

IP CAMERA USER Manual

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OVERVIEW

This camera is a Full-HD network camera with a built-in web based viewer accessible by multiple browsers.

This camera supports dual compression formats and triple streaming simultaneously. The two standard compression formats include H.264 and MJPEG. The triple streams can be configured to a variety of resolutions, bit rates and frame rates.

Key Features

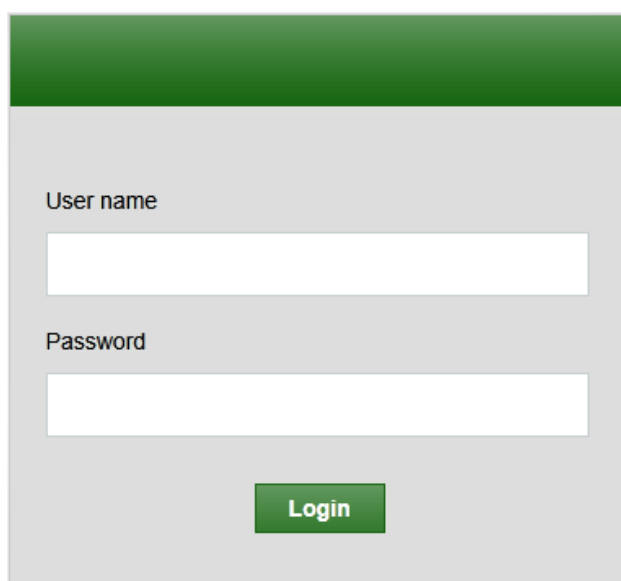
1. Lens Option
 - 3.6-10mm Motorzied-VariFocal
 - 7-22mm Motorzied-VariFocal
 - 2.8-12mm Motorzied-VariFocal
 - 2.8-12mm VariFocal
 - 3.6mm fixed
2. Sony Exmor™ CMOS Full-HD Sensor
 - Sony 1/2.8" 3.23Megapixel RGB Bayer Array CMOS Sensor (for 3Megapixels)
 - Sony 1/1.8" 6.44Megapixel RGB Bayer Array CMOS Sensor (for 5Megapixels)
3. WDR
 - True WDR(for 2M 60fps model)
 - Digital WDR(for 2M,3M 30fps model)
 - 2D/3D Noise Reduction
 - Digital Image Stabilizer
4. H.264 Encoding, MJPEG Encoding
 - Up to 1920x1080@30fps / 2048x1536@30fps
 - Dual 1920x1080@30fps at True WDR Mode
 - TCP/IP, UDP, HTTP, RTP, RTSP, IPv4/v6.....
5. Built-In Web Browser
 - Active X
 - Support IE/Chrome/Safari
6. ONVIF Compliant
 - Profile S
7. Designed for operating in harsh condition
 - 40 ~ -40degree : With Fan & