

USER MANUAL

for IP cameras:

TR-D1120WD	TR-D2B5	TR-D3123IR2v3	TR-D7111IR1W
TR-D1140	TR-D2B5v2	TR-D3123IR2v4	TR-D7121IR1W
TR-D2121IR3v2	TR-D2B5-noPoE	TR-D3122ZIR2v6	TR-D7121IR1Wv2
TR-D2121IR3v3	TR-D2B5-noPoEv2	TR-D3123WDIR2	TR-D7121IR1v3
TR-D2121IR3v4	TR-D2B6	TR-D3123IR2v6	TR-D7121IR1v4
TR-D2121IR3v6	TR-D2B6v2	TR-D3141IR1	TR-D7121IR1v5
TR-D2121WDIR3v2	TR-D2D2	TR-D3142ZIR2	TR-D7121IR1v6
TR-D2111IR3	TR-D2D2v2	TR-D3143IR2	TR-D7141IR1
TR-D2111IR3W	TR-D2D5	TR-D3143VIR2	TR-D8111IR2
TR-D2113IR3	TR-D2D5v2	TR-D4111IR1v2	TR-D8111IR2W
TR-D2121IR3W	TR-D2S1	TR-D4121IR1v2	TR-D8121IR2v2
TR-D2121IR3Wv2	TR-D2S1v2	TR-D4121IR1v3	TR-D8121IR2v3
TR-D2122ZIR3	TR-D2S1-noPoE	TR-D4121IR1v4	TR-D8121IR2v4
TR-D2122ZIR3v6	TR-D2S1-noPoEv2	TR-D4121IR1v6	TR-D8121IR2v6
TR-D2123IR6v3	TR-D2S5	TR-D4141IR1	TR-D8121WDIR2v2
TR-D2123IR6v4	TR-D2S5v2	TR-D4161IR1	TR-D8121IR2W
TR-D2123IR6v6	TR-D2S5-noPoE	TR-D4181IR1	TR-D8121IR2Wv2
TR-D2123WDIR6	TR-D2S5-noPoEv2	TR-D4B5	TR-D8122ZIR2
TR-D2141IR3	TR-D3111IR1	TR-D4B5-noPoE	TR-D8122ZIR2v6
TR-D2142ZIR3	TR-D3113IR2	TR-D4B6	TR-D8123ZIR3
TR-D2143IR3	TR-D3121IR1v2	TR-D4D2	TR-D8141IR2
TR-D2143IR6	TR-D3121IR1v3	TR-D4D5	TR-D9141IR2
TR-D2163IR6	TR-D3121IR1v4	TR-D4S1	TR-D9161IR2
TR-D2181IR3	TR-D3121IR2v6	TR-D4S1-noPoE	
TR-D2183IR6	TR-D3122WDIR2	TR-D4S5	
	TR-D3122ZIR2	TR-D4S5-noPoE	

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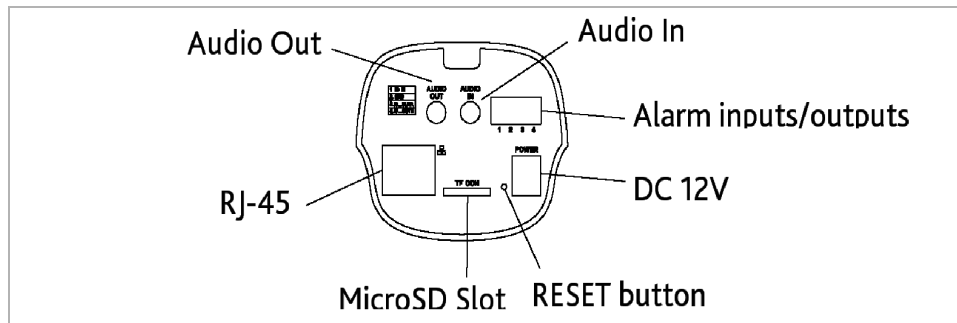
CHAPTER 1. INTRODUCTION

1.1 TRASSIR IP camera exterior

1.1.1 TRASSIR TR-D1120WD / TR-D1140



External :



Connector	Description
DC12V	12V power supply connector.
RJ-45	LAN connector.
Audio IN	Microphone Connector.
Audio OUT	Speaker connector.
Alarm inputs/outputs	Alarm inputs and outputs.
MicroSD Slot	Slot for microSD memory card.
RESET Button	Reset to factory defaults.

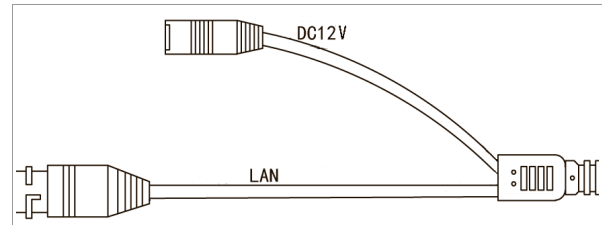
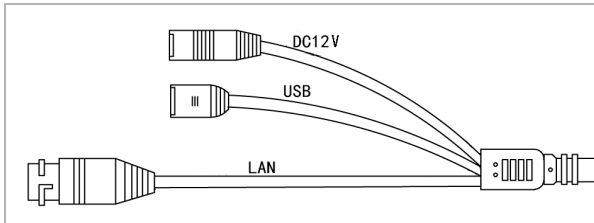
1.1.2 TRASSIR TR-D2111IR3 / TR-D2113IR3 / TR-D2B6 / TR-D2B6v2 / TR-D4B6



External connectors:

TR-D2111IR3 / TR-D2113IR3

TR-D2B6 / TR-D2B6v2 / TR-D4B6

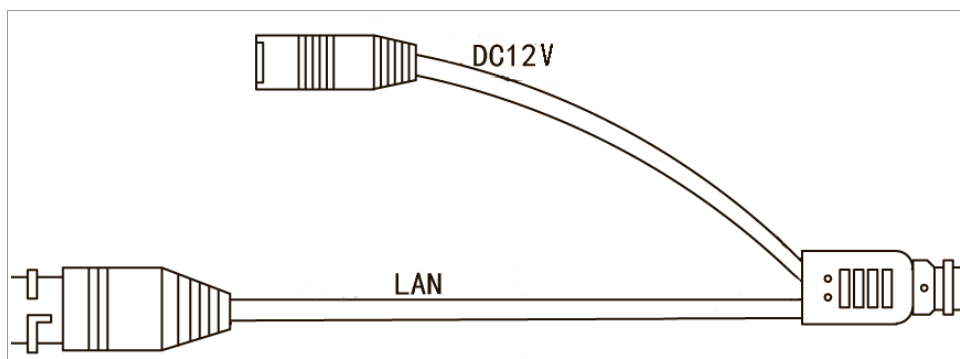


Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

1.1.3 TRASSIR TR-D2111R3W / TR-D2121R3W



External connectors:

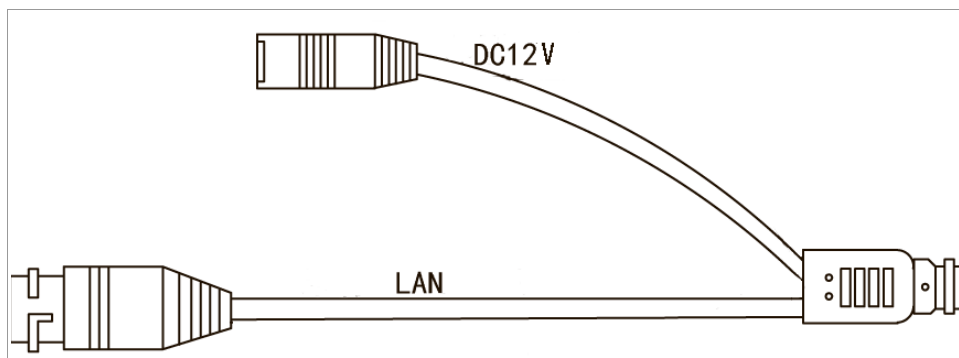


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.4 TRASSIR TR-D2121IR3Wv2



External connectors:

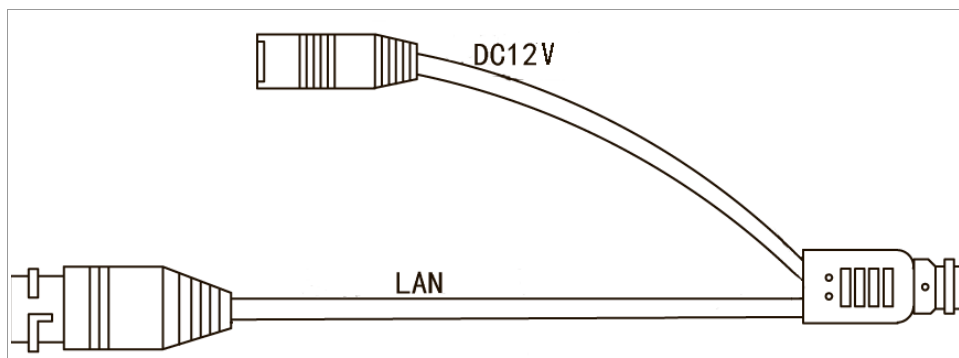


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.5 TRASSIR TR-D2B5-noPoE / TR-D2B5-noPoEv2 / TR-D2B5 / TR-D2B5v2 /
TR-D4B5-noPoE / TR-D4B5



External connectors:

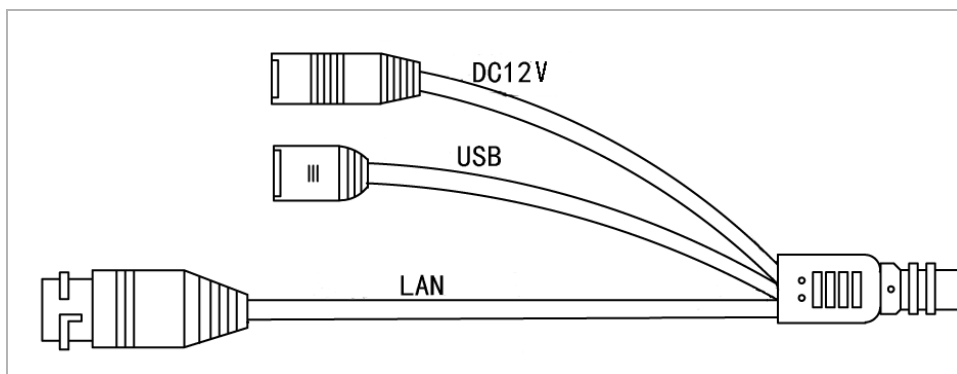


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.6 TRASSIR TR-D2121IR3v2 / TR-D2121IR3v3 / TR-D2121IR3v4 /
TR-D2121WDIR3 / TR-D2141IR3 / TR-D2142ZIR3 / TR-D2161IR3 / TR-D2181IR3



External connectors:

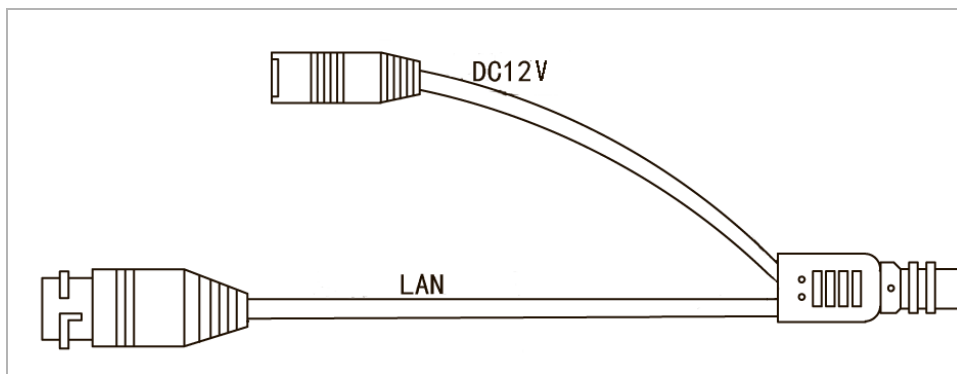


Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

1.1.7 TRASSIR TR-D2122ZIR3 / TR-D2122ZIR3v6 / TR-D2121R3v6



External connectors:



Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

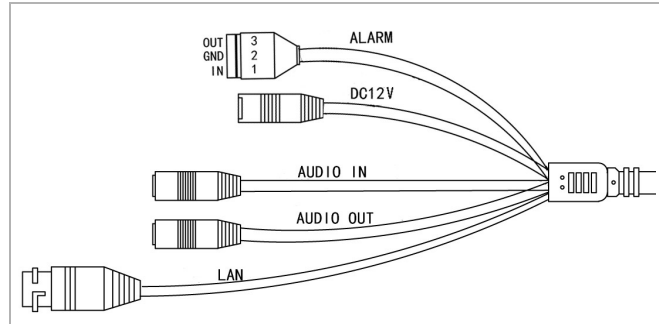
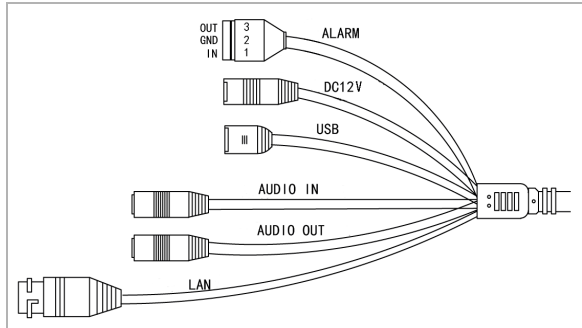
1.1.8 TRASSIR TR-D2123IR6v3 / TR-D2123IR6v4 / TR-D2123IR6v6 /
TR-D2123WDIR6 / TR-D2143IR6 / TR-D2163IR6 / TR-D2183IR6



External connectors:

TR-D2123IR6v3 / TR-D2123IR6v4 /
 TR-D2123WDIR6 / TR-D2143IR6 / TR-D2163IR6 /
 TR-D2183IR6

TR-D2123IR6v6

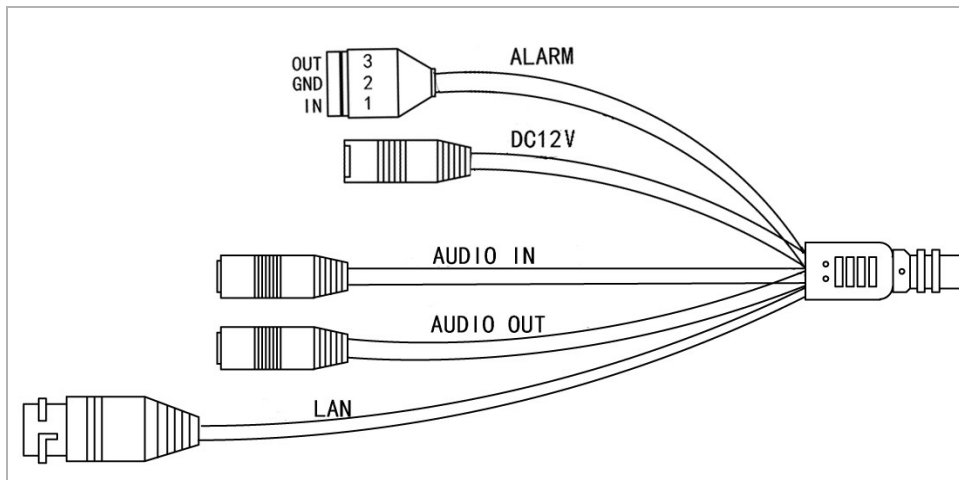


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.
USB	USB connector for USBHDD.
AUDIO OUT	Speaker connector.
AUDIO IN	Active microphone connector.
ALARM	Alarm inputs and outputs.

1.1.9 TRASSIR TR-D2143IR3



External connectors:



Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.
AUDIO OUT	Speaker connector.
AUDIO IN	Active microphone connector.
ALARM	Alarm inputs and outputs.

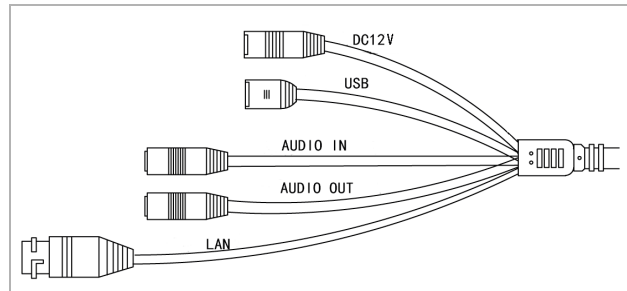
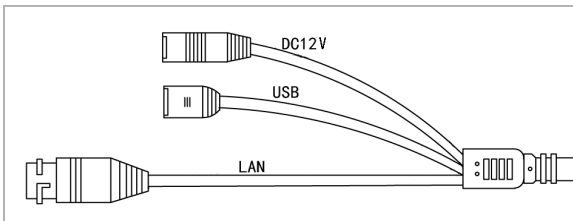
1.1.10 TRASSIR TR-D3111IR1 / TR-D3121IR1v2 / TR-D3121IR1v3 /
TR-D3121IR1v4 / TR-D3141IR1 / TR-D2D5 / TR-D2D5v2 / TR-D4D5



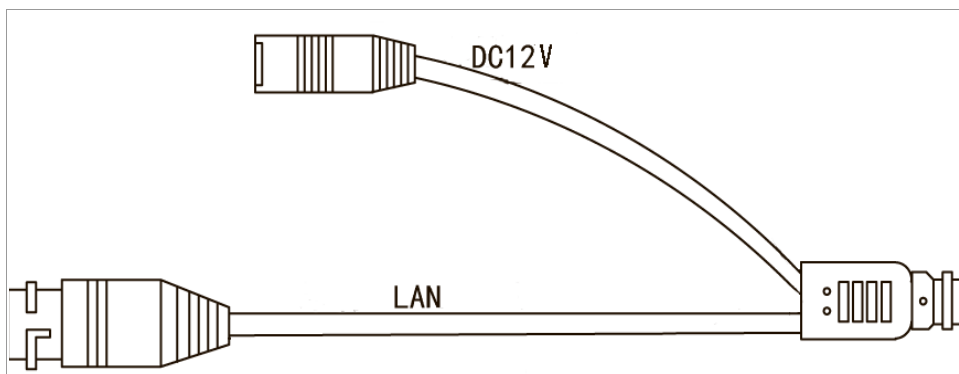
External connectors:

TR-D3111IR1 / TR-D3121IR1v2 / TR-D3121IR1v3 /
TR-D3121IR1v4

TR-D3141IR1



TR-D2D5 / TR-D2D5v2 / TR-D4D5

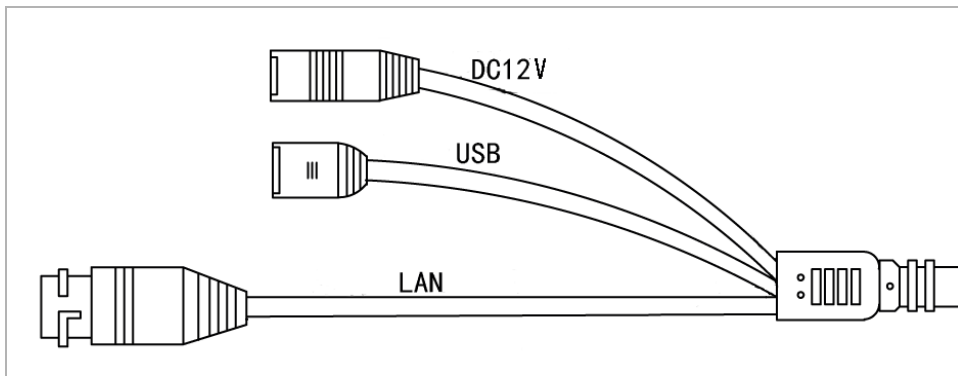


Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
AUDIO IN	Active microphone connector.
AUDIO OUT	Speaker connector. Not supported on TR-D3141IR1.
LAN	LAN connector.

1.1.11 TRASSIR TR-D3113IR2



External connectors:

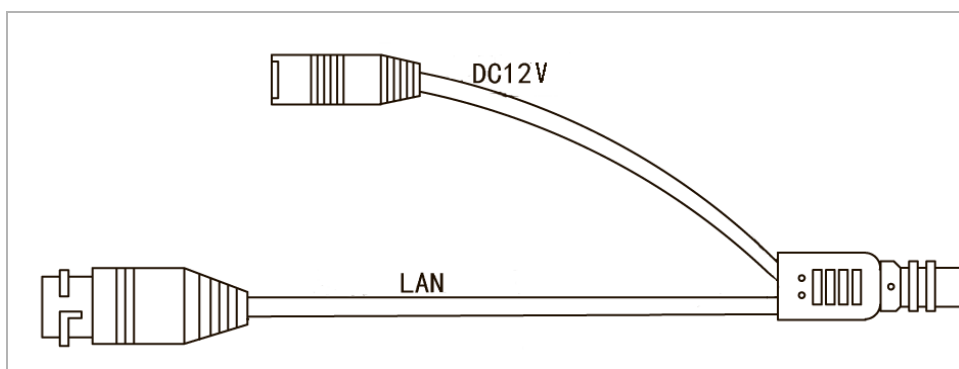


Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

1.1.12 TRASSIR TR-D3121IR2v6



External connectors:

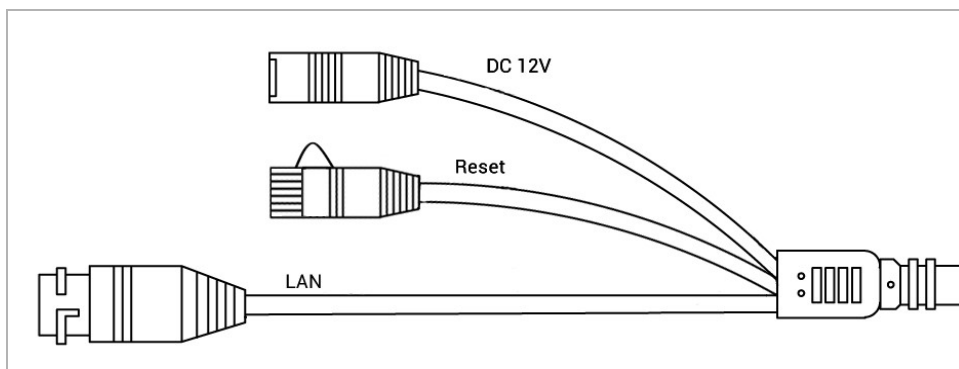


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.13 TRASSIR TR-D3122ZIR2



External connectors:

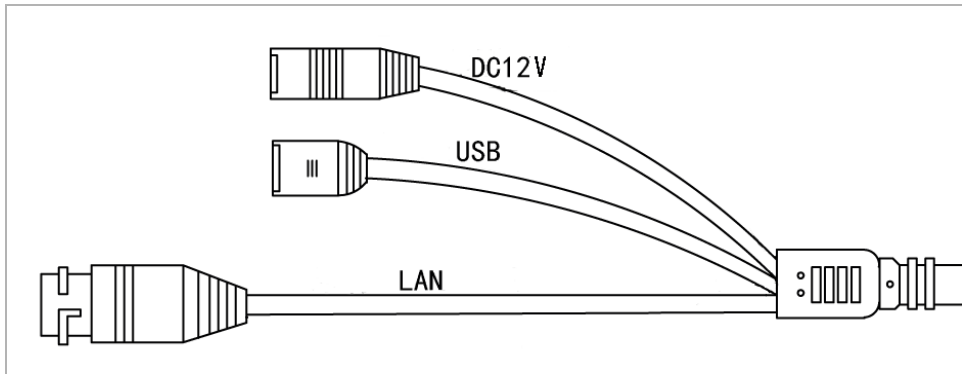


Connector	Description
DC12V	12V power supply connector.
Reset	Hardware settings reset (see section 2.6).
LAN	LAN connector.

1.1.14 TRASSIR TR-D3122WDZIR2 / TR-D3142ZIR2



External connectors:



Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

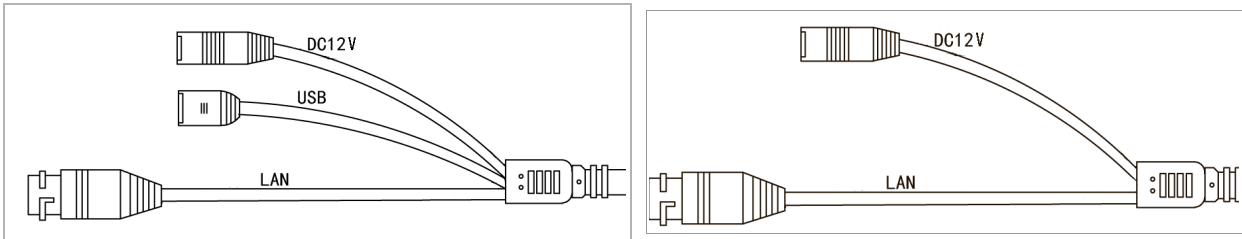
1.1.15 TRASSIR TR-D2D2 / TR-D2D2v2 / TR-D3123IR2v3 / TR-D3123IR2v4 /
TR-D3123WDIR2 / TR-D3143IR2 / TR-D4D2



External connectors:

TR-D3123IR2v3 / TR-D3123IR2v4 / TR-D3123WDIR2 /
TR-D3143IR2

TR-D2D2 / TR-D2D2v2 / TR-D4D2



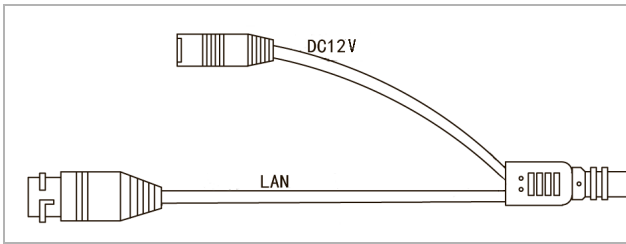
Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

1.1.16 TRASSIR TR-D3122ZIR2v6 / TR-D3123IR2v6

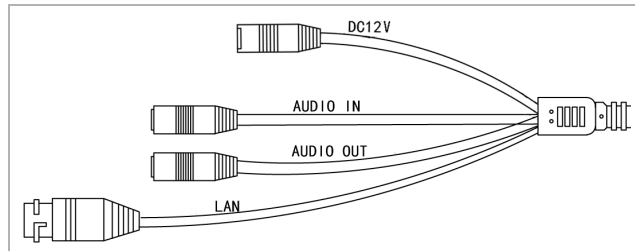


External connectors:

TR-D3122ZIR2v6



TR-D3123IR2v6

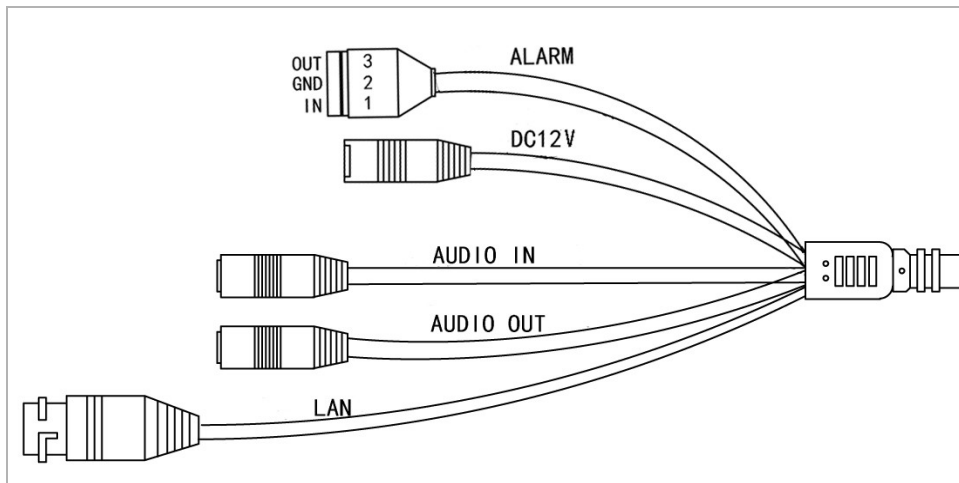


Connector	Description
DC12V	12V power supply connector.
AUDIO IN	Active microphone connector.
AUDIO OUT	Speaker connector.
LAN	LAN connector.

1.1.17 TRASSIR TR-D3143VIR2



External connectors:

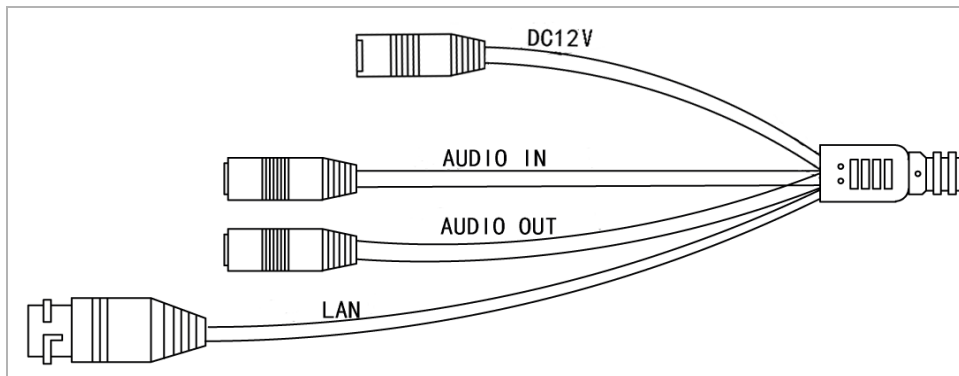


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.
AUDIO OUT	Speaker connector.
AUDIO IN	Active microphone connector.
ALARM	Alarm inputs and outputs.

