapes of people or vehicles.

1. Go to Config→Event→Target Counting as shown below.

Detection Config
Area
Schedule

☒ Enable

☐ Save Panoramic Picture

☐ Save Target Cutout

Detection Target

☒ Human	Sensitivity	<input style="width: 80%;" type="range"/>	50
☒ Motor Vehicle	Sensitivity	<input style="width: 80%;" type="range"/>	50
☒ Motorcycle/Bicycle	Sensitivity	<input style="width: 80%;" type="range"/>	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→Event→Face Detection as shown below.

Detection Config
Area
Advanced
Schedule

State
Working

☒ Enable

☐ Save Source Information

☐ Save Face Information

Alarm Holding Time
20 Seconds

Trigger Alarm Out

☐ Alarm Out

☐ Trigger Snap

☐ Trigger SD Recording

☐ Trigger Email

☐ Trigger FTP

Save

2. Enable the face detection function.

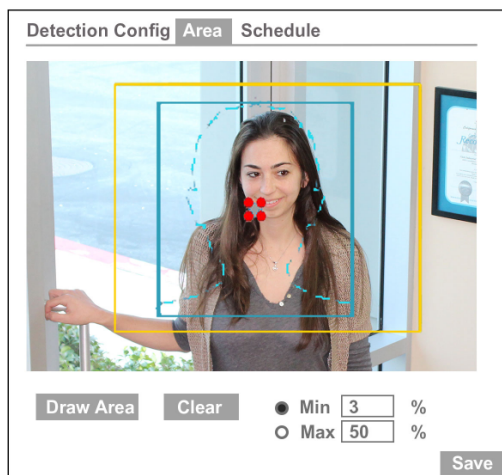
Save Source Information: if checked, the whole picture will be saved to the SD card when detecting a face.

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→System→Local Config). To save images to the SD card, please install an SD card first.

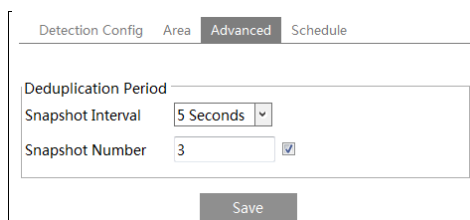
3. Set alarm holding time and alarm trigger options. The alarm trigger setup steps are the same as motion detection setup. Please refer to [motion detection](#) chapter for details.

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.



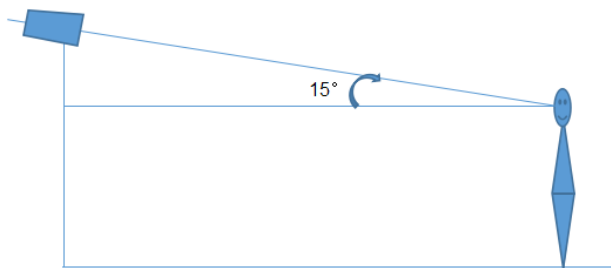
Snapshot Interval: If 5 seconds is selected, the camera will capture the same target once every 5 seconds during its continuous tracking period.

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 [Schedule Recording](#)).

※ Configuration requirements of camera and surrounding area

1. Cameras must be installed in an area with stable and adequate light sources.
2. The installation height ranges from 6 to 12 feet, adjustable according to the focal length of different lenses and object distances.
3. The depression angle of the camera should be less than or equal to 15°.



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° left or right or 20° up or down.
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→Network→TCP/IP interface as shown below. There are two ways for network connection.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☐ Obtain an IP address automatically			
☒ Use the following IP address			
IP Address	192.168.226.201		Test
Subnet Mask	255.255.255.0		
Gateway	192.168.226.1		
Preferred DNS Server	210.21.196.6		
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 username and password from your ISP.

IPv4	IPv6	PPPoE Config	IP Change Notification Config
☒ Enable			
User Name		xxxxxxx	
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→Network→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 CMS. Then enable the auto report in the CMS when adding a new device. Next, enter the remaining information of the device in the CMS. After that, the system will automatically allot a device ID. Please check it in the CMS.
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→Network→ DDNS.

Port

Server

DDNS

SNMP

802.1X

RTSP

UPnP

Email

FTP

HTTPS

QoS

☒ Enable

Server Type

vitekivpddns

Server Address

www.vitekivpddns.com

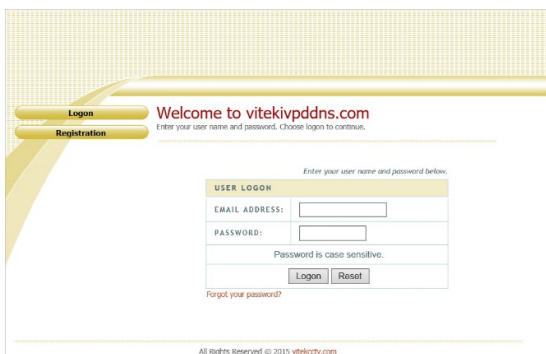
User Name

Password

Domain

Save

3. Apply for a domain name. Take www.vitekivpddns.com for example. Enter www.vitekivpddns.com in the IE address bar to visit its website. Then Click the “Registration” button.



Navigation: [Login](#) | [Registration](#)

Welcome to vitekipddns.com

Enter your user name and password. Choose login to continue.

Enter your user name and password below.

