Dual Light Bullet Camera
NBD521/ NBD821
User Manual

Note: The manual is subject to change without notice

Version: 1.0

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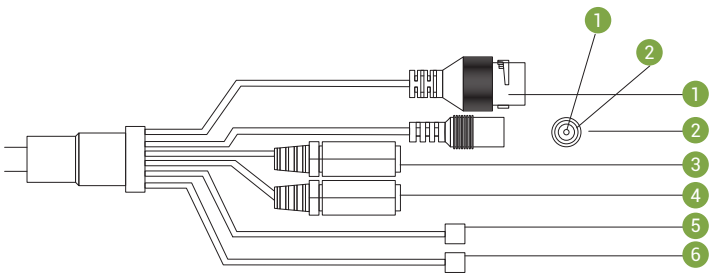
CHAPTER 1: PRODUCT INTRODUCTION

Overview

Camera



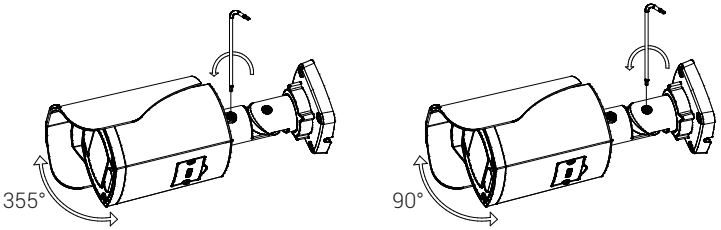
Cable



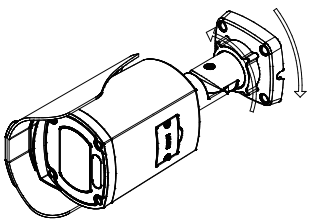
No.	Connector	Definition		
1	RJ-45	Network and PoE connection		
2	Power (12V DC)	Power connection	1	12V DC +
			2	GND
3	Audio in (Red)	Audio input connection	1	Line input +
			2	GND
4	Audio out (Green)	Audio output connection	1	Line output +
			2	GND
5	Alarm in	Alarm input connection	Blue	Alarm input +
			Orange	Alarm input -
6	Alarm out	Alarm output connection	Purple	Alarm output +
			Green	Alarm output -

Hardware Installation

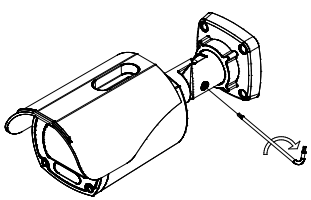
1. Use the supplied L-key to loosen the adjustment screws on the mounting bracket arm. Make the necessary camera angle adjustments by rotating the camera body and mounting bracket arm.



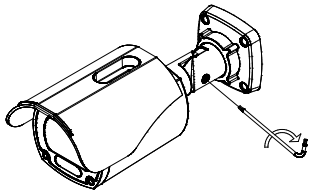
2. Loosen the knob by hand and adjust the angle.



3. Fix the bracket base to the mounting surface by tightening the screws.

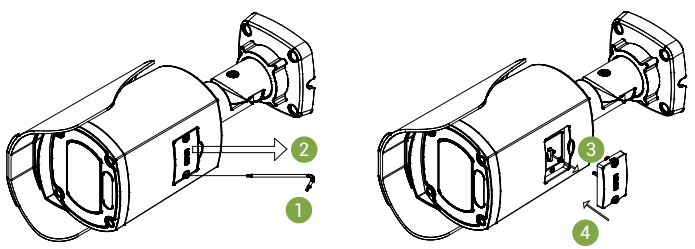


4. Tighten the adjustment screws on the mounting bracket arm to secure the position.



Inserting and Removing the Micro SD Card

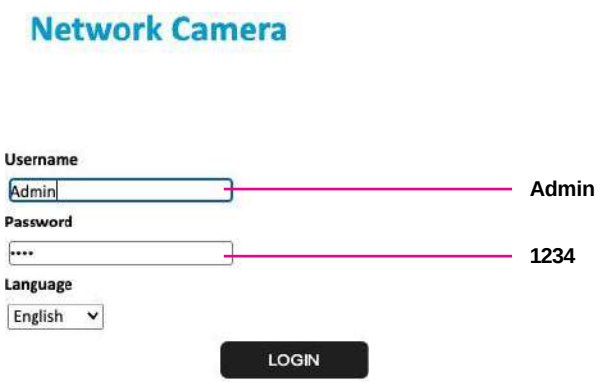
1. Loosen the cover screws.
2. Open the cover.
3. Insert SD card into SD card slot, or remove it from the slot.
4. Install and tighten the cover.

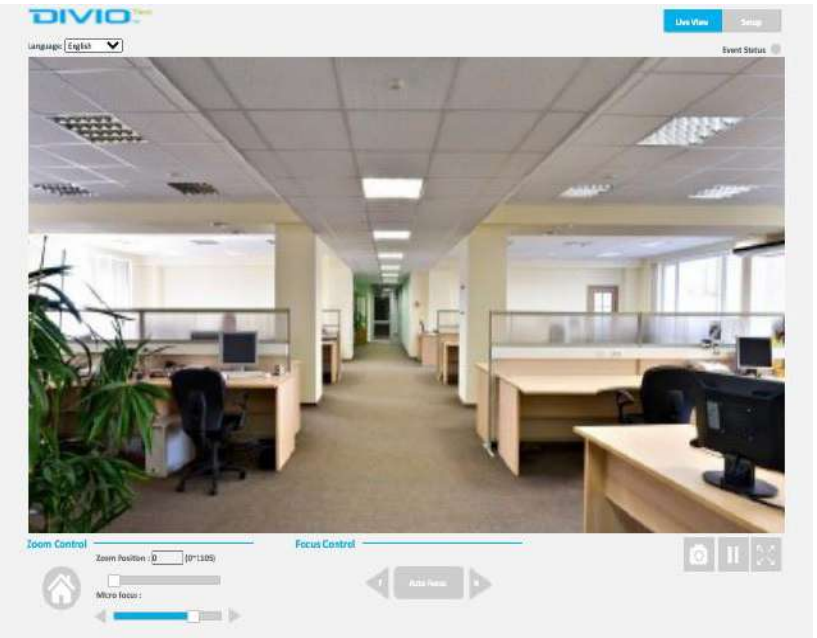


CHAPTER 2: CAMERA CONFIGURATION

Web Browser

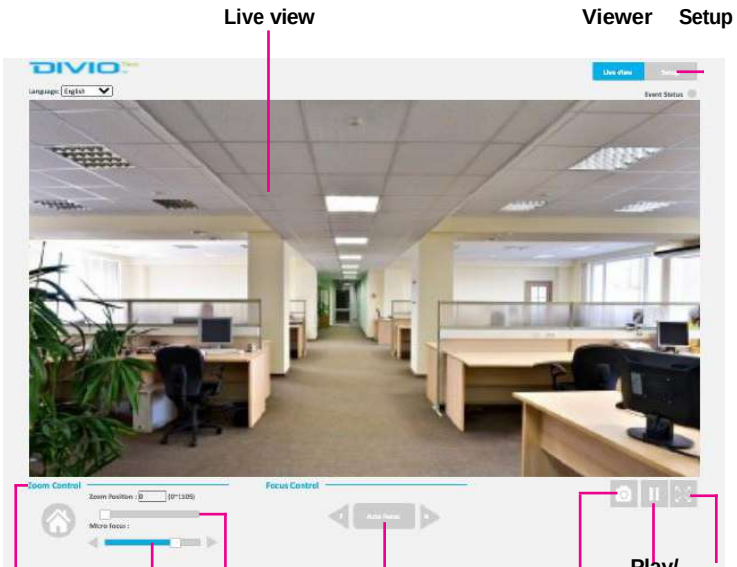
1. Locate and open one of the web browsers (such as Internet Explorer, Chrome, Firefox, etc.) shortcut on the desktop.
2. In the address bar, type 192.168.0.250 (default IP address of the camera) and then press the **Enter** button.
3. You will be prompted with a pop-up window asking for login information, type in "**Admin**" (default login name) and "**1234**" (default password)





5. If no video is displayed on the screen, please make sure you have VLC Media Player installed on the computer. If not, please download and install

Note: It is recommended to use Chrome internet browser to get the optimized view.



Snapshot

Takes a image snapshot from the camera, you will be prompted to store the image file onto the computer's hard drive.

Start/Stop

Press to stop the live video, press again to restart.

Viewer

Views the live video of the camera.

Setup

Options for configuring the IP camera.

Motorized Lens

Zoom Control

Buttons used to control zooming function.

Button	Description
	Returns the camera back to default position.

Zoom Position

Adjusts the camera's zoom level. Move the zoom slider bar left or right to adjust the zoom level. The value of the zoom position will be reflected in the text field. However, the zoom position cannot be manually entered in the text field.

Focus Control

Adjusts the camera's focus. To adjust the focus automatically, press the button. To set the focus manually, press the to focus far objects, and to focus near objects. The focus can also be adjusted through the slider bar.

Micro Focus Control

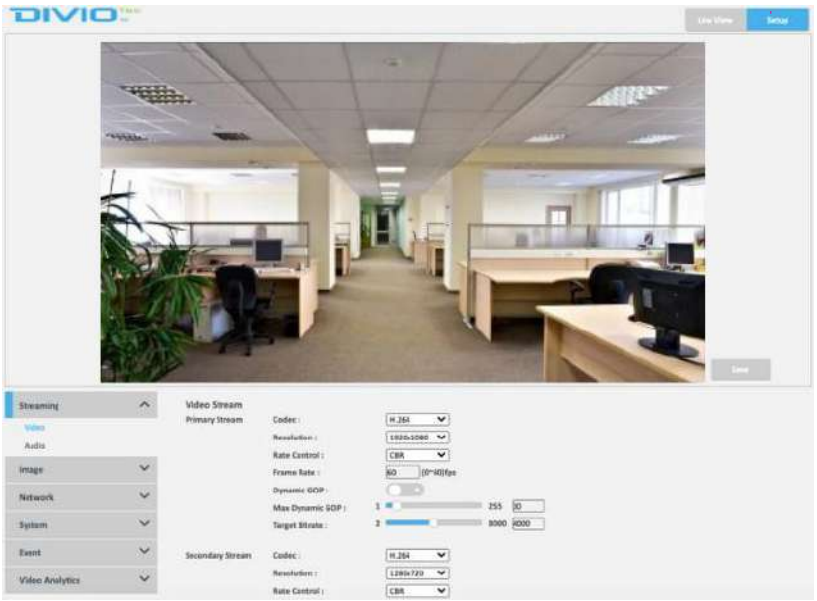
Adjusts the camera's focus when the focus in Focus Control is not enough. Move the zoom slider bar left or right to adjust the focus level.

Note: It is recommended to adjusts the camera back to the default position before adjust the Zoom Position, Focus Control, and Micro Focus Control.

Configuring the Camera's Setting

1. To configure the camera's setting, click on the **Setup** button on the main

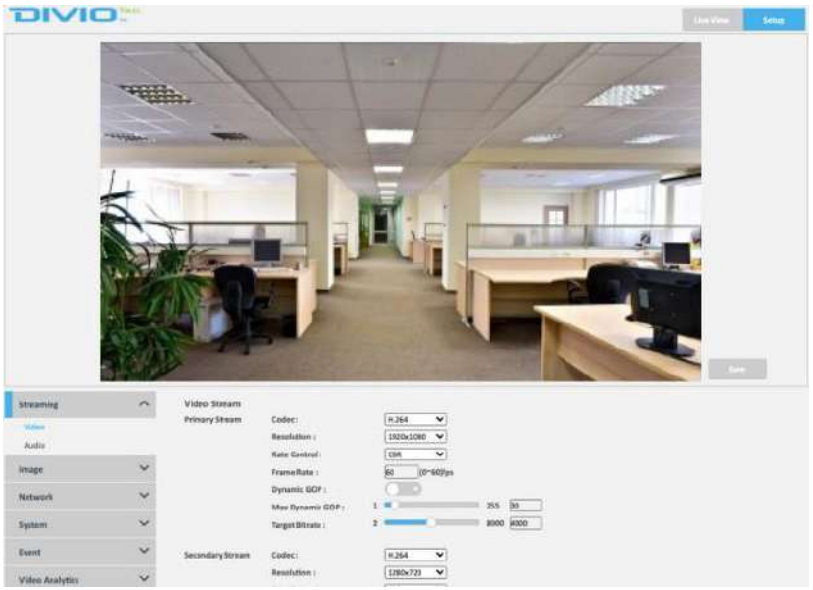
Setup



Browsing Through the Configuration Menu

The layout of the configuration menu is split into two sections. All the camera settings are located on the left hand side of the interface, clicking

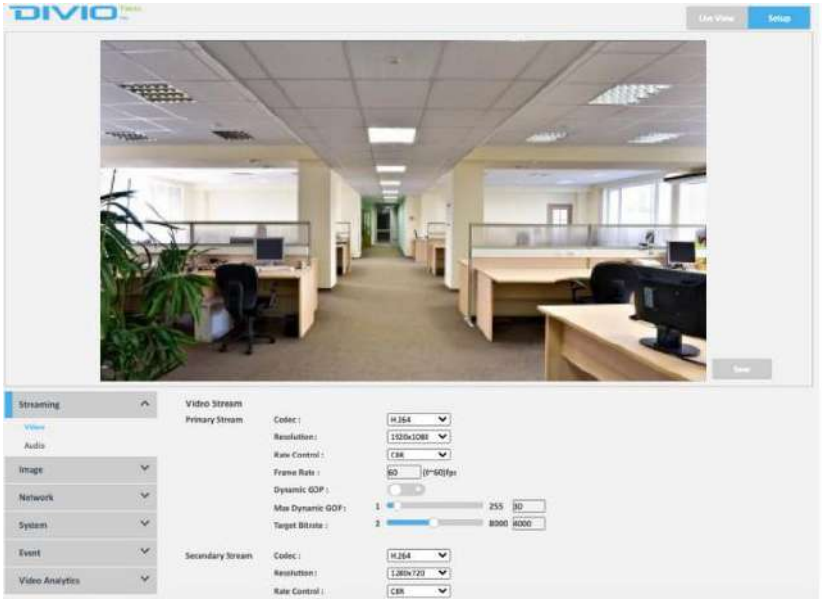
Configuration Menu



The following are the camera settings available on the left hand side for:

- Streaming
  - Video
  - Audio
- Image
  - Exposure
  - Basic Settings
  - ROI
  - Privacy Zone
  - Overlay
- Network
  - Basic
  - FTP
  - SSL
  - 802.1x
  - SNMP
  - Firewall
  - LDAP
  - DDNS
  - RTSP
  - Bonjour
  - Upnp
- System
  - Date/Time
  - Maintenance
  - User Management
  - Homepage Layout
- Event
  - Alarm Handler
  - Motion Detection
  - Tampering Alarm
  - Audio Detection
  - Network Loss Detection
  - FTP Upload
  - SMTP Notification
  - Network Storage
  - Relay Handler
  - SD Record Handler
  - TCP Notify
- Video Analytics
  - Object Detection

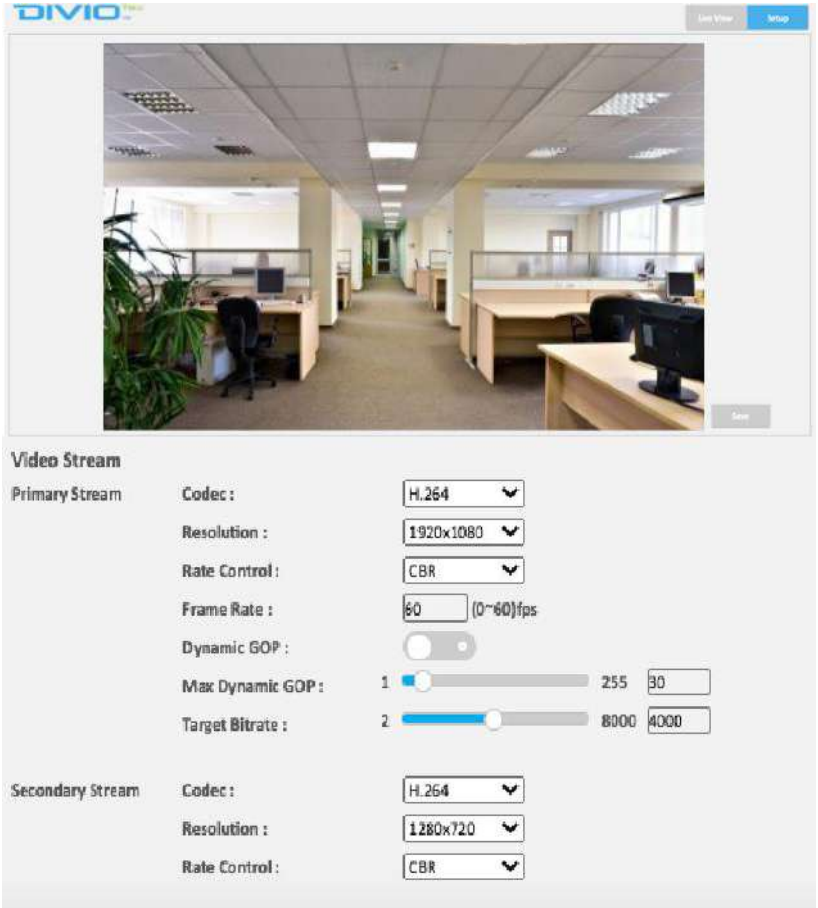
Video Configuration Menu



The following are the camera settings available on the left hand side for :

- Streaming
  - Video
  - Audio
- Image
  - Exposure
  - Basic Settings
  - ROI
  - Privacy Zone
  - Overlay
- Network
  - Basic
  - FTP
  - SSL
  - 802.1x
  - Firewall
  - LDAP
  - DDNS
  - RTSP
- System
  - Date/Time
  - Maintenance
  - User Management
  - Homepage Layout
- Event
  - Alarm Handler
  - Motion Detection
  - Tampering Alarm
  - Audio Detection
  - Network Loss Detection
  - FTP Upload
  - SMTP Notification
  - Network Storage
  - Relay Handler
  - SD Record Handler
  - TCP Notify
- Video Analytics
  - Object Detection

Video - Video Configuration



Primary Stream

Codec

Configures the format of the video stream, the options are **H.265**, **H.264**, and **MJPEG**.