1.1.18 TRASSIR TR-D4111IR1v2 / TR-D4121IR1v2 / TR-D4121IR1v3 /
TR-D4121IR1v4 / TR-D4121IR1v6 / TR-D4141IR1 / TR-D4161IR1 / TR-D4181IR1



External connectors:

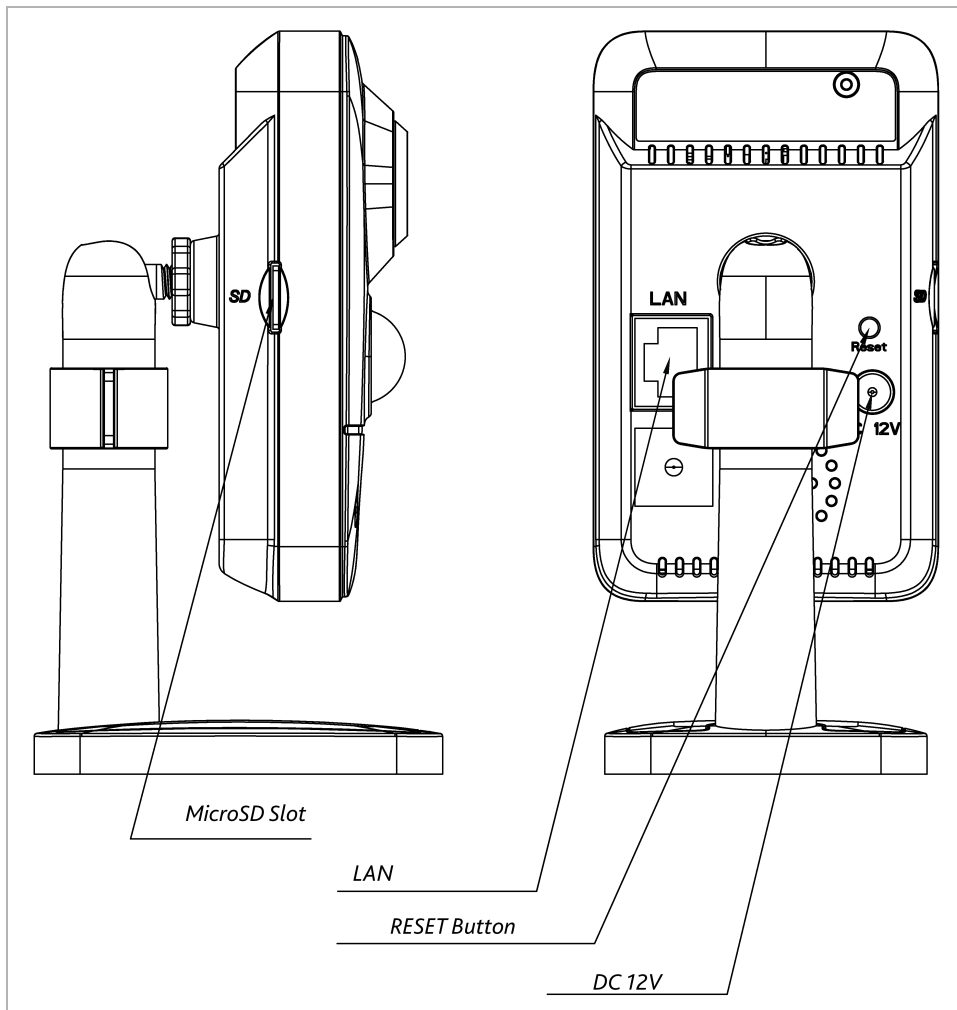


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.
AUDIO OUT	Speaker connector.
AUDIO IN	Active microphone connector. Not supported on TR-D4121IR1v4.

1.1.19 TRASSIR TR-D7111IR1W / TR-D7121IR1Wv2



External connectors:

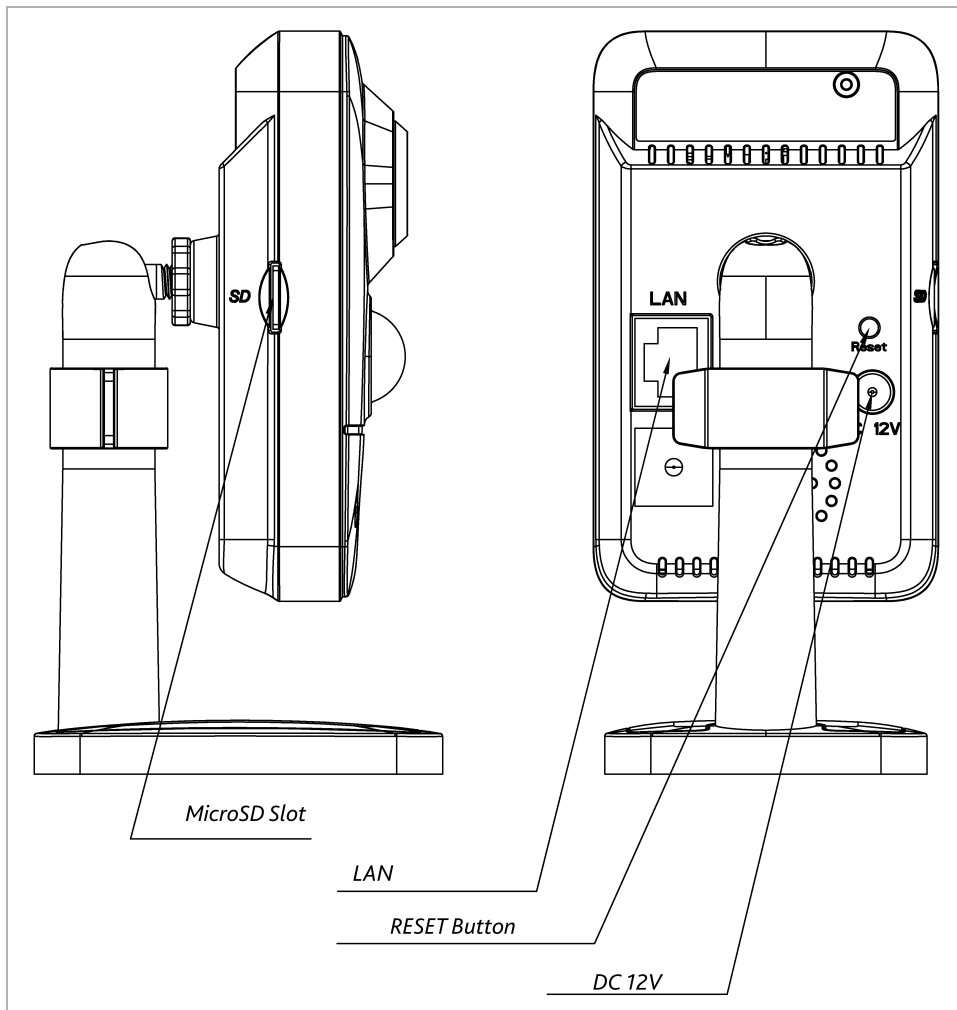


Connector	Description
LAN	LAN connector.
DC 12V	5V DC / 12VDC power connector (depending on the camera model).
RESET button	Button to reset camera settings to factory defaults.
MicroSD Slot	Slot for microSD memory card.

1.1.20 TRASSIR TR-D7121IR1W / TR-D7121IR1v3 / TR-D7121IR1v4 /
TR-D7121IR1v5 / TR-D7121IR1v6 / TR-D7141IR1



External connectors:



Connector	Description
LAN	LAN connector.
DC 12V	5V DC / 12VDC power connector (depending on the camera model).
RESET button	Button to reset camera settings to factory defaults.
MicroSD Slot	Slot for microSD memory card.

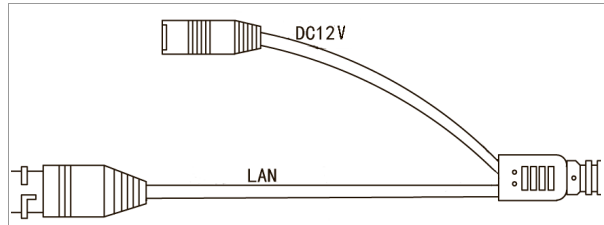
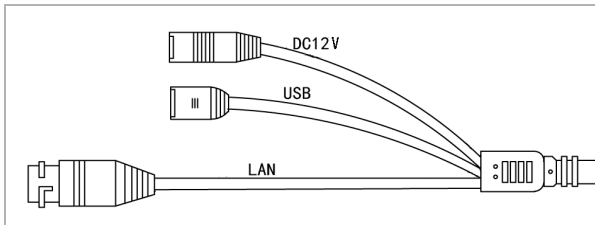
1.1.21 TRASSIR TR-D8111IR2 / TR-D8121IR2v2 / TR-D8121IR2v3 /
TR-D8121IR2v4 / TR-D8121WDIR2v2 / TR-D8141IR2 / TR-D2S5-noPoE / TR-
D2S5-noPoEv2 / TR-D2S5 / TR-D2S5v2 / TR-D4S5-noPoE / TR-D4S5



External connectors:

TR-D8111IR2 / TR-D8121IR2v2 / TR-D8121IR2v3 /
TR-D8121IR2v4/ TR-D8121WDIR2v2 / TR-D8141IR2

TR-D2S5-noPoE / TR-D2S5-noPoEv2 /TR-D2S5 /
TR-D2S5v2 /TR-D4S5-noPoE / TR-D4S5

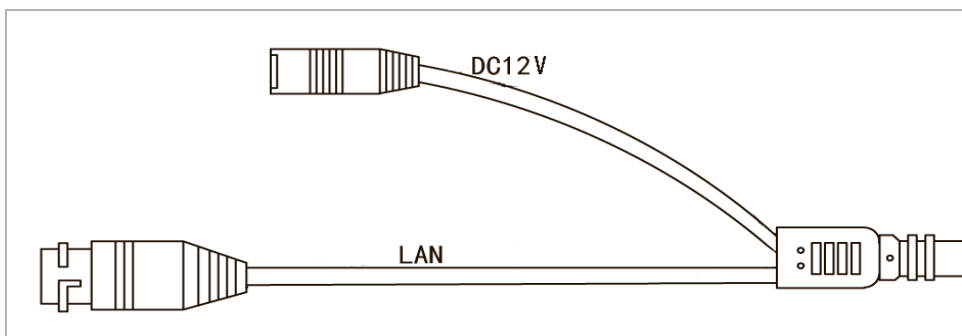


Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

1.1.22 TRASSIR TR-D8111IR2W / TR-D8121IR2W



External connectors:

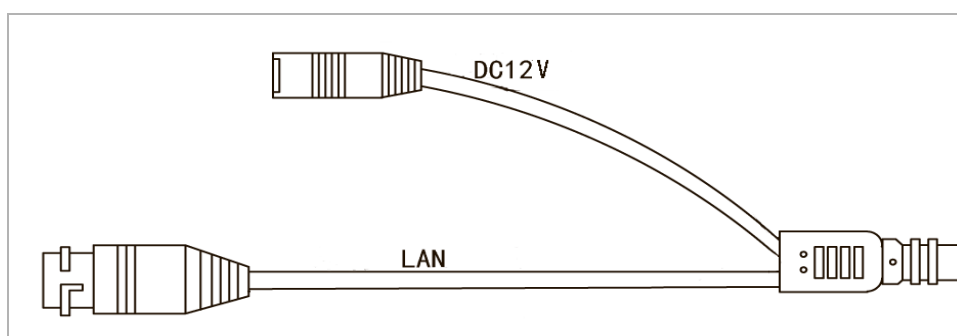


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.23 TRASSIR TR-D8121IR2Wv2



External connectors:

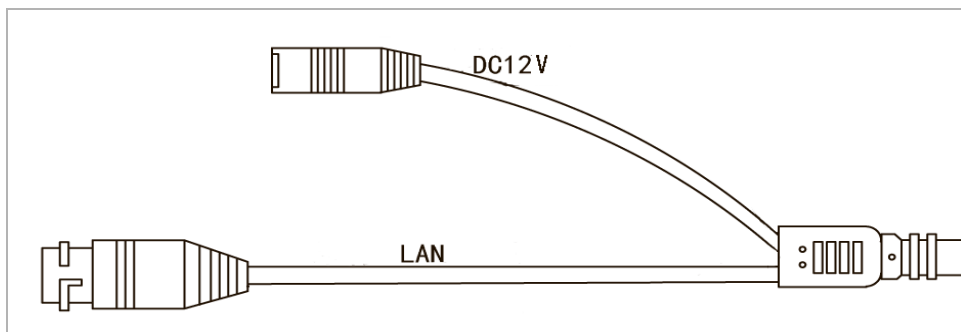


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.24 TRASSIR TR-D2S1 / TR-D2S1v2 / TR-D2S1-noPoE / TR-D2S1-noPoEv2 / TR-D4S1 / TR-D4S1-noPoE



External connectors:

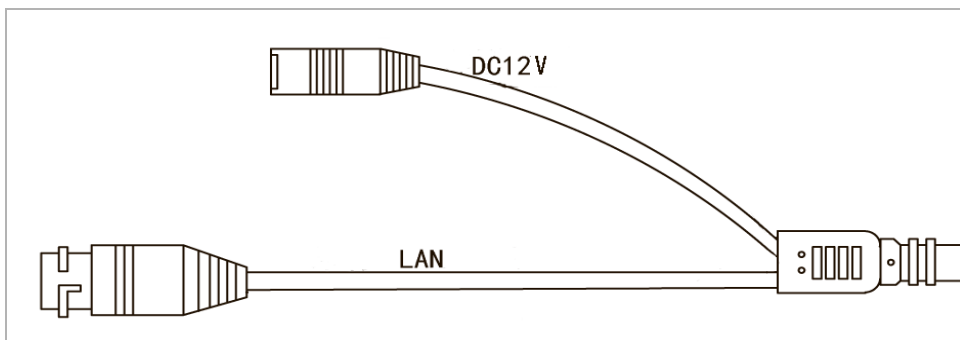


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.25 TRASSIR TR-D8121IR2v6 / TR-D8122ZIR2 / TR-D8122ZIR2v6



External connectors:

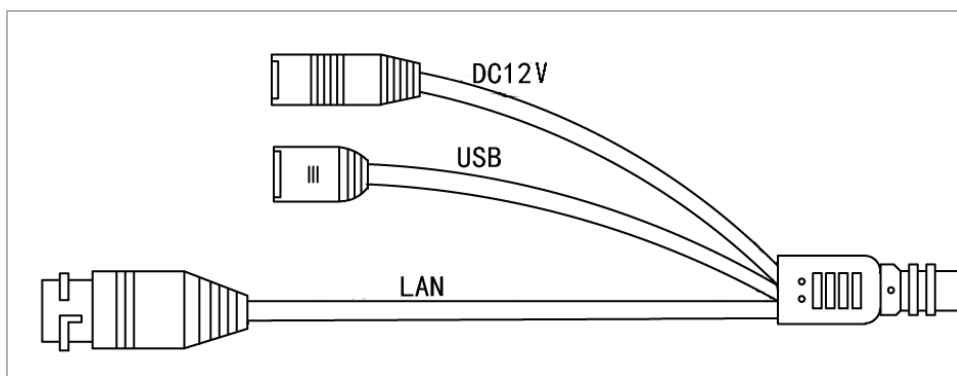


Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.

1.1.26 TRASSIR TR-D8123ZIR3



External connectors:

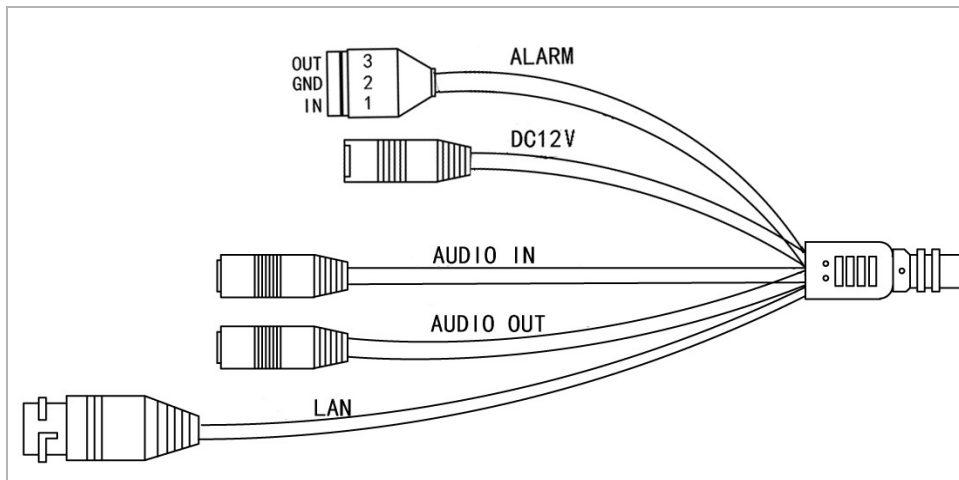


Connector	Description
DC12V	12V power supply connector.
USB	USB connector for USBHDD.
LAN	LAN connector.

1.1.27 TRASSIR TR-D9141IR2 / TR-D9161IR2



External connectors:



Connector	Description
DC12V	12V power supply connector.
LAN	LAN connector.
AUDIO OUT	Speaker connector.
AUDIO IN	Active microphone connector.
ALARM	Alarm inputs and outputs.

1.2 Safety instructions

Please, read this manual before connecting and setting up your IP camera.

Check the conformity of the input voltage with the passport details and make sure that the power source is operating properly.

Use network filters or UPS to increase the reliability of the IP-camera, protect against voltage drops, and ensure uninterrupted power supply.

Do not expose the IP camera to high pressure, shaking, mechanical shock, or strong electromagnetic radiation. Avoid installing the equipment on surfaces subject to vibrations, as this may damage it. When transporting, the IP camera must be placed in its original packaging or packaging the device safety.

Do not touch the sensor module. If necessary, use a clean cloth with a small amount of ethanol. The operation of the sensor may be disrupted by the laser ray, so when using any laser equipment, make sure that the rays do not hit the surface of the matrix. Do not aim the camera at the sun or very bright areas. This can lead to loss of image clarity, and can significantly shorten the life of the sensor module.

Do not expose the camera to extremely high or low temperatures (you can see the specification in the device datasheet).

Do not use the device in dirty rooms with high humidity, as this may result in a fire or an electrical short circuit. Free air exchange is required for proper camera operation.

Do not expose the equipment to direct sunlight. Do not place it near heat sources such as a stove, heater or radiator (it may result in fire).

The IP camera mounted on a wall or ceiling must be securely fixed.

If case of IP camera malfunction, contact your supplier or the nearest service center. Do not attempt to repair the camera by yourself. (The manufacturer declines the warranty obligations for damages resulting from unauthorized repairs or maintenance.).

1.3 Warranty obligations

The warranty period depends on the camera model

2 years

- TR-D2111IR3
- TR-D2113IR3
- TR-D2121IR3v4
- TR-D2121IR3W
- TR-D2123IR6v4
- TR-D2B5
- TR-D2B5v2
- TR-D2B5-noPoE
- TR-D2B5-noPoEv2
- TR-D2B6
- TR-D2B6v2
- TR-D2D2
- TR-D2D2v2
- TR-D2D5
- TR-D2D5v2
- TR-D2S1
- TR-D2S1v2
- TR-D2S1-noPoE
- TR-D2S1-noPoEv2
- TR-D2S5
- TR-D2S5v2

5 years

- | | | |
|-------------------|------------------|-------------------|
| • TR-D2S5-noPoE | • TR-D1120WD | • TR-D3123WDIR2 |
| • TR-D2S5-noPoEv2 | • TR-D2121IR3v2 | • TR-D3142ZIR2 |
| • TR-D3111IR1 | • TR-D2121IR3v3 | • TR-D3143IR2 |
| • TR-D3113IR2 | • TR-D2121IR3v6 | • TR-D3143VIR2 |
| • TR-D3121IR1v2 | • TR-D2121WDIR3 | • TR-D4121IR1v2 |
| • TR-D3121IR1v3 | • TR-D2121IR3Wv2 | • TR-D4121IR1v3 |
| • TR-D4111IR1v2 | • TR-D2122ZIR3 | • TR-D4121IR1v4 |
| • TR-D4B5 | • TR-D2122ZIR3v6 | • TR-D4141IR1 |
| • TR-D4B5-noPoE | • TR-D2123IR6v3 | • TR-D4161IR1 |
| • TR-D4B6 | • TR-D2123IR6v6 | • TR-D4181IR1 |
| • TR-D4D2 | • TR-D2123WDIR6 | • TR-D7121IR1v3 |
| • TR-D4D5 | • TR-D2141IR3 | • TR-D7121IR1v4 |
| • TR-D4S1 | • TR-D2142ZIR3 | • TR-D7121IR1v5 |
| • TR-D4S1-noPoE | • TR-D2143IR3 | • TR-D7121IR1v6 |
| • TR-D4S5 | • TR-D2143IR6 | • TR-D7121IR1Wv2 |
| • TR-D4S5-noPoE | • TR-D2161IR3 | • TR-D7141IR1 |
| • TR-D7111IR1W | • TR-D2163IR6 | • TR-D8121IR2v2 |
| • TR-D7121IR1W | • TR-D2181IR3 | • TR-D8121IR2v3 |
| • TR-D8111IR2 | • TR-D2183IR6 | • TR-D8121IR2v4 |
| • TR-D8111IR2W | • TR-D3121IR1v4 | • TR-D8121IR2v6 |
| • TR-D8121IR2W | • TR-D3121IR2v6 | • TR-D8121WDIR2v2 |
| • TR-D8121IR2W | • TR-D3122ZIR2 | • TR-D8121R2Wv2 |
| | • TR-D3122ZIR2v6 | • TR-D8122ZIR2 |
| | • TR-D3122WDZIR2 | • TR-D8122ZIR2v6 |
| | • TR-D3123IR2v3 | • TR-D8141IR2v2 |
| | • TR-D3123IR2v4 | • TR-D9161IR2 |
| | • TR-D3123IR2v6 | |

The warranty obligations are valid from the date of sale of the IP camera to the final consumer and throughout the entire warranty period

If the IP camera malfunctions during the warranty period, you are entitled to request a free repair, except for non-warranty cases, in DSSL Service Center.

The warranty is void if the cause of the malfunction of the IP camera is:

- ◆ intentional corruption;
- ◆ fire, flood, or any other natural disaster;
- ◆ power outages;
- ◆ violation of technical requirements for placement, connection and operation;
- ◆ mechanical damages.

CHAPTER 2. TRASSIR IP CAMERA CONNECTION

2.1 System requirements

To start working with the TRASSIR IP camera, you need a PC connected to the local network:

- ◆ on Windows, Mac OS, Linux etc.;
- ◆ having Google Chrome, Mozilla Firefox, Safari or any other web browser installed.

2.2 Local network connection

Depending on the model, you can choose one of the following options to connect the IP camera to the local network:

- ◆ using a network cable (you can check the description on the connectors in section 1.1)
- ◆ using a network cable to any network equipment with the support of PoE technology;
- ◆ to WiFi wireless network (read the configuration description in 3.3.3.3), if it is supported by camera.

NOTE.

It is not recommended to use switches, injectors and other PoE power supplies that use the Passive PoE standard to power up the cameras.

2.3 IP address configuration

NOTE.

In order to connect to IP camera, you PC should be in the same local network with the camera. You can read a detailed description of the PC settings sequence in Supplement A.

The following network settings should be configured on the IP camera by default:

- ◆ IP address: **192.168.1.188**;
- ◆ Subnet mask: **255.255.0.0**;
- ◆ Gateway: **192.168.1.1**;
- ◆ HTTP port: **80**;
- ◆ user name: **admin**;
- ◆ password: **admin**.

The example of the network settings:

- ◆ IP address: **192.168.1.10**;
- ◆ Subnet mask: **255.255.0.0**.

Start the web browser and try to connect to the IP camera. To do this, type in **http://192.168.1.188** into the address bar and press **Enter**.

Enter user name and password to access web interface (see section 3.1). after that change the IP camera network settings (see section 3.3.3.1).

NOTE.

If you failed to get access to the IP camera, check you firewall settings and try again.

If the IP address of the camera differs from the default settings, then use the **IPCManager** utility (see section SUPPLEMENT F. IPC MANAGER).

2.4 Connecting to the IP camera via the Internet

There are several options to access IP camera via the Internet:

- ◆ The Internet service provider provides an actual **static** IP address.

In this case, the provider grants the subscribe a list of network settings: **IP address**, **subnet mask**, **gateway** and **DNS server IP address**, or **PPPoE** connection details, which should be specified in the camera settings. Using such a network organization, it is impossible to use an external IP address to connect to several network devices at once, that is, it will be possible to connect to only one IP camera at a time.

NOTE.

A static camera IP address and other required parameters are specified in the network settings (see 3.3.3.1).

See PPPoE settings description in 3.3.3.5.

- ◆ The Internet service provider allocates an actual external **static** IP address, which is used to connect to an office or home network.

In this case, to organize the local network, a special device is used - a router (or a NAT server). To access the IP camera from the Internet, you should configure forwarding of the incoming connections from the router (NAT server) to the internal local addresses of IP cameras.

NOTE.

See detailed router settings description in «SUPPLEMENT D. Router settings»

- ◆ The Internet service provider allocates an actual external **dynamic** IP address. That is upon connection to the Internet the IP address will be different each time. This variant is very common when working through 3G, GPRS or ADSL connection. In this case you should use DDNS server options.

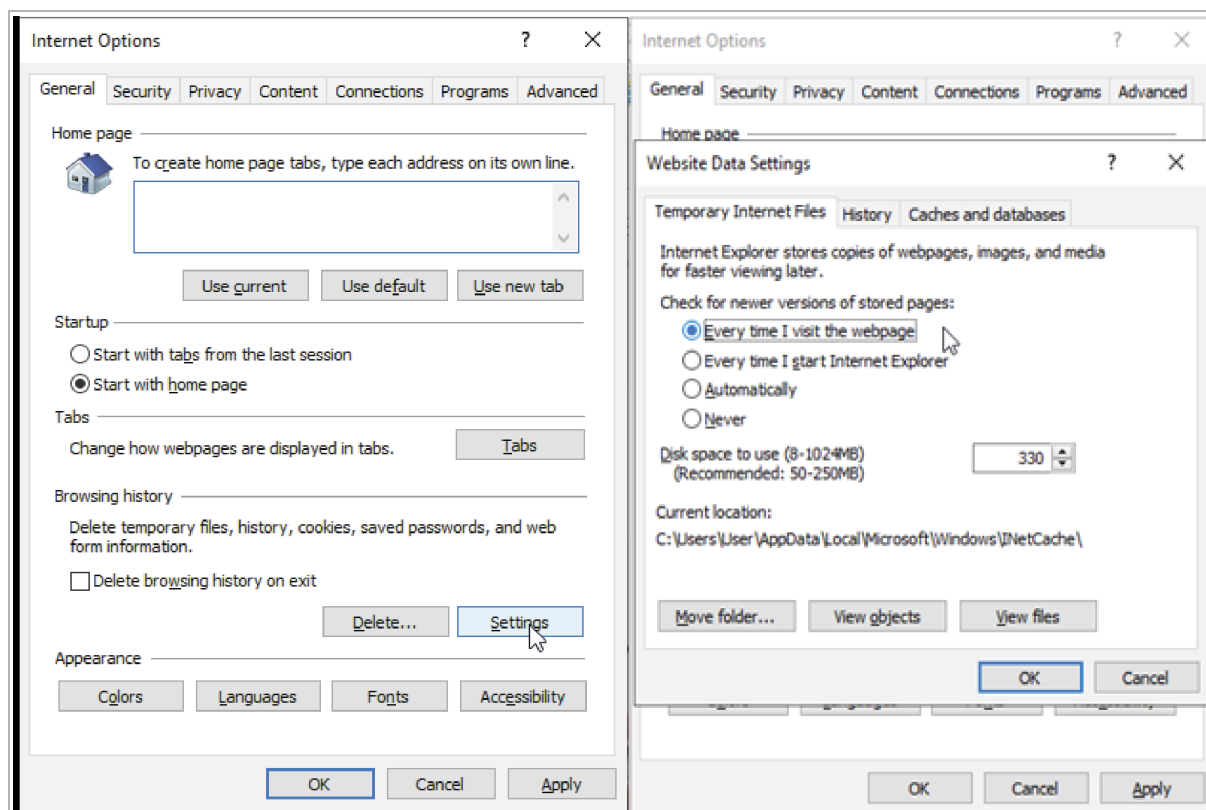
NOTE.

See description of DDNS server in IP camera in 3.3.3.1.

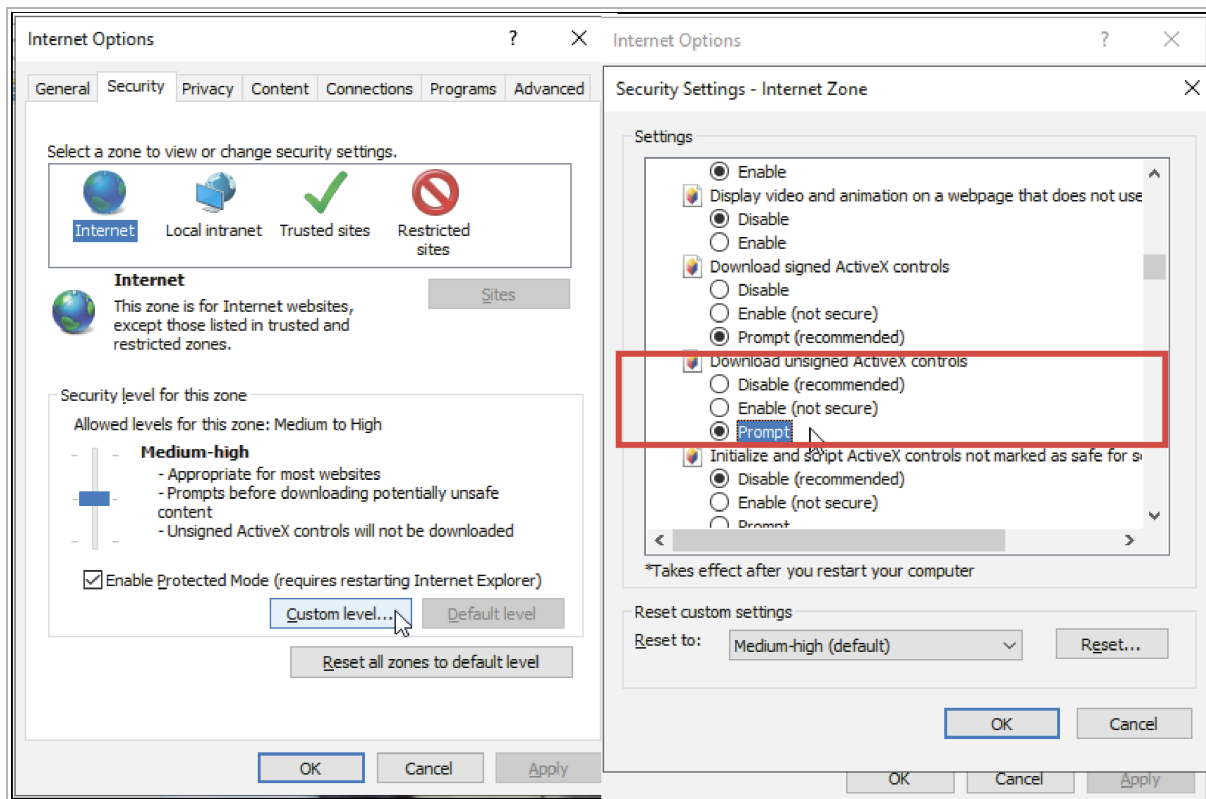
2.5 Configuring ActiveX for Internet Explorer

If you use the Internet Explorer browser to get image from the IP camera, check your ActiveX settings before gaining access to the IP camera web interface (see section 3.1).

Open the **General** tab of the Internet Explorer options. Press **Settings** in the Browsing History settings group. Select **Everytime I visit the webpage** in **Check for newer versions of the stored page** parameters group in **Website data settings** window.



Open the **Security** tab, select the **Internet** area and press the **Custom level...** button. Select **Prompt** in **Download unsigned ActiveX components**.



Press **OK** in all opened windows to save the changes.

WARNING!

In case the image is absent in the preview window (see section 3.2) of the web interface (see section 3.1) it means ActiveX plugin is not installed. Internet Explorer will offer to download and install ActiveX plugin.

You should run the browser as Administrator to save some settings of the IP camera web interface.

NOTE.

You can download ActiveX plugin from www.dssl.ru.

2.5.1 Removing Active-X components

Use **CleanTool** app to remove the downloaded ActiveX components.

NOTE.

You can download **CleanTool** on www.trassir.com.

Close the Internet Explorer browser and start **CleanTool**. The utility will perform all other actions without user participation. Upon completion, the utility will automatically close.

2.6 Reset IP camera settings

WARNING!

Hardware reset of IP camera should be performed only in case resetting to factory defaults does not help. (see section 3.3.2.3)

In order to reset IP camera settings follow the next steps:

1. Power the camera on.
2. Press the RESET button (see 1.1) and hold for 10 sec.
3. Release the button. The camera will restart.
4. Try to connect to the IP camera (see 2.3)

CHAPTER 3. TRASSIR IP CAMERA CONFIGURATION

3.1 Gaining access to IP camera web interface.

In case you know IP camera IP address and port, then start Internet Explorer and enter **http://<ip>:<port>** into the address bar (where **<ip>** is a camera IP address and **<port>** is a value of http port). After that press **Enter**.

NOTE.

If the **<port>** is **80**, you can omit it. Just enter **http://<ip>** into the address bar. E.g., **http://192.168.1.188**.

NOTE.

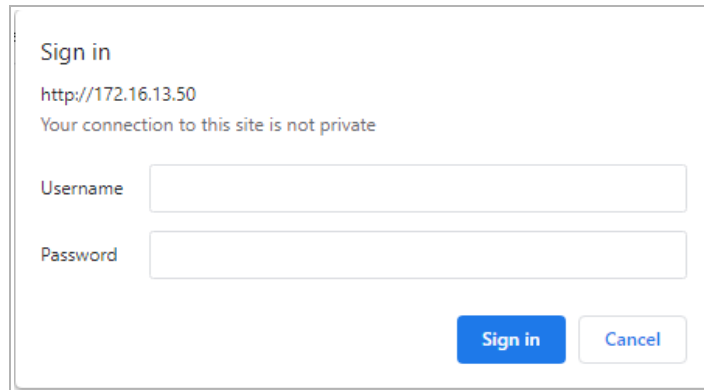
You can see the description of the IP camera network settings in 3.3.3.1.

Default values:

IP address: 192.168.1.188

Port: 80

In case of successful connection you will see a user authorization window:



Enter user name and password and press **OK**.

NOTE.

The default setting is described in 3.3.7.1.

Default values:

User name: **admin**

Password: **admin**

Upon successful authorization, the IP camera setup menu will open in Internet Explorer.

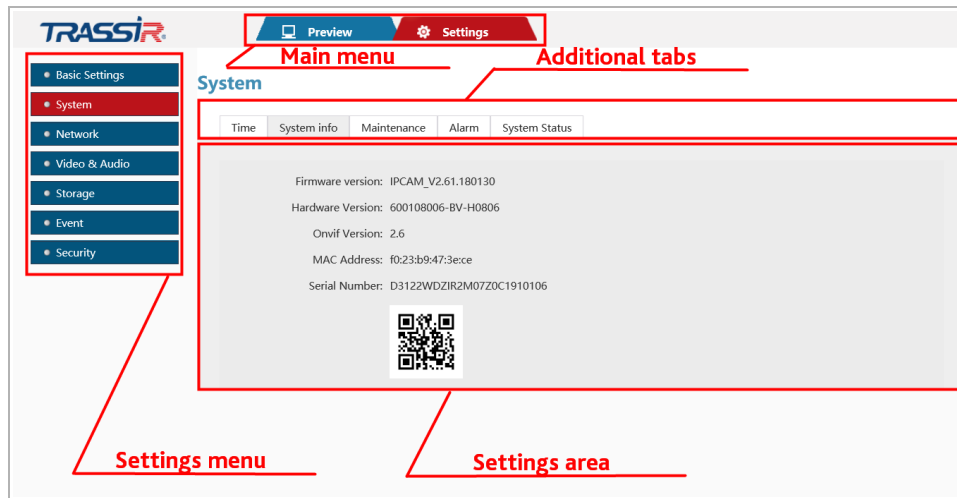
WARNING!

We recommend to change the administrator password (see 3.3.7.1) and the camera IP address (see 3.3.3.1) upon the first connection to the IP camera web interface.

WARNING!

If there is no image from camera check your ActiveX settings in Internet Explorer (see 2.5).

The menu consists of the following areas:

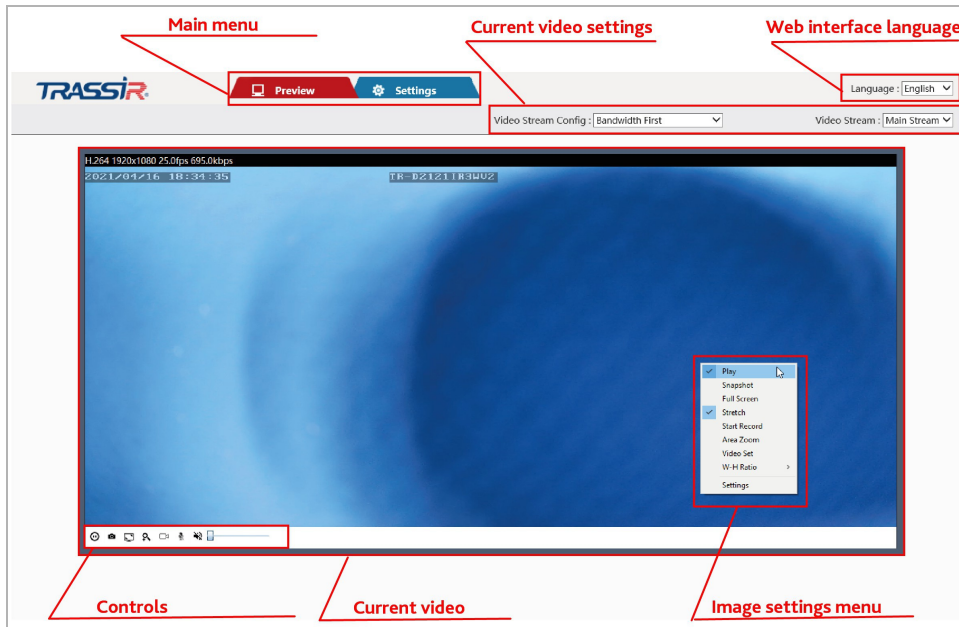


Setting	Description
Main menu	IP camera main menu.
Settings menu	IP camera basic settings buttons.
Additional tabs	IP camera settings tabs.
Settings area	Click the tab to open. This area lets you perform basic actions to configure your camera.









3.2 Preview menu

This menu lets you check and configure parameters of the camera video.

Press **Preview** to open the menu.



Setting	Description
Menu menu	Main IP camera menu
Web interface language	Select the web interface language: English / Русский .
Current video settings	Parameters of the video displayed in current window (see 3.2.1).Real-time video image transmitted by the camera.
Current video	Real-time video image transmitted by the camera.
Image settings menu	Context menu to manage image and video settings (see 3.2.2).

Setting	Description
Controls	IP camera video controls:
	 Playback/Pause
	 Save snapshot
	 Full screen
	 Zoom area
	 Start/ stop recording
	 Enable two-way audio communication
	 Sound on/off
	 Adjust volume

NOTE.

Image settings and controls menu are available only in Internet Explorer.

Use **Image settings** to customize the image in any other browser (see section 3.3.4.3).

3.2.1 Current video settings menu

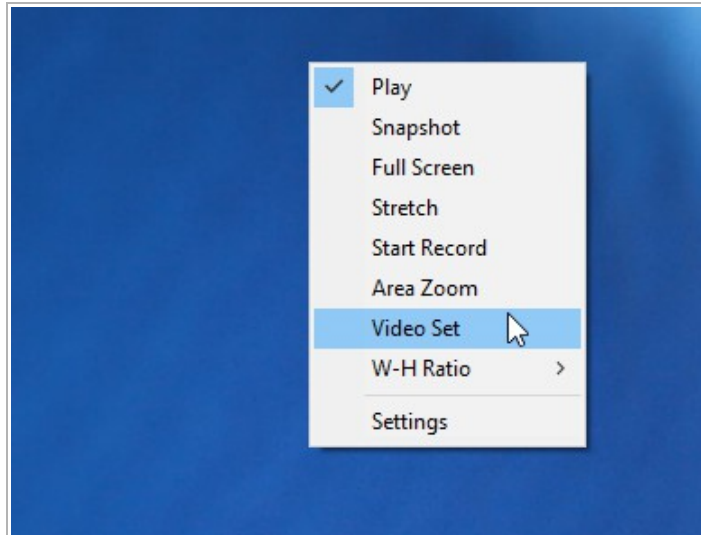
This menu allows selecting the video stream transmitted by camera and set the preview window size.

Video Stream Config : Bandwidth First ▼
Video Stream : Main Stream ▼

Setting	Description
Channel	Select the transmitted stream: Main Stream] or Sub Stream . Read more about the stream settings in 3.3.4.2.2
Video Stream Config	Select one of the video stream configurations: Quality First – video transmission with the highest possible quality. Bandwidth Quality Balance – video transmission with average quality and average speed. Bandwidth First – video transmission with highest possible speed. Mobile Devices - image transmission with the quality sufficient to be viewed on mobile devices.

3.2.2 Image settings menu

Right click on the image to open the menu.



NOTE.

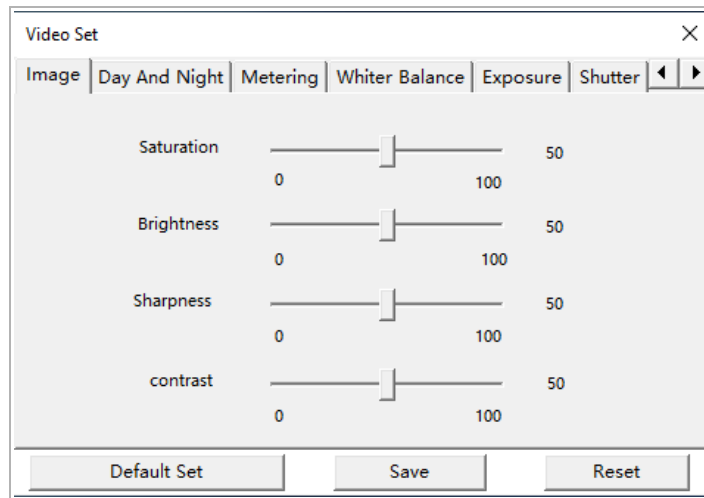
This menu is available only in Internet Explorer browser.

If you use another browser, use the Settings tab to configure the image (see section 3.3.4.3).

This menu contains the same commands as the control menu. However, by selecting **Video Set** in the context menu, you can change the parameters of the video image displayed in the window.

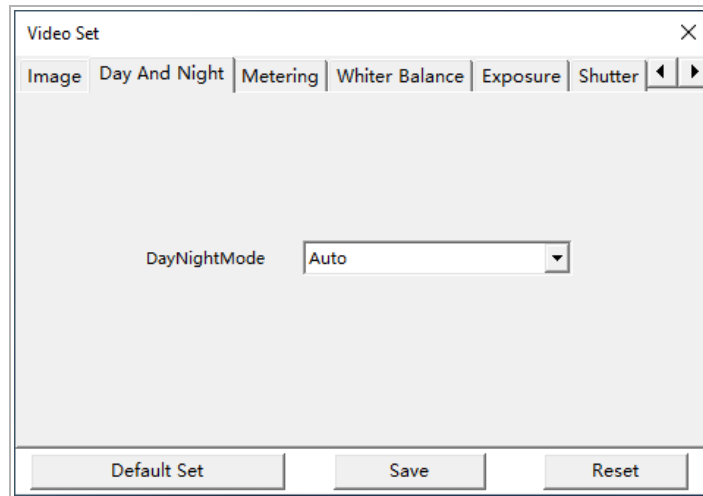
The image settings consist of the following tabs:

◆ **Image**



Setting	Description
Saturation	The saturation of the image. The higher the value is, the more colorful is the image transmitted.
Brightness	The brightness of image. The higher the value is, the brighter is the transmitted image.
Sharpness	The sharpness of the image. The higher the value is, the sharper is the transmitted image.
Contrast	The contrast of the image. The higher the value is, the more contrasting is the image transmitted.

◆ Day & Night



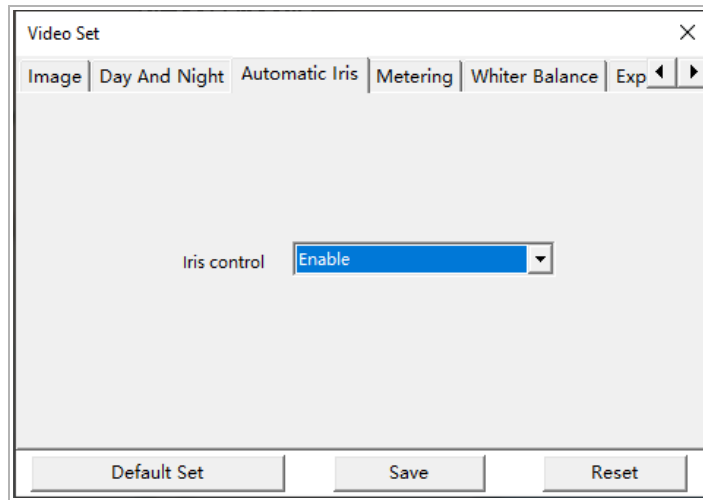
Setting

Description

DayNightMode

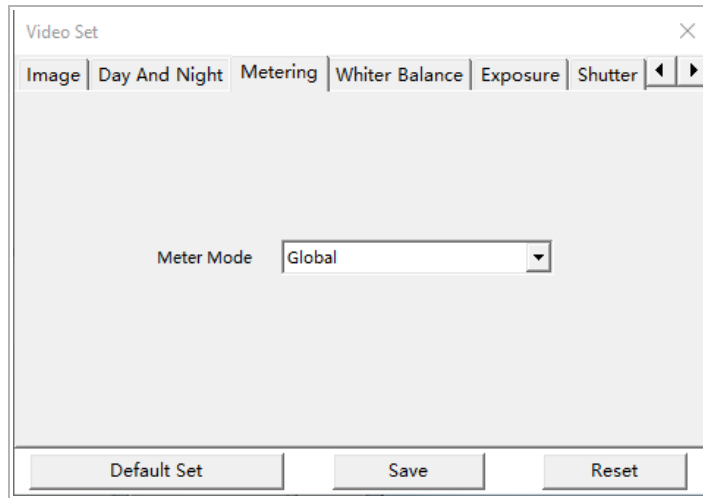
Enable/disable black and white mode:
Auto – automatic switching on of the B/W mode, depending on the illumination level of the shooting area;
Color – B/W mode is off;
Black and White – B/W mode is off.

◆ Automatic Iris



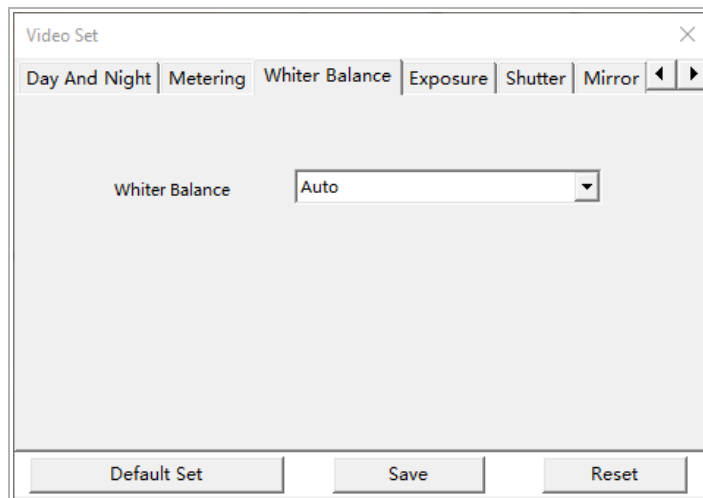
Setting	Description
Iris control	Enabling/disabling automatic aperture control. Attention! Not supported on these IP camera models.

◆ **Metering**



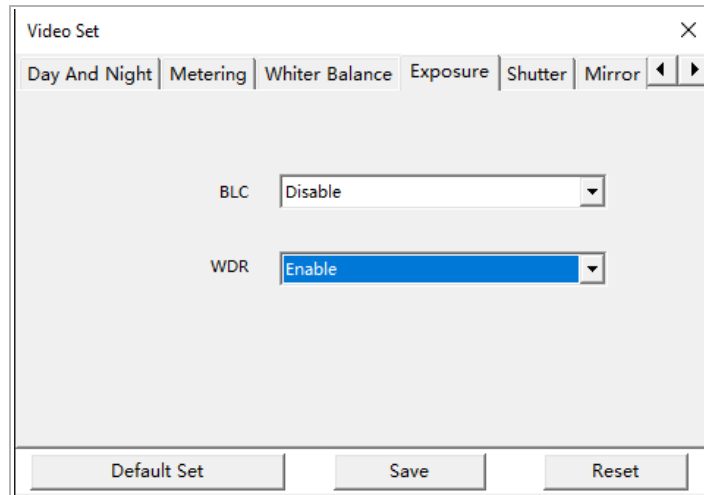
Setting	Description
Meter Mode	Method of the exposure determining: Global – full frame; Center – central point.

◆ **Whiter Balance**



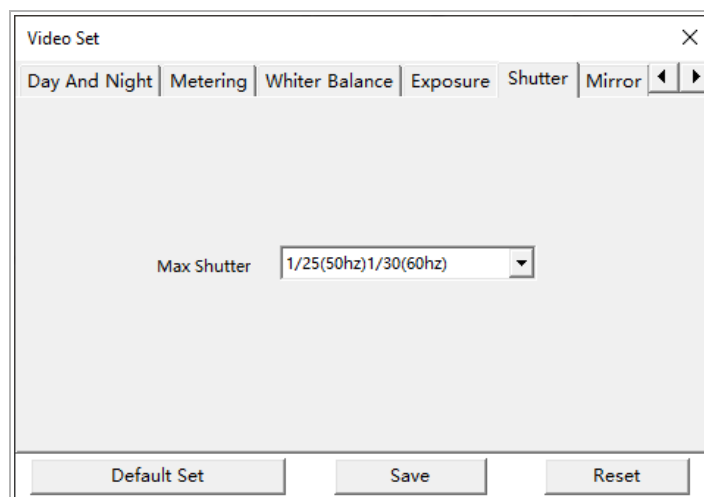
Setting	Description
Whiter Balance	The parameter changing the white balance depending on the lighting conditions of the shooting area: Auto , Outdoors , Indoor , Fluorescent lamp or Manual .
Red Gain	Red color enhancement when using manual white balance detection mode.
Green Gain	Green color enhancement when using manual white balance detection mode.
Blue Gain	Blue color enhancement when using manual white balance detection mode.

◆ Exposure



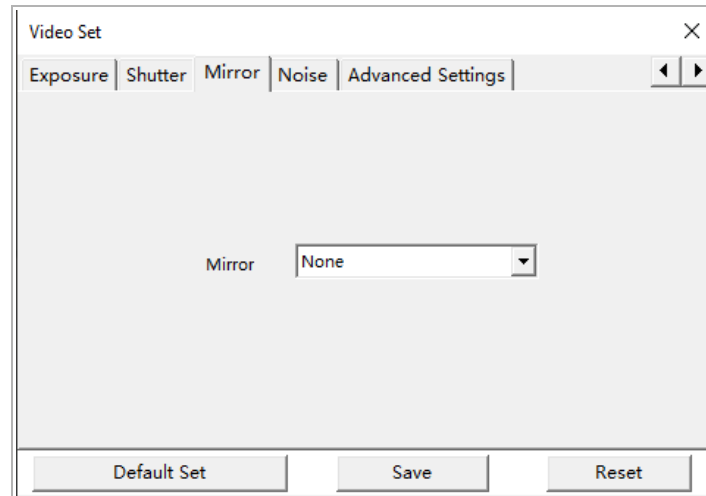
Setting	Description
BLC	Enable/disable back light compensation option on video.
WDR	Enable/disable software wide dynamic range extension (WDR). This feature is effective when taking pictures in complex lighting conditions, when it is necessary to distinguish the object against the background of a light source (for example, the face of a person against the background of a window illuminated by sunlight).

◆ Shutter



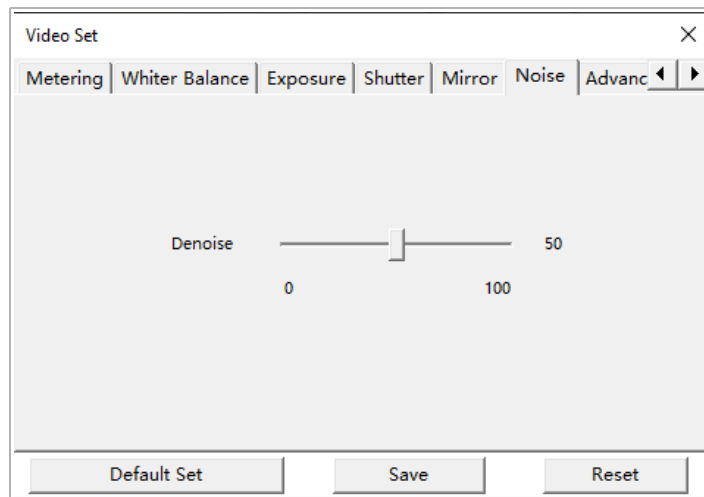
Setting	Description
Max Shutter	IP camera maximal shutter value.

◆ Mirror



Setting	Description
Image Mirror	Image mirroring. None – mirroring is off. Vertical – vertical mirroring; Horizontal – horizontal mirroring; Horizontal Vertical – horizontal and vertical mirroring.

◆ Noise

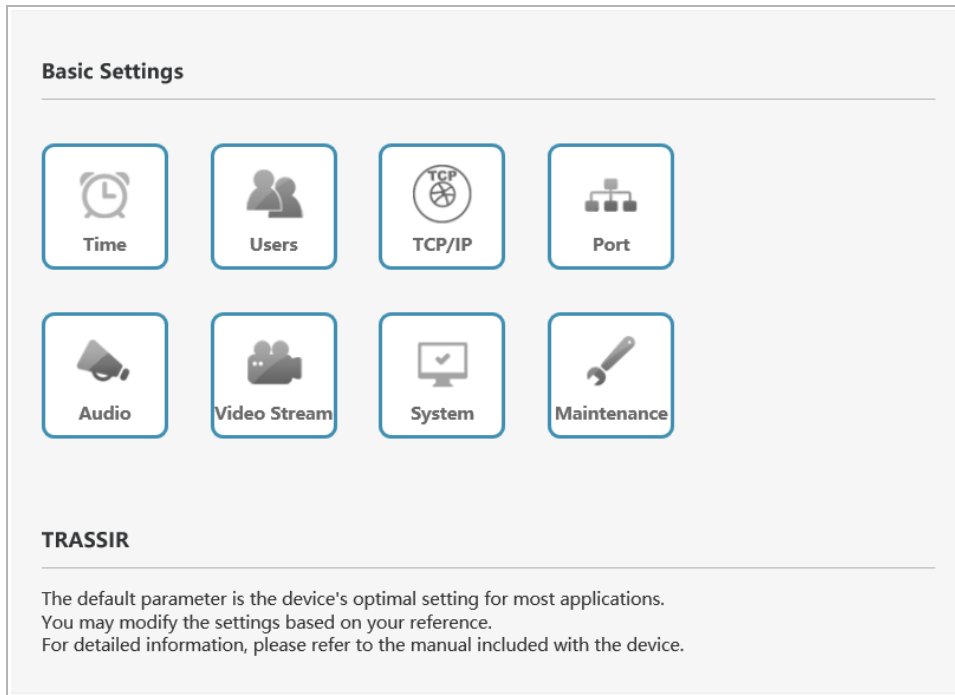


Setting	Description
Noise Reduction	This setting allows you to reduce the image noise level in poor lighting conditions in the shooting area.

3.3 "Settings" menu

3.3.1 "Basic settings" menu

Press **Basic Settings** button to open.



This menu contains shortcuts to the main IP camera features and parameters:

- ◆ **Time** – IP camera date and time settings (see section 3.3.2.1);
- ◆ **Users** – configuration of access to IP camera (see section 3.3.7.1);
- ◆ **TCP/IP** – configuration of the camera network interface (see section 3.3.3.1);
- ◆ **Port** – network ports used by IP camera (see section 3.3.3.2);
- ◆ **Audio** – audio stream configuration (see section 3.3.4.1);
- ◆ **Video Stream** – video stream configuration (see section 3.3.4.2);
- ◆ **System** – check IP camera system info (see section 3.3.2.2);
- ◆ **Maintenance** – IP camera service maintenance (see section 3.3.2.3).