USER LOGIN

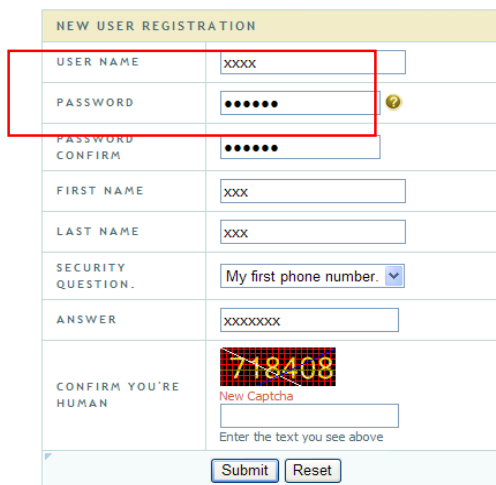
EMAIL ADDRESS:

PASSWORD:

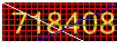
Password is case sensitive.

[Forgot your password?](#)

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NEW USER REGISTRATION

USER NAME	XXXX
PASSWORD	•••••
PASSWORD CONFIRM	•••••
FIRST NAME	XXX
LAST NAME	XXX
SECURITY QUESTION	My first phone number.
ANSWER	XXXXXXXX
CONFIRM YOU'RE HUMAN	 New Captcha Enter the text you see above

Create domain name.



Navigation: [User Settings](#) | [Domains](#) | [Logout](#)

Domain Name Creation

Enter a new domain name below.

Domain name must start with (a-z, 0-9). Cannot end or start, but may contain a hyphen and is not case-sensitive.

vitekipddns.com

☐ I'm not a robot 

All Rights Reserved © 2015 vitekzctv.com

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



- 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→Network→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 IEEE802.1x, user authentication is needed.

☒ Enable
Protocol Type EAP_MD5
EAPOL Version 1
User Name test
Password •••••
Confirm Password •••••

To use this function, the camera should 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.

Username 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→Network→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 address
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 anonymous 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

Mainstream: 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 mainstream is MJPEG, the video may be jumbled at some resolutions.

4.6.8 UPNP

If this function is enabled, the camera can be quickly accessed through the LAN.

Go to Config→Network→UPnP. Enable UPnP and then enter UPnP name.

A screenshot of a web-based configuration interface for UPnP. It features a checkbox labeled "Enable" which is checked. Below this is a text input field labeled "UPnP Name". At the bottom right of the form is a "Save" button.

☒ 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→Network→Email.

Sender	
Sender Address	XXX@126.com
User Name	XXX@126.com
Password	•••••
Server Address	smtp.126.com
Secure Connection	Unnecessary
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.

Username 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→Network→FTP.

Port

Server

DDNS

SNMP

RTSP

UPnP

Email

FTP

Server Name	Server Address	Port	User Name	Upload Path
Add FTP Server Name Server Address Upload Path Port User Name Password Example:/Dir/folder 21 Anonymous OK Cancel				
Add Modify Delete Test				
Save				

- 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.
- Username 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 →Network→HTTPS as shown below.

☒ Enable

Certificate installed

C=CN, ST=GD, L=SZ, O=embeddedsoftware

Delete

Attribute

Issued to: C=CN, ST=GD, L=SZ, O=embeddedsoftware, OU=IPC, H=localhost, E=com.cn, Issuer: C=CN, ST=GD, L=SZ, O=embeddedsoftware, OU=IPC, H=localhost, E=com.cn, Validity date: 2017-07-26 01:02:07 ~ 2022-07-26 01:02:07

Save

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

- ☒ Have signed certificate, install directly
- ☐ Create a private certificate
- ☐ Create a certificate request

Install certificate

* 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

- ☐ Have signed certificate, install directly
- ☒ Create a private certificate
- ☐ Create a certificate request

Create a private certificate

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.

☒ Enable

Installation type

- ☐ Have signed certificate, install directly
- ☐ Create a private certificate
- ☒ Create a certificate request

Create a certificate request

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 client via WAN. Enable this function by going to Config→Network→P2P interface.

☒ P2P

4.6.13 QoS

QoS (Quality of Service) function is used to provide different quality of services for different network applications. With low 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→Network→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.

The larger the number is, the higher the priority is.

4.7 Security Configuration

4.7.1 User Configuration

Go to Config→Security→User interface as shown below.

Add Modify Delete			
Index	User Name	User Type	Binding MAC
1	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

00:00:00:00:00:00
☐

OK

Cancel

2. Enter username 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→Security→ Security Management→Password Security interface to set the security level).

It is recommended to set a high-level password that should 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.

Edit User [X]

☒ Modify Password

User Name: admin

Old Password: []

New Password: []

Confirm Password: []

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

Bind MAC: 00:00:00:00:00:00 []

[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→Security→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→Security→Block and Allow Lists as shown below.

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→Security→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 mainstream; 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	Password Security
Password Level	Weak ▼
Expiration Time	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 Setting	
Path	Browse
Import Setting	
Export Settings	
Export Settings	
Default Settings	
Keep	☐ Network Config ☐ Security Configuration ☐ Image Configuration
Load Default	

- **Import & Export Settings**

Configuration settings of the camera can be exported from 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→Maintenance→Upgrade. In this interface, the camera firmware can be updated.

Local upgrade

Path

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→Maintenance→Operation Log.

Main Type:	All log	Sub Type:	All log		
Start Time:	2015-07-14 00:00:00	End Time:	2015-07-14 23:59:59	Search	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

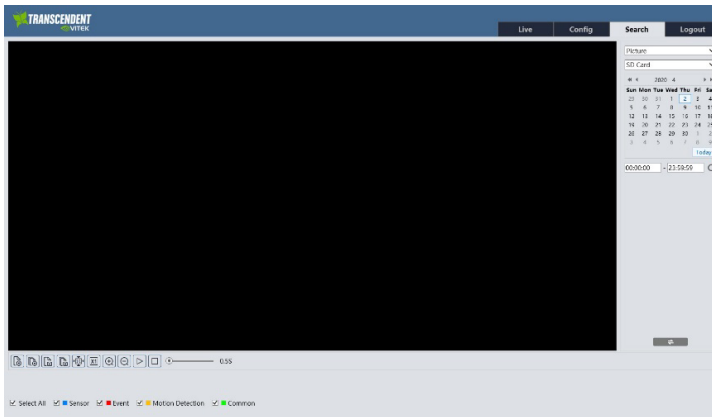
2. Select the main type, sub type, start and end time.
3. Click “Search” to view the operation log.

- Click “Export” to export the operation log.

5 Search

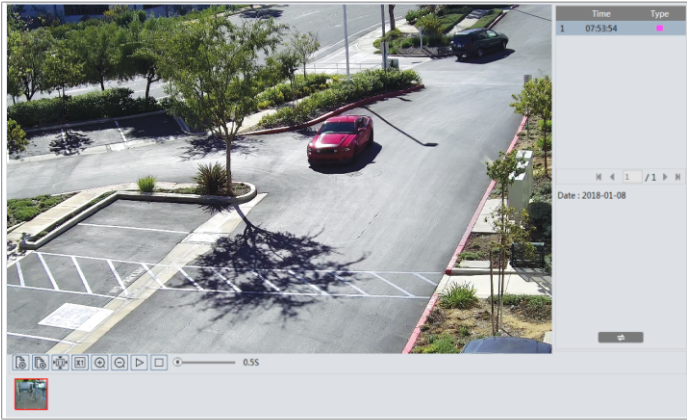
5.1 Image Search

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

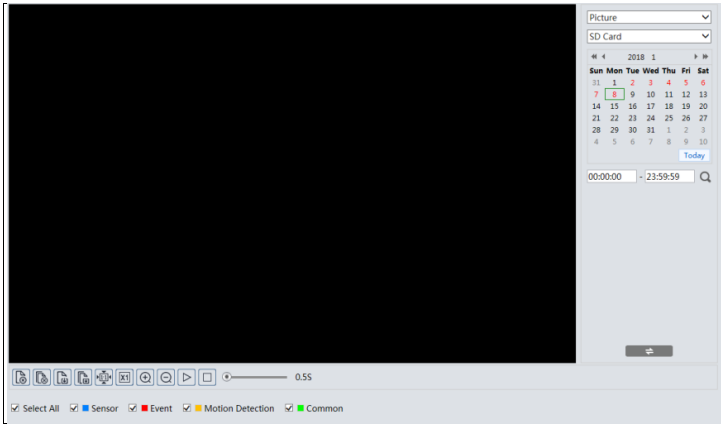
- Choose “Picture”—“Local”.
- Set time: Select date and choose the start and end time.
- Click  to search the images.
- Double click a file name in the list to view the captured photos as shown above.



Click  to return to the previous interface.

● SD Card Image Search

- 1. Choose “Picture”— “SD Card”.



- 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  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.

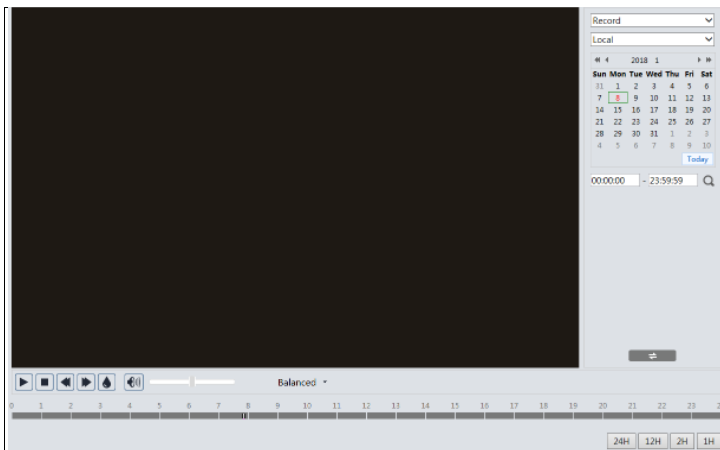
The descriptions of the buttons are shown as follows.

Icon	Description	Icon	Description
	Close: Select an image and click this button to close the image.		Close all: Click this button to close all images.
	Save: Click this button to select the path for saving the image on the PC.		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.		Actual size: Click this button to display the actual size of the image.
	Zoom in: Click this button to digitally zoom in.		Zoom out: Click this button to digitally zoom out.
	Slide show play: Click this button to start the slide show mode.		Stop: Click this button to stop the slide show.
	Play speed: Play speed of the slide show.		

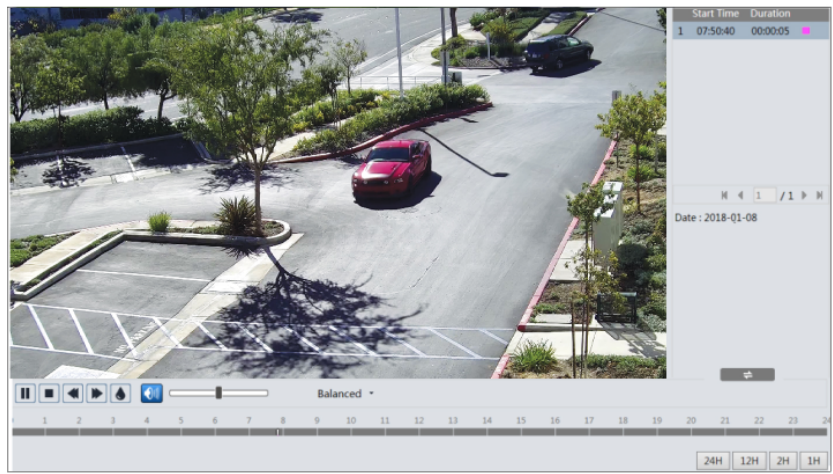
5.2 Video Search

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 to search the images.
4. Double click on a file name in the list to start playback.

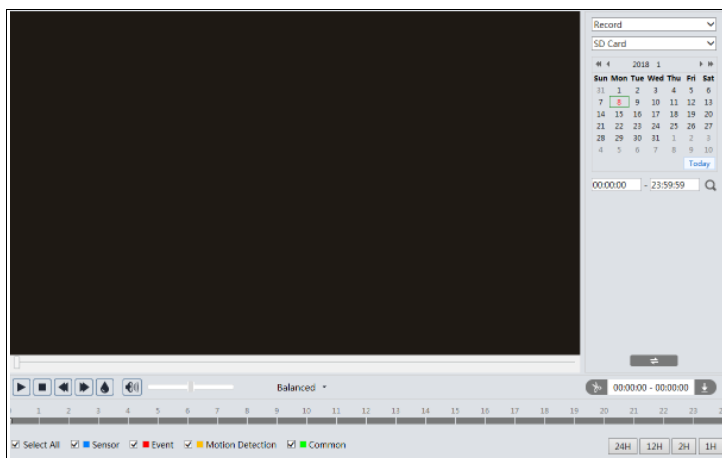


Icon	Description	Icon	Description
	Play button. After pausing the video, click this button to continue playing.		Pause button
	Stop button		Speed down
	Speed up		Watermark display
	Enable / disable audio; drag the slider to adjust the volume after enabling audio.		

5.2.2 SD Card Video Search

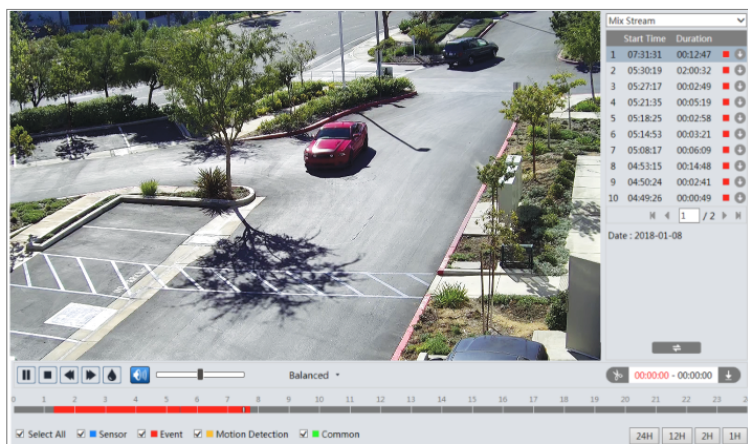
Click Search to go to the interface as shown below. Videos that were recorded on the SD card can be played in this interface.

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



4. Select the alarm events at the bottom of the interface.
5. Select mix stream (video and audio stream) or video stream as needed.

Double click on a file name in the list to start playback.



The timetable 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 timetable.
3. Click  to set the start time and then this button turns blue ().

4. Select the end time by clicking on the timetable. Then click  to set the end time.
5. Click to download the video file in the PC.

Index	Process	Record	Start Time	End Time	Path	Operate
1	100%	Cut	2018-01-16 01:1...	2018-01-16 01:1...	Favorites	Open

Set up

D:\Favorites

Clear List

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.

DETAILED SPECIFICATIONS - VTC-TNB4RFA4/-2

4MP 2.8 or 3.6mm Fixed Bullet Camera (Ivory / Charcoal)

Image Sensor	1/3.0" 4.0 Megapixel Progressive Scan CMOS
NDAA Compliant	Yes
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4MP(2592×1520) / 3MP(2304×1296) / 1080P(1920×1080) / 720P(1280×720) / D1 / CIF(480×240)
Min. Illumination	0.005 lux@F1.6, AGC ON;0 lux with IR
Lens	Available with 2.8mm or 3.6mm Fixed Iris Lens
Day / Night	True Day / Night by ICR
IR LEDs / IR Distance	2 Matrix Style IRs / Up to 165'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	4MP/2K/3MP/1080P / 720P (60Hz: 1 ~ 30fps, 50Hz: 1~25fps)
Sub / Third Stream	HFR mode: 1080P / 720P (60Hz: 1 ~ 60fps, 50Hz: 1~50fps), 720P/D1/CIF (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) / D1/CIF/480×240 (60Hz: 1 ~ 30fps; 50Hz: 1~25fps)
Bit Rate / Type	64 Kbps ~ 8 Mbps / VBR, CBR
Wide Dynamic Range	120dB Super WDR
Other Features	Highlight Compensation, Backlight Compensation, DeFog, Hardware Reset
Digital Noise Reduction	XD-DNR (3D-DNR & 2D-DNR)
Image Setting	ROI, Saturation, Brightness, Chroma, Contrast, Sharpen, NR; adjustable through client software / web browser
Gen. IV Advanced Analytics	Regional Entrance / Exit Detection, Line Crossing, Target Counting <i>[All by Human / Motor Vehicle Classification]</i> Face Detection, Object Abandoned / Missing, Heat Map, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Detection, SD Card Error, SD Card Full
Region of Interest (ROI)	Each ROI to be Configured Separately
Audio	1 Ch. Audio In*
Alarm	N/A
Local Storage	Built-in MicroSD Card Slot (up to 256GB)
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
Supported Browsers	IE, Chrome, Firefox, Safari and Edge
Connection Protocol	ONVIF
Ingress Protection	IP67
Power Input	12VDC / PoE
Pwr Consumption (12VDC)	350mA (LEDs Off) / 800mA (LEDs On)
Power Consumption (PoE)	8.5W
Working Environment	-22° ~ 140°F (-30°~60°C) / < 95% Humidity
Weight	25.75oz / 1.61lbs / .73kg (NET) 31.75oz / 1.98lbs / .90kg (SHIPPING)
Dimensions (L × W × H)	8.68 × 3.15 × 2.78" (220.5 × 80.1 × 70.5mm)

DETAILED SPECIFICATIONS - VTC-TNT4RFA4/-2

4MP 2.8 or 3.6mm Fixed Turret Camera (Ivory / Charcoal)

Image Sensor	1/3" 4.0 Megapixel Progressive Scan CMOS
NDAA Compliant	Yes
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4 MP(2592 × 1520) / 3 MP(2304 × 1296) / 1080P(1920 × 1080) / 720P(1280 × 720) / D1 / CIF(480 × 240)
Min. Illumination	0.005 lux@F1.6,AGC ON;0 lux with IR
Lens	2.8mm or 3.6mm Fixed Iris Lens Options Available
Day / Night	True Day / Night by ICR
IR LEDs / IR Distance	1 Matrix Style IR / Up to 100'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	4MP/2K/3MP/1080P / 720P (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) HFR mode: 1080P / 720P (60Hz: 1 ~ 60fps, 50Hz: 1~50fps)
Sub / Third Stream	720P/D1/CIF (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) / D1/CIF/480x240 (60Hz: 1 ~ 30fps, 50Hz: 1~25fps)
Bit Rate / Type	64 Kbps ~ 8 Mbps / VBR, CBR
Wide Dynamic Range	120dB Super WDR
Other Features	Highlight Compensation, Backlight Compensation, DeFog, Hardware Reset
Digital Noise Reduction	XD-DNR (3D-DNR & 2D-DNR)
Image Setting	ROI, Saturation, Brightness, Chroma, Contrast, Sharpen, NR; adjustable through client software / web browser
Gen. IV Advanced Analytics	Regional Entrance / Exit Detection, Line Crossing, Target Counting [All by Human / Motor Vehicle Classification] Face Detection, Object Abandoned / Missing, Heat Map, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Detection, SD Card Error, SD Card Full
Region of Interest (ROI)	Each ROI to be configured separately
Audio	1 Ch. Audio In + Built-in Mic*
Alarm	N/A
Local Storage	Built-in MicroSD Card Slot (up to 256GB)
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
Supported Browsers	IE (Plug-in Required) / Google Chrome / Edge / Firefox / Safari
Connection Protocol	ONVIF
Ingress Protection	IP67
Power Input	12VDC / PoE
Pwr Consumption (12VDC)	350mA (LEDs Off) / 650mA (LEDs On)
Power Consumption (PoE)	6.5W
Working Environment	-22° ~ 140° / < 95% Humidity
Weight	16.93oz / 1.06lbs / .48kg (NET) 20.46oz / 1.28lbs / .58kg (SHIPPING)
Dimensions (Dia × H)	3.77" × 4.25" (95.7mm × 108.0mm)

DETAILED SPECIFICATIONS - VTD-TND4RFA4/-2

4MP 2.8 or 3.6mm Fixed Vandal Dome Camera (Ivory / Charcoal)