Resolution

Configures the resolution of the video stream. The available options are **1920x1080** and **1280x720**.

Rate Control

Configures the Rate Control mode as **CBR** (constant bit rate) or **CVBR** (constrained variable bit rate) for the stream. Selecting **CVBR** will show the setting options for **Smart GOP**.

Frame Rate

Adjusts the frame rate of the video stream, the range is 1~60FPS for NTSC Video System, and 1~50FPS for PAL Video System (refer to System Maintenance-Video System). The stream will be off if 0 is selected.

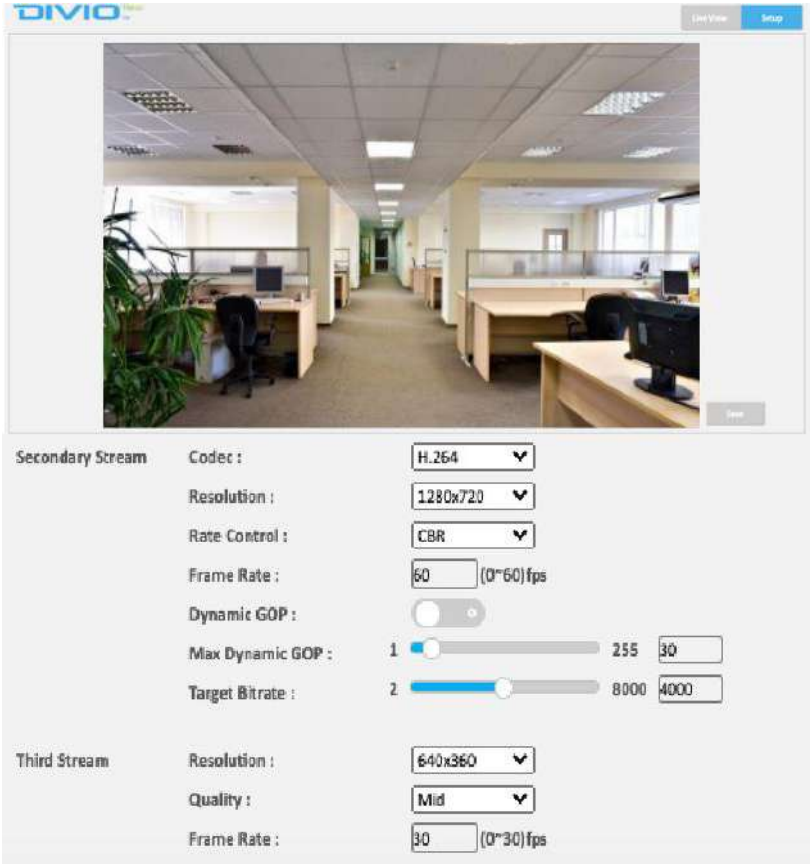
Max Dynamic GOP

Configures the GOP length of the stream, the range is 1~255. Users can enter the value or adjust it through the slider bar.

Dynamic GOP

Enables or disables Dynamic GOP feature. Enabling it will allow GOP to automatically increase when no moving objects are detected to save bandwidth. When moving objects are detected, GOP will automatically decrease

Video Configuration Cont.



Target Bitrate

Configures the bit rate, the range is 2~8000. Users can enter the value or adjust it through the slider bar.

Secondary Stream

Codec

Configures the format of the video stream, the options are **H.265** and **H.264**.

Resolution

Configures the resolution of the video stream. The available options are **920x1080, 1280x720, 720x576, 720x480, 640x480, 640x360 and 320x240.**

Rate Control

Configures the Rate Control mode as **CBR** (constant bit rate) or **CVBR** (constrained variable bit rate) for the stream.

Frame Rate

Adjusts the frame rate of the video stream, the range is 1~60FPS for NTSC Video System, and 1~50FPS for PAL Video System (refer to System Maintenance-Video System). The stream will be off if 0 is selected.

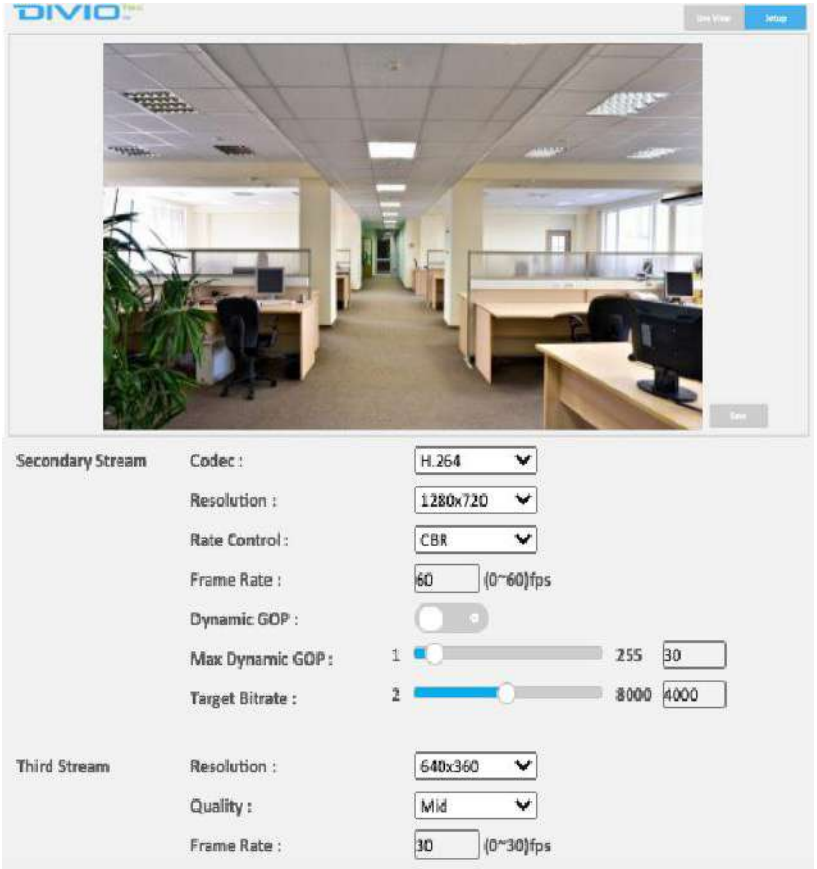
Max Dynamic GOP

Configures the GOP length of the stream, the range is 1~255. Users can enter the value or adjust it through the slider bar.

Target Bitrate

Configures the bit rate, the range is 2~8000. User can enter the value or adjust it through the slider bar.

Video Configuration Cont.



Third Stream

Resolution

Configures the resolution of the video stream. The available options are **640x360** and **320x240**.

Quality

Configures the video quality of the stream. The options are **High**, **Mid** and **Low**.

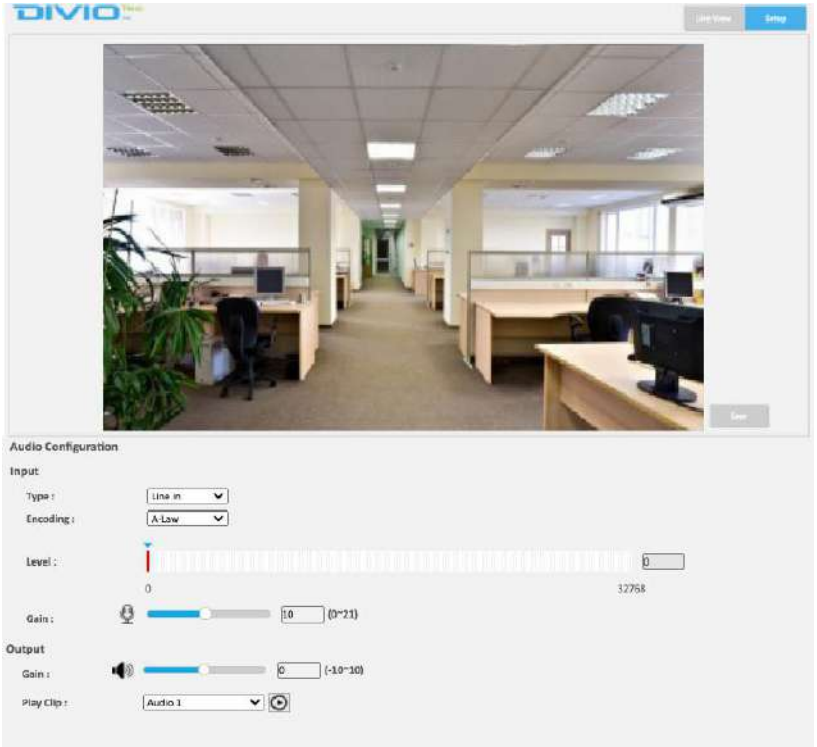
Frame Rate

Adjusts the frame rate of the video stream, the range is 0~30FPS. The stream will be off if **0** is selected.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Video - Audio Configuration



Audio Settings

Type

Select the audio configuration type of the camera. The available options are **Line in** and **Line out**.

Encoding

Adjustment of audio compression. The available options are **A-Law** and **U-Law**.

Audio Input Level

Volume adjustment for audio-in of the camera. Configures the Audio Input level of the stream, the range is 0~32768. Users can enter the value or adjust it through the slider bar.

Audio Input Gain

Volume input quality adjustment for audio-in of the camera. Configures the Audio Input gain of the stream, the range is 0~21. Users can enter the value or adjust it through the slider bar.

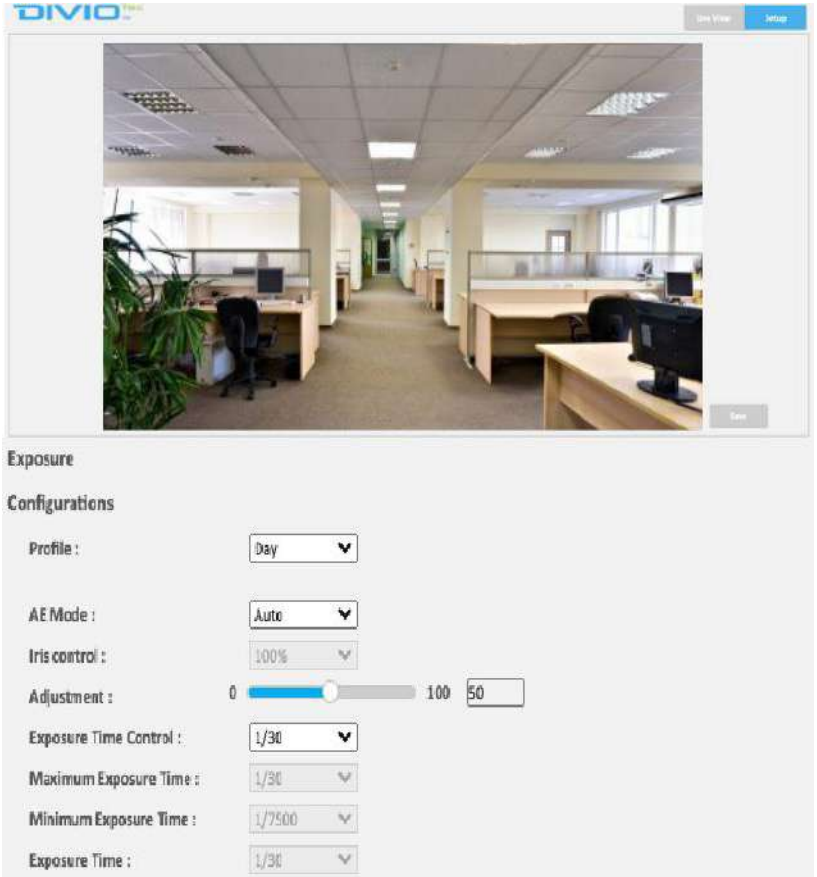
Audio Output Gain

Volume output quality adjustment for audio-out of the camera. Configures the Audio Output gain of the stream, the range is -10~10. Users can enter the value or adjust it through the slider bar.

Audio Output Play Clip

Select the Play Clip type of the audio. The available options are **Audio 1**, **Audio 2**, and **Audio 3**.

Image - Exposure



Configurations

Profile

The available options are **Day**, and **Night**.

AE Mode

The available options are **Auto**, **50Hz**, **60Hz** and **Lock**.

If **Lock** is selected, then Exposure Time Control, Gain Control and BLC cannot be edited. Only Exposure Time can be edited (the range is 1/3~1/71428).

Iris Control

The available options are **Auto**, **0%~100%** in increments of 10%.

Adjustment

Adjusts the weighting from 0~100. Users can enter the value or adjust it through the slider bar.

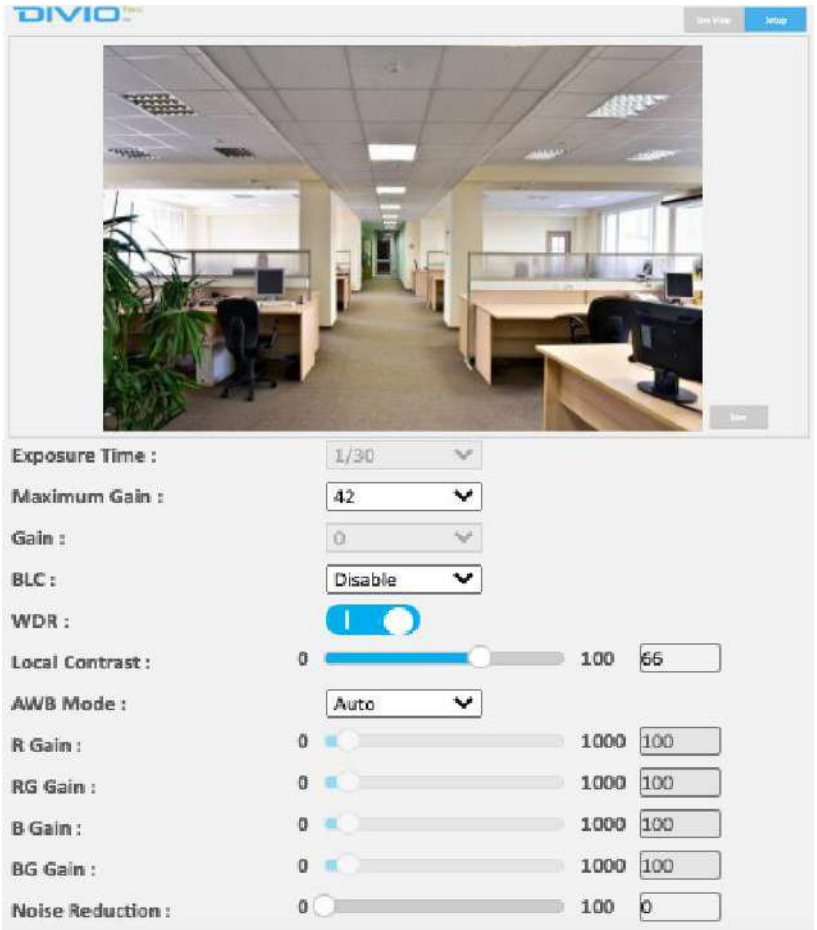
Exposure Time Control

The available options are **OFF**, **1/30**, **1/15** and **1/7.5**.

Exposure Time

The range is 1/3~1/71428. It can only be edited when **Lock** is selected as the AE Mode.

Exposure Cont.



Maximum Gain

Select the value of Maximum Gain with the range is 0~42 with the increment of 3.

Gain

Select the value of Gain with the range is 0~42 with the increment of 3. It can only be edited when Lock is selected as the AE Mode.

BLC

Enable this function if the camera is exposed to bright backlight, in images where a bright light source is behind the subject of interest. The available options are **Enable**, and **Disable**.

WDR

Enable this function if the camera is exposed to bright backlight, glare or high contrast lighting.

Local Contrast

Adjusts the contrast level from 0~100. Users can enter the value or adjust it through the slider bar.

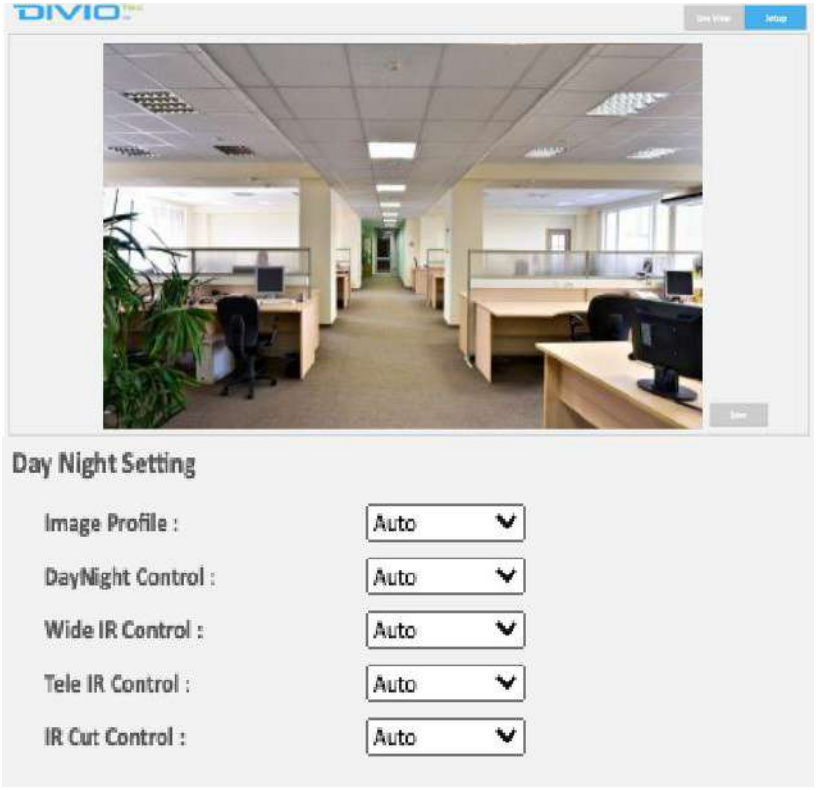
AWB Mode (Auto White Balance Mode)

White balance allows the camera to produce more accurate colors under different lighting conditions. The **Auto** setting is **Auto White Balance**, which automatically adjusts the white balance to suit the current lighting condition. You can also adjust the white balance manually through **R Gain**, **RG Gain**, **B Gain**, or **BG Gain**. The range is 0 ~1000.