3.3.2 "System" menu

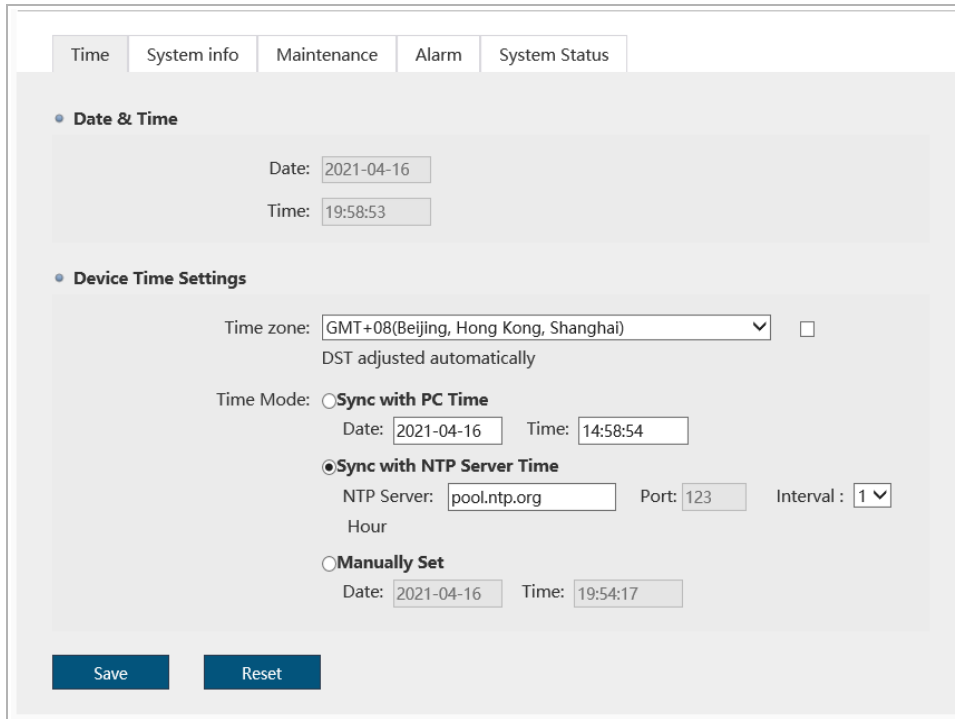
Press **System** button to open.

The menu consists of the additional tabs which allow you to:

- ◆ **Time** – configure IP camera date and time (see section 3.3.2.1);
- ◆ **System Info** – check IP camera system info (see section 3.3.2.2);
- ◆ **Maintenance** – provide IP camera service maintenance (see section 3.3.2.3);
- ◆ **Alarm** – configure alarm inputs/outputs (see section 3.3.2.4);
- ◆ **System Status** – check current system status (see section 3.3.2.5).

3.3.2.1 "Time" tab

Open the **Time** tab in the additional menu to set up IP camera date and time.



The **Date & Time** block displays date and time set on IP camera.

Configure values in the **Time zone** setting in **Device Time Settings** block to set up the time zone of the IP camera.

The IP camera also features daylight saving time. In order to activate it, set **DST adjust automatically** flag.

NOTE.

Daylight saving time is not used in Russian Federation.

There are three ways to set up date and time on IP camera:

◆ **Sync with PC Time**

The data from the PC on which the IP camera is configured will be downloaded into the **Date and Time** fields.

◆ **Sync with NTP Server Time**

Specify data to connect to NTP server in **NTP Server** and **Port** fields. Select the time period, in hours, after which the time will synchronize on IP camera in the **Interval** field.

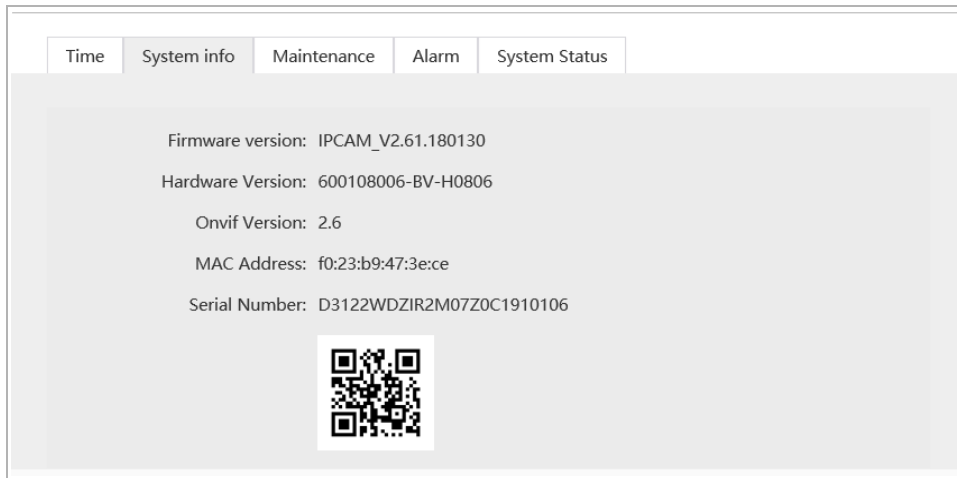
◆ **Manual Set**

Enter current date and time into the **Date** and **Time** fields.

Press **Save** to save the changes.

3.3.2.2 "System info" tab

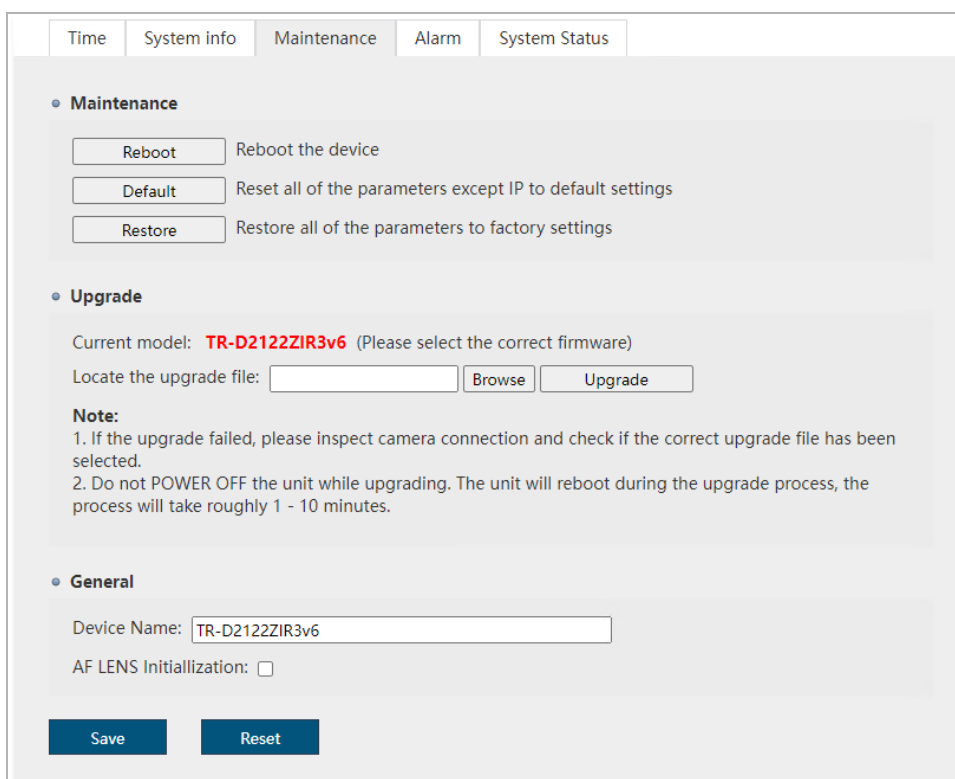
Open the **System Info** tab in the additional menu to check the system information.



Setting	Description
Firmware version	IP camera firmware version.
Hardware version	IP camera hardware version.
Onvif version	ONVIF protocol version.
MAC address	IP camera MAC address.
Serial Number	IP camera serial number as a set of symbols and a QR code.

3.3.2.3 "Maintenance" tab

Open the **Maintenance** tab in the additional menu.



Press the corresponding button in the **Maintenance** block to:

- ◆ **Reboot** – reboot IP camera;
- ◆ **Default** – reset all IP camera settings except for the network (section 3.3.3.1) to factory default;
- ◆ **Restore** – reset all IP camera settings to factory default, including network.

In order to update the IP camera software (firmware), click the **Browse** button in the **Upgrade** block and specify the software file. Click the **Upgrade** button to start downloading the file.

WARNING!

The use of unofficial camera update software may result in a denial of the warranty service.

WARNING!

Do not update the camera software unless absolutely necessary.

WARNING!

The update may take several minutes.

Do not turn off the power or reboot the device during the update process.

Specify the name of the IP camera that will be displayed when it is detected in the local network in the **General** block of the **Device Name**. For PTZ cameras, set the **AF LENS Initialization** flag to check the lens operation and initialize the lens settings when the camera is turned on.

Press **Save** to save the changes.

3.3.2.4 "Alarm" tab

Open the **Alarm** tab in the additional menu in order to customize the alarm inputs/outputs.

The **I/O Alarm** group contains information on the amount of alarm inputs and outputs.

The **Alarm List** group defines the statuses of the camera alarm inputs/outputs that will correspond to an alarm event.

Setting	Description
Interface Name	The event name displayed in the event log.
Trigger level	High – an alarm event will occur when the 5V voltage is applied to the contacts of the alarm input. Low – an alarm event will occur when the 5V voltage at the alarm input contacts disappears.
Alarm output level	High – if an alarm event occurs, up to 5V will be applied to the alarm output contacts. Low – if an alarm event occurs, the alarm output contacts will be deenergized.

You can see the description of the settings of the alarm events to be performed by the camera when an alarm input is triggered as well as the events that trigger an alarm output in section 3.3.6.1.

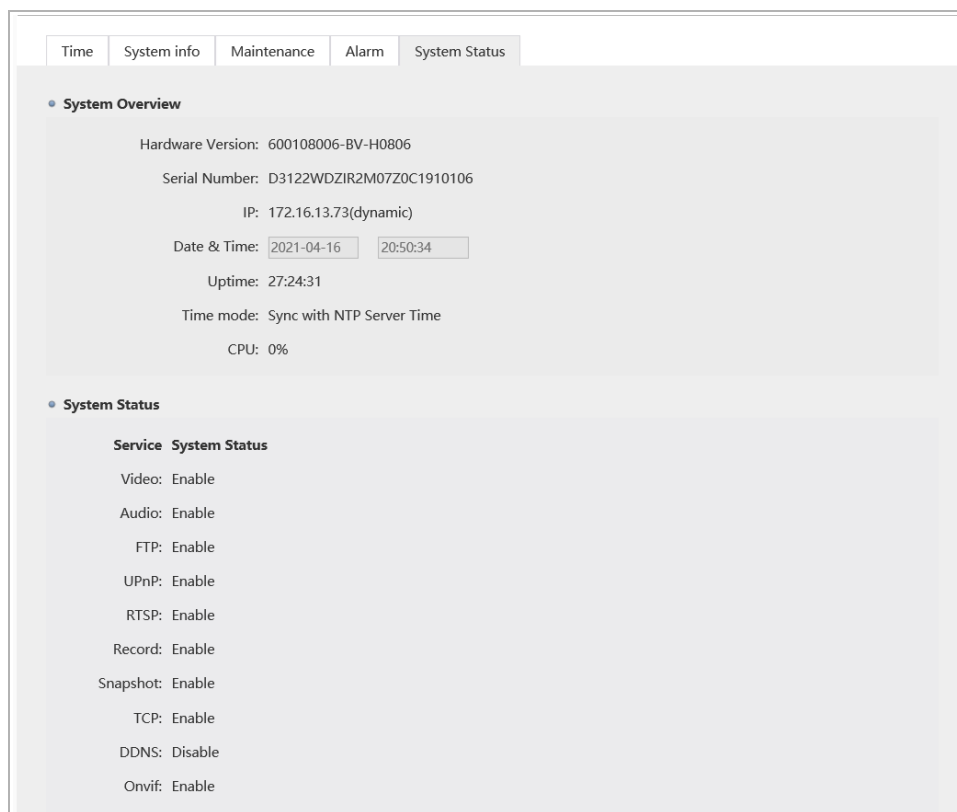
The current state of alarm inputs/outputs is determined in the **Current status I/O** group.

Setting	Description
Input	High – 5V voltage is applied to the alarm input contacts. Low – there is no voltage on the alarm input contacts.
Output	High – when this state is selected, up to 5V voltage will be applied to the alarm output contacts. Low – when this state is selected, the alarm output contacts will be de-energized.

Press **Save** to save the changes.

3.3.2.5 "System status" tab

In order to check the system status open the **System Status** tab in the additional menu.



The **System Overview** block displays system information and some IP camera settings values.

The **System Status** block displays information on some IP camera features statuses.

3.3.3 "Network" menu

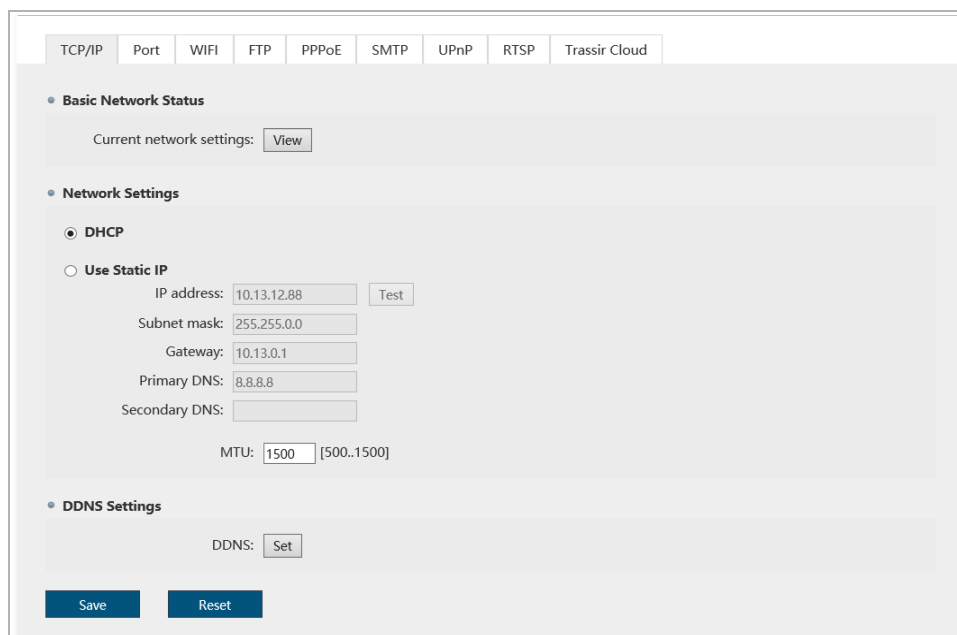
Press **Network** to open the menu.

The menu consists of the additional tabs which allow you to:

- ◆ **TCP/IP** – check and configure camera network interface parameters (see section 3.3.3.1);
- ◆ **Port** – select network ports that will be used by IP camera (see section 3.3.3.2);
- ◆ **WIFI** – configure IP camera wireless network connection parameters (see section 3.3.3.3);
- ◆ **FTP** – configure connection with FTP server (see section 3.3.3.4);
- ◆ **PPPoE** – configure connection with IP camera on PPPoE protocol (see section 3.3.3.5);
- ◆ **SMTP** – configure parameters for sending IP messages by email (see section 3.3.3.6);
- ◆ **UPnP** – configure UPnP service parameters and IP camera network port forwarding (see section 3.3.3.7);
- ◆ **RTSP** – configure RTSP data transfer (see section 3.3.3.8).
- ◆ **Trassir Cloud** – configure camera connection to [TRASSIR Cloud](#) cloud service (see section 3.3.3.9).

3.3.3.1 "TCP/IP" menu

Open **TCP/IP** tab in the **Network** settings menu to change current network settings.



The screenshot shows the network configuration interface with the following sections:

- TCP/IP** (selected tab), Port, WIFI, FTP, PPPoE, SMTP, UPnP, RTSP, Trassir Cloud
- Basic Network Status**: Current network settings: [View](#)
- Network Settings**:
 - DHCP**
 - Use Static IP**
 - IP address: [Test](#)
 - Subnet mask:
 - Gateway:
 - Primary DNS:
 - Secondary DNS:
 - MTU: [500..1500]
- DDNS Settings**: DDNS: [Set](#)
- [Save](#) [Reset](#)

WARNING!

We strongly recommend to change the camera IP address on the first connection to the IP camera web interface.

Press the **View** button in the **Basic Network Status** area in order to check IP camera network interfaces statuses.



The **Network Settings** area lets you configure the following network parameters:

Setting	Parameter
DHCP	Configure network interface using DHCP-server.
Use Static IP	Configure network interface manually. Other parameters are specified for the selected setting option.
IP address	The IP address that will be used when accessing the IP camera. Press Test the button to check the availability of the selected IP address.
Subnet mask	Mask of the subnet to which the IP camera is connected.
Gateway	The IP address of the proxy server if a gateway is used to connect to another network (for example, the Internet).
Primary DNS	Main DNS server address.
Secondary DNS	Alternate DNS server IP address.

WARNING!

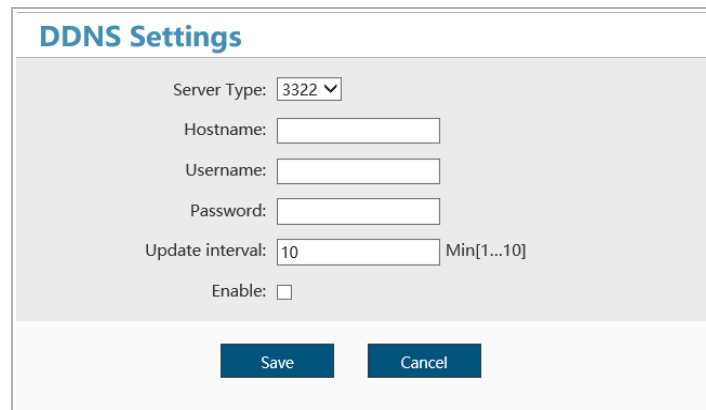
Be cautious when using a DHCP server to configure IP camera network settings. Since the DHCP server assigns the camera the first free IP address.

If there is no DHCP server in the local network, the camera will be assigned an IP address of the following type:169.254.x.x.

You can use DDNS server to connect to IP camera. In order to configure connection to DDNS server press **Set** in the **DDNS Settings** area.

NOTE.

Prior to the configuration you should register on DDNS service providing web site and receive all required parameters.

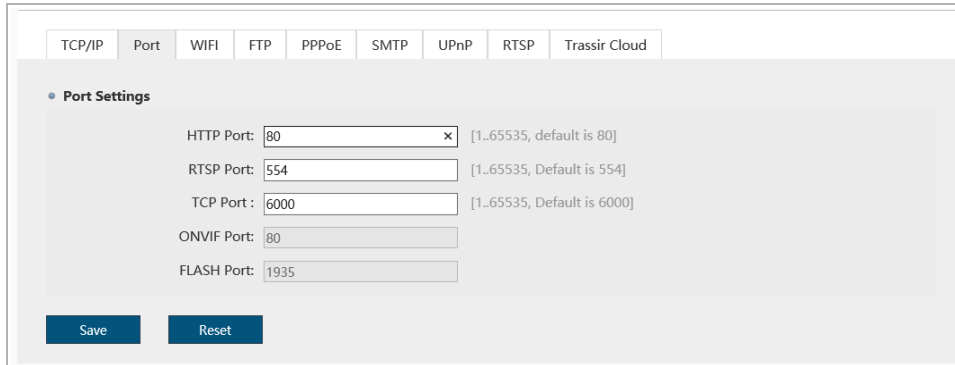


Setting	Parameter
Server Type	DDNS server type.
Server Domain	The name selected when registering on a DDNS server.
User name	User name registered on DDNS server.
Password	Password received on DDNS server.
Update interval	Connection update interval, from 1 to 10 minutes.
Enable	Set the flag to use the selected settings to connect to IP camera.

Press **Save** to save the settings.

3.3.3.2 "Port" tab

In order to configure networks ports used to access IP cameras features open the **Port** tab.



Setting	Description
HTTP Port	The number of the port used to connect to IP camera web interface via web browser. Default value: 80 Available values range: from 1 to 65535 or 80 .
RTSP Port	The number of port on which the data from IP camera will be transferred on RTSP protocol. Default value: 554 Available values range: from 1 to 65535 or 554 .
TCP Port	The number of port used for IP camera TCP management. Default value: 6000 Available values range: from 1 to 65535 or 6000 .

WARNING!

Network port numbers should not match.

Press **Save** to save the settings.

NOTE.

Use the following requests to connect an IP camera and transmit video on RTSP:

Main stream: `http://[IP address]:[rtsp port]/live/main`

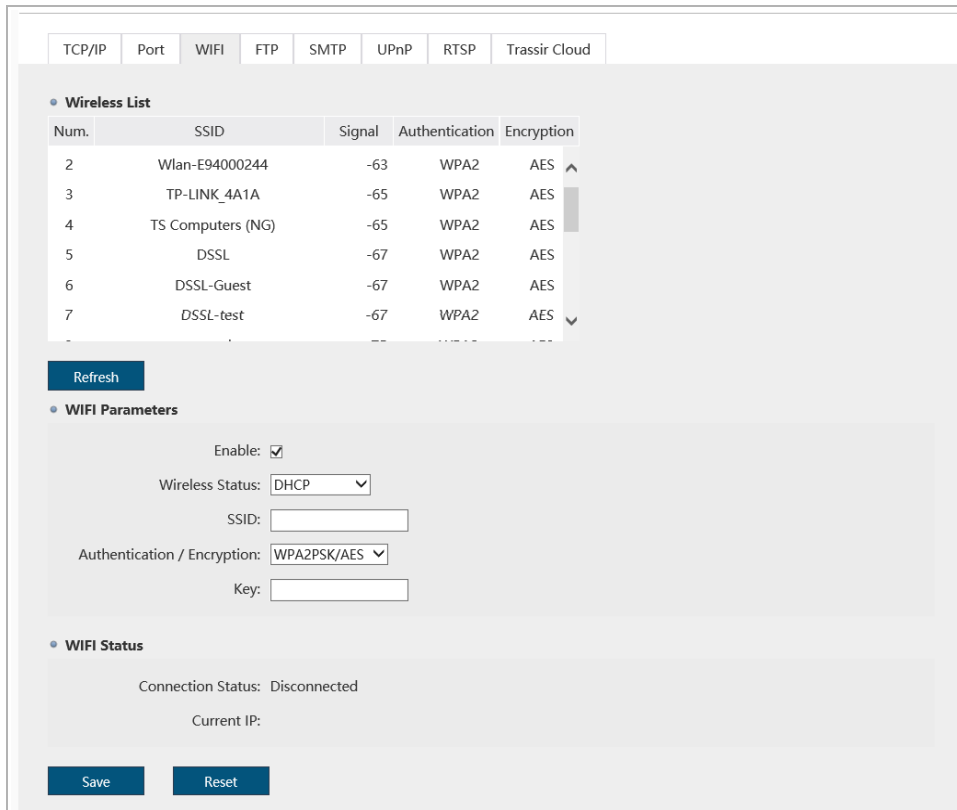
Sub : `http://[IP address]:[rtsp port]/live/sub`

Example `http://192.168.25.32:554/live/main`

Read more about connecting an IP camera on RTSP in "SUPPLEMENT E. Operation on RTSP and ONVIF".

3.3.3.3 "WIFI" tab

Open the the **WIFI** tab in order to configure IP camera wireless connection.



You will find the access points that are in the camera environment in the **Wireless List** block. Click **Refresh** to update the list. Double-click on the line with the name to connect to the desired access point. The settings of the selected access point will be displayed in the **WIFI Parameters** block.

Setting	Parameter
Wireless Status	A way to configure the IP address of the camera: DHCP – use DHCP server. Use Static IP – enter IP address manually.
SSID	Wireless network name.
Authentication / Encryption	Encryption method.
Key	Wireless network access password.
IP address	The IP address to be used when accessing the IP camera over a wireless network
Subnet mask	Subnet mask to which the IP camera is connected.
Gateway	IP address of the proxy server if a gateway is used to connect to another network (e.g. the Internet).
Primary DNS	Main DNS server IP address.
Secondary DNS	Alternate DNS server IP address.

You can check the wireless connection status in the **WIFI Status** block.

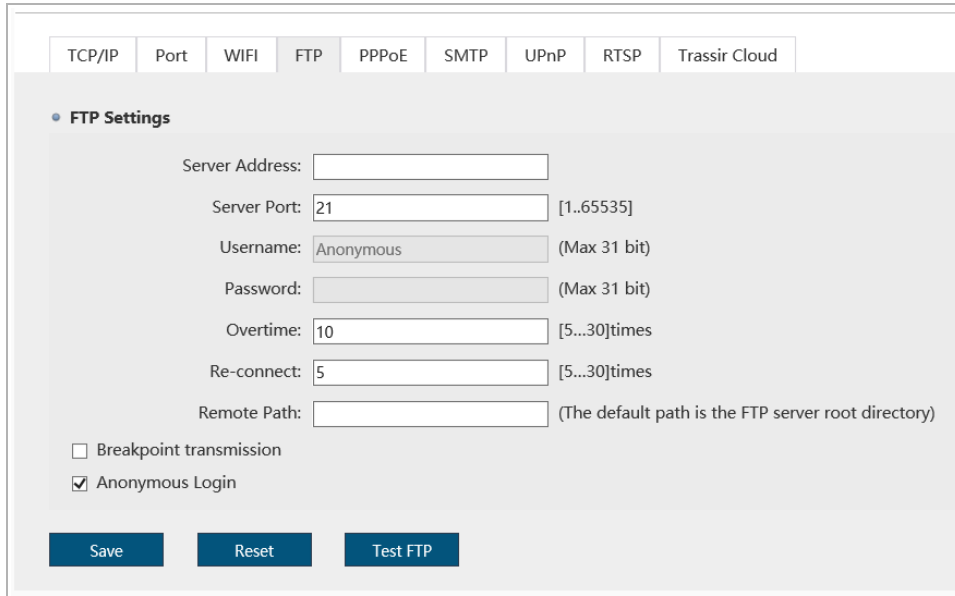
Press **Save** to save the settings.

NOTE.

You can also configure WIFI on IP camera using TRASSIR Client mobile application. Read more in **SUPPLEMENT C. WIFI CONFIGURATION IN TRASSIR Client.**

3.3.3.4 "FTP" tab

Open the **FTP** tab to configure IP camera connection to FTP server.

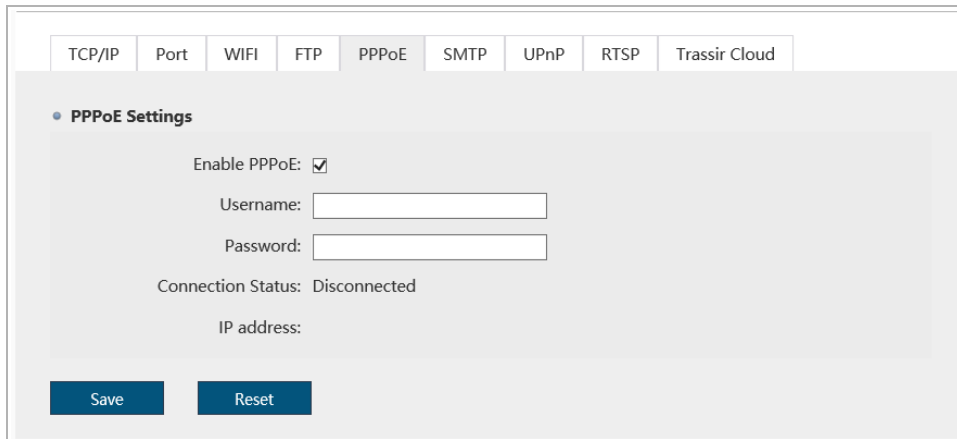


Setting	Description
Server Address	FTP server name or IP address.
Server Port	FTP server access port number.
Username	User name that will authorize on FTP server.
Password	Password for user authorization on FTPserver.
Overtime	FTP server response waiting time, from 5 to 30 sec.
Re-connect	Number of attempts to connect to the FTP-server: from 5 to 30 times.
Remote Path	The directory where messages from the camera will be saved to. Default: root directory of the FTP server.
Breakpoint Resume	Set the flag to resume the file upload to the FTP server in case the connection is lost.
Anonymous Login	Set the flag for anonimous access to FTP server.

Press **Save** to save the settings.

3.3.3.5 "PPPoE" tab

Go to the **PPPoE** tab in the **Network** settings menu to open.



The screenshot shows a web interface for network settings. At the top, there are several tabs: TCP/IP, Port, WIFI, FTP, **PPPoE**, SMTP, UPnP, RTSP, and Trassir Cloud. The **PPPoE** tab is active. Below the tabs, there is a section titled "PPPoE Settings". It contains the following elements:

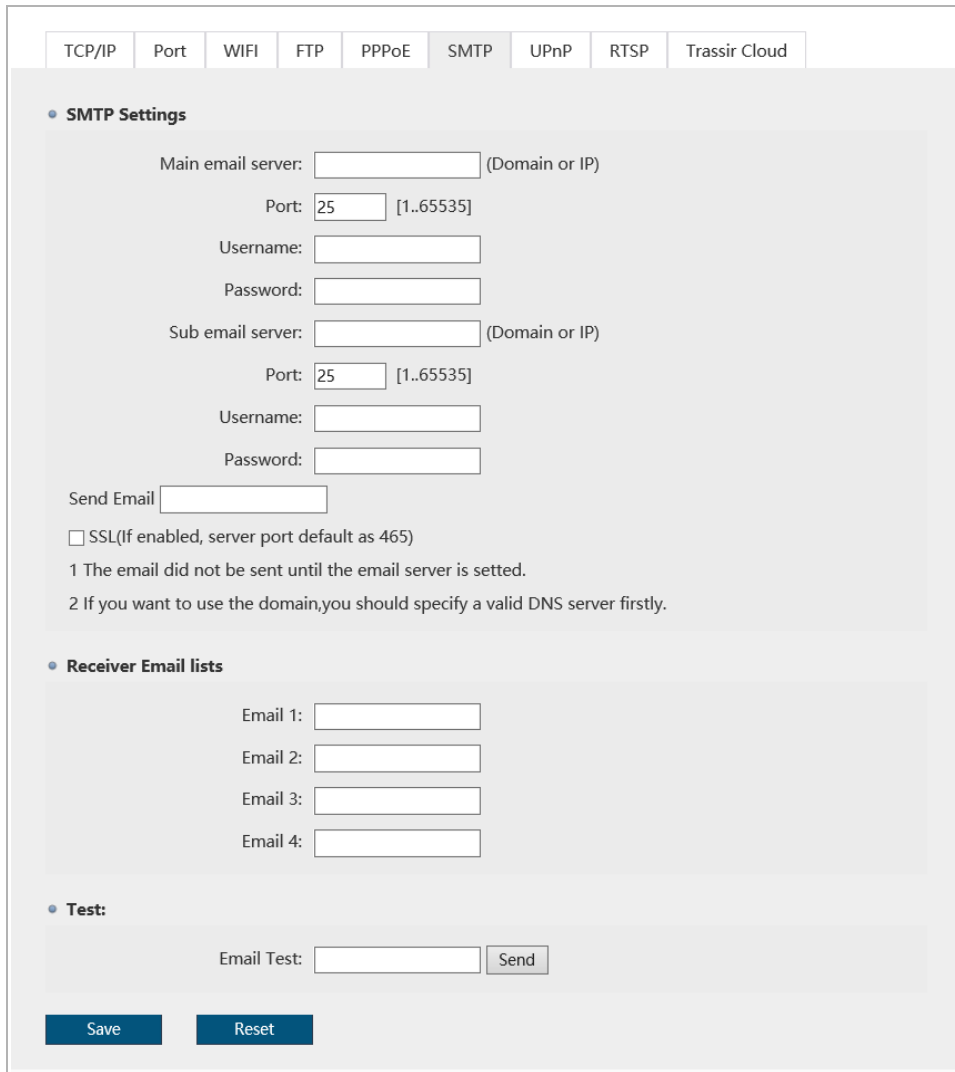
- "Enable PPPoE:" with a checked checkbox.
- "Username:" followed by a text input field.
- "Password:" followed by a text input field.
- "Connection Status: Disconnected"
- "IP address:" followed by a text input field.
- At the bottom, there are two buttons: "Save" and "Reset".

Setting	Description
Enable PPPoE	Set the flag to use PPPoE protocol.
User name	Enter user name.
Password	Enter password.

Press **Save** to save the settings.

3.3.3.6 "SMTP" tab

In order to configure sending messages from IP camera by email open **SMTP** tab.



Specify SMTP server parameters in **SMTP Settings** block:

Setting	Description
Main email server	Main SMTP server name or IP address.
Port	Access port number to main SMTP server. Value range available: from 1 to 65535.
Username	Main SMTP server user name.
Password	Authorization password on main SMTP server.
Sub email server	Backup SMTP server name or IP address.
Port	Access port number to main SMTP server. Value range available: from 1 to 65535.
Username	Backup SMTP server user name.

Setting	Description
Password	Authorization password on backup SMTP server.
Sender	Email address from which the messages will be sent.
SSL	Set the flag to use SSL protocol. In this case, the following port will be used as the server port specified in the Port field: 465 .

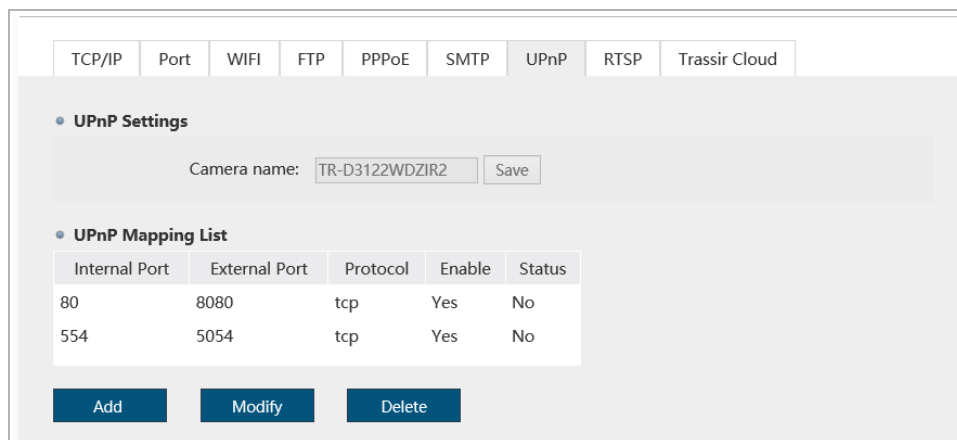
In the **Receive Email** block, you can specify up to 4 email addresses to which messages described in section 3.3.6.1 will be sent.

You can check the correctness of the settings, if necessary. To do this, enter your email address in the **Email Test** box and click the **Send** button. If the settings are correct, you will receive a mail message to this mailbox. Otherwise, you will receive an error message.

Press **Save** to save the settings.

3.3.3.7 "UpnP" tab

Open **UpnP** tab to configure automatic camera detection service in local network.



The screenshot shows a web interface with several tabs: TCP/IP, Port, WIFI, FTP, PPPoE, SMTP, UPnP, RTSP, and Trassir Cloud. The UPnP tab is selected. Under 'UPnP Settings', there is a 'Camera name' field with the value 'TR-D3122WDZIR2' and a 'Save' button. Below this is a 'UPnP Mapping List' table with columns for Internal Port, External Port, Protocol, Enable, and Status. The table contains two rows of data. At the bottom of the mapping list are three buttons: 'Add', 'Modify', and 'Delete'.

Internal Port	External Port	Protocol	Enable	Status
80	8080	tcp	Yes	No
554	5054	tcp	Yes	No

The **Universal Plug&Play(UPnP)** feature is intended to search for an IP camera in local network by intelligent video surveillance systems. Enter the name that will be displayed when you search for this device into the **Camera name** field in the **UPnP Settings** area.

WARNING!

As a rule, UpnP is required for the first IP camera detection in local network. That's why we strongly recommend to disable it after the use in order to prevent unauthorized IP camera access.

This tab also allows configuring IP camera network port forwarding. Network port forwarding is usually used to access and IP camera when it is in another local network.

The forwarding rules are customized in the **UPnP Mapping** area. Press **Add** to create a new rule.

UPnP Mapping Settings

Enable: Yes No

Protocol:

Internal Port: [1..65535]

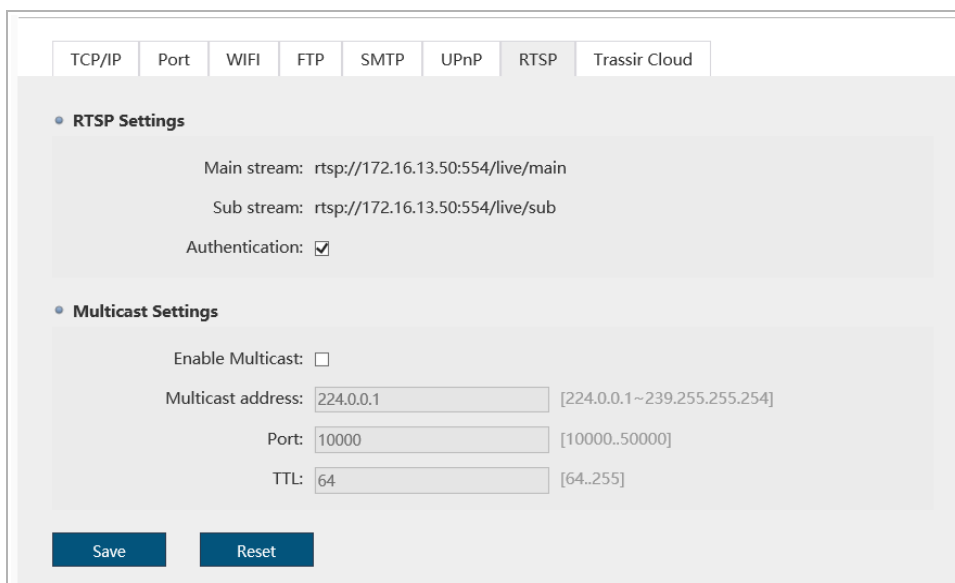
External Port: [1..65535]

Setting	Description
Enable	Use UpnP conversion: Yes / No .
Protocol	Data transfer protocol: TCP / UDP .
Internal Port	Data transfer port, configured on IP camera. Available values range: from 1 to 65535 .
External Port	The port on which the IP camera will be accessed from another network. Available values range: from 1 to 65535 .

Press **Save** to save the settings.

3.3.3.8 "RTSP" tab

In order to configure IP camera streaming open **RTSP** tab.



The screenshot shows a configuration page with tabs for TCP/IP, Port, WIFI, FTP, SMTP, UPnP, RTSP, and Trassir Cloud. The RTSP tab is active, displaying the following settings:

- RTSP Settings**
 - Main stream: rtsp://172.16.13.50:554/live/main
 - Sub stream: rtsp://172.16.13.50:554/live/sub
 - Authentication:
- Multicast Settings**
 - Enable Multicast:
 - Multicast address: [224.0.0.1~239.255.255.254]
 - Port: [10000..50000]
 - TTL: [64..255]

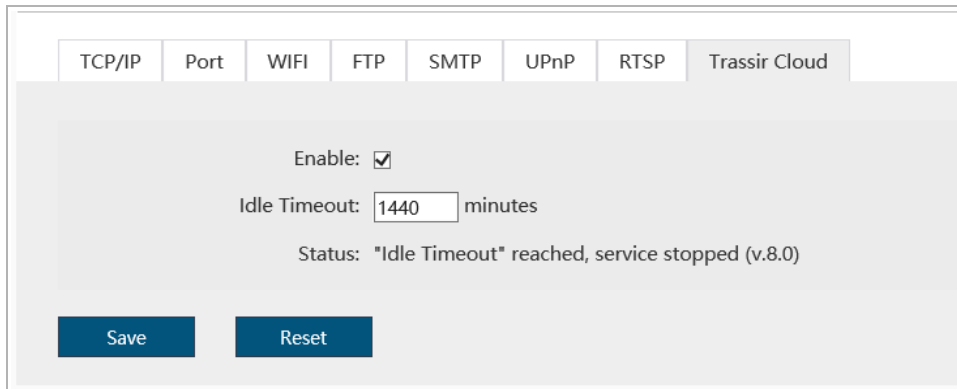
Buttons for 'Save' and 'Reset' are located at the bottom of the settings area.

Setting	Description
RTSP audio transmission	Set the flag to transmit IP camera sound on RTSP.
Enable Multicast	Set the flag for streaming from an IP camera to a remote network device.
Multicast address	The IP address of the network device to which this IP camera will broadcast.
Port	Remote device port.

Press **Save** to save the settings.

3.3.3.9 "Trassir Cloud" tab

Open the **Trassir Cloud tab** to connect the IP camera to [TRASSIR Cloud](#) cloud service.



NOTE.

If the Trassir Cloud tab is absent, you need to update your IP camera software. You can find the detailed instructions and the latest software version on [our website](#).

Setting	Description
Enable	Set the flag to activate the connection service.
Idle Timeout	Set the time period during which the camera available for cloud connection. Upon the set time period expiration, the service will stop. You need to reboot your IP camera to restart the service.
Status	Camera cloud service connection status: <ul style="list-style-type: none"> ◆ Unknown Status – service is not activated. ◆ Connected to Trassir Cloud, idle – TRASSIR Cloud is established, connect your camera in the cloud. ◆ No connection to Trassir Cloud – no connection to TRASSIR Cloud. ◆ Connected to Trassir Cloud, working – camera is connected, the video is being streamed to the cloud. ◆ "Idle Timeout" reached, service stopped – the time period required to connect the camera to the cloud is expired.

Press **Save** to save the changes.

WARNING!

The final step of IP camera connection is performed directly in TRASSIR Cloud.

3.3.4 "Video & Audio" menu

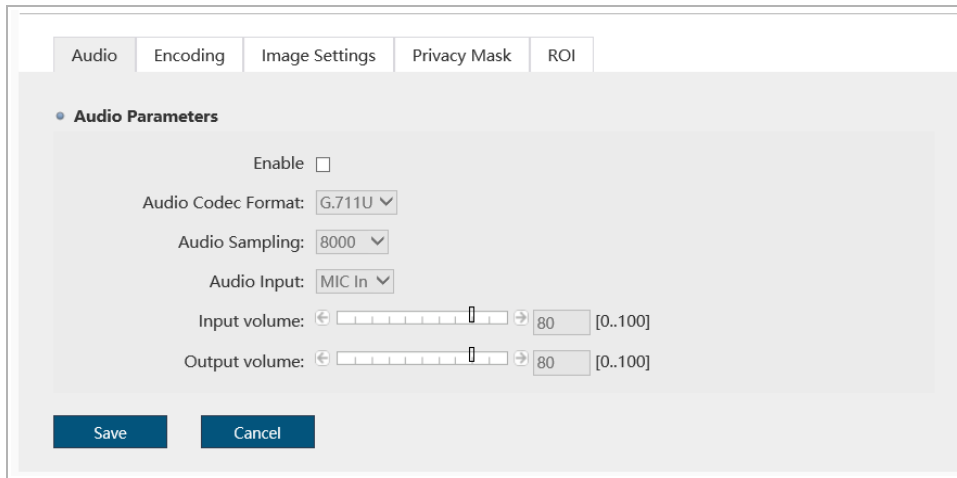
Press **Video & Audio** to open the menu.

The menu consists of the sections which allow to:

- ◆ **Audio** – configure audio stream (see section 3.3.4.1);
- ◆ **Video Stream** – configure video stream (see section 3.3.4.2);
- ◆ **Image Settings** – configure transmitted image parameters (see section 3.3.4.3);
- ◆ **Privacy Mask** – set up mask zones (see section 3.3.4.4);
- ◆ **ROI** – set up zones of interest (see section 3.3.4.5).

3.3.4.1 "Audio" tab

Open the **Audio** tab to set up IP camera audio stream.



Setting	Description
Audio Codec Format	Audio stream compression algorithm: G.711A , G.711U , or AAC .
Audio Sampling	Audio sampling, 8000 or 16000 .
Audio Input	IP camera sound stream audio input: Line-in or MIC In . Set up depending on the camera model.
Input volume	Input audio volume level, from 0 to 100 .
Output volume	Output audio volume level, from 0 to 100 .

Press **Save** to save the settings.

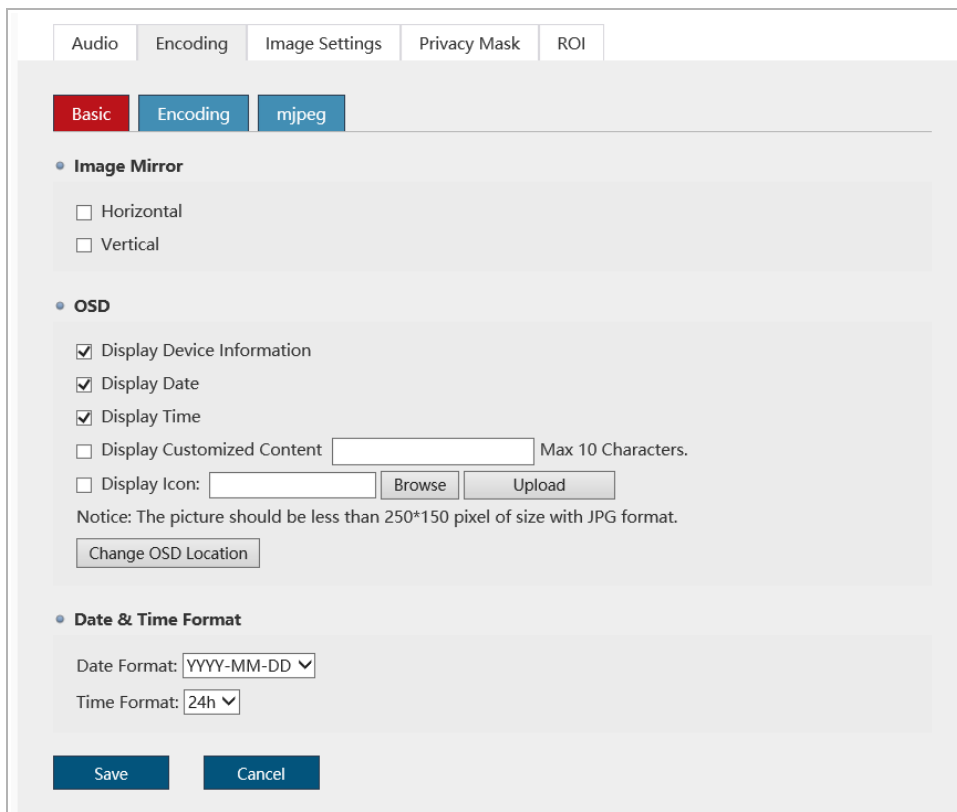
3.3.4.2 "Video stream" tab

Open the **Video Stream** tab to set up IP camera video stream.

The menu consists of the additional tabs that allow you to:

- ◆ **Basic** – customize the display of the video stream and select the parameters to be displayed in the video image (see section 3.3.4.2.1);
- ◆ **Video Stream** – configure video stream parameters (see section 3.3.4.2.2);
- ◆ **MJPEG** – adjust the parameters of the video stream compressed with MJPEG (see section 3.3.4.2.3).

3.3.4.2.1 "Basic additional" tab



- ◆ **Image Mirror** block:

Setting	Description
Horizontal	Set the flag to mirror the image vertically.
Vertical	Set the flag to mirror the image horizontally.

◆ **OSD** block:

Setting	Description
Display Device Information	Set the flag to display system information.
Display Date	Set the flag to display date.
Display Time	Set the flag to display time.
Display Customized Content	Set the flag to display any text entered in the adjacent field
Display Icon	Set the flag to display watermark on image. Press the Browse and than hold Upload button to upload the watermark image.
Change OSD Location	Press the button to change the position of the displayed OSD items and watermark. It will open a window with a video stream, where you can select a new position for the displayed information using your mouse.

◆ **Date&Time Format** block:

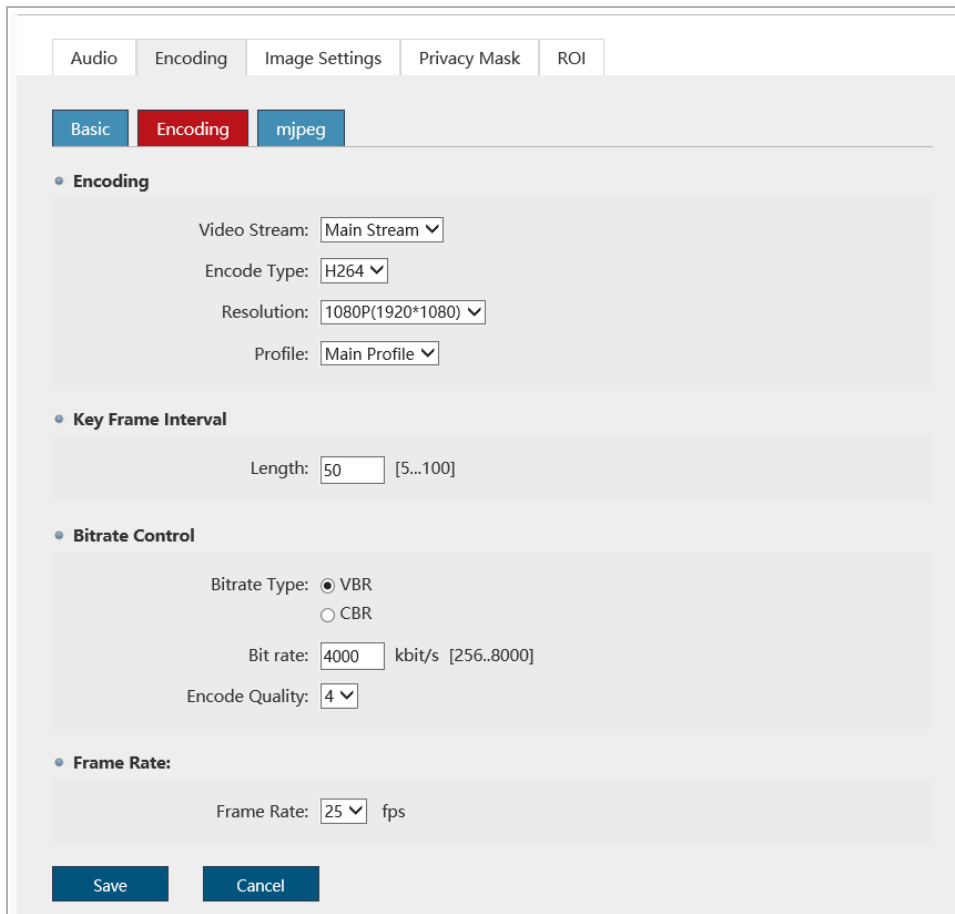
Setting	Description
Date format	Displayed date format: YYYY-MM-DD , MM-DD-YYYY , DD-MM-YYYY .
Time Format	Displayed time format: 24h or 12h .

Press **Save** to save the settings.

3.3.4.2.2 "Video stream" additional tab

ATTENTION!

Be careful if you use your IP camera together with the TRASSIR software. In this case video stream settings should be customized using TRASSIR software.



Setting	Description
Video Stream ID	Customized video stream: Main stream or Substream . All other settings are customized for the selected video stream
Encode Type	The stream encode standard: H264 .
Resolution	The video stream resolution. Main stream: 720P(1280x720) , 2M(1600x1200) , 1080P(1920x1080) , 3MP(2048x1520) or 4MP(2592x1520) . Sub stream: CIF(352x288) , VGA(640x480) or D1(704x576) . Available resolutions may vary depending on camera model.

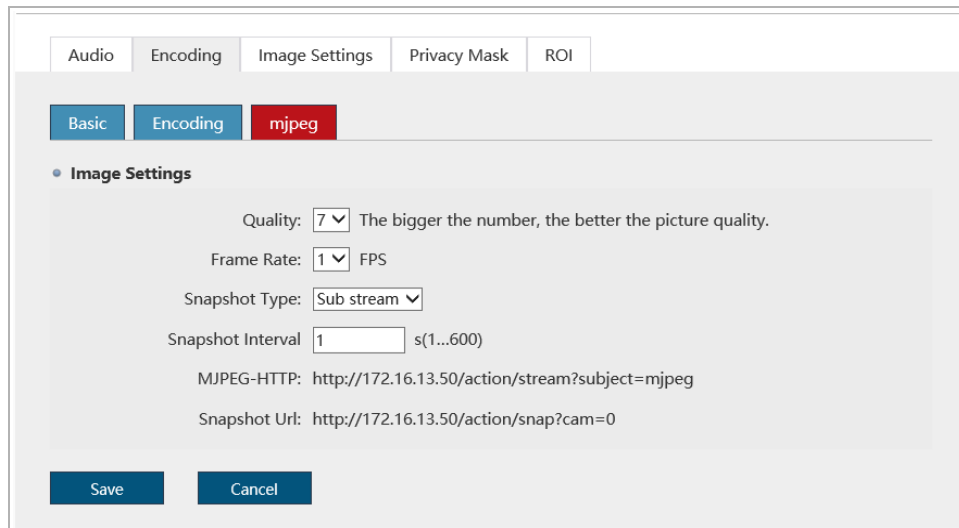
Setting	Description
Profile	Select a video compression profile: Baseline , Main Profile , High Profile . Profiles allow to increase the compression efficiency of a video stream in different conditions. The higher the profile value is, the higher is the clarity of video transmission.
Length	The interval at which frames containing one keyframe will be grouped together. The smaller the value is, the more often the keyframe will follow.
Bitrate type	Video stream bitrate type: VBR / CBR .
Bit rate	If CBR is selected, the setting value is used as the maximum value of the compression rate of the video stream. Main stream: from 2000 kbit/s to 8000 kbit/s . Sub stream: from 50 kbit/s to 1000 kbit/s . Maximum parameter value may vary depending on the camera model.
Encode Quality	If VBR is selected the setting value will define the transmitted image quality: from 1 to 6 . The higher the value is, the higher is the image quality.
Frame Rate	Video capturing speed, the number of frames per second, captured by IP camera. The value is selected ranging from 5 fps to 25 fps , depending on selected resolution. Maximum parameter value may vary depending on the camera model.

Press **Save** to save the settings.

3.3.4.2.3 "MJPEG" additional tab

NOTE.

The **Snapshot** feature may be not supported or supported on main or sub streams only depending on the camera model.

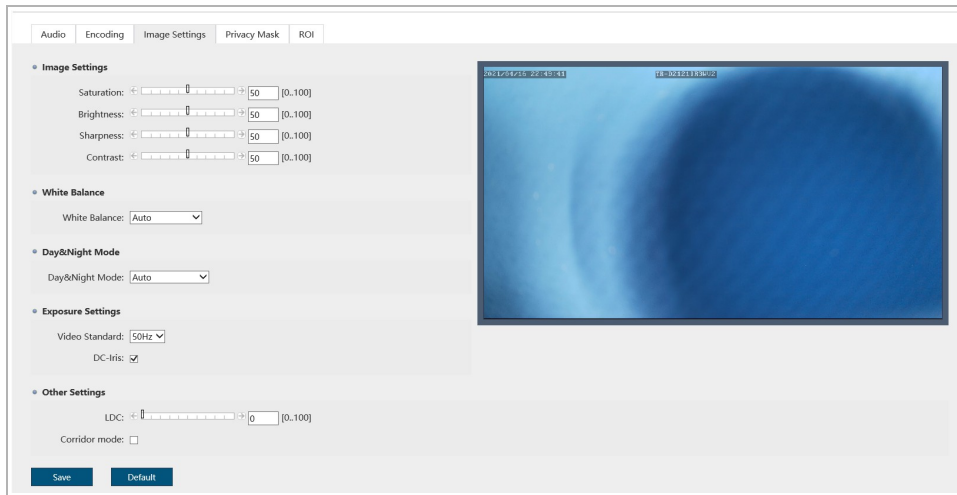


Setting	Description
Quality	The transmitted stream quality: from 1 to 7 . The higher the value is the better is the quality of the transmitted image.
Frame rate	Video capture rate, the number of frames per second captured by the IP camera. Select values ranging from 1 fps to 5 fps depending on the selected resolution.
Snapshot type	Select snapshot stream: Main stream or Sub stream .
Snapshot interval	The interval between saved snapshots.
MJPEG-HTTP	RTSP video link.
Snapshot URL	RTSP snapshot link.

Press **Save** to save the settings.

3.3.4.3 "Image settings" tab

In order to set up image transmitted by IP camera, open the **Image settings** tab.



Setting	Description
Saturation	Image saturation: from 0 to 100 . The higher the value is, the more color saturated is the transmitted image.
Brightness	Image brightness: from 0 to 100 . The higher the value is, the brighter is the transmitted image.
Sharpness	Image sharpness: from 0 to 100 . The higher the value is, the sharper is the transmitted image.
Contrast	Image contrast: from 0 to 100 . The higher the value is, the more contrast is transmitted.
White Balance	Customize white balance in accordance with shooting area lighting conditions: Auto – automatic selection of white balance, while the camera itself chooses a setting at which the best video stream quality will be transmitted; Out door – automatic white balance selection adapted for outdoor shooting; Indoor – automatic white balance selection adapted for outdoor shooting; Sunlight lamp – automatic selection of the white balance adapted to the shooting of objects illuminated by a daylight lamp.
Day&Night Mode	Enable/disable black and white shooting mode: Auto – automatic activation of B/W mode depending on the lighting degree in the shooting area; Auto(inter-sync) – automatic activation of B/W mode, depending on the lighting threshold values: THR. Of Day or THR. Of Night ; Color – B/W mode is on; B&W – B/W mode is off; Timer – B/W mode activation on schedule.
Video Standard	Electrical network frequency (50Hz or 60Hz) to which the IP camera is connected.
DC-Iris	Enable/disable automatic iris control. Warning! Not all IP camera models support this feature.

Setting	Description
LDC	A lens distortion correction setting that minimizes distortion on video when using a wide-angle lens. The higher the value is, the lesser is the distortion.

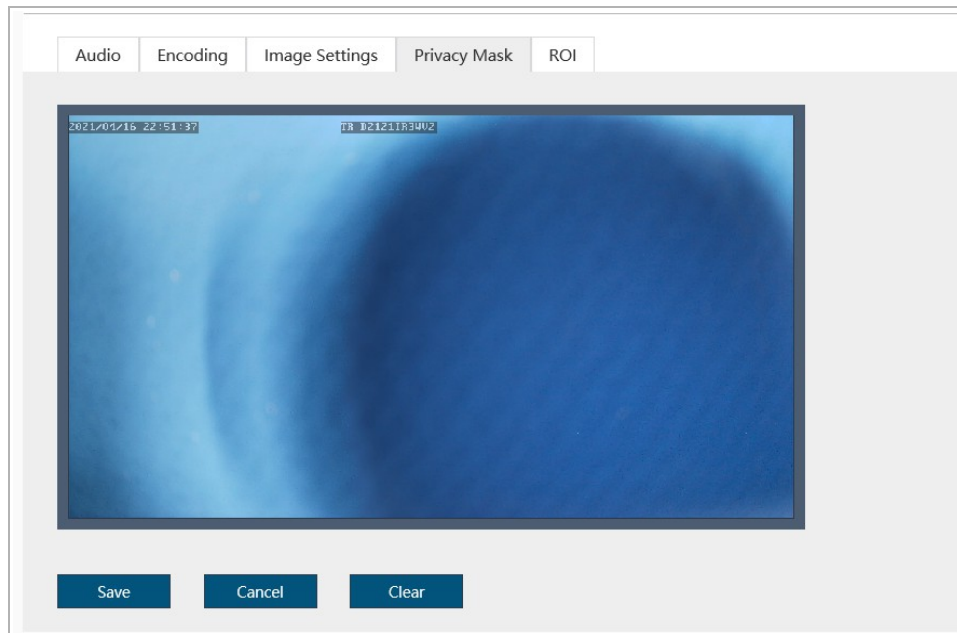
You can see the changes of the applied settings in the preview window in the upper right corner.

Press **Default** to restore the default settings.

Press **Save** to save the changes.

3.3.4.4 "Privacy mask" tab

Open **Privacy Mask** tab to set up masking zones on you IP camera.



Select an area on video that you want to hide, and use the left mouse button to draw a masking zone. Use masking zones to hide some areas on video, for example, the dial pad of the combination lock.

NOTE.

You can customize up to 4 masking zones.

WARNING!

Masking zones are superimposed on the transmitted video stream, that is, they are recorded in the archive and superimposed on the image snapshots. The image hidden under such zones will be impossible to view even after disabling masking zones.

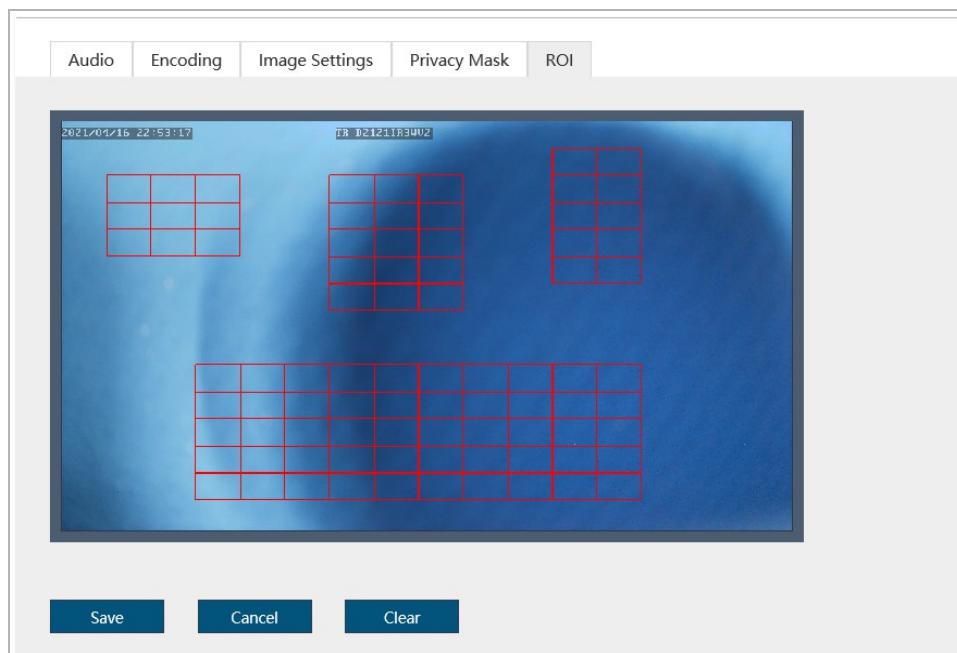
Press **Clear** to reset all privacy mask settings.

Press **Cancel** to remove last created zone.

Press **Save** to save the changes.

3.3.4.5 "ROI" tab

Open **ROI** tab in order to customize zones of interest.



ROI zones or zones of interest allow you to highlight areas of the image that will be recorded with improved image quality settings. In this case, the areas outside the zones will be saved with poorer image quality parameters.

NOTE.

You can create up to 4 zones of interest.

Left click on image and select one or several zones of interest in order to define the zones.

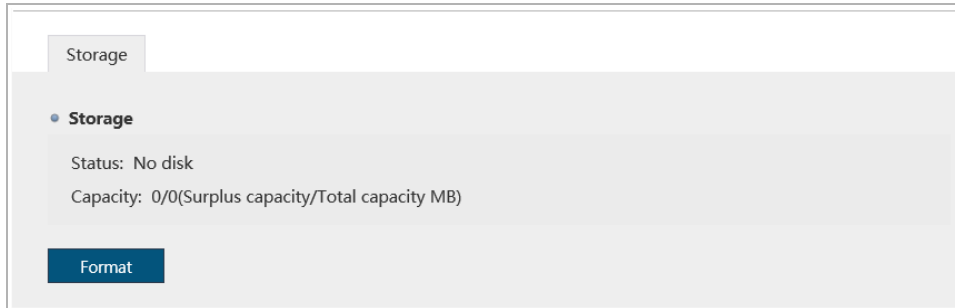
Press **Clear** to reset all settings.

Press **Cancel** to remove last created zone.

Press **Save** to save the changes.

3.3.5 "Storage" menu

Open the **Storage** menu.



The menu consists of the additional tab which allows you to:

- ◆ **Storage** – check the built-in storage status (see 3.3.5.1).

3.3.5.1 "Storage" tab

Open the **Storage** tab.

This menu lets you check the state of the built-in storage and the amount of free space on it. You can also format the built-in storage to use it in an IP camera.

NOTE.

The first time you connect a memory card or USBHDD to an IP camera, format the built-in archive by clicking the **Format** button.

3.3.6 "Event" menu

Open the **Event** menu.

The menu consists of the following tabs which allow you to:

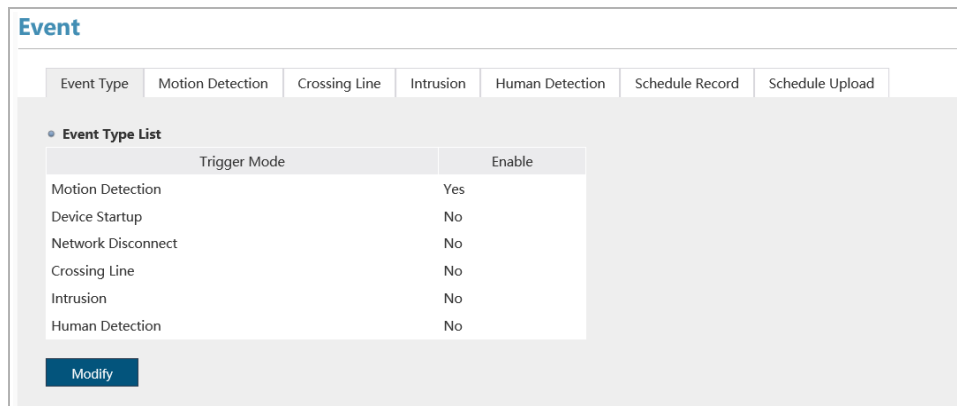
- ◆ **Event Type** – configure alarm events (see section 3.3.6.1);
- ◆ **Motion Detection** – set up motion detector (see section 3.3.6.2);
- ◆ **Crossing Line** – set up line crossing (see section 3.3.6.3);
- ◆ **Intrusion** – configure intrusion detection (see section 3.3.6.4);
- ◆ **Human Detection** – configure human detection settings (see section 3.3.6.5);
- ◆ **Schedule Record** – configure video record schedule settings (see section 3.3.6.6);
- ◆ **Schedule Upload** – configure video upload schedule settings (see section 3.3.6.7);
- ◆ **Schedule Snapshot** – configure snapshot saving schedule settings (see section 3.3.6.8).

NOTE.

The menu items may vary depending on the camera model.

3.3.6.1 «Event type» tab

Open the **Event Type** tab.



This tab displays the list of the alarm events and their current state:

- ◆ **I/O Alarm** – an event occurring on alarm input/output triggering (see 3.3.2.4);
- ◆ **Motion Detection** – an event occurring upon motion detection (see 3.3.6.2);
- ◆ **Device Startup** – an event that occurs when an error is detected while the IP camera is turned on;
- ◆ **Network Disconnect** – an event that occurs where the connection;
- ◆ **Crossing Line** – an event of crossing of a specified border by an object; (see 3.3.6.3);
- ◆ **Intrusion** – an event that occurs when objects appear in the specified area;(see 3.3.6.4);
- ◆ **Human Detection** – an event occurring upon human detector triggering (see 3.3.6.5).

NOTE.

The list of events may vary depending on the camera model.

In order to configure or actions on alarm events triggering, select the event from the list and press **Modify**.

Trigger Type Settings

- General**

Trigger Mode: Network Disconnect

Min. interval of trigger event s(Max 300s)
- Alarm Schedule**

7*24 hours alarm

Schedule alarm

Disable

Week	Time Range No.1		Time Range No.2		Time Range No.3		Time Range No.4		Time Range No.5		Time Range No.6	
	Starting Time	Ending Time	Starting Time	Ending Time	Starting Time	Ending Time	Starting Time	Ending Time	Starting Time	Ending Time	Starting Time	Ending Time
Mon.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Tue.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Wed.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Thu.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Fri.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Sat.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Sun.	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
- Response Mode**

Record

To send email

FTP upload

Audio

Select the type of the configured event in the **General** area. Specify time which will define the event occurrence from **0 to 300 s** in the **Trigger Interval Min. time** field. If an alarm event lasts less than the specified time, it is considered not to have occurred.

The **Alarm Schedule** lets you set up the schedule of the configured event:

- ◆ **7*24 hours Record** – the alarm event will be tracked 24 hours a day;
- ◆ **Schedule alarm** – the alarm event will be tracked according to the configured schedule;
- ◆ **Disable** – the tracking will be disabled.

The **Alarm Response Mode** area lets you select one or several actions the IP camera will perform upon the configured alarm event:

- ◆ **Alarm I/O** – close the alarm output. This option is supported on cameras with alarm inputs/outputs (check page. 5);
- ◆ **SD card record**. The recording settings are described in section 3.3.6.6.
- ◆ **To send email**. The email settings are described in section 3.3.3.6.
- ◆ **FTP upload** – upload video or image file on FTP server. The FTP server settings are described in 3.3.3.4.
- ◆ **Alarm snapshot** – save a snapshot to the archive.
- ◆ **Audio**. Check audio settings description in 3.3.4.1.

Press **OK** to save the settings.

NOTE.

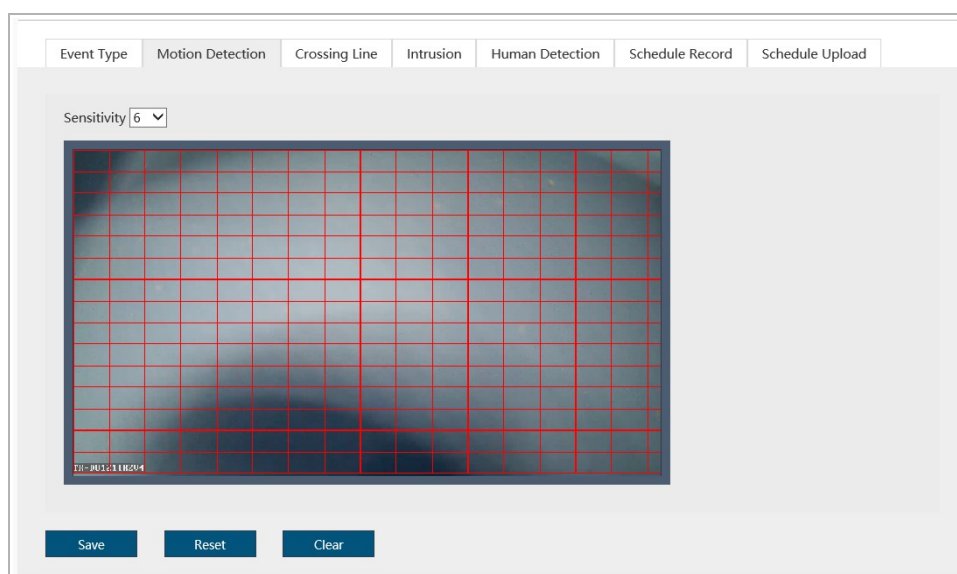
The list of the available reactions may vary depending on the camera model.

3.3.6.2 "Motion detector" tab

NOTE.

Before starting the setup, make sure that the camera is installed correctly for the proper operation of the video analytics module. Check Supplement E. IP Camera placement or camera installation recommendations.

Open the **Motion Detection** tab to set up motion detector.



The Detector Zone Settings window lets you select the zones of the shooting area where a reaction will be triggered when motion appears.

NOTE.

You can create up to 4 motion detection zones.

Left click on the image and specify the zone in which the the motion will be detected.

The **Sensitivity** parameter lets you configure the detector's sensitivity in all specified zones. The higher the sensitivity value is, the more sensitive is the motion detector.

Press **Clear** to reset all motion detection settings.

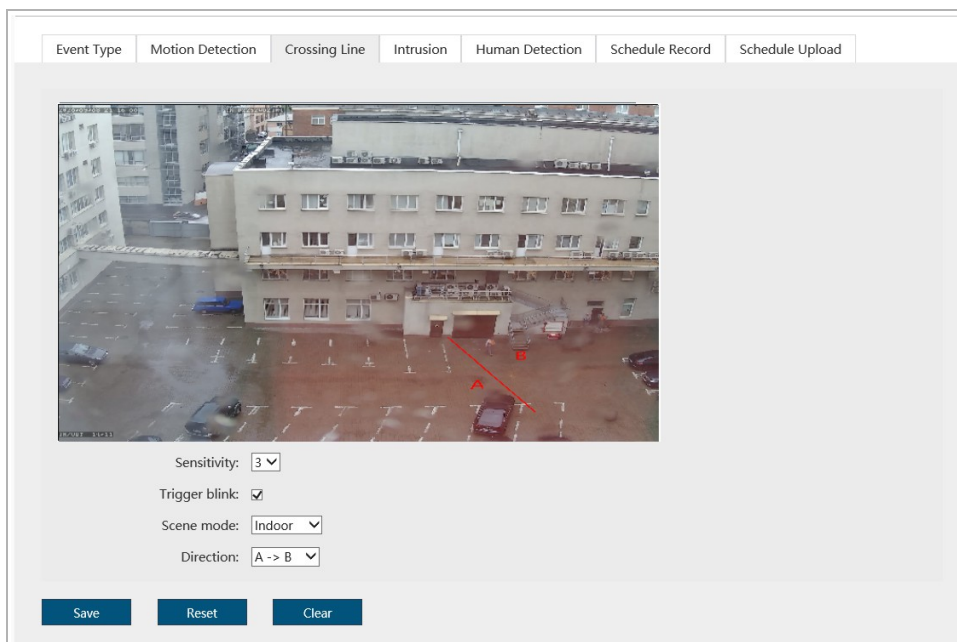
Press **Save** to save the changes.

3.3.6.3 «Line crossing» tab

NOTE.

Before the setup, make sure that the camera is installed correctly for the proper operation of the video analytics module. Check Supplement E. IP Camera placement for camera installation recommendations.

Open the **Crossing Line** tab to set up the line crossing detection.



Draw a line on the video using the left mouse button, at the crossing of which the detector will trigger. The following settings are available for the Line Crossing Detector:

Setting	Description
Sensitivity	Specify the detector's sensitivity, from 0 to 4. The higher the value is, the more sensitive is the detector.
Trigger blink	Set the flag so the specified border start flashing on video when the detector is triggered.
Scene mode	Select the detector's operation mode: Indoor or Outdoor .
Direction	Set the direction of the specified border crossing at which the alarm event will be triggered: <ul style="list-style-type: none"> ◆ A -> B – left to right; ◆ B -> A – right to left; ◆ A <-> B – either way.

Press **Save** to save the settings.

Press **Reset** to reset current detections settings.

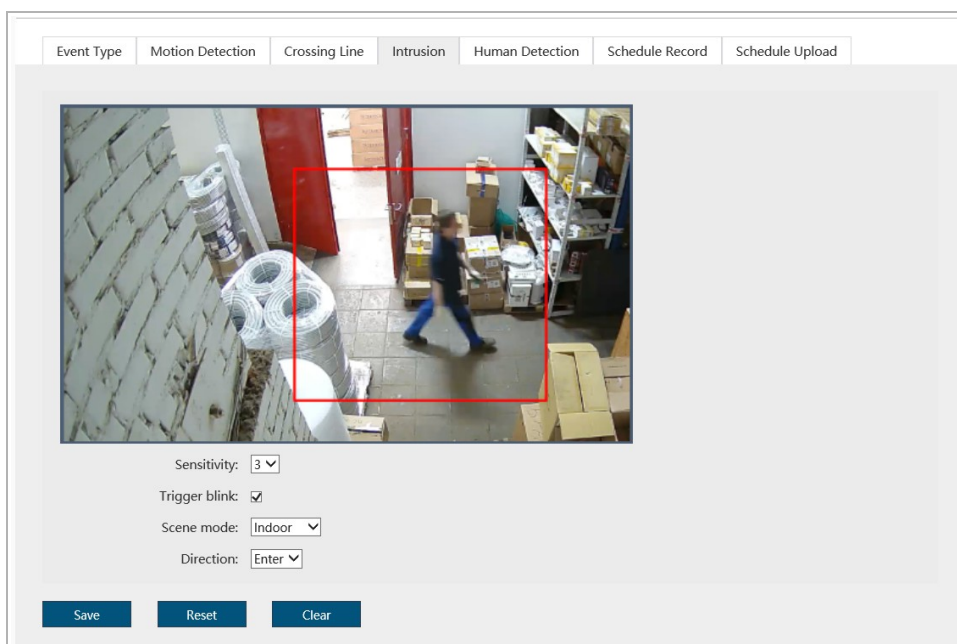
Press **Clear** to remove the current border.

3.3.6.4 «Intrusion» tab

NOTE.

Before starting the setup, make sure that the camera is installed correctly for the proper operation of the video analytics module. Check Supplement E. IP Camera placement or camera installation recommendations.

Go to the **Intrusion** tab to open the intrusion detection settings.



Specify the zone one video using left mouse button. The following settings are available for each zone:

Setting	Description
Sensitivity	Specify the detector's sensitivity, from 0 to 4 . The higher the value is, the more sensitive is the detector.
Trigger blink	Set the flag so the specified zone start flashing on video when the detector is triggered.
Scene mode	Select the detector's operation mode: Indoor or Outdoor .
Direction	Set the direction of the specified area crossing at which the alarm event will be triggered: <ul style="list-style-type: none"> ◆ Enter – the detector will trigger when an object appears in the area ◆ Left – the detector will trigger when an object leaves the area; ◆ Both – the detector will trigger when moving in both directions.

Press **Save** to save the settings.

Press **Reset** to reset current detections settings.

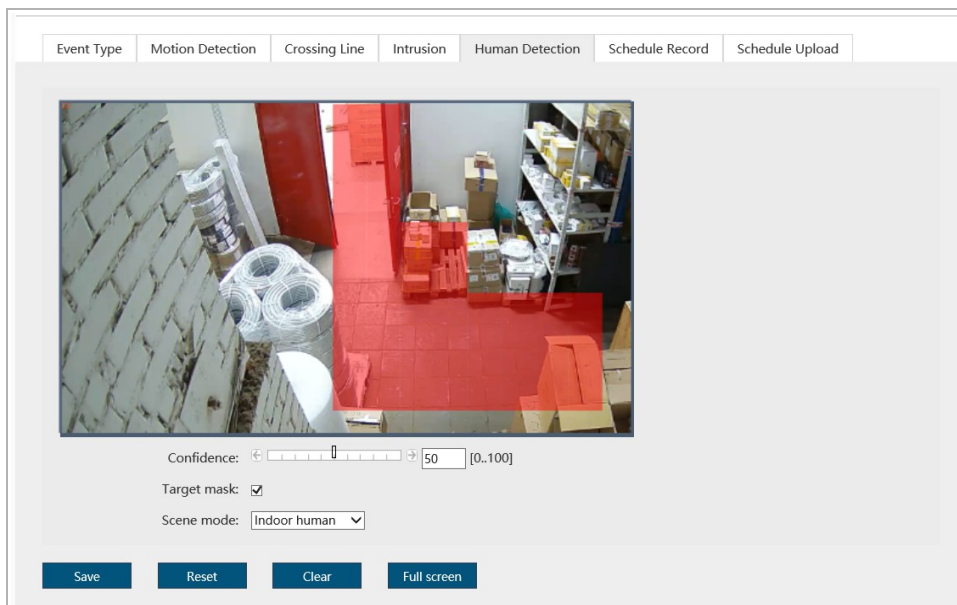
Press **Clear** to remove the current area.

3.3.6.5 «Human Detection» tab

NOTE.

Before starting the setup, make sure that the camera is installed correctly for the proper operation of the video analytics module. Check Supplement E. IP Camera placement or camera installation recommendations.

Got to the **Human Detection** tab to open the human detector settings.



Specify the zone in the preview window in which the human detection will be performed using left mouse button.

Press **Full Screen** to highlight the entire area available in the preview window as the human detection zone.

Setting	Description
Confidence	Set the detector confidence threshold, from 0 to 100 . The higher the value is, the lower is the probability of false alarms of the detector, especially when operating outdoors.
Target mask	Set the flag to make the human figure on the video stand out with a frame when the detector is triggered.
Scene mode	Select the detector's operation mode: Indoor human or Outdoor human .

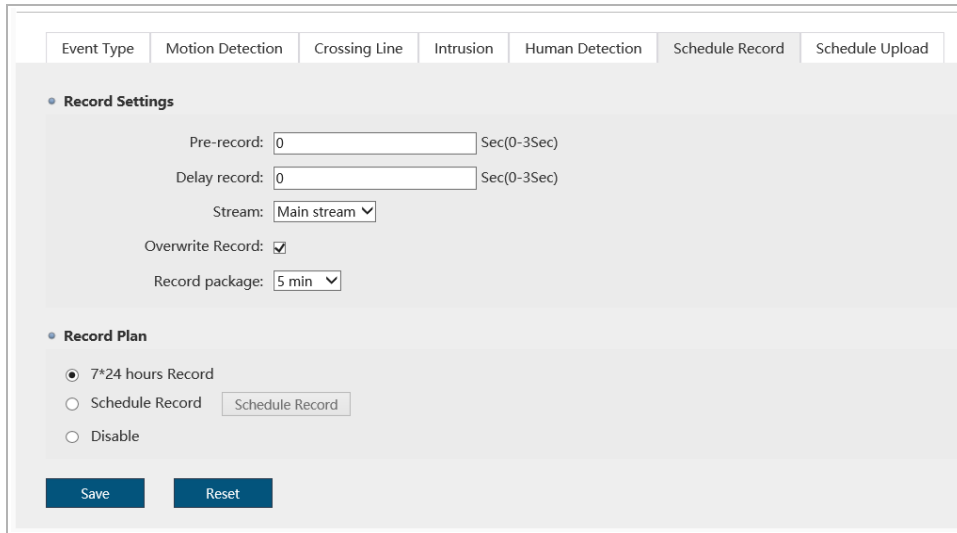
Press **Save** to save the settings.

Press **Reset** to reset current detections settings.

Press **Clear** to remove the current area.

3.3.6.6 «Schedule Record» tab

Open the **Schedule Record** tab.



The data recording is set up in the upper block.

Setting	Description
Pre-record	The time period from 0 to 3 s before the event triggering (see 3.3.6.1), during which the video will be recording.
Delay record	The time period from 0 s to 3 s after the alarm triggering (see section 3.3.6.1) within which the video will be recorded.
Stream	The video stream that will be recorded to the archive: Main stream or Sub stream .
SD card cycle record	Set the flag to overwrite the built-in archive in case of the overflow. In this case, older files will be overwritten by the new ones.
Record package	The recorded file minimum size: 3min , 5min or 10min .

Select recording to the built-in storage schedule in the lower area(see section 3.3.5.1):

- ◆ **7*24 hours Record** – the recording will be performed permanently;
- ◆ **Schedule Record** – the video stream will be recorded according to the customized schedule;
- ◆ **Disable** – this option will be disabled.

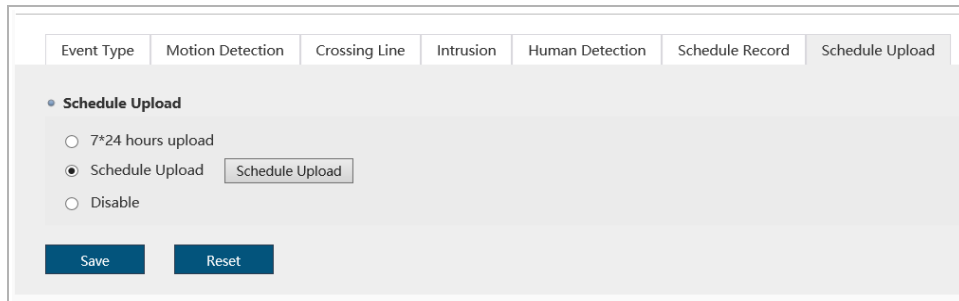
NOTE.

If the **SD card record** flag is set in the event settings (see section 3.3.6.1), the recording will be performed regardless of the schedule settings.

Press **Save** to save the settings.

3.3.6.7 "Schedule upload" tab

Open the **Schedule Upload** tab.



Select **Upload Plan** of files to FTP server (see section 3.3.3.4):

- ◆ **7*24 hours Upload** – upload will be performed around the clock as the files appear;
- ◆ **Schedule Upload** – upload will be performed on schedule;
- ◆ **Disable** – disable this feature.

NOTE.

If the FTP upload flag is set in the event settings (see section 3.3.6.1), the upload will be performed regardless of the schedule settings.

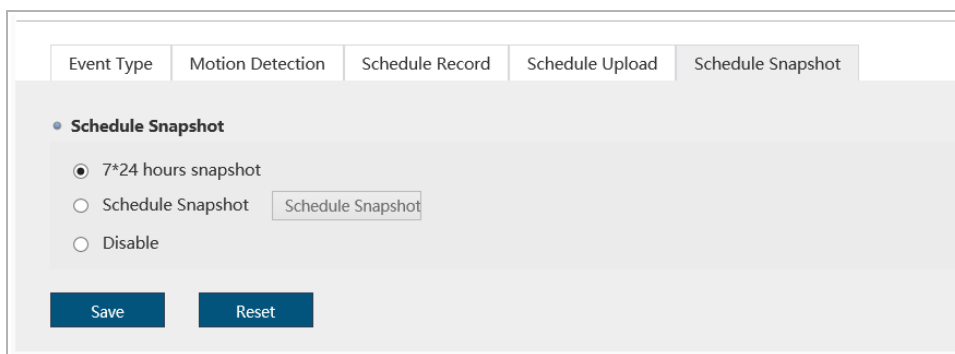
Press **Save** to save the changes.

3.3.6.8 "Schedule snapshot" tab

NOTE.

Not all camera models support this feature.

Open the **Schedule Snapshot** tab.