Image Sensor	1/3" 4.0 Megapixel Progressive Scan CMOS
NDAA Compliant	Yes
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4 MP(2592 × 1520) / 3 MP(2304 × 1296) / 1080P(1920 × 1080) / 720P(1280 × 720) / D1 / CIF(480 × 240)
Min. Illumination	0.005 lux@F1.6,AGC ON;0 lux with IR
Lens	2.8mm or 3.6mm Fixed Iris Lens Options Available
Day / Night	True Day / Night by ICR
IR LEDs / IR Distance	1 Matrix Style IR / Up to 100'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	4MP/2K/3MP/1080P / 720P (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) HFR mode: 1080P / 720P (60Hz: 1 ~ 60fps, 50Hz: 1~50fps)
Sub / Third Stream	720P/D1/CIF (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) / D1/CIF/480×240 (60Hz: 1 ~ 30fps, 50Hz: 1~25fps)
Bit Rate / Type	64 Kbps ~ 8 Mbps / VBR, CBR
Wide Dynamic Range	120dB Super WDR
Other Features	Highlight Compensation, Backlight Compensation, DeFog, Hardware Reset
Digital Noise Reduction	XD-DNR (3D-DNR & 2D-DNR)
Image Setting	ROI, Saturation, Brightness, Chroma, Contrast, Sharpen, NR; adjustable through client software / web browser
Gen. IV Advanced Analytics	Regional Entrance / Exit Detection, Line Crossing, Target Counting [All by Human / Motor Vehicle Classification] Face Detection, Object Abandoned / Missing, Heat Map, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Detection, SD Card Error, SD Card Full
Region of Interest (ROI)	Each ROI to be configured separately
Audio	1 Ch. Audio In + Built-in Mic*
Alarm	1 Ch. In + 1 Ch. Out
Local Storage	Built-in MicroSD Card Slot (up to 256GB)
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
Supported Browsers	IE, Chrome, Firefox, Safari and Edge
Connection Protocol	ONVIF
Ingress Protection / Impact	IP67 + IK10 Impact Rating
Power Input	12VDC / PoE
Pwr Consumption (12VDC)	350mA (LEDs Off) / 550mA (LEDs On)
Power Consumption (PoE)	<5.5W
Working Environment	-22° ~ 140°F (-30°~60°C) / < 95% Humidity
Weight	23.64oz / 1.48lbs / .67kg (NET) 29.63oz / 1.85lbs / .84kg (SHIPPING)
Dimensions (Dia × H)	4.69" × 3.44" (119mm × 87.4mm)

DETAILED SPECIFICATIONS - VTD-TNMD4RFA4-2

4MP 2.8 Fixed Mini Saucer Dome Camera (Ivory)

Image Sensor	1/3" 4.0 Megapixel CMOS Image Sensor
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4 MP(2592 × 1520) / 3 MP(2304 × 1296) / 1080P(1920 × 1080) / 720P(1280 × 720) / D1 / CIF(480 × 240)
Min. Illumination	0.005 lux@F1.6, AGC ON; 0 lux with IR
Lens	2.8mm Fixed Iris Lens
Day / Night	True Day / Night by ICR
IR LEDs / IR Distance	2 Matrix / 65'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	1~30fps: 4MP, 3MP, 1080P, 720P, D1, CIF, 480x240
Bit Rate	64Kbps ~ 8Mbps
Bit Rate Type	VBR / CBR
Wide Dynamic Range (WDR)	120dB Super WDR
Digital Noise Reduction (DNR)	XD-DNR (2D-DNR & 3D-DNR)
Other Features	Backlight Compensation, Highlight Compensation, DeFog, Reset
Image Setting	Saturation, Brightness, Contrast, WDR, Noise Reduction
Gen. IV Advanced Analytics	Regional Entrance / Exit Detection, Line Crossing, Target Counting [All by Human / Motor Vehicle Classification] Face Detection, Object Abandoned / Missing, Heat Map, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Alarm / SD Card Error / SD Card Full
Region of Interest (ROI)	Each ROI to be Configured Separately
Network	RJ45
Audio	1 Ch. Audio In + Built-in Mic*
Local Storage	MicroSD Card Slot (Up to 256GB)
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
Supported Browsers	IE, Edge, Chrome and Safari (no plug-in required)
Connection Protocol	ONVIF
Weather Protection	IP66 Weather Rating
Power Input	12VDC / PoE
Power Consumption 12VDC / POE	350mA (LEDs Off), 500mA (LEDs On) / <6W
Working Environment	-22° ~140° / < 95% Humidity
Weight, Dimensions Dia × H	13.44oz / .84lbs / 380g, 4.33 × 2.35" (110 × 59.8mm)

DETAILED SPECIFICATIONS - VTC-TNB4RMA4

4MP 2.8~12mm Motorized AF Bullet Camera (Ivory / Charcoal)