Noice Reduction

Adjust the Noise Reduction from 0~100. Users can enter the value or adjust it through the slider bar.

Exposure Cont.



Day Night Setting

Image Profile

Select the Image Profile mode. The available options are **Auto**, **Force Day**, and **Force Night**.

Day Night Control

Select the Day and Night control mode. The available options are **Auto**, **Force Day**, **Force Night**, **Schedule**, and **Light Sensor**.

Wide IR Control

Select the IR control mode to use. The available options are **Auto**, **High**, **Mid**, **Low** and **OFF**.

Tele IR Control

Select the IR control mode to use. The available options are **Auto**, **High**, **Mid**, **Low** and **OFF**.

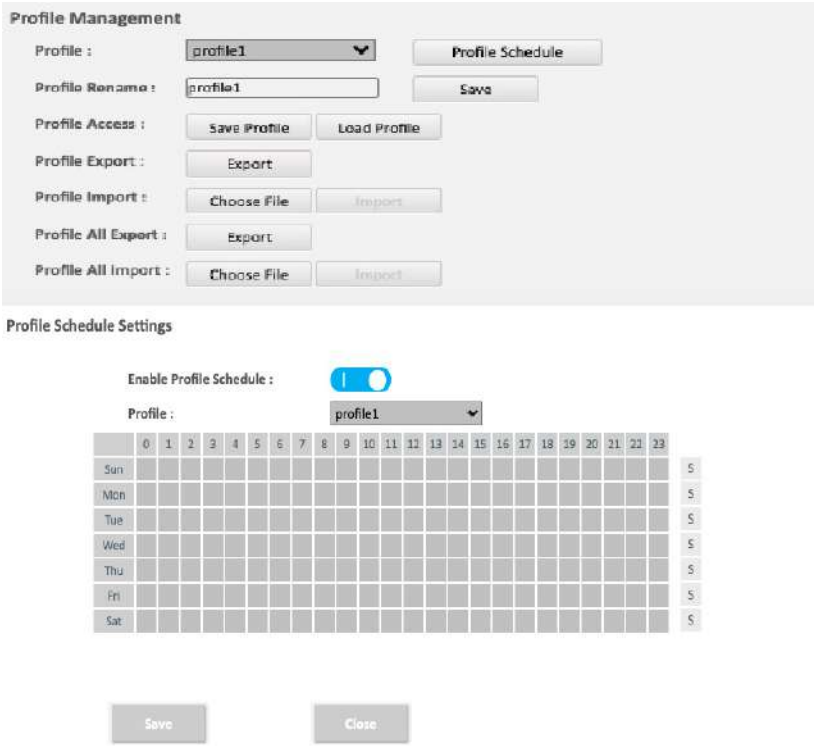
IR Cut Control

Select the IR cut control mode to use. The available options are **Auto**, **Force Day** and **Force Night**.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Exposure Cont.



Profile Management

Adjusts multiple customized settings in one camera for different times.

Profile

Select the Profile mode. The available options are **profile1**, **profile2**, **profile3**, **profile4**, **profile5**, **profile6**, **profile7**, **profile8**, **profile9**, and **profile10.**

Profile Schedule

Select a Profile to schedule with. The available options are **profile1**, **profile2**, **profile3**, **profile4**, **profile5**, **profile6**, **profile7**, **profile8**, **profile9**, and **profile10.**

S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time.

Profile Rename

Rename the Profile of your choice. Click the(save) button for the rename to take effect.

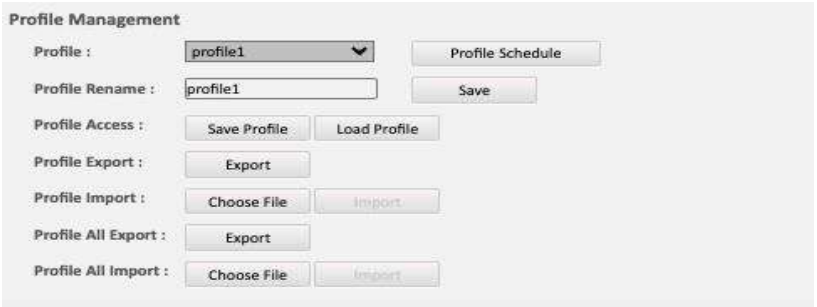
Profile Access

Select the **Save Profile** to save current exposure settings to profile of the users choices. Select the **Load Profile** to load selected profile of the users choices.

Profile Export/ All Export

Select the **Export** button to export the Profile Data of your choice/ all of the profiles.

Exposure Cont.



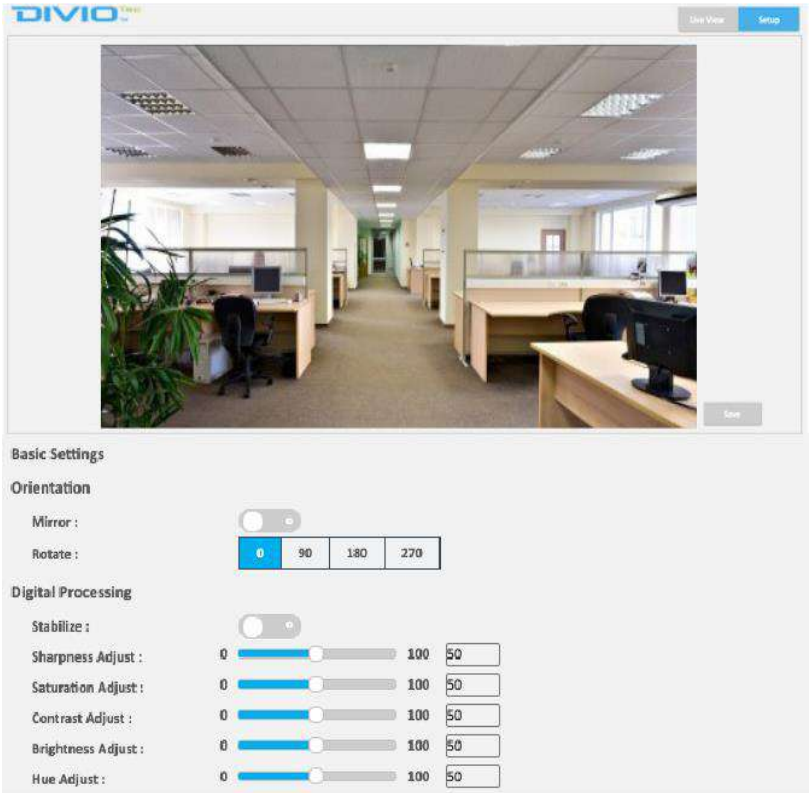
Profile Import/ All Import

Select the **Import** button to import the Profile Data of your choice/ all of the profiles.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Image - Basic Settings



Orientation

Mirror

Enables or Disables the mirror function on the camera.

Rotate

Allows you to rotate the image from the camera. The available options to rotate the image are **0**, **90**, **180**, and **270**.

Digital Processing

Stabilize

Enables or disables video stabilization function. Enabling it will allow the camera to minimize the shakiness seen on the video stream (such as vibrations caused by strong winds or earthquakes).

Sharpness Adjust

Configures the sharpness of the image, the range is 0 ~ 100, with 0 being the lowest sharpness. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.

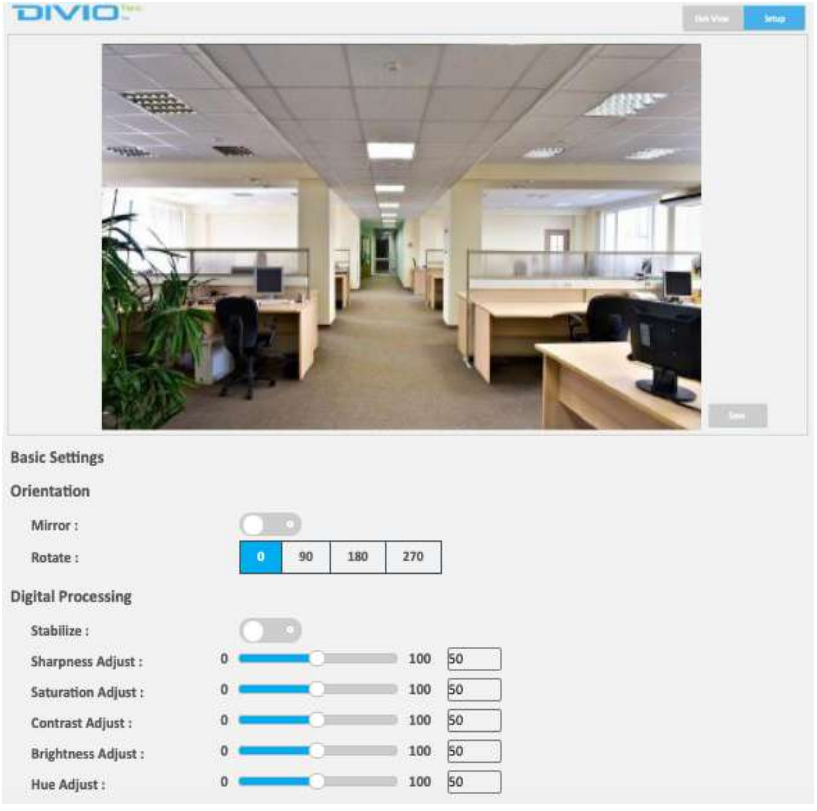
Saturation Adjust

Configures the color saturation of the image, the range is 0 ~ 100, with 0 being the lowest saturation. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.

Contrast Adjust

Configures the contrast of the image, the range is 0 ~ 100, with 0 being the lowest contrast. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.

Basic Settings Cont.



Brightness Adjust

Configures the brightness of the image, the range is 0 ~ 100, with 0 being the lowest brightness. Enter the values or adjust the bar to increase or decrease the values. The default value is 50.

Hue Adjust

Configures the overall hue of the image, the range is 0 ~ 100. Increasing the value will adjust the image hue towards red. Decreasing the value will adjust the image hue towards blue. The default value is 50.

Restore Settings to Defaults

Discards all the settings applied to the image and reset to the default settings.

Default All Image Settings

Discards all the settings applied to the image and revert to the previous settings.

Image - ROI



Configurations

ROI is used to select which areas will be monitored and recorded with higher image quality while using lower image quality for other non-ROI zones to save bandwidth and storage. The instructions below illustrate how to setup ROI.

1. Select Stream 1 or Stream 2 to set the ROI on.
2. There are 5 ROI zones that can be configured (zone 1 ~ zone 5). Switch to **ON** to enable ROI function. The default is **OFF**.
3. Set the image quality of the ROI in the **Level** drop-down menu, the options are **Low**, **Medium** or **High**.
4. Select the area to set the ROI by holding down the mouse button and drag to make a rectangular square, release the button once the desired area is covered.
5. Press the **Set Area** button for the setting to take effect. The ROI area will then be seen on the video stream.
6. Press the **Del Area** button or select **OFF** to delete the ROI area.

Image - Privacy Zone

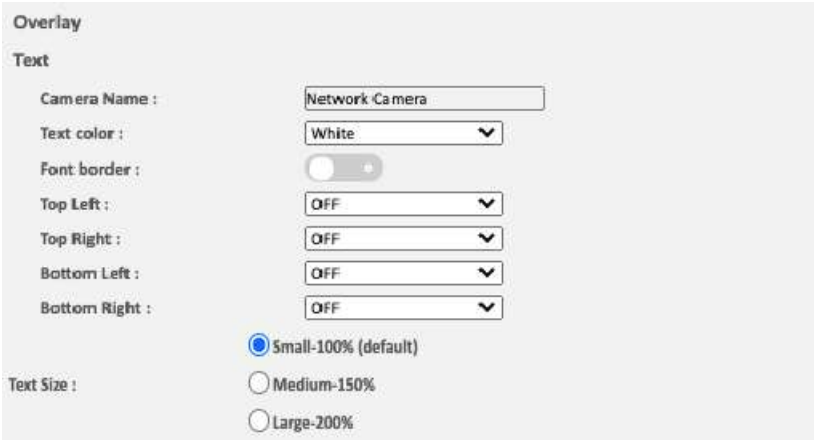


Configurations

Configures which area of the video stream will be masked for privacy. There are 5 privacy zones that can be configured.

1. Select **ON** to enable **Privacy Zone** function. The default is **OFF**.
2. Select the area to set the privacy zone by holding down the mouse button and drag to make a rectangular square, release the button once the desired area is covered.
3. Press the **Set Area** button for the setting to take effect. The masked area will be filled with black and the label **Mask** will be seen on the video stream.
4. Press the **Del Area** button or select **OFF** to delete the privacy zone.

Image - Overlay



Overlay

Camera Name

Specifies a name for the device. The maximum length is 32 characters.

Text Color

Configures the text colour as **White**, **Black**, **Green**, **Yellow**, or **Red**.

Font Border

Enables or Disables the Font Border function.

Content

OFF: The default setting is OFF.
Date/Time: Displays the current date/time.
Camera Name: Displays the device name.
Camera Name + Date/Time: Displays the device name and date/time.
Custom Text: A customized text can be specified here.

There are 4 content positions (Top Left, Top Right, Bottom Left and Bottom Right) to display the camera name, current date/time and text overlay.

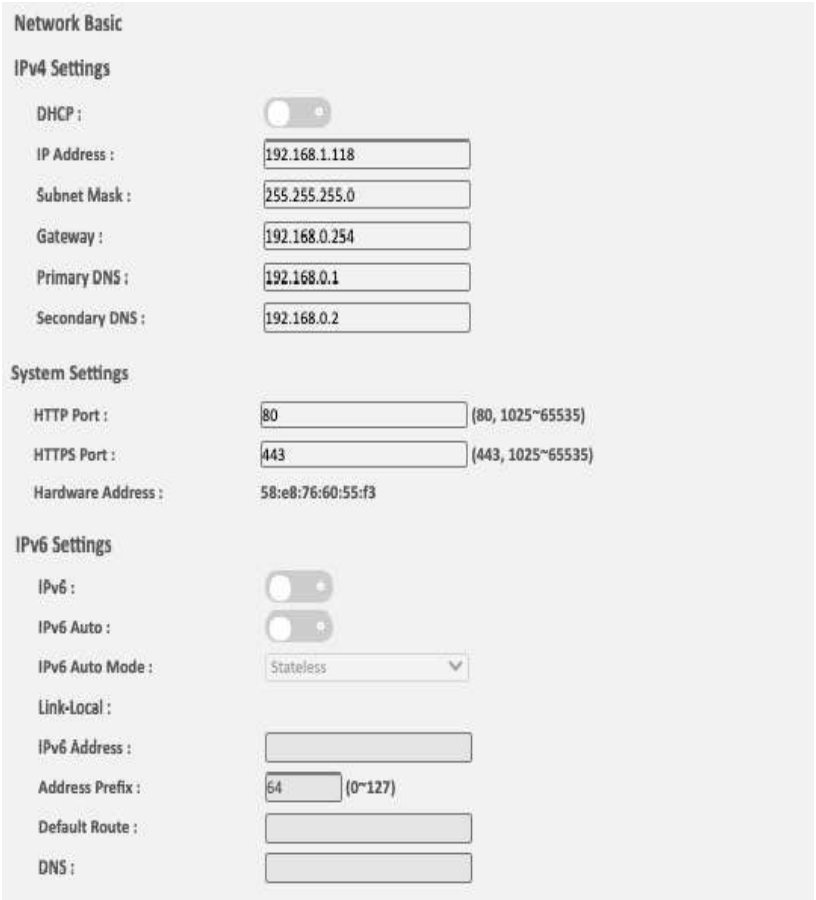
Text Size

There are three available options of the Text Size. The available options are **Small-100%(default)**, **Medium-150%**, or **Large-200%**.

Save

Save button to apply the configurations, click on this button once all the

Network - Basic



IPv4 Settings

DHCP

Enables or disables DHCP, use this feature if the camera is connected to a network with DHCP server.

To manually configure an IP address, disable DHCP and input the IP address, subnet mask, default gateway, primary and secondary DNS server address.

System Settings

HTTP Port

Configures the HTTP port number of the web configuration menu.

HTTPS Port

Configures the HTTPS port number of the web configuration menu.

Hardware Address

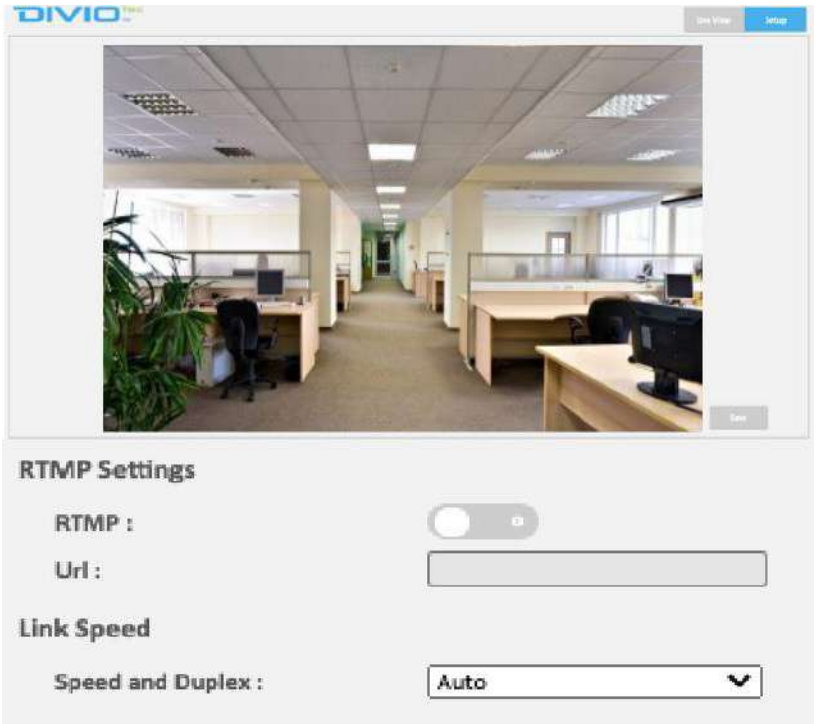
Unique MAC address for each camera device.

IPv6 Settings

Enables or disables IPv6 function.

To manually input an IP address, enable IPv6 and input the address prefix, default route, enable/disable router advertisement and DNS server address.

Basic Cont.



RTMP Settings

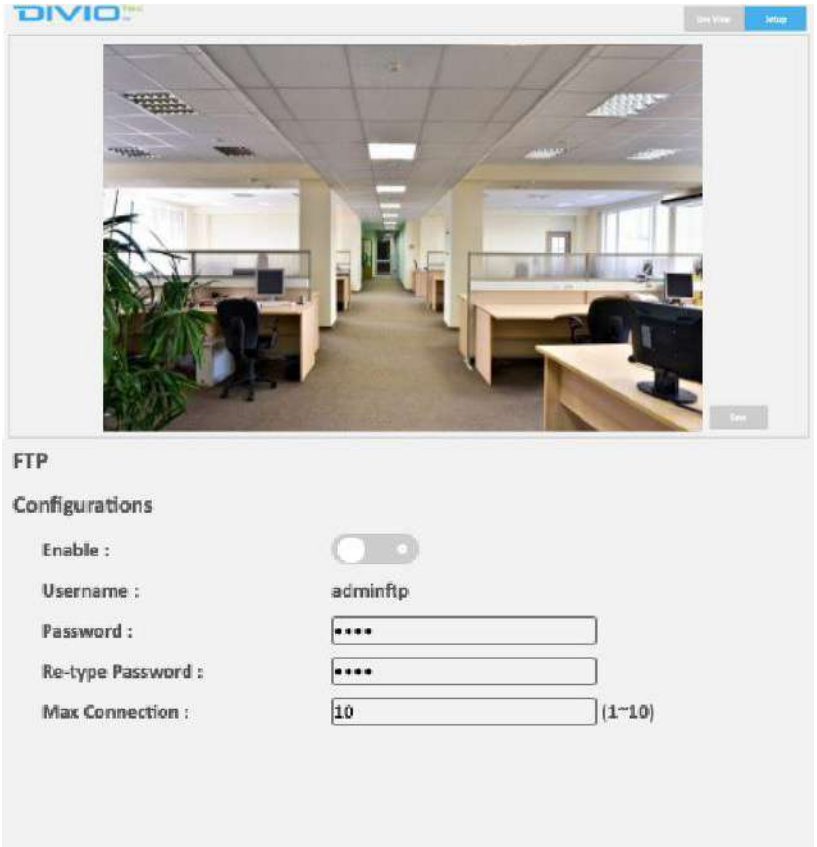
Enables or disables RTMP function. Enter website link if necessary.

Link Speed

Speed and Duplex

The available options are **Auto**, **100Mbps Full Duplex**, **100Mbps Half Duplex**, **10Mbps Full Duplex**, or **10Mbps Half Duplex**.

Network - FTP



Configurations

Enable

Enables or disables FTP access to this camera. This function is only available when an SD card is inserted. You can access files in the SD card attached to the IP camera.

Password

Specifies the FTP login password to access the IP camera.

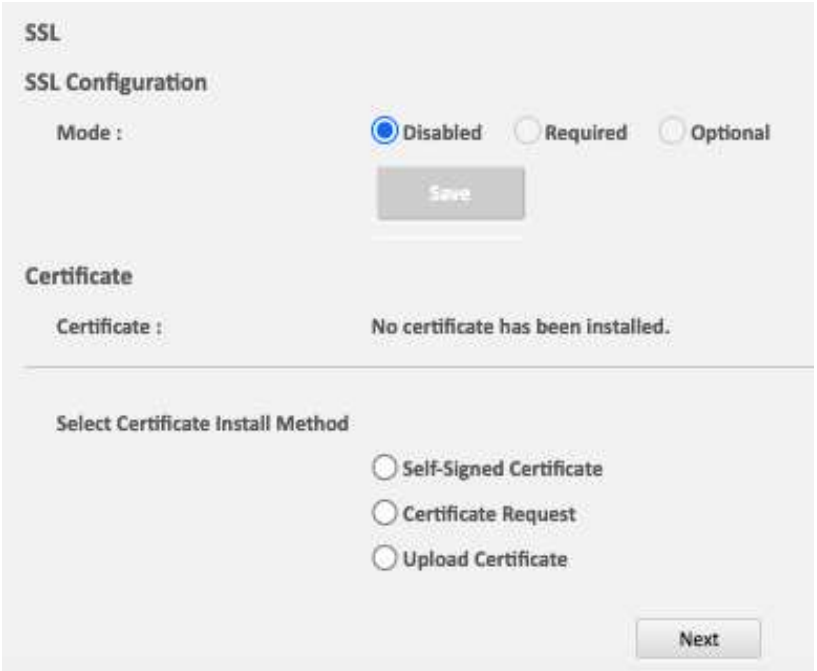
Max Connection

Specifies the maximum number of FTP connections the IP camera can support.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - SSL



SSL Configurations

Mode

Disabled: Support for http only.
Optional: Support for http & https.
Required: Support for https only.

Certificate

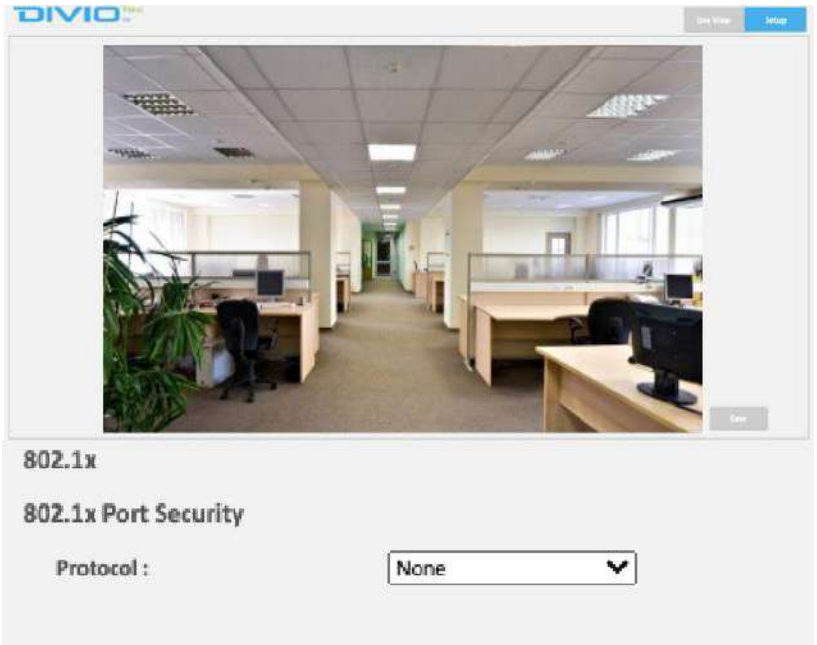
Select Certificate Install Method

Provides options to install a new CA certification.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - 802.1x



802.1x Configurations

Protocol

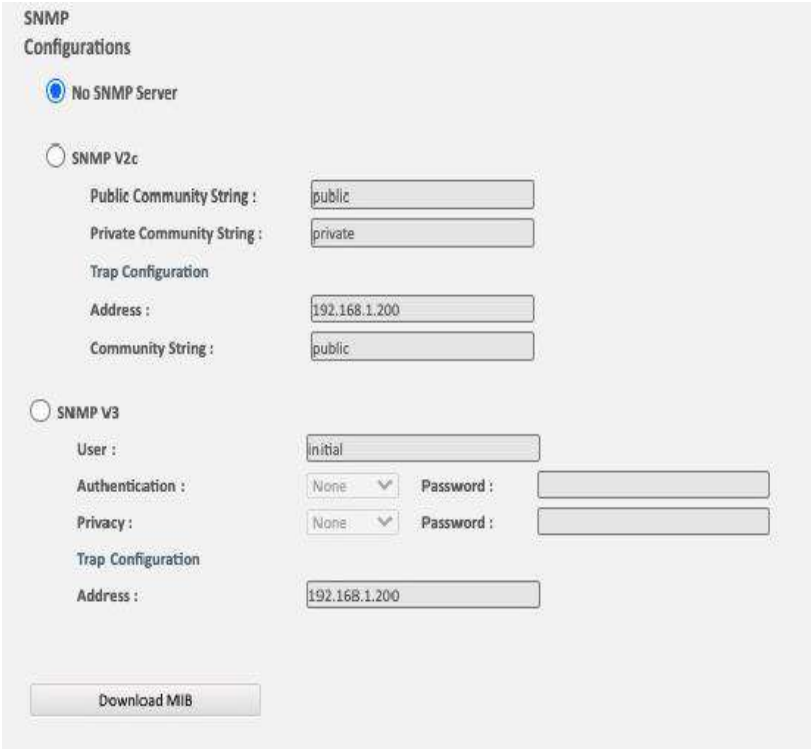
The default is **None** to disable 802.1x function.
Select the protocols to enable 802.1x function. The available protocols are **EAP-MD5**, **EAP-TLS**, **EAP-TTLS** or **EAP-PEAP**.

After the protocol has been selected, manually configure the username, password and other required information.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - SNMP



SNMP Configurations

The available options are **No SNMP Server**, **SNMP V2c**, or **SNMP V3**.

No SNMP Server

Disables SNMP function.

SNMP V2c

Enables or disables SNMPv2c support.

Community String

Configures the community string.

Trap Configuration

Specifies the destination IP address to send SNMP trap messages.

SNMP V3

Enables or disables SNMPv3 support.

User

Configures the SNMPv3 username.

Authentication Mode

Configures the Authentication mode. The options are None, MD5 andmSHA.

Privacy

Configures encryption for SNMPv3. The options are DES and AES.

Trap Configuration

Specifies the destination IP address to send SNMP trap messages.

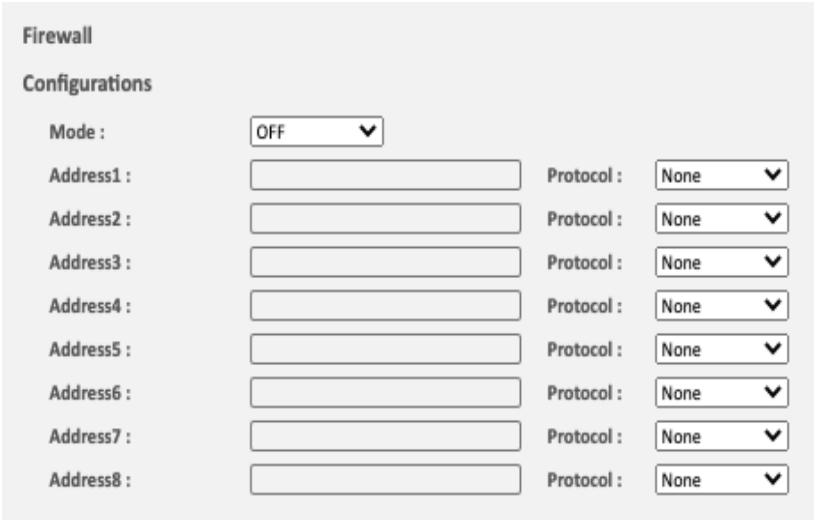
Download MIB

Download MIB file for SNMP

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - Firewall



Firewall Configurations

Mode

Select **OFF** to disable the filtering of the specified IP address. Select **Allow** or **Deny** in the drop-down menu to specify the type of filtering rule applied to the IP address entered.

Address1 to Address8

The IP address and associated protocol (**TCP**, **UDP** or **None**) to filter can be entered here. A total of 8 IP addresses can be added to the list.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - LDAP



LDAP Configurations

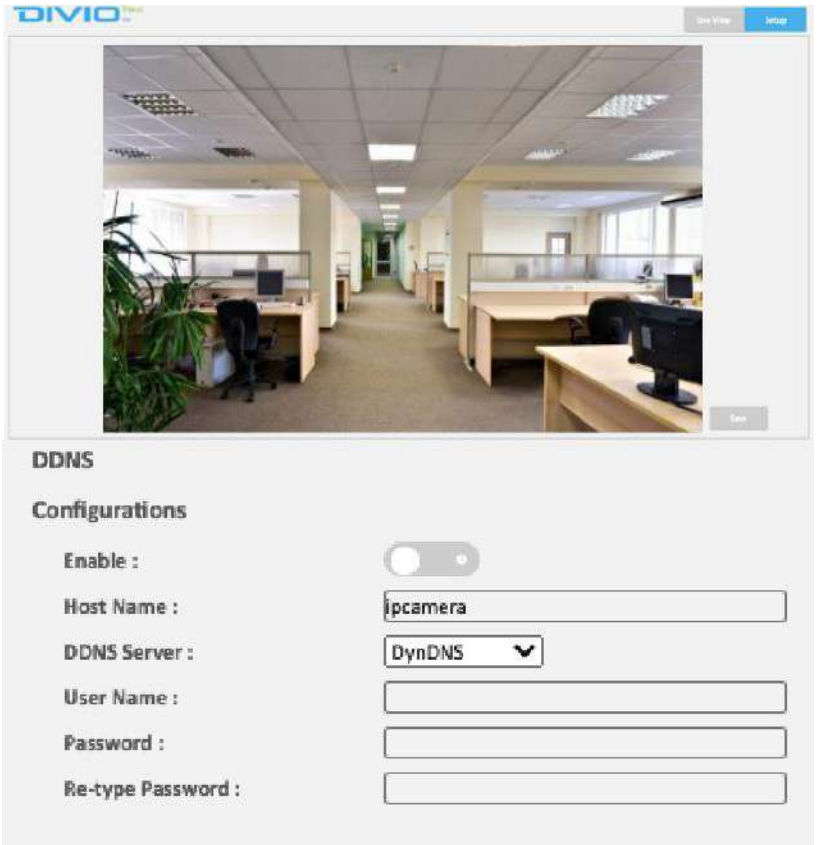
Enable

Enables or Disables the LDAP function.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - DDNS



DDNS Configurations

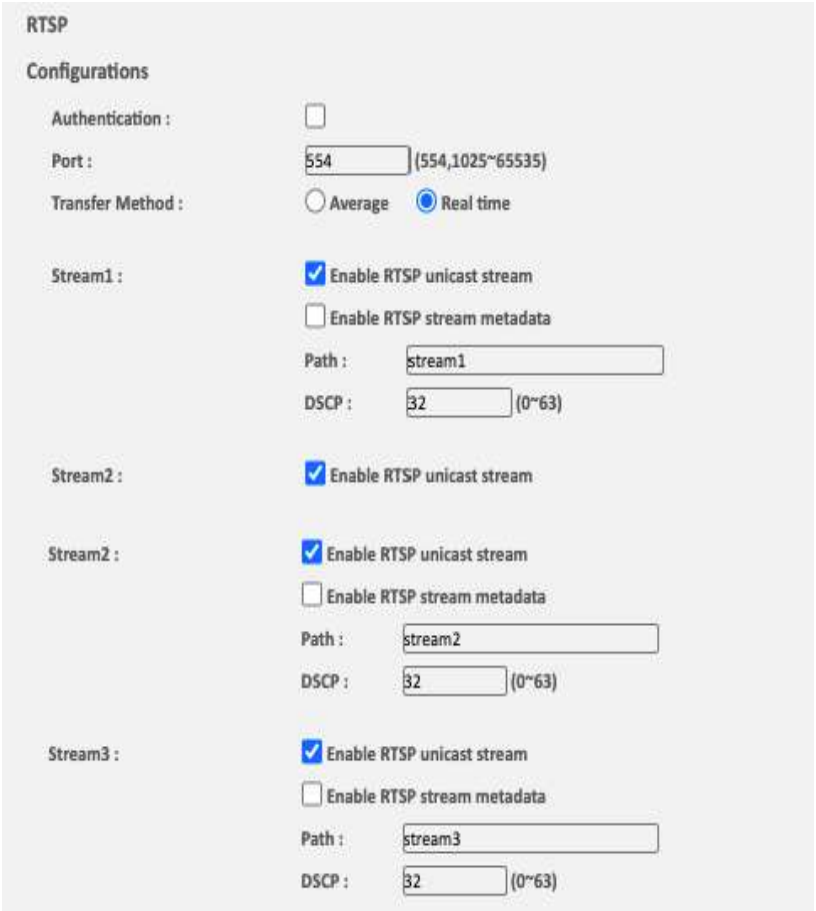
Enable

Enables or Disables the DDNS function.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - RTSP



RTSP Configurations

Authentication

Enables or disables verification of the account and password. The account and password are same as the camera's login account and password.

Port

Configures the port number for stream 1 to stream 3. The range is 554/1025~65535.

Transfer Method

The available options are **Average**, or **Real Time**.