The screenshot shows a configuration window with five tabs: 'Event Type', 'Motion Detection', 'Schedule Record', 'Schedule Upload', and 'Schedule Snapshot'. The 'Schedule Snapshot' tab is active. Under this tab, there is a section titled 'Schedule Snapshot' with three radio button options: '7*24 hours snapshot' (which is selected), 'Schedule Snapshot' (with a text input field containing 'Schedule Snapshot'), and 'Disable'. At the bottom of the configuration area, there are two buttons: 'Save' and 'Reset'.

Select the **Snapshot Plan**:

- ◆ **7*24 hours Snapshot** – the snapshots will be taken round the clock;
- ◆ **Schedule Snapshot** – the snapshots will be taken according to the customized schedule;
- ◆ **Disable** – this option will be disabled.

NOTE.

If the **Alarm snapshot** flag is set in the event settings (see section 3.3.6.1) the snapshot will be saved regardless of the schedule settings.

You can set up the interval between the saved snapshots on the **Video Stream** tab (see section 3.3.4.2.3).

Press **Save** to save the changes.

3.3.7 "Security" menu

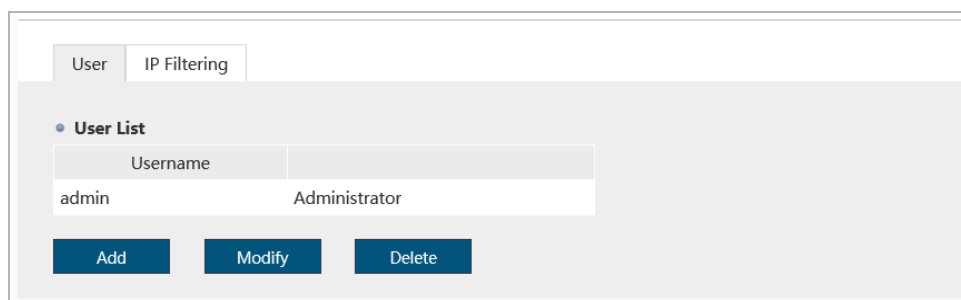
Open the **Security** menu.

The menu consists of the following tabs which allow to:

- ◆ **Manage Users** – configure IP camera access parameters (see section 3.3.7.1);
- ◆ **IP Filter** – restrict access to the IP camera from one or several network devices (see section 3.3.7.2).

3.3.7.1 "User tab"

Open the **User** tab.



This group of settings lets you create a new user, set up access password and customize user access to the IP camera settings.

In order to modify user settings or delete a user select it from the list and press **Modify** or **Delete** correspondingly.

NOTE.

There is already a user with the **Administrator** rights in the IP camera settings by default.

WARNING!

We strongly recommend to change the **Administrator** rights upon first connection to the IP camera web interface.

Press **Add** to create a new user.

User Settings

Username:

Password: (Max 15 characters)

Confrim Password:

Administrator
 Operator
 Viewer

System authority settings

Data & Time Serial Port Settings
 Alarm Settings Maintenance
 Upgrade

Network authority settings

WIFI FTP
 SMTP PPPoE
 UPnP Port Settings
 TCP/IP RTSP Settings
 DDNS Settings RTMP Settings
 VOIP Settings

Audio video authority settings

Video Shield Video Stream
 Audio Setting Camera Settings
 Motion Detection Privacy Mask
 ROI

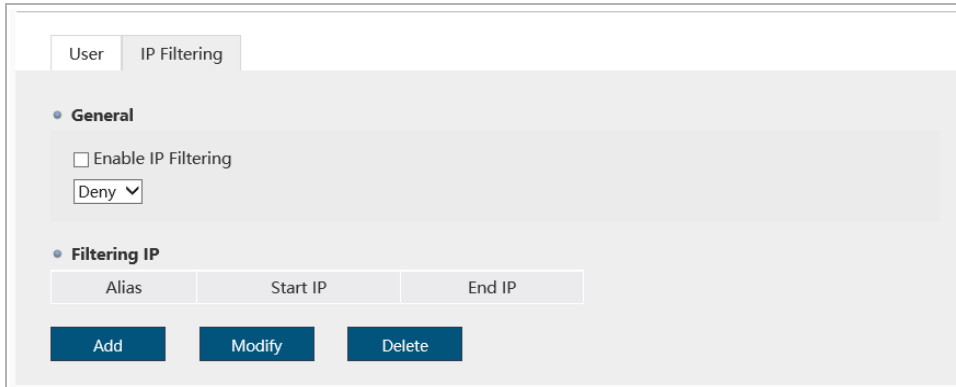
Setting	Description
Username	User name to authorize.
Password	Password to the IP camera web interface.
Confirm Password	Enter IP camera web interface password again.
User Group	User group to which current user belongs to: <ul style="list-style-type: none"> ◆ Administrator – full user; ◆ Operator – user with operator rights; ◆ Viewer – user with the rights to view log only.

Uncheck the corresponding boxes to change the current user authority list.

Press **OK** to save the changes.

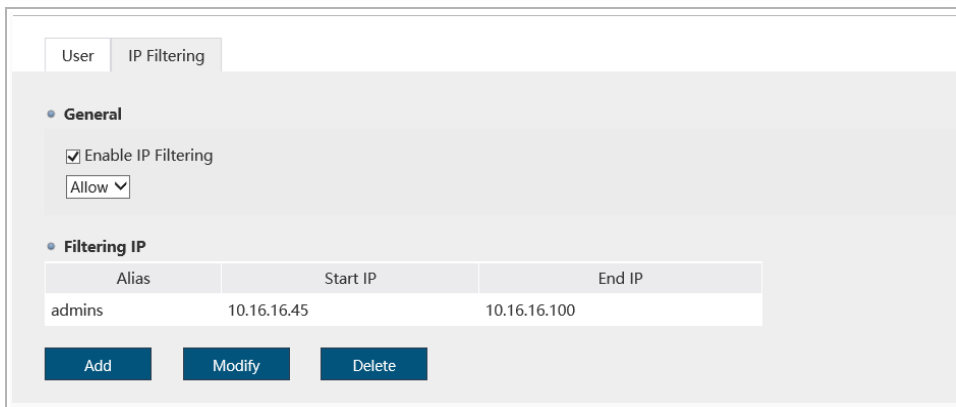
3.3.7.2 "IP filter" menu

Open the **IP Filter** tab in the **Security** settings menu to open the menu.



Use IP filtering settings to restrict access to the IP camera from one or several network devices.

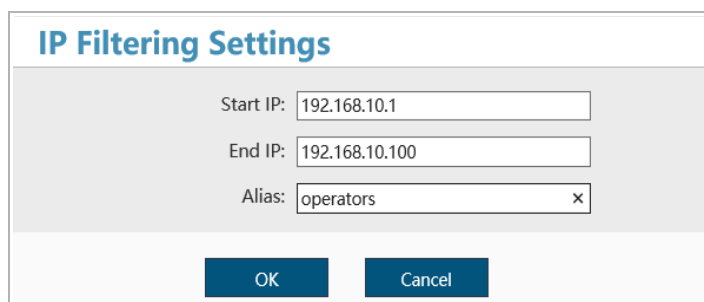
Select **Enable IP Filtering** to activate the setting.



WARNING!

Before starting to configure IP filtering make sure the IP address of the PC where the IP camera is being set up is in the address white list. Otherwise access to the further IP camera settings will be blocked.

In order to add the IP address to the allowed or forbidden addresses list select **Allowed** or **Forbidden**, respectively, in the **IP address filter type** block and press **Add**.



IP Filtering Settings

Start IP: 192.168.10.1

End IP: 192.168.10.100

Alias: operators x

OK Cancel

The **IP Filter** window will open. Enter the **Start IP** and **End IP** of the range into the corresponding fields. Enter the name of the IP address range in the **Alias** field.

Press **OK** to save the changes.

In order to modify or delete the created filter select it from the list and press **Modify** or **Delete** correspondingly.

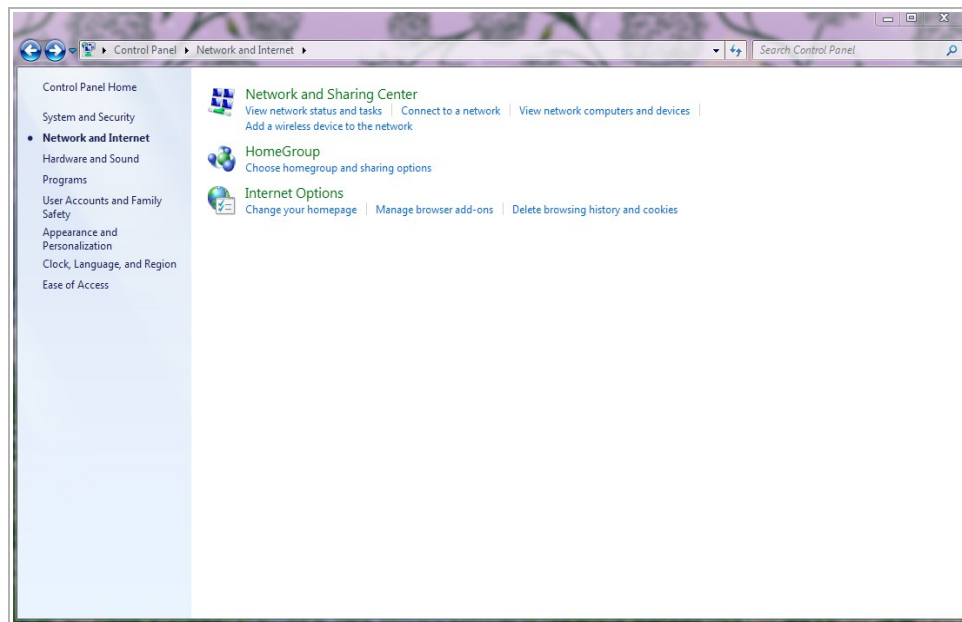
SUPPLEMENT A. CONFIGURING NETWORK SETTINGS ON PC

NOTE.

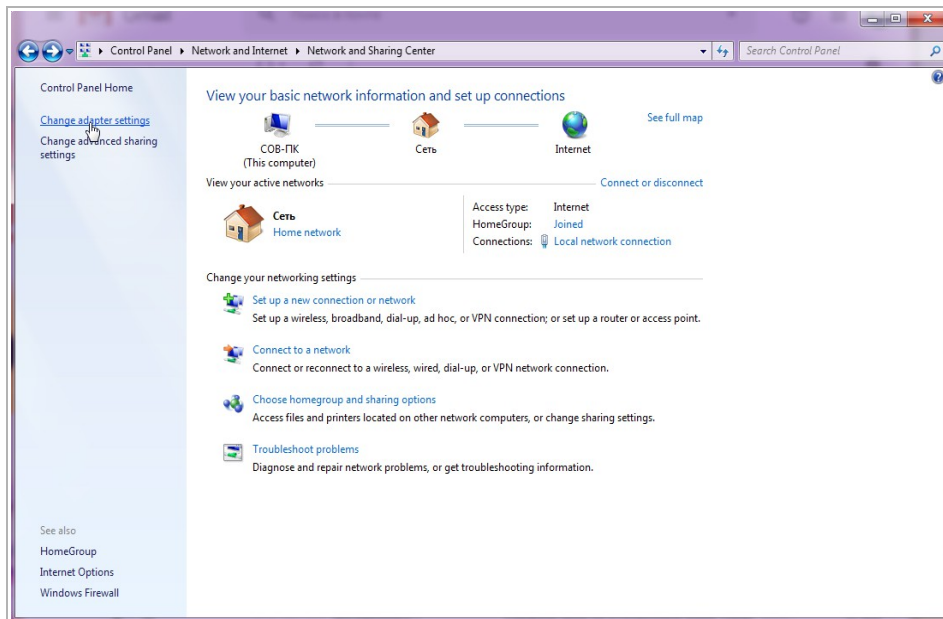
Description of network settings is presented on the example of Windows 7 operating system.

In order to access an IP camera, it is necessary that the PC and the camera are connected to the same subnet and have the corresponding IP addresses

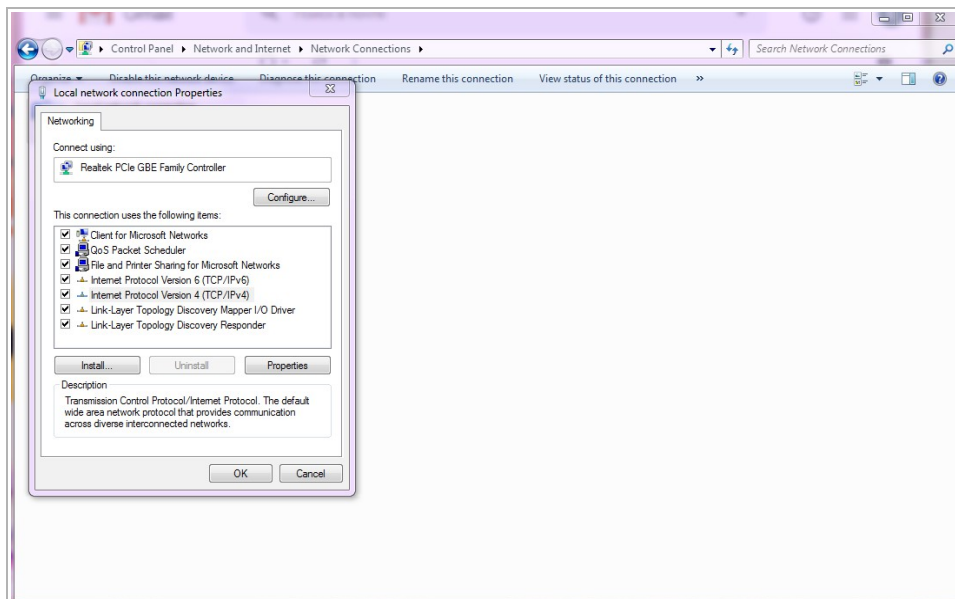
To do this, open **Control panel** (Start → **Control panel**) and run **Network and Internet**:



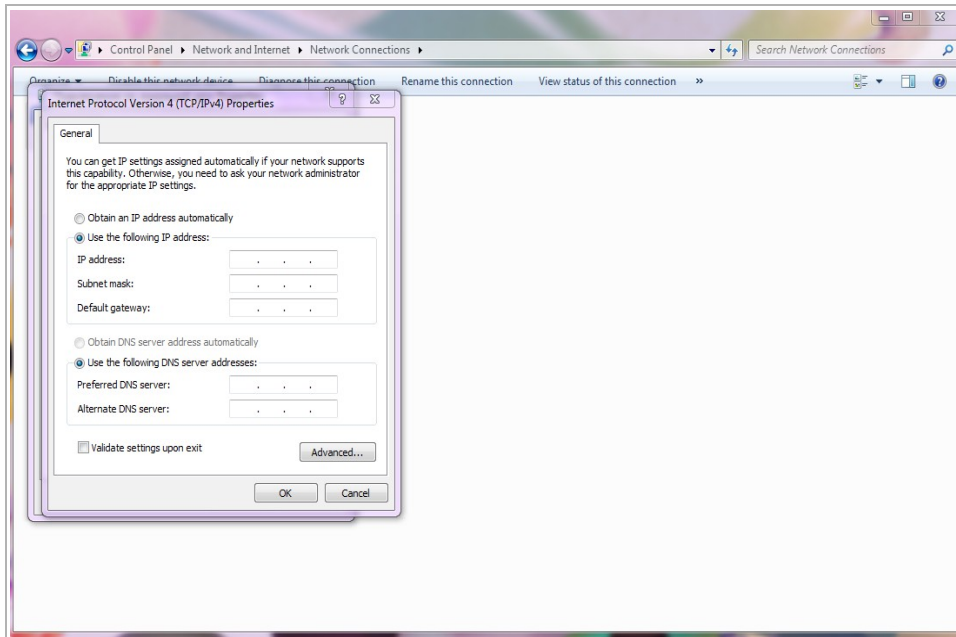
Go to the **Change adapter settings** menu:



Right click on adapter and press **Properties**:



In the opened window select **Internet Protocol Version 4 (TCP/IPv4)** and press **Properties**:

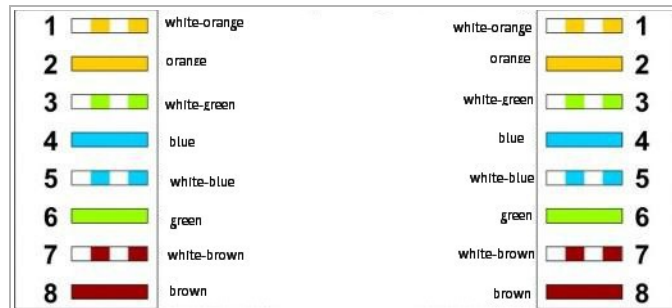


Select **Use the following IP address** and specify the required network settings (e.g. displayed on screenshot above).

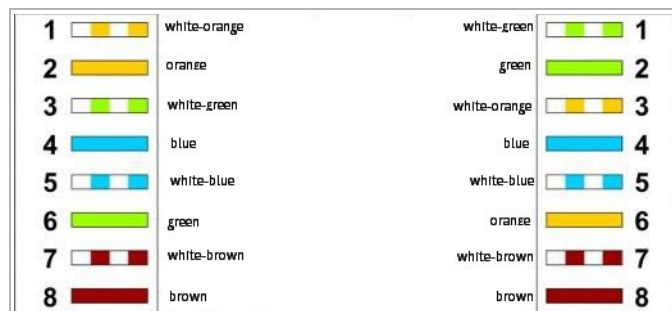
Press **OK** in all opened windows to save the settings.

SUPPLEMENT B. UTP CABLING

The IP camera is connected to the commutator (switch or router) using a «direct» cable with the following wiring:



The IP camera is connected to the PC directly using «cross» cable with the following wiring:

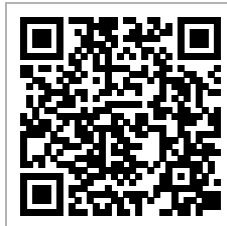


SUPPLEMENT C. WIFI CONFIGURATION IN TRASSIR CLIENT

You can use the TRASSIR Client mobile application to configure WiFi on cameras that support wireless data transfer:

1. Download and install TRASSIR Client mobile app.

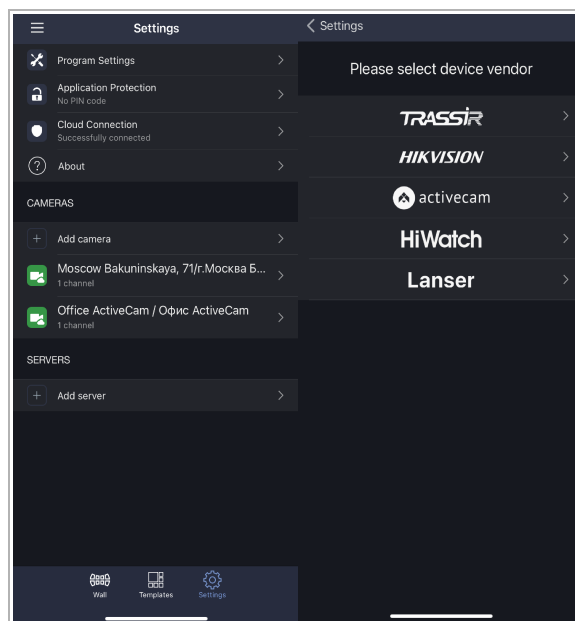
Android



iOS



2. Start TRASSIR Client app. Your mobile phone should be connected to the same WiFi network you connect your camera.
3. Press **Settings** → **Add camera** → → **TRASSIR**.



After that follow the prompts in the mobile application.

WARNING!

You can configure WiFi on camera again only after factory reset (see section 2.6).

SUPPLEMENT D. ROUTER SETTINGS

If the IP camera and the computer from which the connection is established are located in different local networks (e.g., the connection is via the Internet), in order to gain access to the IP camera it is necessary to configure the forwarding of network ports on the NAT server or router.

The IP camera uses the following network ports by default:

Port		
Port settings		
HTTP port	<input type="text" value="80"/>	[1..65535, Default 80]
RTSP port	<input type="text" value="554"/>	[1..65535, Default 554]
Server port	<input type="text" value="6000"/>	[1..65535, Default 6000]
FLASH port	<input type="text" value="1935"/>	[1..65535, Default 1935]

We will consider the configuration of port forwarding on the example of ZTE ZXHN F680 router.

Specify IP camera port random values. The port values for each IP camera should be unique and can't be used on the router for other services.

NOTE.

See description of the network ports in 3.3.3.2.

For example, you can set the following values:

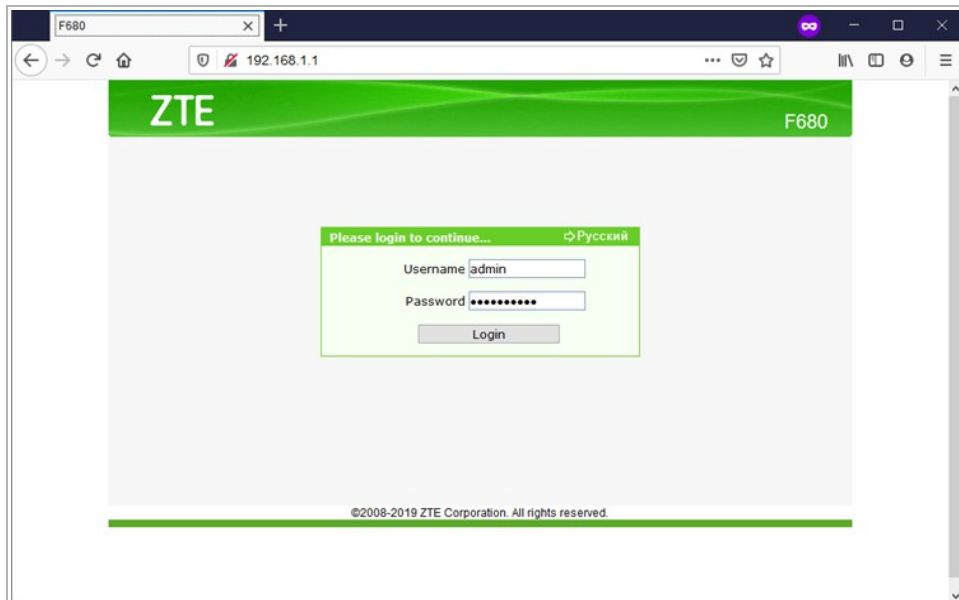
Port		
Port settings		
HTTP port	<input type="text" value="8080"/>	[1..65535, Default 80]
RTSP port	<input type="text" value="554"/>	[1..65535, Default 554]
Server port	<input type="text" value="5"/> <input type="button" value="X"/>	[1..65535, Default 6000]
FLASH port	<input type="text" value="1935"/>	[1..65535, Default 1935]

After that proceed to the router configuration.

NOTE.

Your router settings may differ from the description below.

Start your web browser and enter the router IP address to access router administrator menu. As a result, the authorization window should appear:



Enter administrator login and password and press **OK**.

Go to the «Port forwarding» in the router settings menu (**Application → Port forwarding**):

Path:Application-Port Forwarding
русский
Logout

- [+Status](#)
- [+Network](#)
- [+Security](#)
- [-Application](#)
- [DDNS](#)
- [DMZ Host](#)
- [UPnP](#)
- [UPnP Port Mapping](#)
- [Port Forwarding](#)
- [+DNS Service](#)
- [USB Storage](#)
- [FTP Application](#)
- [Port Trigger](#)
- [Port Forwarding \(Application List \)](#)
- [Application List](#)
- [Samba Service](#)
- [USB print server](#)
- [+Administration](#)
- [+Help](#)

Enable

Name

Protocol TCP

WAN Host Start IP Address

WAN Host End IP Address

WAN Connection Internet

WAN Start Port (1 ~ 65535)

WAN End Port (1 ~ 65535)

Enable MAC Mapping

LAN Host IP Address

LAN Host Start Port (1 ~ 65535)

LAN Host End Port (1 ~ 65535)

Enable	Name	WAN Host Start IP Address	WAN Start Port	LAN Host Start Port	WAN Connection	Modify	Delete
	Protocol	WAN Host End IP Address	WAN End Port	LAN Host End Port	LAN Host Address		
There is no data, please add one first.							

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As a result, a window for adding a forwarding port will open:

Path:Application-Port Forwarding русский Logout

Enable

Name

Protocol

WAN Host Start IP Address

WAN Host End IP Address

WAN Connection

WAN Start Port (1 ~ 65535)

WAN End Port (1 ~ 65535)

Enable MAC Mapping

LAN Host IP Address

LAN Host Start Port (1 ~ 65535)

LAN Host End Port (1 ~ 65535)

Enable	Name	WAN Host Start IP Address	WAN Start Port	LAN Host Start Port	WAN Connection	Modify	Delete
	Protocol	WAN Host End IP Address	WAN End Port	LAN Host End Port	LAN Host Address		
There is no data, please add one first.							

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Enter a random forwarding name into the **Name** field.

Select **TCP/UDP** or **TCP** data transfer protocol in the **Protocol** field.

Specify http port to connect to the camera web interface which should be forwarded in the **WAN Start Port** and **WAN End Port** fields.

Specify camera internal IP address in the **IP address** field.

Press **Add** to save the forwarding rule.

Configure other port forwarding rules the same way:

Enable	<input checked="" type="checkbox"/>
Name	Cam1_TCP
Protocol	TCP AND UDP
WAN Host Start IP Address	
WAN Host End IP Address	
WAN Connection	Internet
WAN Start Port	(1 ~ 65535)
WAN End Port	(1 ~ 65535)
Enable MAC Mapping	<input type="checkbox"/>
LAN Host IP Address	192.168.25.32
LAN Host Start Port	5000 (1 ~ 65535)
LAN Host End Port	5000 (1 ~ 65535)

Enable	<input checked="" type="checkbox"/>
Name	Cam1_RTSP
Protocol	TCP AND UDP
WAN Host Start IP Address	
WAN Host End IP Address	
WAN Connection	Internet
WAN Start Port	(1 ~ 65535)
WAN End Port	(1 ~ 65535)
Enable MAC Mapping	<input type="checkbox"/>
LAN Host IP Address	192.168.25.32
LAN Host Start Port	5054 (1 ~ 65535)
LAN Host End Port	5054 (1 ~ 65535)

As a result you should see the following:

Enable	Name	WAN Host Start IP Address	WAN Start Port	LAN Host Start Port	WAN Connection	Modify	Delete
✓	TCP1		5000	5000	Internet		
	TCP AND		5000	5000	192.168.25.3		
✓	HTTP1		8080	8080	Internet		
	TCP AND		8080	8080	192.168.25.3		
✓	RTSP1		5054	5054	Internet		
	TCP AND		5054	5054	192.168.25.3		

In order to access IP camera from the Internet, enter **<external router IP address>:<camera web interface connection port>**.

Example: **http://88.100.20.44:8080**

NOTE.

You can also configure control and alarm ports forwarding.

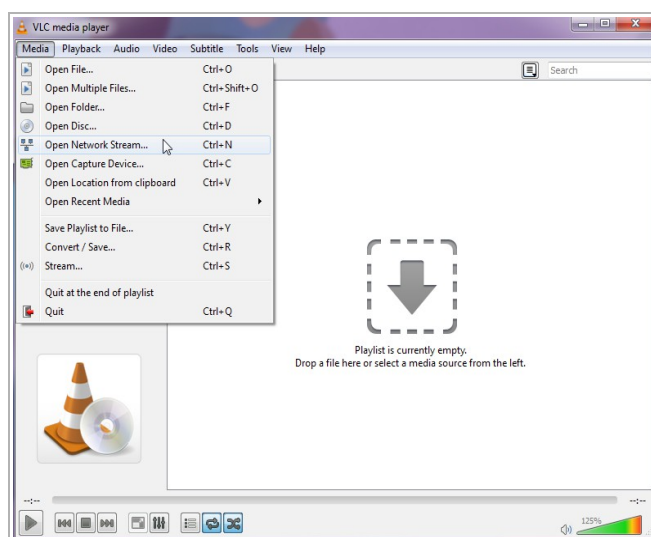
SUPPLEMENT E. OPERATION ON RTSP AND ONVIF

Connecting on RTSP protocol

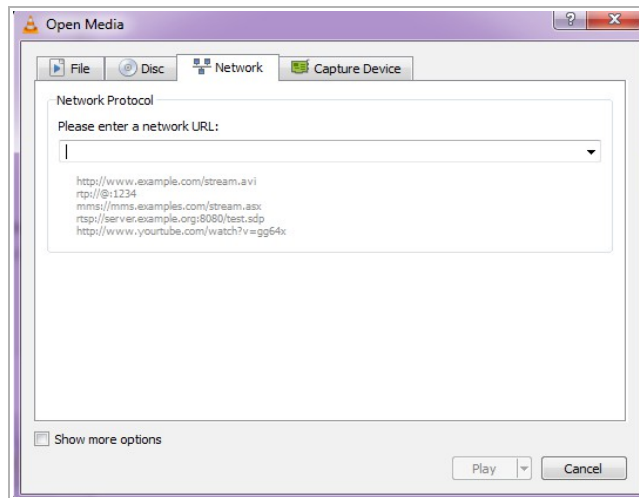
NOTE.