Image Sensor	1/3" 4.0 Megapixel Progressive Scan CMOS
NDAA Compliant	Yes
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4MP(2592 × 1520) / 3MP(2304 × 1296) / 1080P(1920 × 1080) / 720P(1280 × 720) / D1 / CIF(480 × 240)
Min. Illumination	0.005 lux@F1.6, AGC ON: 0 lux with IR
Lens	2.8~12mm Motorized Varifocal
Day / Night	True Day / Night by ICR
IR LEDs / IR Distance	2 Matrix Style IRs / Up to 165'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	4MP/2K/3MP/1080P / 720P (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) HFR mode: 1080P / 720P (60Hz: 1 ~ 60fps, 50Hz: 1~50fps)
Sub / Third Stream	720P/D1/CIF (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) / D1/CIF/480×240 (60Hz: 1 ~ 30fps; 50Hz: 1~25fps)
Bit Rate / Type	64 Kbps ~ 8 Mbps / VBR, CBR
Wide Dynamic Range	120dB Super WDR
Other Features	Highlight Compensation, Backlight Compensation, DeFog, Hardware Reset
Digital Noise Reduction	XD-DNR (3D-DNR & 2D-DNR)
Image Setting	ROI, Saturation, Brightness, Chroma, Contrast, Sharpen, NR; adjustable through client software / web browser
Gen. IV Advanced Analytics	Regional Entrance / Exit Detection, Line Crossing, Target Counting <i>[All by Human / Motor Vehicle Classification]</i> Face Detection, Object Abandoned / Missing, Heat Map, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Detection, SD Card Error, SD Card Full
Region of Interest (ROI)	Each ROI to be configured separately
Audio	1 Ch. Audio In*
Alarm	Built-in MicroSD Card Slot (up to 256GB)
Local Storage	CMS / Web Browser / Mobile (iOS/Android)
Remote Viewing	IE (Plug-in Required) / Google Chrome / Edge / Firefox / Safari
Supported Browsers	ONVIF
Connection Protocol	IP67
Ingress Protection	12VDC / PoE
Power Input	350mA (LEDs Off) / 650mA (LEDs On)
Pwr Consumption 12VDC, PoE	9.5W
Working Environment	-22° ~140° / < 95% Humidity
Weight	25.75oz / 1.61lbs / .73kg (NET) 31.75oz / 1.98lbs / .90kg (SHIPPING)
Dimensions (L × W × H)	8.68 × 3.15 × 2.78" (220.5 × 80.1 × 70.5mm)

DETAILED SPECIFICATIONS - VTC-TNT4RMA4

4MP 2.8~12mm Motorized AF Turret Camera (Ivory / Charcoal)

Image Sensor	1/3" 4.0 Megapixel Progressive Scan CMOS
NDAA Compliant	Yes
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4 MP(2592 × 1520) / 3 MP(2304 × 1296) / 1080P(1920 × 1080) / 720P(1280 × 720) / D1 / CIF(480 × 240)
Min. Illumination	0.005 lux@F1.6, AGC ON; 0 lux with IR
Lens	2.8mm~12mm Motorized Varifocal
Day / Night	True Day / Night by ICR
IR LEDs / IR Distance	2 Matrix Style IRs / Up to 165'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	4MP/2K/3MP/1080P / 720P (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) HFR mode: 1080P / 720P (60Hz: 1 ~ 60fps, 50Hz: 1~50fps)
Sub / Third Stream	720P/D1/CIF (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) / D1/CIF/480x240 (60Hz: 1 ~ 30fps; 50Hz: 1~25fps)
Bit Rate / Type	64 Kbps ~ 8 Mbps / VBR, CBR
Wide Dynamic Range	120dB Super WDR
Other Features	Highlight Compensation, Backlight Compensation, DeFog, Hardware Reset
Digital Noise Reduction	XD-DNR (3D-DNR & 2D-DNR)
Image Setting	ROI, Saturation, Brightness, Chroma, Contrast, Sharpen, NR; adjustable through client software / web browser
Gen. IV Advanced Analytics	Regional Entrance / Exit Detection, Line Crossing, Target Counting [All by Human / Motor Vehicle Classification] Face Detection, Object Abandoned / Missing, Heat Map, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Detection, SD Card Error, SD Card Full
Region of Interest (ROI)	Each ROI to be configured separately
Audio	1 Ch. Audio In + Built-in Mic*
Video Output	NA
Alarm	NA
Local Storage	Built-in MicroSD Card Slot (up to 256GB)
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
Supported Browsers	Internet Explorer, Chrome and Firefox with IE Tab
Connection Protocol	ONVIF
Ingress Protection	IP67
Power Input	12VDC / PoE
Pwr Consumption 12VDC, PoE	350mA (LEDs Off) / 800mA (LEDs On), <8W
Working Environment	-22° ~140° / < 95% Humidity
Weight	24.69 oz. / 1.54 lbs. / .7kg (NET) 29.98 oz. / 1.87 lbs / .85kg (SHIPPING)
Dimensions (Dia × H)	5.15" × 4.30" (130.8mm × 109.2mm)

DETAILED SPECIFICATIONS - VTD-TND4RMA4

4MP 2.8~12mm Motorized AF Vandal Dome Camera (Ivory / Charcoal)

Image Sensor	1/3" 4.0 Megapixel Progressive Scan CMOS
NDAA Compliant	Yes
Image Size	4 MegaPixel (2592 × 1520)
Resolution	4 MP(2592 × 1520) / 3 MP(2304 × 1296) / 1080P(1920 × 1080) / 720P(1280 × 720) / D1 / CIF(480 × 240)
Min. Illumination	0.005 lux@F1.6, AGC ON; 0 lux with IR
Lens	2.8mm~12mm Motorized Varifocal
Day / Night	True Day/Night by ICR
IR LEDs / IR Distance	3 Matrix Style IRs / Up to 165'
Video Compression	H.265+ / H.265 / H.264+ / H.264 / MJPEG
Audio Compression	G.711A / G.711U
Main-Stream	4MP/2K/3MP/1080P / 720P (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) HFR mode: 1080P / 720P (60Hz: 1 ~ 60fps, 50Hz: 1~50fps)
Sub / Third Stream	720P/D1/CIF (60Hz: 1 ~ 30fps, 50Hz: 1~25fps) / D1/CIF/480×240 (60Hz: 1 ~ 30fps, 50Hz: 1~25fps)
Bit Rate / Type	64 Kbps ~ 8 Mbps / VBR, CBR
Wide Dynamic Range	120dB Super WDR
Other Features	Highlight Compensation, Backlight Compensation, DeFog, Hardware Reset
Digital Noise Reduction	XD-DNR (3D-DNR & 2D-DNR)
Image Setting	ROI, Saturation, Brightness, Chroma, Contrast, Sharpen, NR; adjustable through client software / web browser
Gen. IV Advanced Analytics	Regional Entrance / Exiting Detection, Line Crossing, Target Counting <i>[all by Human / Motor Vehicle Classification]</i> Face Detection, Video Blur, Video Color Cast Detection, Abnormal Video
Smart Alarm	Motion Detection, SD Card Error, SD Card Full
Region of Interest (ROI)	Each ROI to be configured separately
Audio	1 Ch. Audio In + 1 Ch. Audio Out + Built-in Mic*
Video Output	1 Ch. CVBS Video Out
Alarm	1 Ch. Alarm In + 1 Ch. Alarm Out
Local Storage	Built-in MicroSD Card Slot (up to 256GB)
Remote Viewing	CMS / Web Browser / Mobile (iOS/Android)
Supported Browsers	IE (Plug-in Required) / Google Chrome / Edge / Firefox / Safari
Connection Protocol	ONVIF
Ingress Protection / Impact	IP67 + IK10 Impact Rating
Power Input	12VDC / PoE
Pwr Consumption 12VDC, PoE	350mA (LEDs Off) / 750mA (LEDs On), 9W
Working Environment	-22° ~ 140° / < 95% Humidity
Weight	38.80 oz. / 2.42 lbs. / 1.1kg (NET) 48.86 oz. / 2.87 lbs/ 1.3kg (SHIPPING)
Dimensions (Dia × H)	5.55" × 3.95" (141.0mm × 100.2mm)



VT-TJB08
Optional Junction Box
for Use with Select
Transcendent Bullet
and Fixed Lens Turret
Cameras



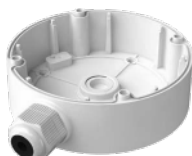
VT-TJB01
Optional Junction Box
for Use with Select
Transcendent Turret
Cameras



VT-TJB010
Optional Junction Box
for Use with
Transcendent
Motorized Lens Vandal
Dome Cameras



VT-TJB021
Optional Junction Box for
Use with Select
Transcendent
Turret Cameras



VT-TJB03A
Optional Junction Box
for Use with
Transcendent Fixed
Lens Vandal Dome
Cameras



VT-TWMT-3
Optional Wall Mount
for use with Select
Fixed Transcendent
Turret and Dome
Cameras



VT-TWMT-4
Optional Wall Mount
for use with Select
Transcendent
Motorized Turret
Cameras



VT-TWMT-A1
Optional Wall
Mount for use with
Transcendent
Motorized Vandal
Dome Cameras -
requires VT-TJB02A



VT-TWMT-A2
Optional Wall
Mount for use with
Transcendent
Motorized Vandal
Dome Cameras -
requires VT-TJB010



OPTIONAL ACCESSORIES AND RELATED PRODUCTS FOR TRANSCENDENT IP CAMERAS



VT-TPDM-1
Optional Mount
Post Adapter - re-
quires
VT-TJB03A



VT-TPDM-2
Optional Mount
Post Adapter -
requires
VT-TJB01



VT-TPDM-3
Pendant Mount
Post Adapter -
requires
VT-TJB021



VT-TPDMT-A1
Universal 10" Pendant
Mount Post Adapter -
requires VT-TJB08



VT-TFMT-L2
Optional Semi Flush
Mount for use with
Transcendent
Motorized Domes



VT-TFMT-S
Optional Semi-Flush
Mount for use with
Fixed Lens Vandal
Dome Cameras



VT-TPLMT
VT-TCNMT
Universal Transcendent
Pole and Corner Mount
Adapters (requires
J-Box specific to each
camera model)



*Pair with VITEK Transcendent Series
Network Recorders VT-TNR818PFN,
VT-TNR1646PFN, and VT-TNR3216PFN
with Built-in PoE and Gen IV. Advanced
Analytics including Face Detection.*

ALSO CONSIDER: VITEK Point-to-Multi-Point Devices *Reduce Labor and Costly Cable Runs!*

VT-WAP1250 & VT-WAP1150



*With high speed transmission of 150Mbps and a wireless
range of up to 1.25 miles, Vitek Wireless Point to Multi Point
Devices eliminate the need for expensive and troublesome
long distance cabling in remote areas where CCTV monitor-
ing takes place! Contact sales@vitekccv.com for more info!*

LIMITED PRODUCT WARRANTY

VITEK products carry a three (3) year limited warranty. VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is nontransferable and extends only to the original buyer or end user customer of a VITEK Authorized Reseller.

The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, caused by excessive voltage or lightning.

The product must not have been tampered with in any way or the guarantee will be considered null and void.

This guarantee does not affect your statutory rights.

Contact your local VITEK Reseller should servicing become necessary.

VITEK makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a VITEK Authorized Reseller.

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