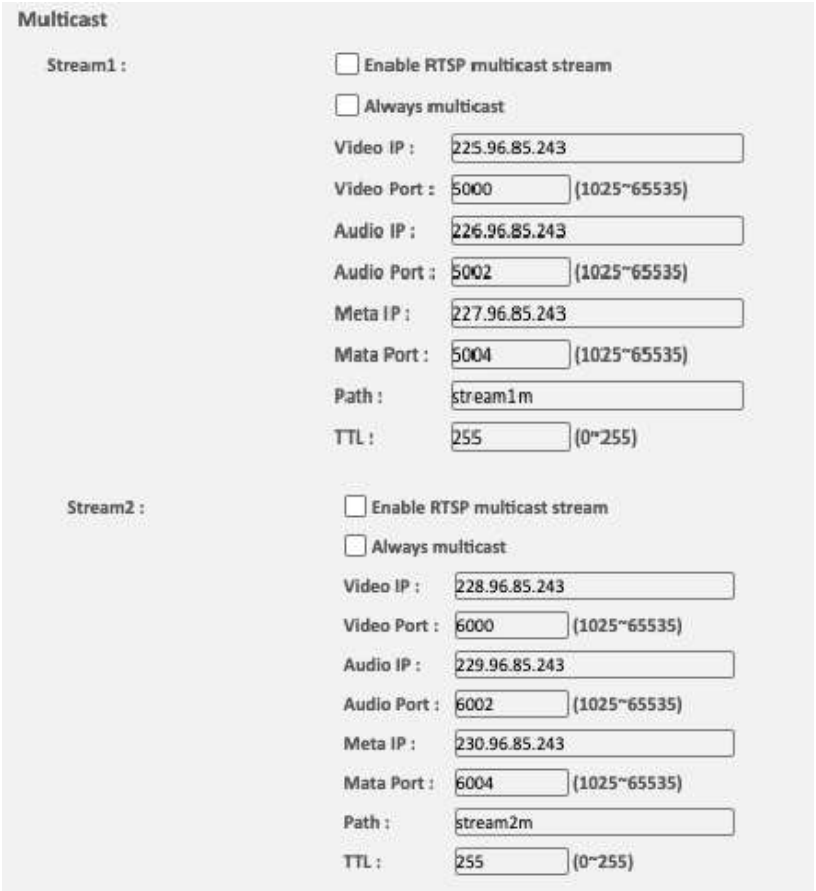
Stream 1 to Stream 3

Enables or disables RTSP unicast for stream 1 to stream 3. The RTSP port number and pathname for each stream can be configured here.

Default URL Path of Stream 1 to Stream 3

Stream 1: rtsp://cameraIP/stream1
Stream 2: rtsp://cameraIP/stream2
Stream 3: rtsp://cameraIP/stream3

RTSP Cont.



Multicast (Stream 1 to Stream 3)

Enable RTSP Multicast

Enables or disables RTSP multicast streaming.

Always Multicast

Check this option to enable the video stream to start multicast streaming without using RTCP.

Video IP

Configures the multicast address to stream video.

Video Port

Configures the port number of the video stream.

Audio IP

Configures the multicast address to stream audio.

Audio Port

Configures the port number of the audio stream.

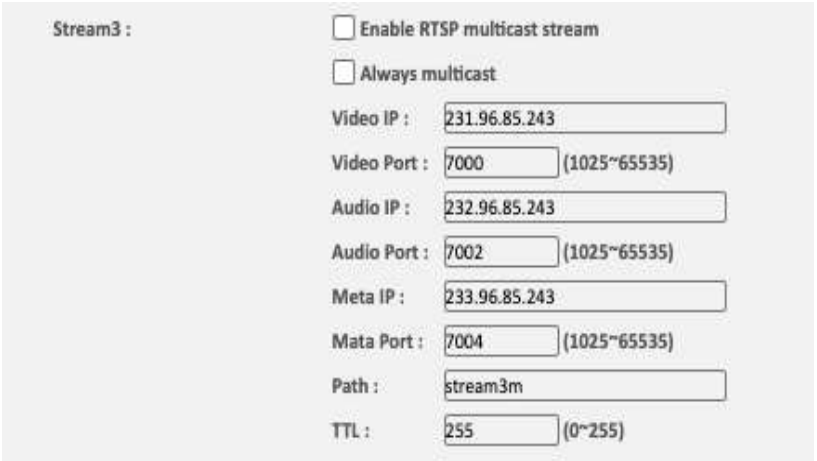
Meta IP

Configures the multicast address for the html meta.

Meta Port

Configures the port number of the html meta.

RTSP Cont.



Path

Configures the URL address of the video stream.

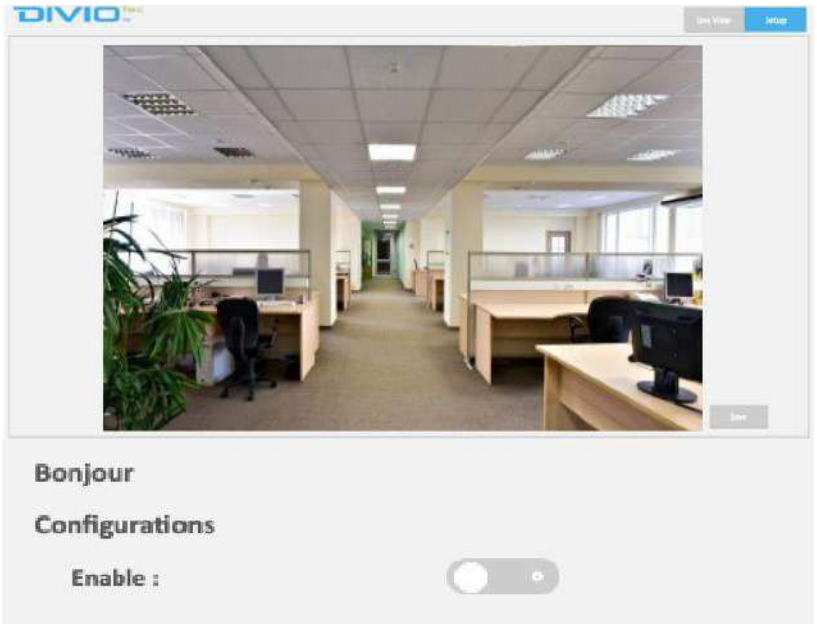
TTL

Configures the time-to-live threshold of the multicast datagram before it is discarded by the router.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Network - Bonjour

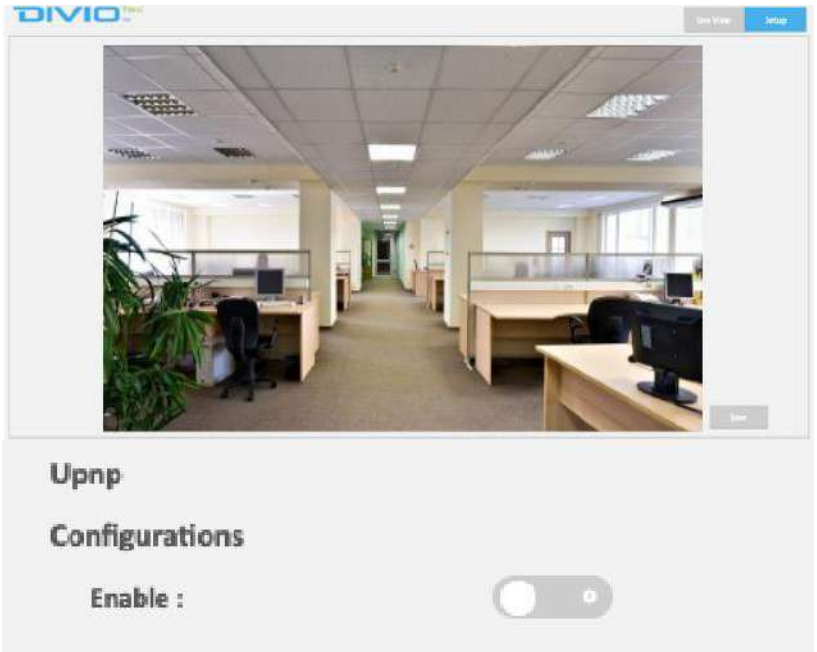


Bonjour Configurations

Enable

Enables or Disables the Bonjour function.

Network - Upnp

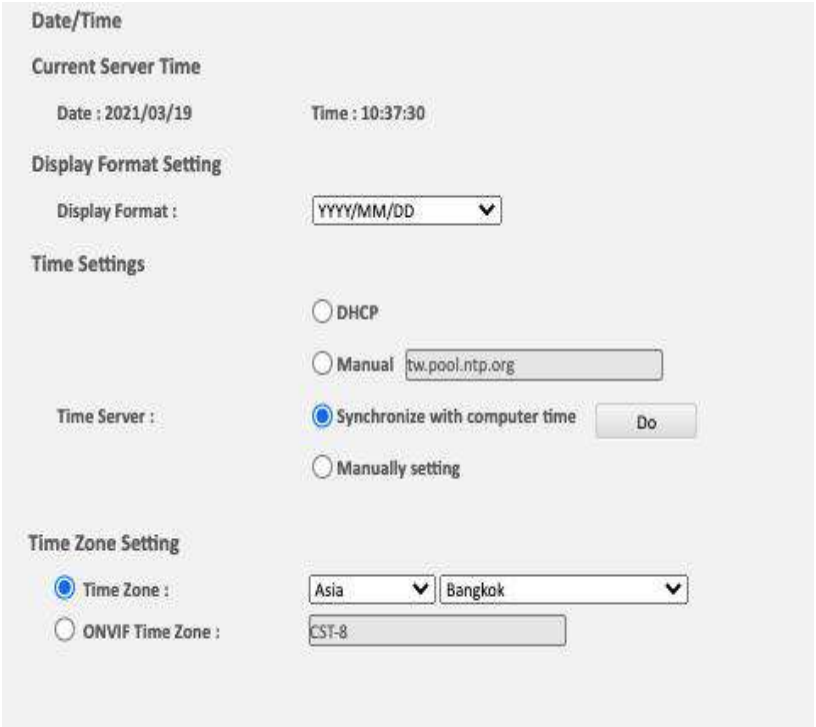


Upnp Configurations

Enable

Enables or Disables the Upnp function.

System - Date/Time



Date/Time Configurations

Display Format

Displays the current date and time. There are various formats to select from the drop-down menu.

Time Setting

Time Server

DHCP: If your DHCP server provides NTP server information, select this setting to enable NTP information retrieval.
Manual: Select this option to configure the NTP server address manually for date and time synchronization.

Sync with computer time

Manually synchronize with the current computer date and time.

Manually setting

Manually define the date and time. The format is **yyyy/mm/dd** or **hh:mm:ss**.

Time Zone Setting

Time Zone

Select the time zone relevant to your location in the drop-down menu.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

System - Maintenance



System Information

Firmware Version

Displays the current firmware version.

Model Name

Displays the IP camera model number.

Serial Number

Displays the IP camera serial number.

MAC Address

Displays the IP camera MAC number.

Firmware Update

To update the camera's firmware, click on the **Browse** button and locate the firmware image file, once the file is selected, press the **Upload** button



During update, please do not disconnect the network cable, reset or power off the IP camera, as you may damage the device.

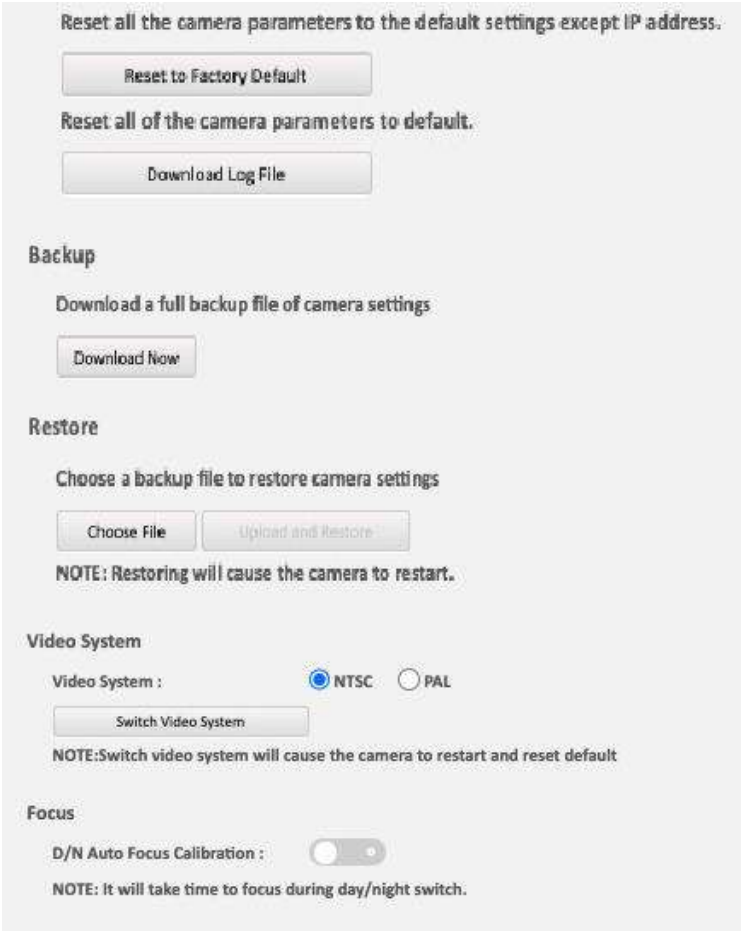
Reboot Camera

Click this button to reboot the camera.

Reset to Default

Click this button to restore all the camera's setting back to factory default except IP address (keeps all the settings on the **Network Basic** setting page).

Maintenance Cont.



Reset to Factory Default

Click this button to restore all the camera's setting back to factory default, including IP address (default is 192.168.1.168).

Download Log File

Records all the status information of the camera in list format when the camera is connecting to the PC. Downloads the log file to the computer as a text file.

Backup

Download Now

Downloads the current camera settings to a backup file.

Restore

Update and Restore

Click on the **Browse** button and locate the backup file, once the file is selected, press the **Update and Restore** button to restore camera settings.

Video System

Options to switch between NTSC or PAL video system. The camera will restart and reset to default after switching the video system.

D/N Auto Focus Calibration

Enables or disables auto focus calibration for day/night control.

System - User Management



Admin Setting

Admin

The default username is **admin**. Users cannot change it.

Password

Set up the password for administrator's authorization.

Re-type Password

Retype the same password to confirm.

User List

Displays user accounts available on the camera.

Press **New User** to add a new account and set up the authorization level of this user from the following **User Information**. Press **Give Up** to delete the new user if you do not want to set up continually.

To delete an account, press the **Delete User** button.

User Management Cont.



User Information

This section allows users to set up each new user's authorization level. A total of ten accounts can be created for **Admins/Views**.

Access Level

Admins: Has full control (read/write) over every configuration menu item.
Views: Only has access (read) to the live view of the camera (main screen).

User Name

Username must be at least 1 and up to 16 characters.

Password

Password must be at least 1 and up to 16 characters.

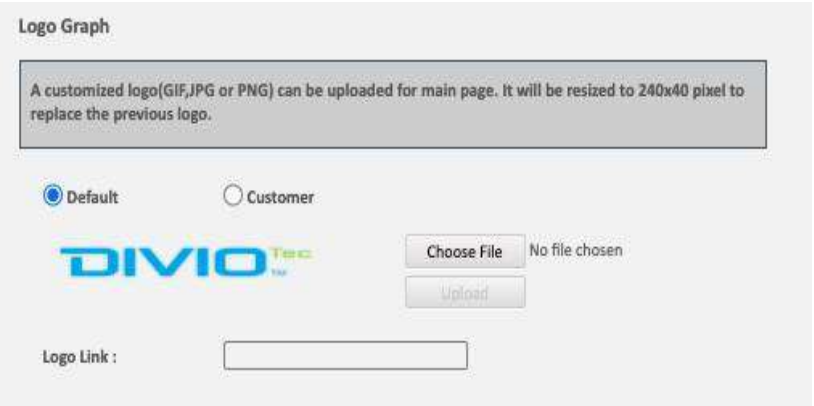
Re-type Password

Retype the same password to confirm.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

System - Homepage Layout



Logo Graph

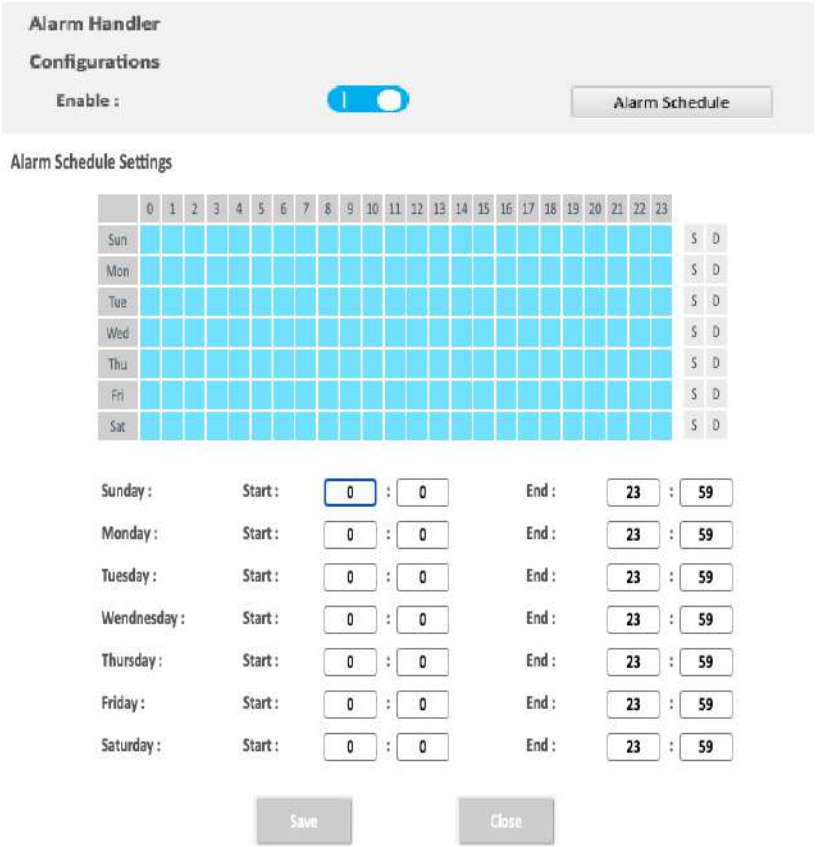
This section allows users to set up a customized logo(GIF, JPG, or PNG) for main page.