VLC media player (<http://www.videolan.org/vlc/>) will be used as an example for connection of an IP camera via RTSP. You can use any other media player with an option of video streaming.

Start your media player and select network as a source. To do this select **Media** → **Open network stream...**



Enter RTSP request to the IP camera on the **Network** tab and press **Play**:



RTSP request to the IP camera should be in the following format:

main stream:

rtsp://[login]:[password]:[ip address]:[rtsp port]/live/main

sub stream:

rtsp://[login]:password]:[ip address]:[rtsp port]/live/sub

where

[ip address] – camera ip address (see section 3.3.3.1 or 3.3.3.3);

[rtsp port] – IP camera rtsp port, which streams video (see section 3.3.3.2);

[login] and **[password]** – user name and password (see section 3.1);

/live/main and **/live/sub** – video stream request commands.

Example:

main stream:

rtsp://192.168.25.32:554/live/main

sub stream:

rtsp://192.168.25.32:554/live/sub

Getting a snapshot from IP camera

In order to get snapshot from IP camera enter the following request in to the browser:

`rtsp://[ip address]:[port]/action/snap?cam=0&user=[login]&pwd=[password]`

where

`[ip address]` – camera ip address (see section 3.3.3.1 or 3.3.3.3);

`[port]` – http port used to connect to the IP camera (see section 3.3.3.2);

`[login]` and `[password]` – user name and password (see section 3.1);

`/action/snap?cam=0` – snapshot request command.

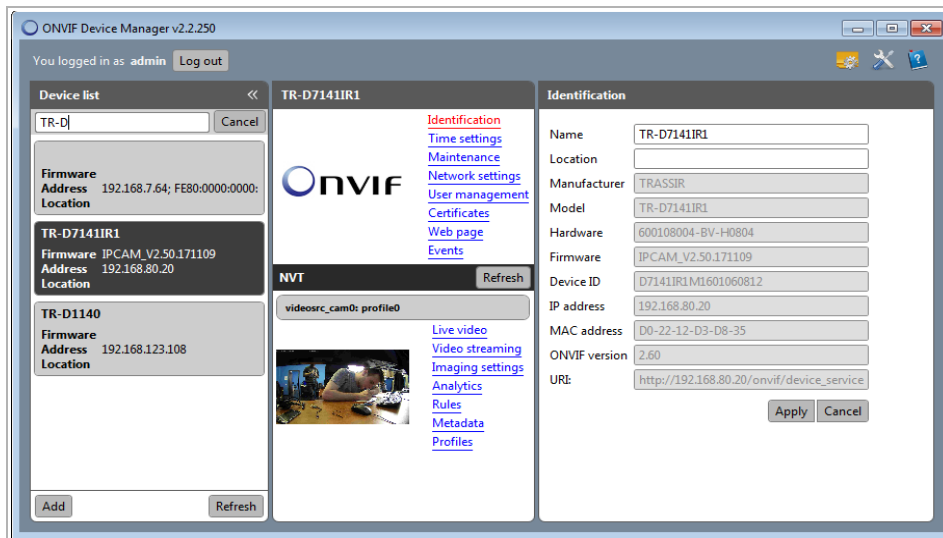
Connecting on ONVIF standard

In order to connect an IP camera on ONVIF standard, the following data is required:

- ◆ Camera IP address (see section 3.3.3.1 or 3.3.3.3);
- ◆ video streaming port (see section 3.3.3.2);
- ◆ user name and password, having access to the IP camera (see section 3.3.7.1).

NOTE.

You can also use «ONVIF Device Manager» (<http://sourceforge.net/projects/onvifdm/>) utility to connect to IP camera on ONVIF standard.



NOTE!

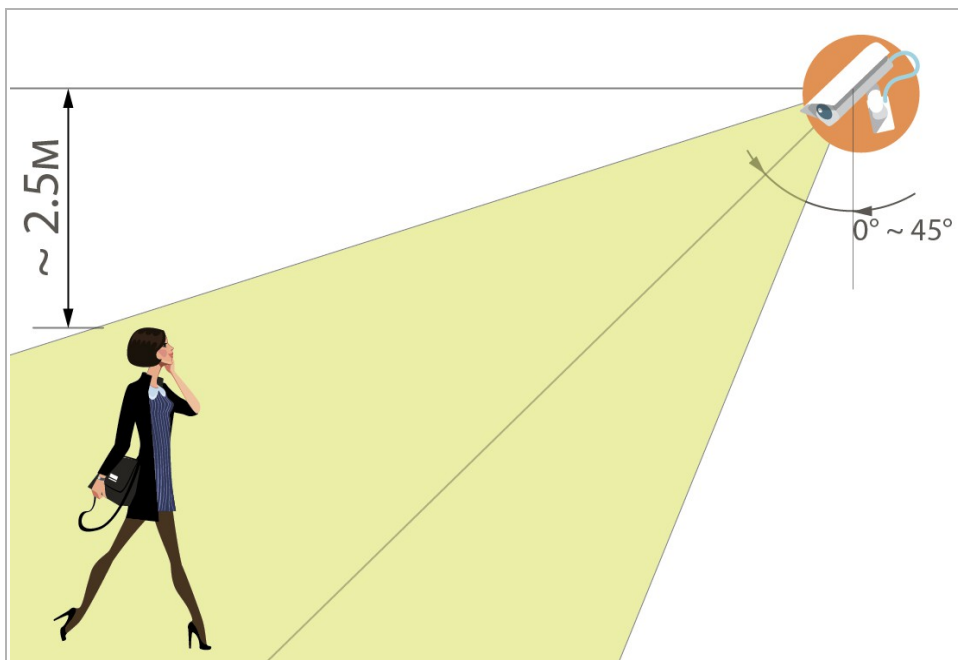
You can see th list of cameras not supporting ONVIF in section 1.1.

SUPPLEMENT E. IP CAMERA PLACEMENT

The correct IP camera placement is essential for proper video analysis module operation, The following requirements should be met in order to get the most accurate video information and increase the viewing angle:

Placement:

- ◆ The height is not less than **2,5** meters from the detected object;
- ◆ The tilt angle towards the detected object should not exceed **45** angles.



Shooting area and objects:

- ◆ There should be enough free space in the intended detection area;
- ◆ The shooting area should have moderate lighting, without too bright or flickering light;
- ◆ The detected objects should be located at the sufficient distance which is not too far or too close to the camera;
- ◆ The detected objects should not move too quickly or change too often.

When installing the camera, you should take into account the external factors that can negatively affect the operation of the detectors or cause false alarms:

- ◆ Incorrect camera placement, when the objects of detection are located too close or too far from the camera;
- ◆ There are too many foreign objects in the intended detection area;
- ◆ There are too many fast moving objects in a frame;

- ◆ The lighting in the shooting area is too bright, or, on the contrary, is not sufficient;
- ◆ There are harsh shadows against bright sunlight when the camera is located outdoors;
- ◆ The unfavorable weather conditions such as gusts of wind or raindrops when the camera is located outdoors.

NOTE.

In order to decrease the amount of the false alarms, change the detectors' sensitivity or decrease the size of the detection zones. Read more in 3.3.6.2, 3.3.6.3, 3.3.6.4 и 3.3.6.5.

SUPPLEMENT F. IPC MANAGER

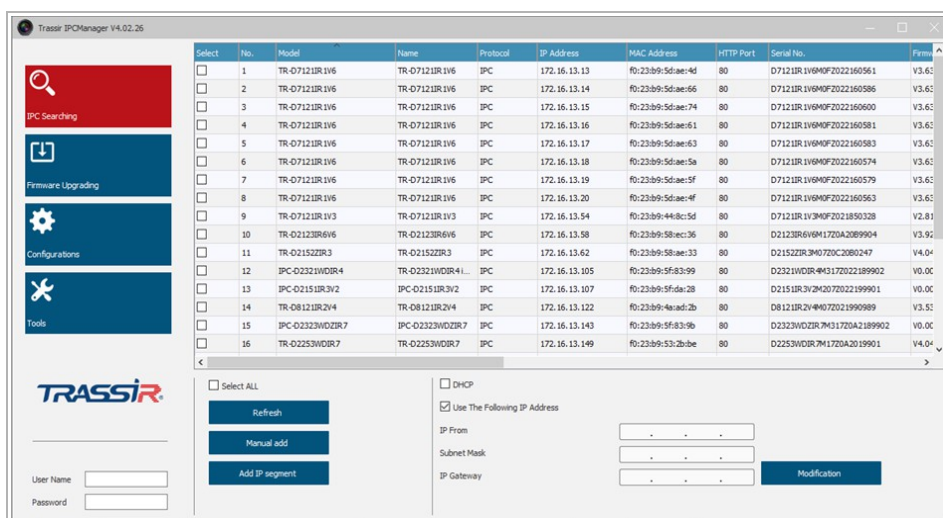
Searching for IP-camera using TRASSIR IPCManager app

Use **TRASSIR IPCManager** utility to find the camera if the IP address is unknown.

NOTE.

You can download **TRASSIR IPCManager** utility on www.dssl.ru.

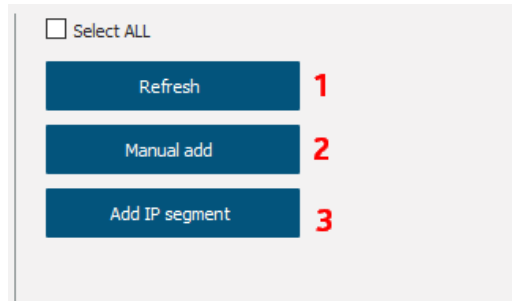
Upon the start the utility will search for IP cameras in local network automatically.



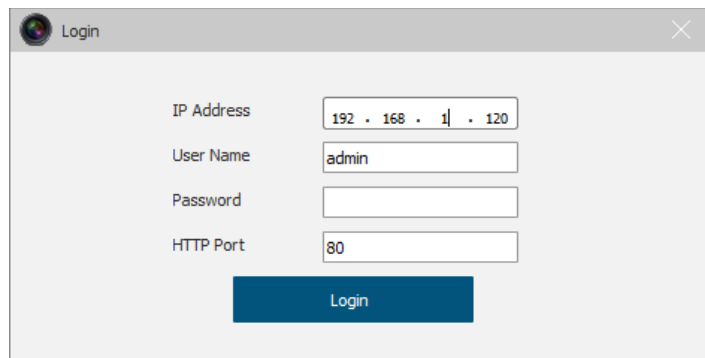
Find the IP camera in the displayed list, select and enter your user name and password in the lower left corner. Configure device basic network settings. This will allow you to access the IP camera's web interface.



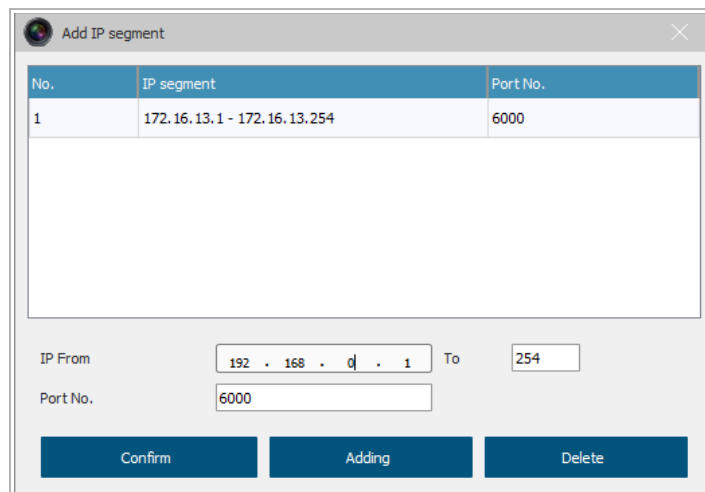
You can also:



1. Refresh the device list
2. Manual add – add camera manually. In the window that opens enter the camera data.



3. Add IP segment – add a network segment.



Additional menu for managing IP camera

Select the camera in the list and right-click.

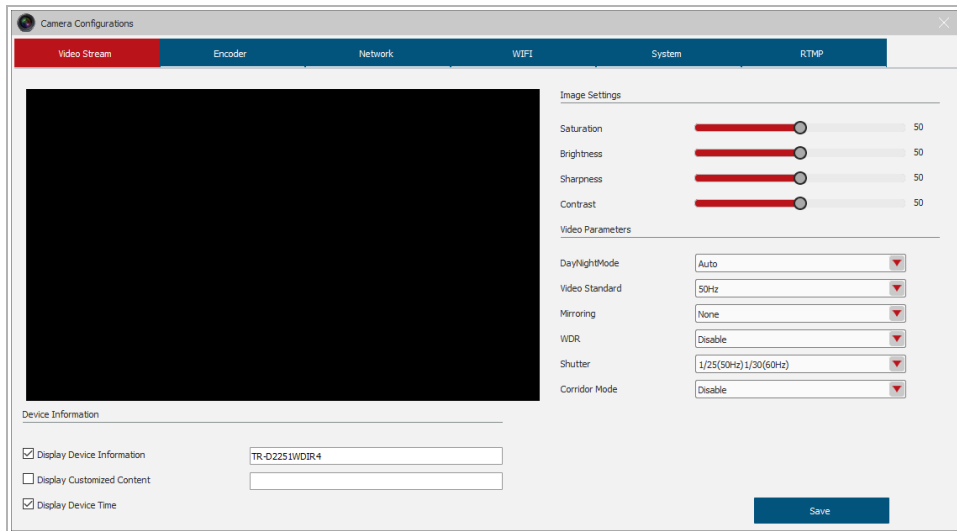
Select	No.	Model	Name
<input type="checkbox"/>	1	TR-D7121IR1V6	TR-D7121IR1V6
<input checked="" type="checkbox"/>	2	TR-D	
<input type="checkbox"/>	3	TR-D	
<input type="checkbox"/>	4	TR-D	
<input type="checkbox"/>	5	TR-D	
<input type="checkbox"/>	6	TR-D	
<input type="checkbox"/>	7	TR-D	
<input type="checkbox"/>	8	TR-D	
<input type="checkbox"/>	9	TR-D	
<input type="checkbox"/>	10	TR-D2123IR6V6	TR-D2123IR6V6
<input type="checkbox"/>	11	TR-D2152ZIR3	TR-D2152ZIR3
<input type="checkbox"/>	12	IPC-D2321WDIR4	TR-D2321WDIR4 i...
<input type="checkbox"/>	13	IPC-D2151IR3V2	IPC-D2151IR3V2
<input type="checkbox"/>	14	TR-D8121IR2V4	TR-D8121IR2V4
<input type="checkbox"/>	15	IPC-D2323WDZIR7	IPC-D2323WDZIR7
<input type="checkbox"/>	16	TR-D2253WDIR7	TR-D2253WDIR7

Open Home	1
Select ALL	2
Refresh	3
Export List	4
Mainstream Viewing	5
Substream Viewing	6
Camera Configurations	7
Find Your Password	8

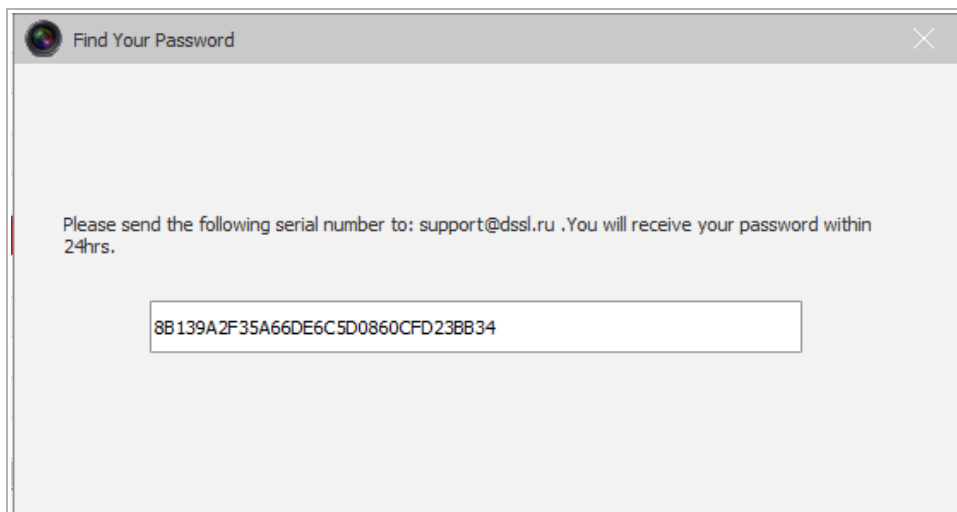
An additional menu will open, which allows you to:

1. **Open home** – open IP-camera web interface;
2. **Select all** – select all devices in the list;
3. **Refresh** – refresh the list of devices;
4. **Export list** – export list of the discovered devices;
5. **Mainstream Viewing** – open the camera main stream;
6. **Substream Viewing** – open the camera sub stream;

7. **Camera configurations** – open the IP-camera basic settings menu;

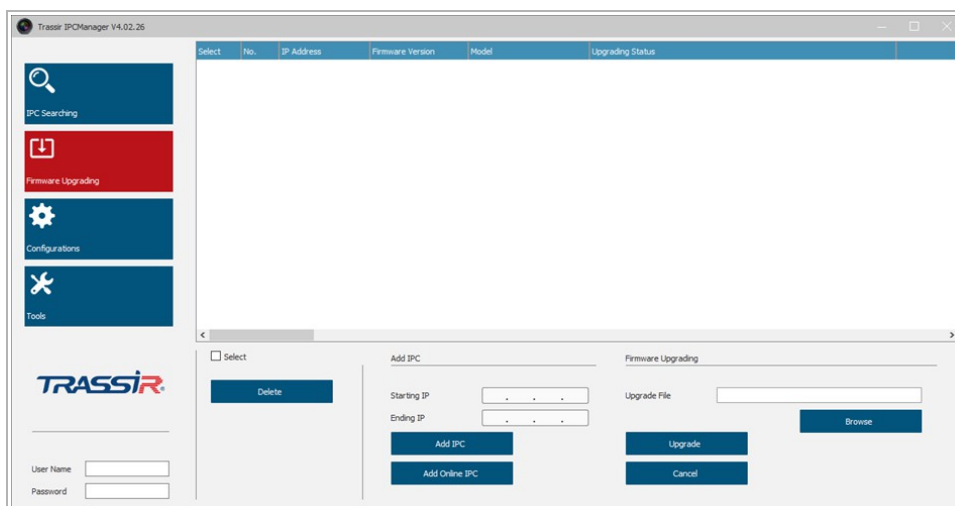


8. **Find your password** – IP camera password reset menu.



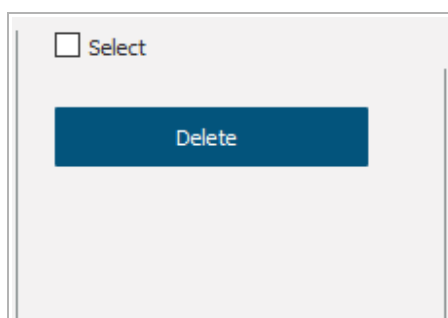
Upgrading camera with IPC Manager

The IPC Manager utility lets you update the device firmware. To do this, open the **Firmware Upgrading** menu.

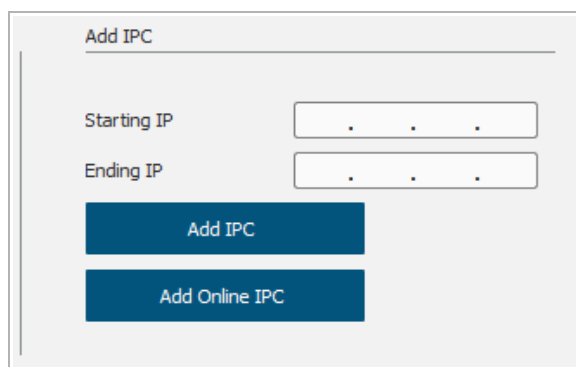


This menu lets you:

- ◆ Select all devices / Delete a device

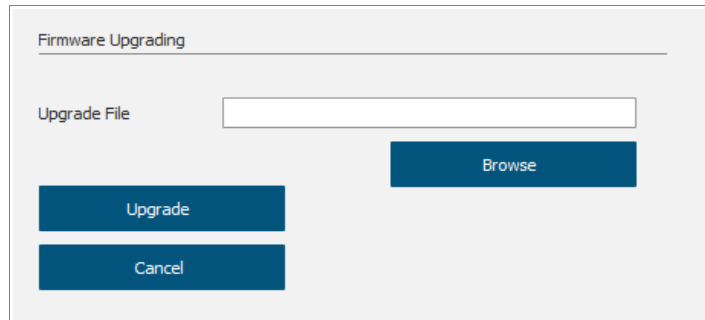


- ◆ Set a range of IP addresses for update.



If you specify a starting IP address and click Add IPC button - only the specified IP address will be added. If you specify a start and end IP addresses - the whole range of IP addresses will be added.

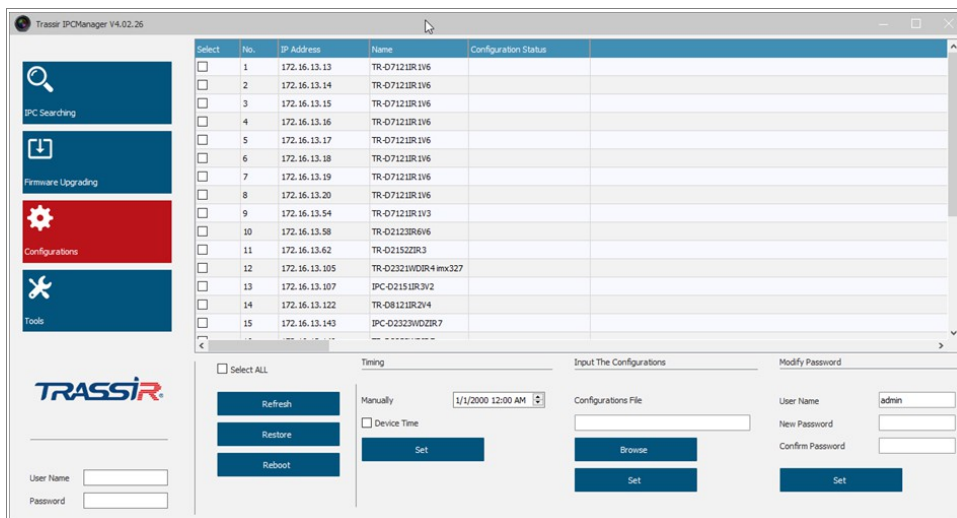
◆ Upgrade device firmware



Press **Browse** to locate the firmware file and then press **Upgrade** to start the upgrading process.

“Configurations” menu

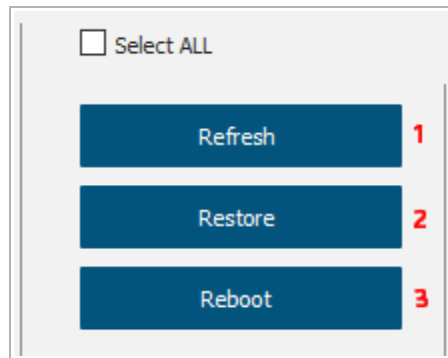
Open the **Configurations** menu.



This menu lets you additional parameters of IP-camera:

- ◆ Set up date and time;
- ◆ Import the configurations files for the selected device;
- ◆ Change IP-camera password;
- ◆ Save the camera configurations file.

You can also:

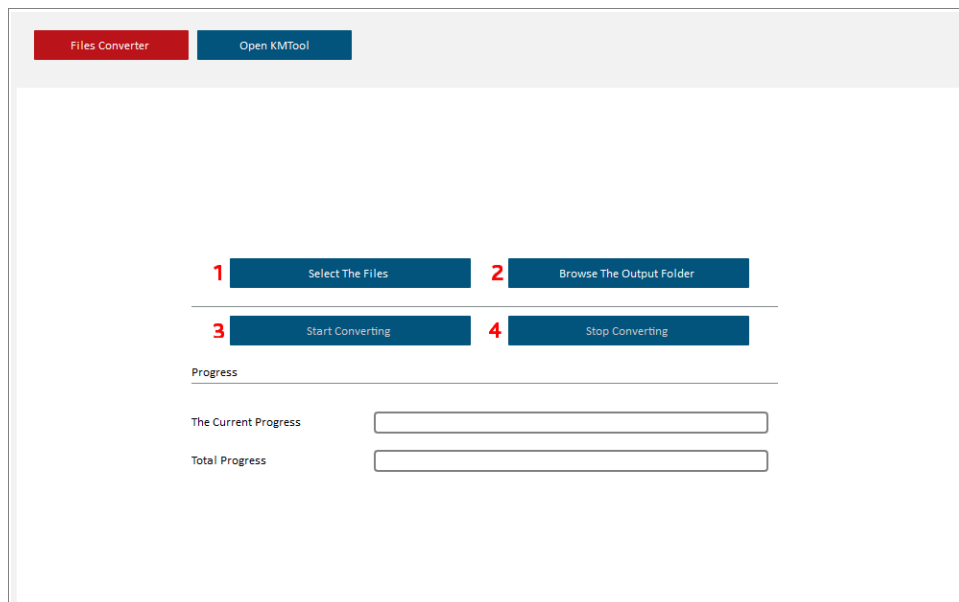


1. **Refresh** – refresh the device list;
2. **Restore** – restore the camera settings to defaults;
3. **Reboot** – reboot IP-camera.

“Tools” menu

Open the **Tools** menu.

The **File Converter** lets you convert video files from IP-camera SD card to MP4.



1. **Select The Files** – open path to source files.
2. **Browse The Output Folder** – open path to the converted files.
3. **Start Converting.**
4. **Stop Converting** – stop the converting process.

The **KMTool** tab lets you activate analytics license.

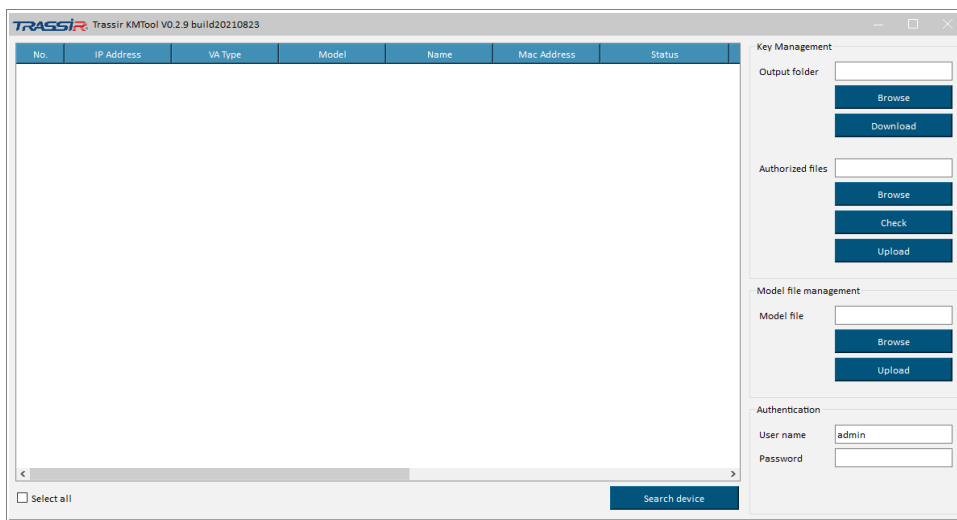
NOTE.

A license file is required for activation. To request a license file for analytics on cameras, you need to contact your manager.

There are three steps involved in activating the analytics license: collecting the necessary information about the camera, transmitting this information, and loading the license.

1st step: Collecting the necessary information on camera:

1. Start IPC Manage and go to **Tools** section to **Open KMTool** tab.
2. In the opened window in **Authorization** block enter login and password to access the camera.



3. The **KMTool** will search for devices in the local network. You can also search for devices manually, by pressing **Search device**.
4. You can check the device state in the **Status** column: activated or deactivated. Select one or several deices to activate, by checking the corresponding flags.

5. Click Browse to specify the desired folder to save the device certificate file (the file name must contain the MAC address in the following format **aa:bb:cc:dd:ee:ff.dat**). Then click **Download** in **Output folder** block to save the device certificate file in the selected folder.

2nd step: Providing information to technical support:

1. Send the folder archive/device certificate file to your manager.
2. You will receive an email with a license file attached. It takes an average of 2-3 business days to process your request. In case of any difficulties, or long absence of response, please contact technical support.

3rd step: Uploading license for camera:

1. Click **Browse** in the Authorized Files block in **Open KMTTool** tab.
2. Click the **Upload** button. After that the tool will automatically find the necessary files on the devices and download them to the corresponding cameras.
3. Make sure that the license file was successfully added. Click Check: if the license file is correct, the Status column will display Activated. If the Status column still shows Authorization Error, contact the technical support.