The available options are **Default**, or **Customer**.

Click on the **Choose File** button and choose the logo file, once the file is selected, press the **Upload** button to upload the logo.

Enter a website link if necessary.

Event - Alarm Handler



Alarm Handler Configurations

Enable

Enables or disables the alarm schedule setup.

Alarm Schedule Settings

S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

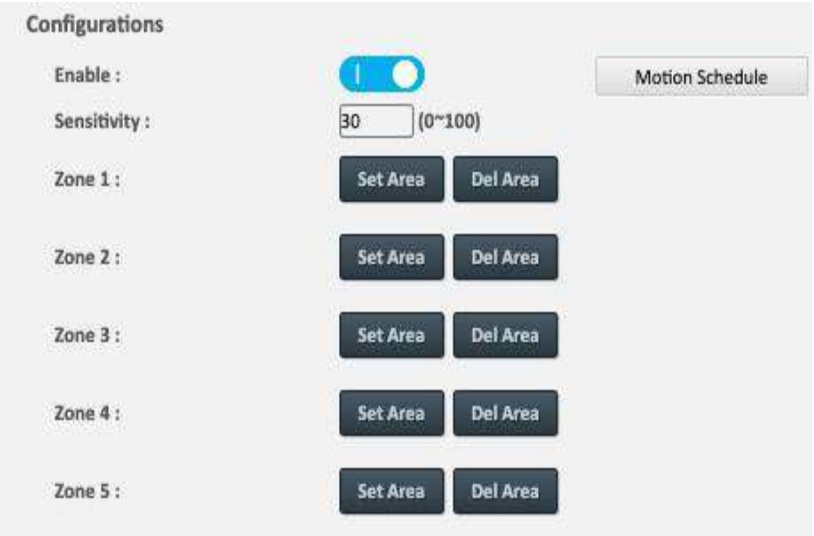
Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Close

Press to leave this schedule setting page.

Event - Motion Detection



Motion Configurations

This section configures which area of the live video will be monitored for detecting motion.

Enable

Enables or disables motion detection function.

Sensitivity

Configures the sensitivity of motion detection, the range is 0 to 100.

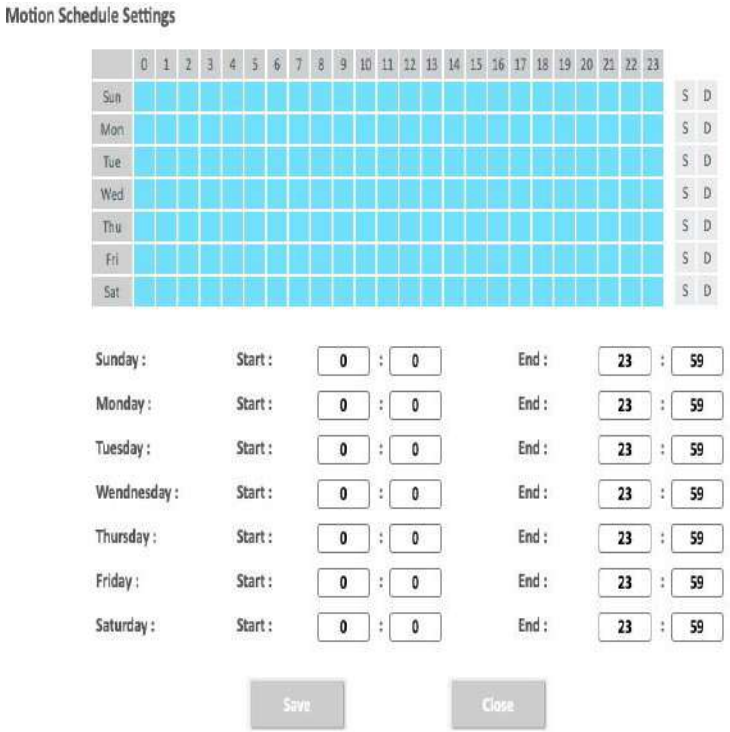
Zone1 to Zone5 Setup

Configures the type of area layout to use for motion detection. You can configure up to 5 zones. The instructions below illustrate how to set up 5 zones.

1. To create zone 1, on the live video screen, select the area to set the zone by holding down the mouse button and drag to make a rectangular square, release the button once the desired area is covered.
2. Press the **Set Area** button in zone 1 to set this area as motion zone 1.
3. Repeat the above steps to create motion areas for zones 2 to 5.

To delete an area, find the motion zone number you would like to remove, and press the **Del Area** button.

Motion Detection Cont.



Motion Schedule Settings

S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

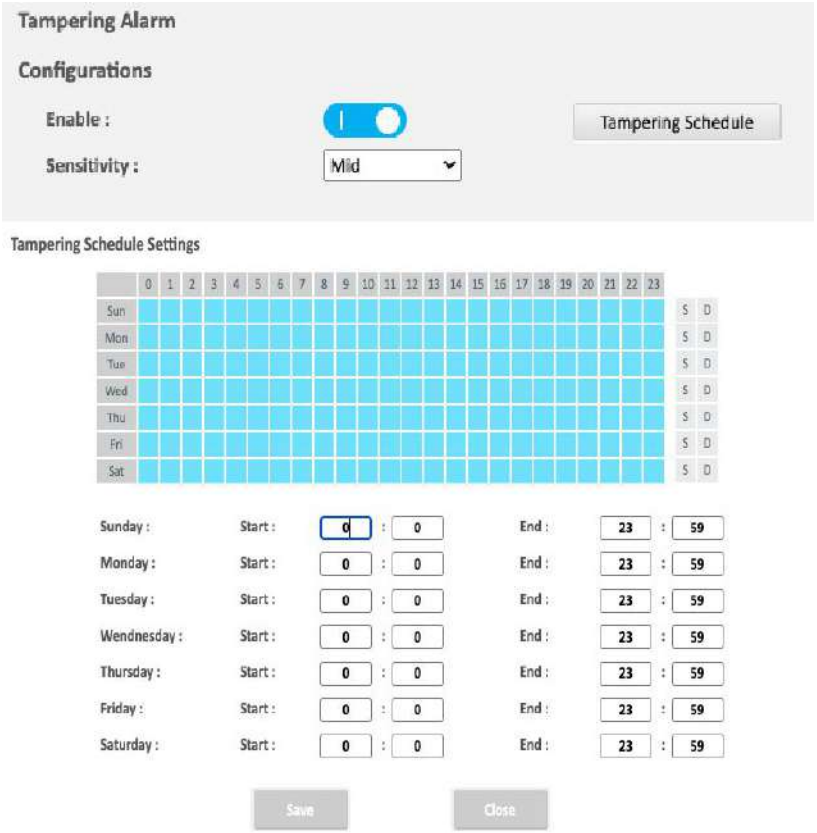
Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Close

Press to leave this schedule setting page.

Event - Tampering Alarm



Tampering Alarm Configurations

Enable

Enables or disables tampering alarm function.

Sensitivity

Configures the sensitivity level of tampering alarm, the options are **High**, **Mid** and **Low**.

Tampering Schedule Settings

S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

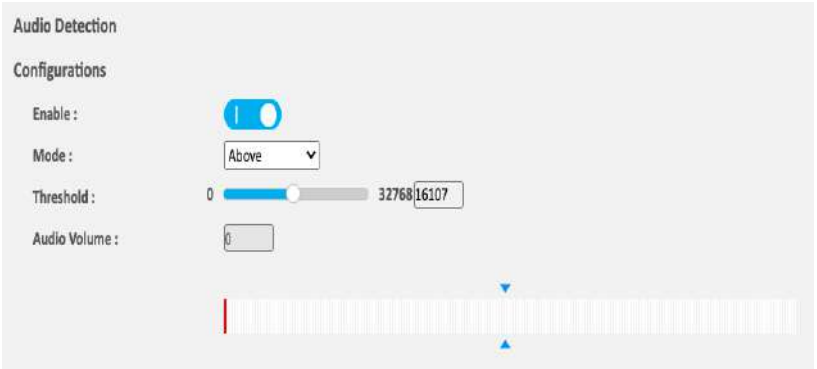
Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Close

Press to leave this schedule setting page.

Event - Audio Detection



Audio Detection Configurations

Enable

Enables or disables audio detection function.

Mode

The available options are **Above**, or **Under**.

Threshold

Configures the threshold of audio detected, the range is 0 ~ 32768, with 0 being the lowest. Enter the values or adjust the bar to increase or decrease the values. The default value is 16107.

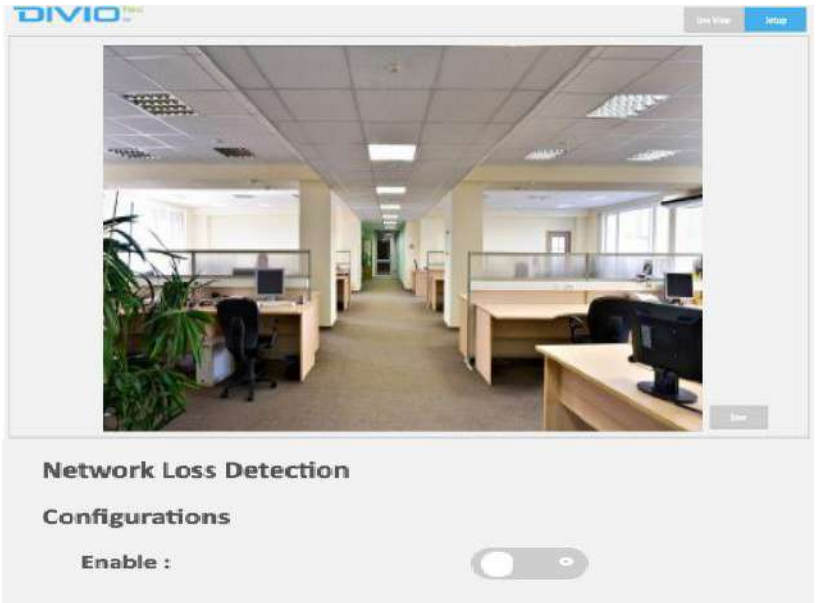
Audio Volume

Shows the volume of the audio detected.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Event - Network Loss Detection



Network Loss Detection Configurations

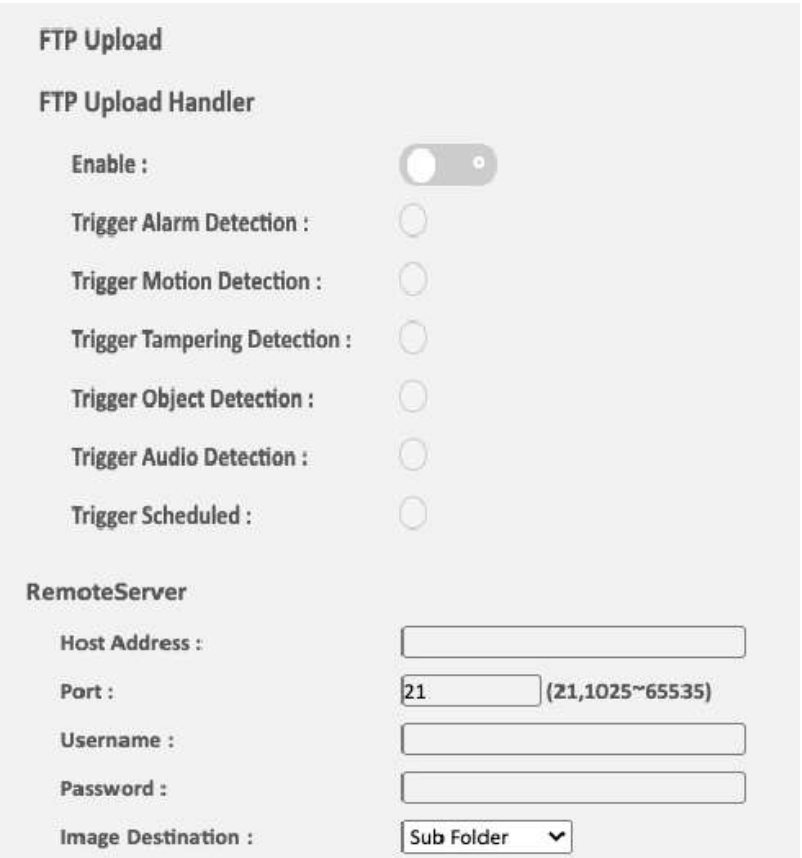
Enable

Enables or disables network loss detection function.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Event - FTP Upload



FTP Upload Handler Configurations

Configures which type of event trigger to enable and the FTP server address that the camera will connect to. The options are:

- Trigger Alarm Detection
- Trigger Motion Detection
- Trigger Tampering Alarm
- Trigger Object Detection
- Trigger Scheduled

Remote Server

Host Address

Specifies the host name or IP address of the FTP server.

Port

Specifies the port number of the FTP server.

Username

Specifies the login username for the FTP server.

Password

Specifies the login password for the FTP server.

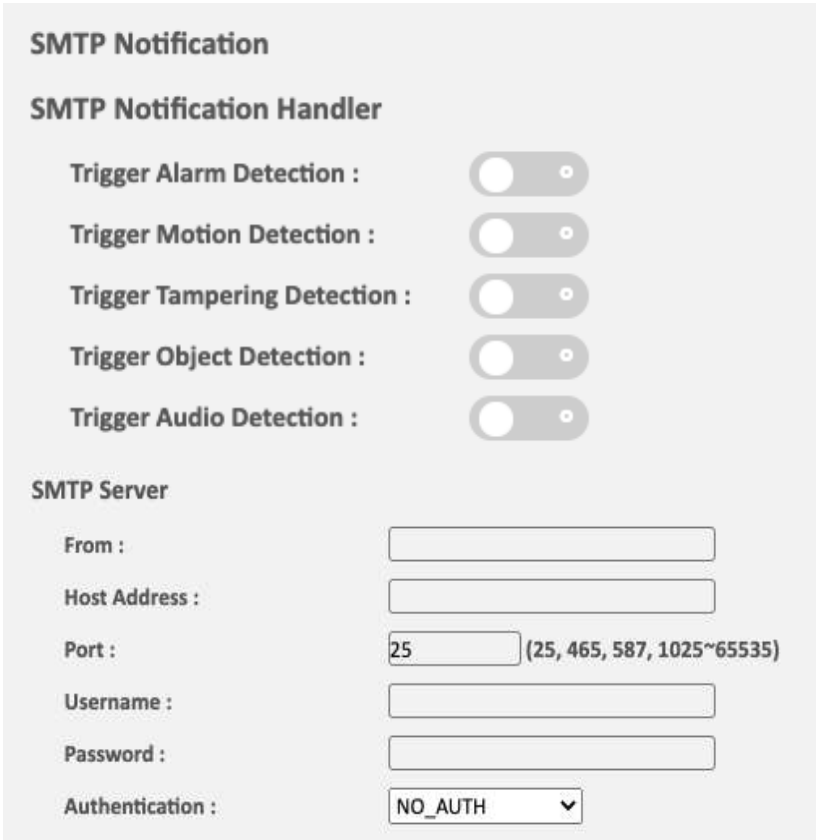
Image Destination

The available options are **Single Folder**, or **Sub Folder**.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Event - SMTP Notification



SMTP Notification Configurations

This section configures the SMTP mail server address that the camera will use for sending emails.

From

Specifies the email address of the sender.

Trigger Event

Configures which type of event trigger to enable and the SMTP server address that the camera will connect to. The options are:

- Trigger Alarm Detection
- Trigger Motion Detection
- Trigger Tempering Detection
- Trigger Object Detection
- Trigger Audio Detection

Message

Specifies the message content.

Subject

Specifies the subject of the message.

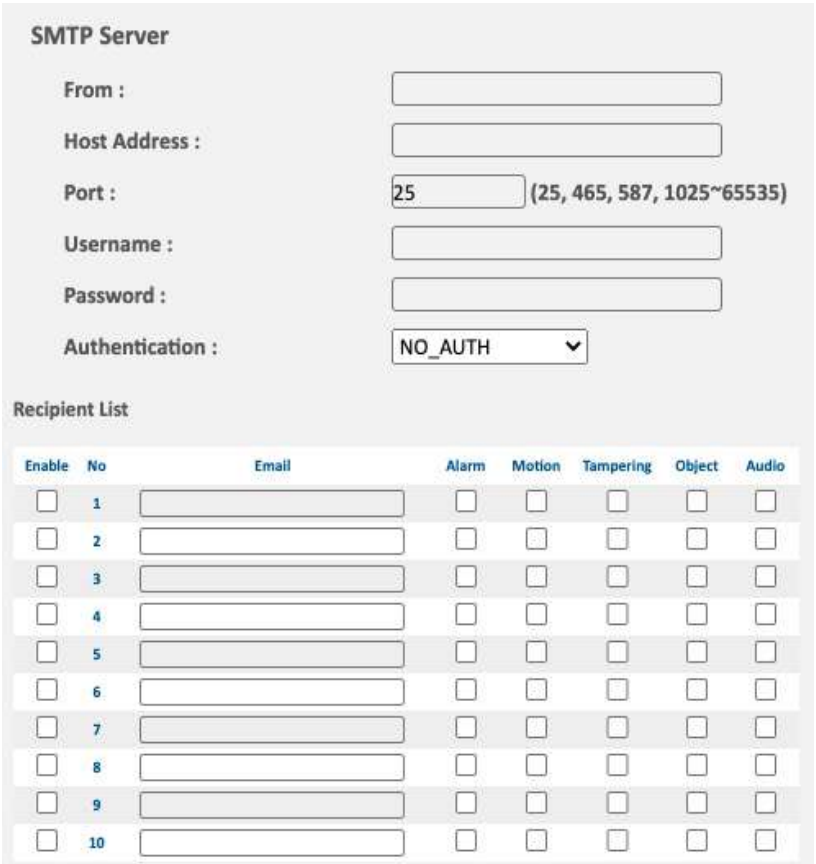
Attach JPEG Snapshot

Enables or disables email delivery of trigger event snapshots.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

SMTP Notification Cont.



SMTP Server

This section configures the SMTP mail server address that the camera will use for sending emails.

From

Specifies the email address of the sender.

Host Address

Specifies the host name or IP address of the SMTP mail server.

Port Number

Specifies the port number of the SMTP mail server.

Username

Specifies the login username for the SMTP mail server.

Password

Specifies the login password for the SMTP mail server.

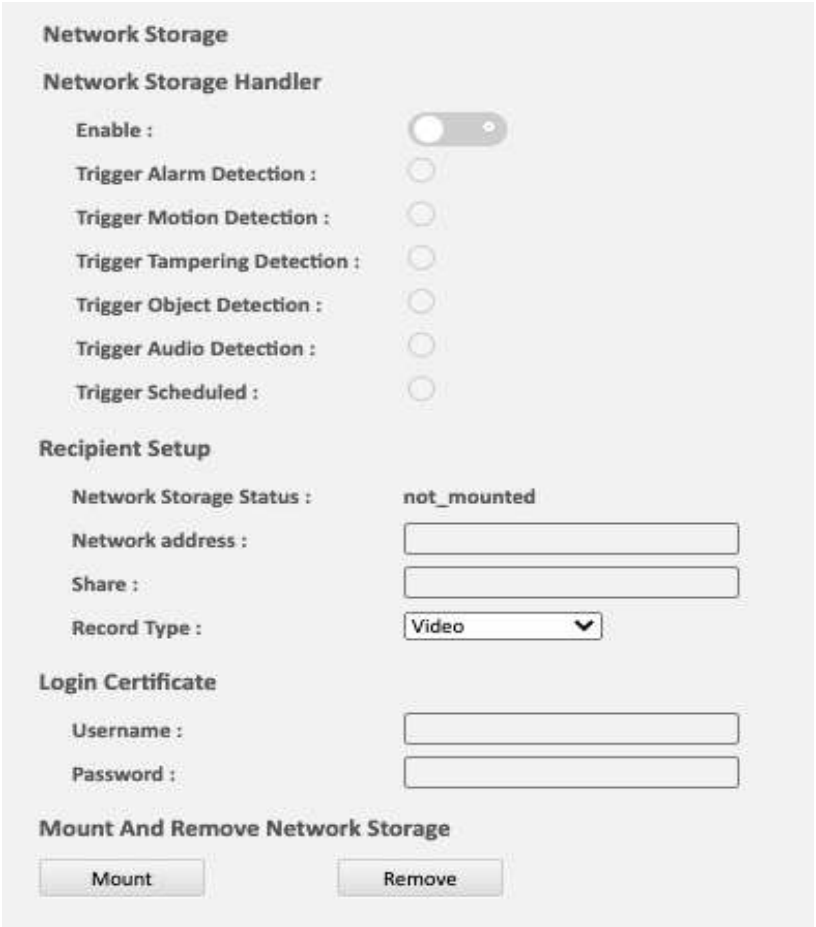
Specifies the SMTP server authentication mode, the options are **NO_AUTH**, **SMTP_PLAIN**, **LOGIN** and **TLS_TLS**.

Receipient List

Specifies the email address to send the email when an event is triggered by **Alarm**, **Motion**, **Tampering** or **Object**. A maximum of 10 email addresses can be configured.

Save

Event - Network Storage



Network Storage Configurations

Network Storage

This section configures the network storage server address that the camera will use when an event trigger is detected.

Trigger Event

Configures which type of event trigger to enable and the network storage server that the camera will connect to. The options are:

- Enable Trigger Alarm Detection
- Enable Trigger Motion Detection
- Enable Trigger Tampering Detection
- Enable Object Detection
- Enable Audio Detection
- Enable Trigger Scheduled

Receipient List

Network Storage Status

Displays the current connection status with the network storage server. (**not_mounted** or **ok**)

Network Address

Specifies the IP address of the network storage server.

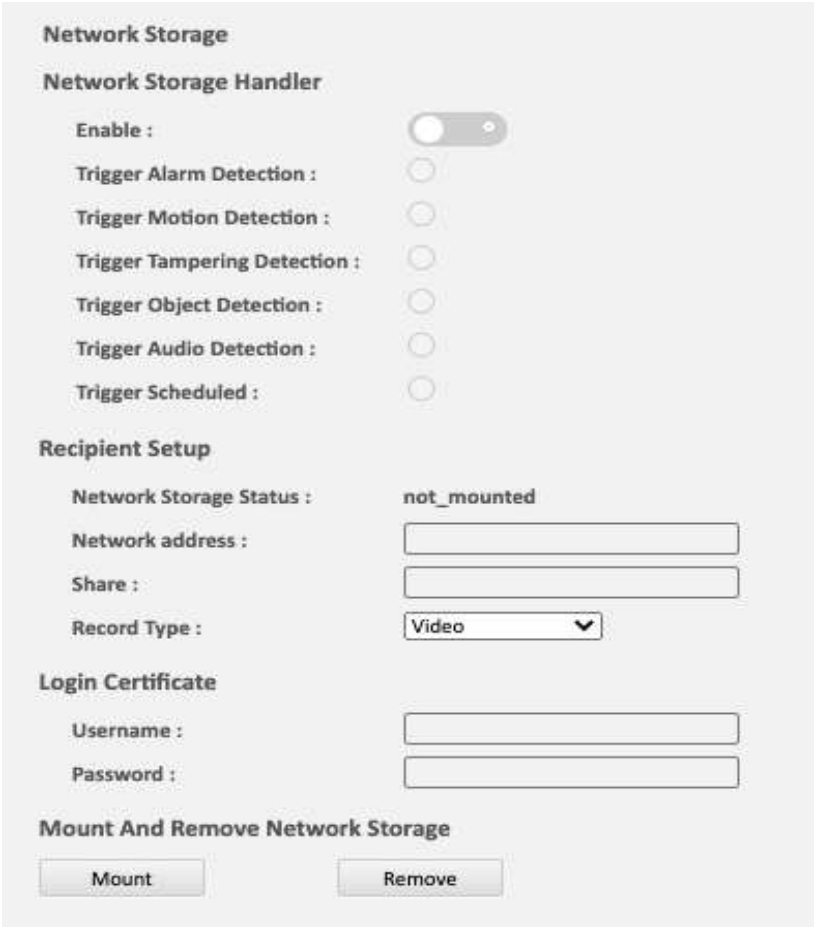
Share

Specifies the shared folder name on the network storage server.

Record Type

Specifies the event trigger action. The options are **Snapshot** and **Video**.

Network Storage - Cont.



Login Certificate

Username and Password

Specifies the login username and password for the network storage server.

Mount and Remove Network Storage

Mount

Set up a network connection with the network storage server. All the video recordings or snapshots from event triggers will be uploaded to the network storage server. After the setting is complete, the **Network Storage Status** field will display **ok**.

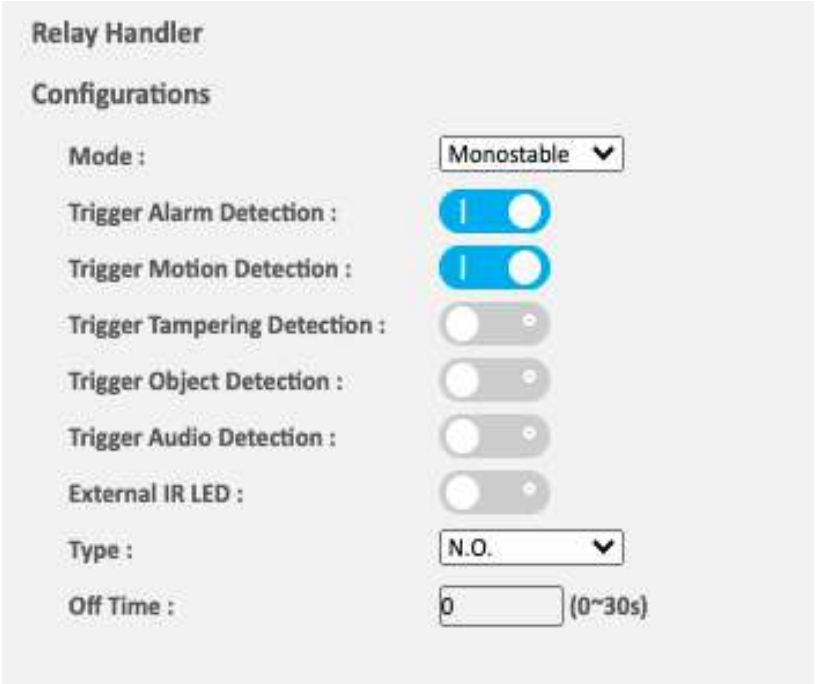
Remove

Delete the previous setting or set up a new one. After the setting is removed, the **Network Storage Status** field will display **not_mounted**.

Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Event - Relay Handler



Relay Handler Configurations

This section configures the event trigger options for devices connected to the DI/DO of the camera.

Modes

The available options are **Monostable**, or **Bistable**.

Trigger Alarm Detection: When a signal is detected from Alarm in, the Alarm out will be triggered.

Trigger Motion Detection: When a motion detection event is detected, the Alarm out will be triggered.

Trigger Tampering Detection: When a tampering alarm event is detected, the Alarm out will be triggered.

Trigger Object Detection: When an object detection event is detected, the Alarm out will be triggered.

Trigger Audio Detection: When an audio detection event is detected, the Alarm out will be triggered.

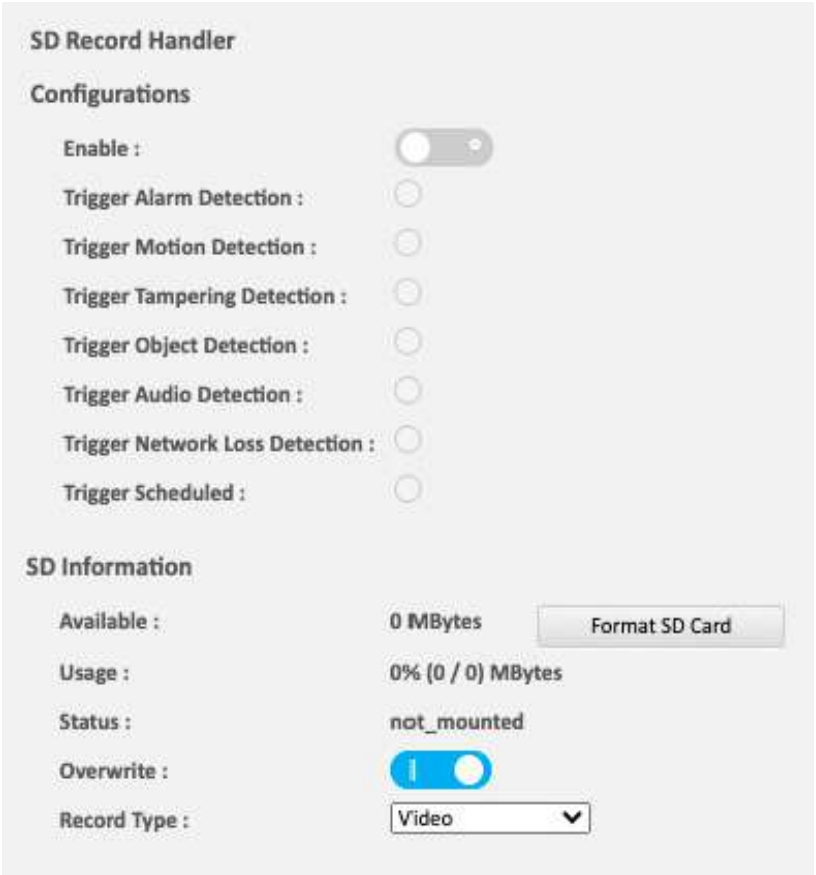
Types

The options are **N.O.** and **N.C.**

Off Times

Configure the seconds from 0 to 30 seconds.

Event - SD Record Handler



SD Record Handler Configurations

Configures which type of event trigger to enable the SD recording and scheduling function. The following options are available:

- Enable Trigger Alarm Detection
- Enable Trigger Motion Detection
- Enable Trigger Tampering Detection
- Enable Trigger Object Detection
- Enable Trigger Audio Detection
- Enable Trigger Network Loss Detection
- Enable Trigger Scheduled

Available

If an SD card is installed, this section will display information on the availability of the SD card.

Usage

If an SD card is installed, this section will display the percentage of the total storage used.

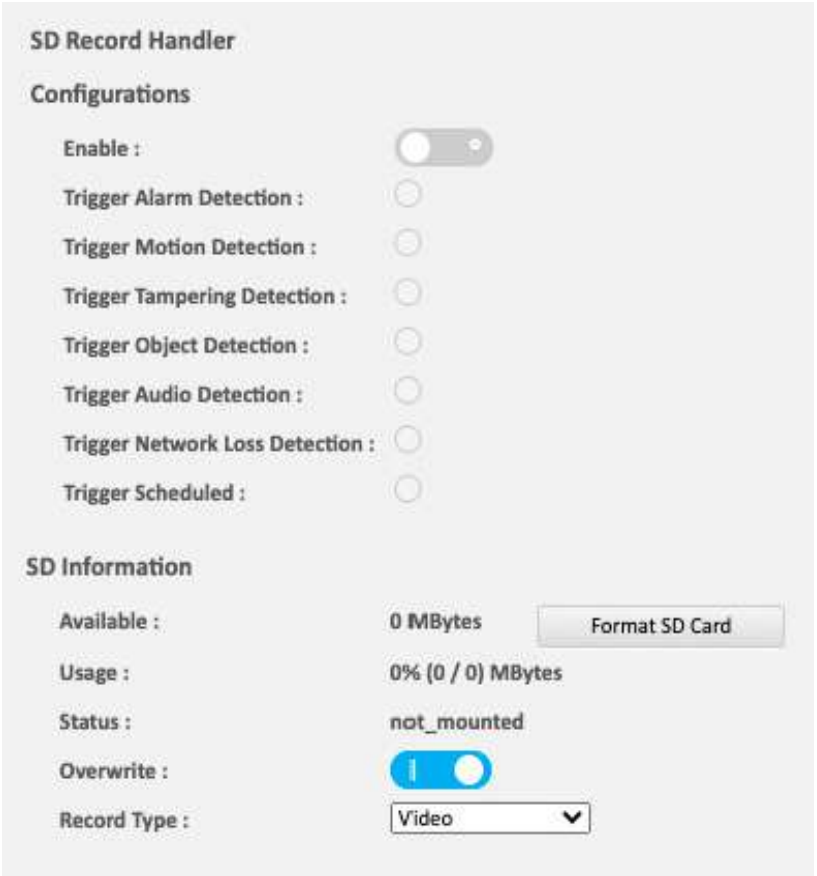
Format SD Card

Formats the SD card, all data stored on the SD card will be erased if this option is used.

Status

Displays whether an SD card is installed or not. If an SD card is detected, ok will be displayed; if an SD card is not detected (or a faulty SD card is used), not_mounted will be displayed.

SD Record Handler Cont.



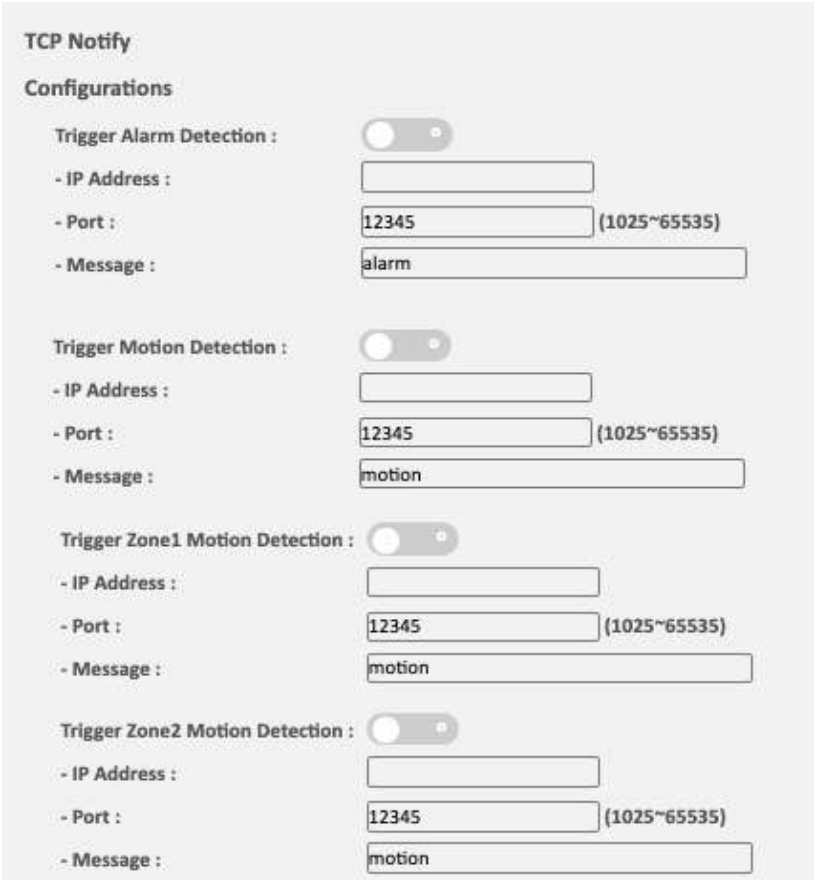
Overwrite

Enables or disables SD card overwrite.

Record Type

Configures the recording method to record the stream on to the SD card. The options are Video or Snapshot.

Event - TCP Notify



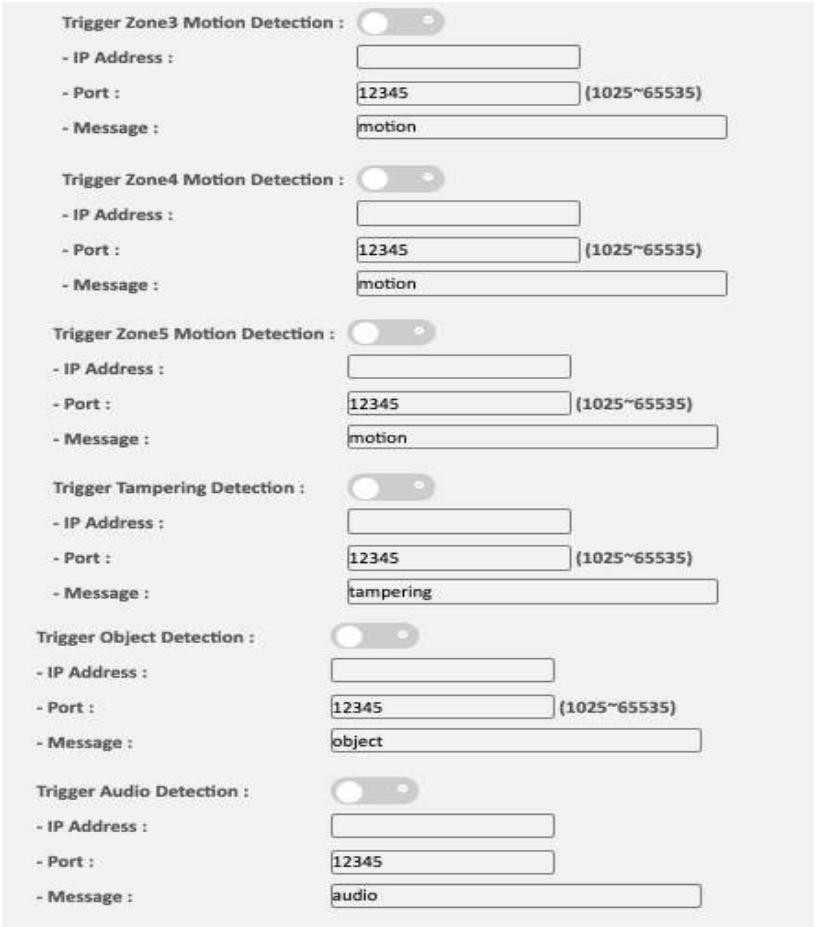
TCP Notify Configurations

Trigger Alarm Detection: When a signal is detected from **Alarm in**, the **Alarm out** will be triggered.

Trigger Motion Detection: When a motion detection event is detected, the **Alarm out** will be triggered.

Trigger Motion Zone(1-5) Detection: When a motion event detection in a specified zone is detected, the **Alarm out** will be triggered.

TCP Notify Cont.

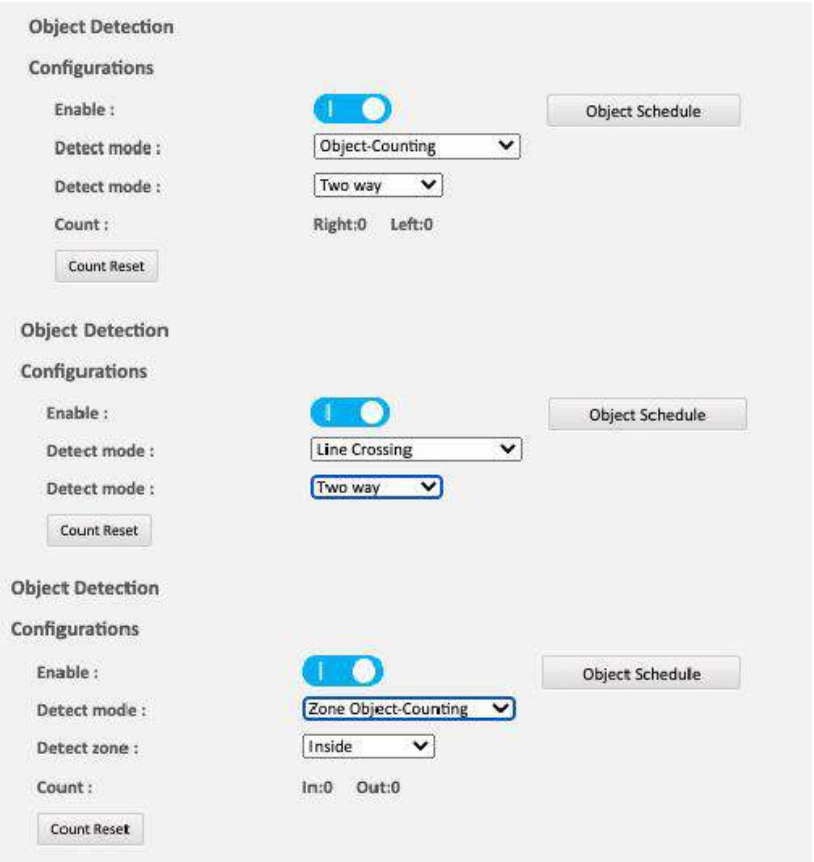


Trigger Tampering Detection: When a tampering is detected from **Alarm in**, the **Alarm out** will be triggered.

Trigger Object Detection: When an object detection event is detected, the **Alarm out** will be triggered.

Trigger AudioZone(1-5) Detection: When an audio detection is detected, the **Alarm out** will be triggered.

Video Analytics - Object Detection



Configurations

Enable:

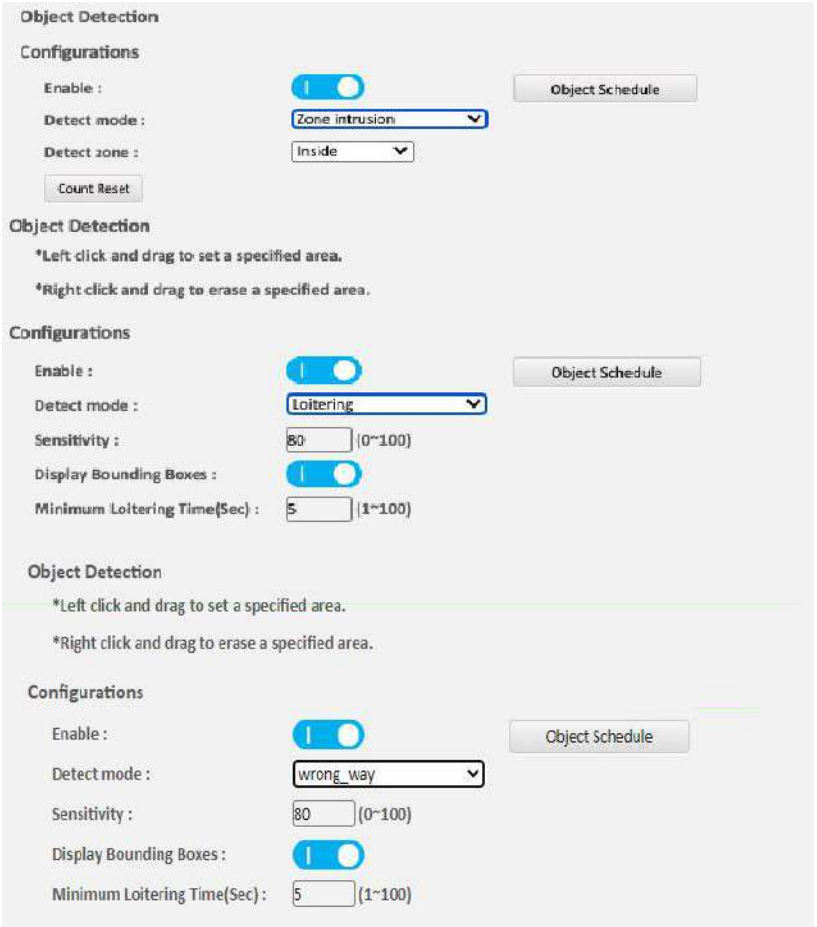
Enables or disables video analytics. Configures the methods of video analytics, the options are **Object-Counting, Line Crossing, Zone Object-Counting, Zone Intrusion, Loitering,** and **Object Left/Removed.**

Object-Counting: Counts objects. Detect mode options that available are One way or Two way.

Line Crossing: Detects objects that cross a virtual line. Detect mode options that available are One way, or Two way.

Zone Object-Counting: Counts objects that move into a user specified area. Detect mode options that available are Inside or Outside.

Object Detection Cont.

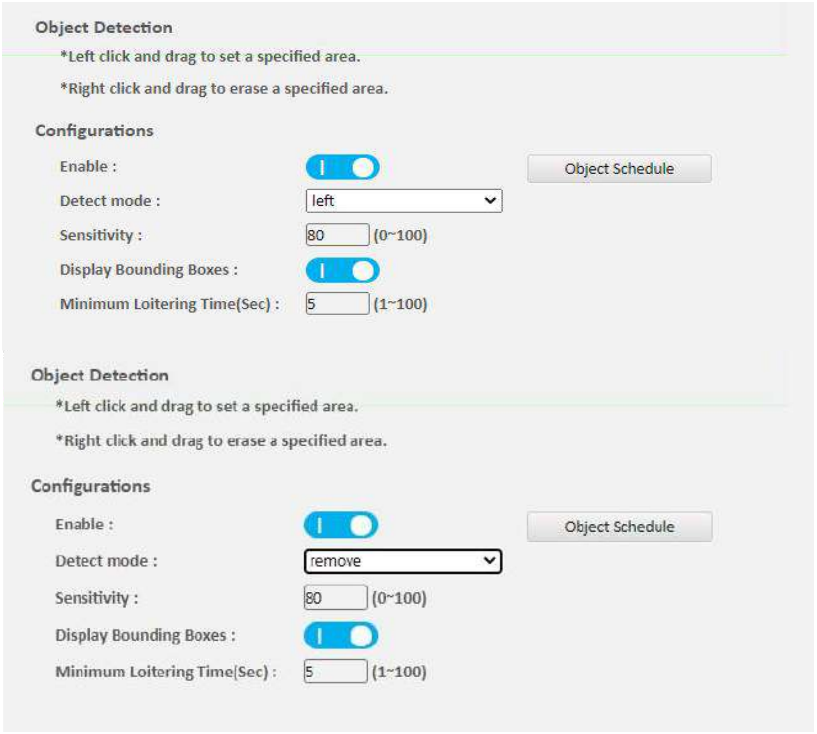


Zone Intrusion: Detects objects that move into a user specified area. Detect mode options that available are Inside or Outside.

Loitering: Detects objects that remain in a user-specified area beyond a specified time.
Left click and drag to set a specified area. Right click and drag to erase a specified area. The range of sensitivity is 0~100.
Loitering time is the amount of time an object must be in the area to trigger the event. The minimum loitering time range is 1~100(sec).

Wrong way: Continuously monitors a specified area to detect objects that is going on the wrong way. The range of sensitivity is 0~100.

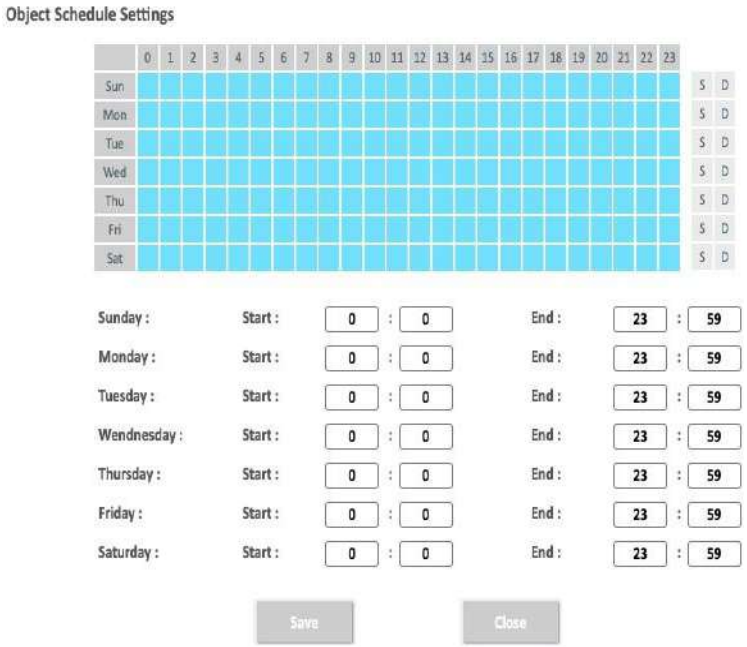
Object Detection Cont.



Object Left: Continuously monitors a specified area to detect objects that have been left. The range of sensitivity is 0~100.

Object Removed: Continuously monitors a specified area to detect objects that have been removed. The range of sensitivity is 0~100.

Object Detection Cont.



Object Schedule Settings

S

Press **S** for a particular weekday to set up a 24-hour schedule automatically.

D

Press **D** for a particular weekday to clear all the previous scheduled settings automatically.

Configure the scheduled time by holding down the mouse button and clicking the time block to enable the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.

Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.

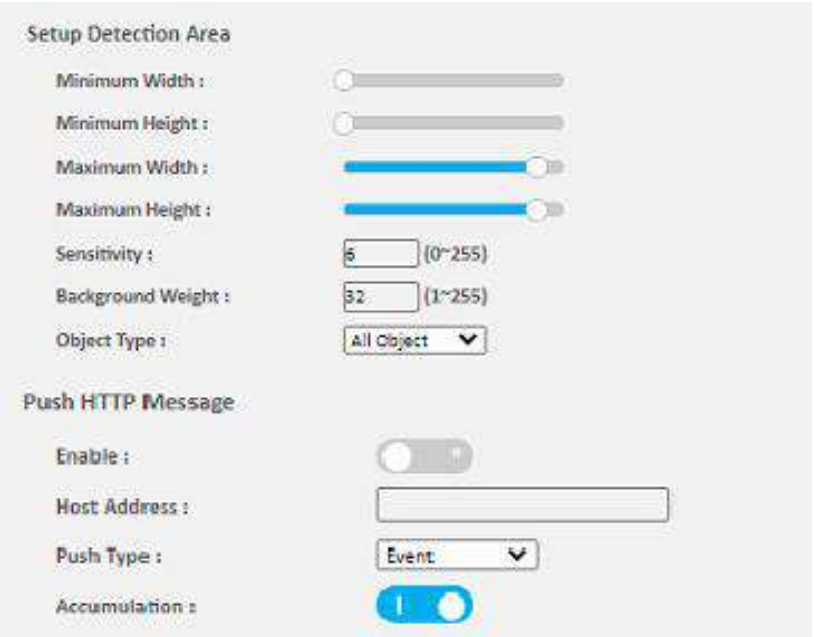
Save

Save button to apply the configurations, click on this button once all the settings are confirmed for the new changes to take effect.

Close

Press to leave this schedule setting page.

Object Detection Cont.



Setup Detection Area Settings

Minimum Width

Configures the minimum width of the detection area. Adjust the bar to increase or decrease the minimum width of the detection area.

Minimum Height

Configures the minimum height of the detection area. Adjust the bar to increase or decrease the minimum height of the detection area.

Maximum Width

Configures the maximum width of the detection area. Adjust the bar to increase or decrease the maximum width of the detection area.

Maximum Height

Configures the maximum height of the detection area. Adjust the bar to increase or decrease the maximum height of the detection area.

Sensitivity

Configures the sensitivity of the detection area with the value of 0~255.

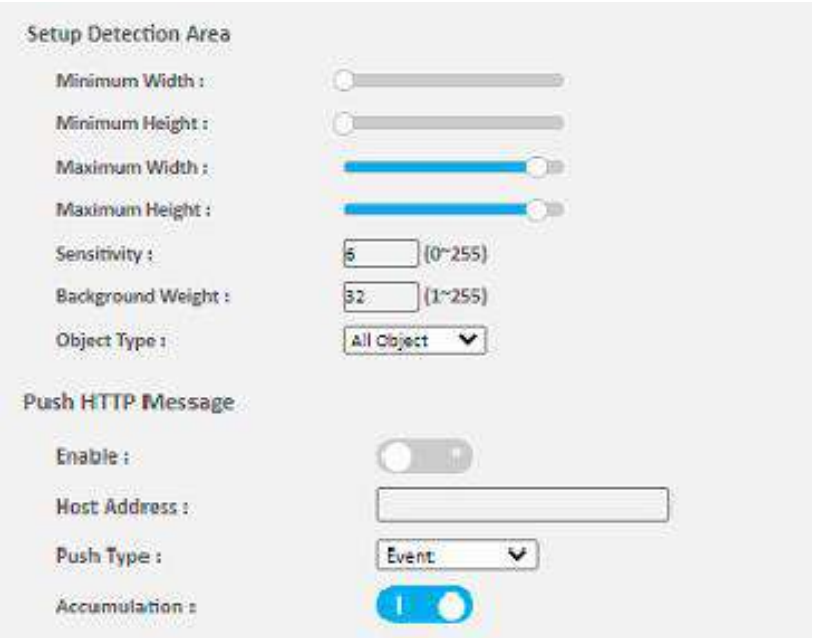
Background Weight

Configures the background weight of the detection area with the value of 1~255

Object Type

Configures the object type of the detection area. Object type options are All Objects, Person, and Vehicle.

Object Detection Cont.



Push HTTP Message Settings

Enable

Enables or disables Push HTTP Message to this camera.

Host Address

To manually input the host address.

Push Type

Configures the push type of Push HTTP Message to this camera. Push Type options are Event, and Period.

Accumulation

Enables or disables the accumulation of Push HTTP Message to this camera.

Mounting Plate Drawing

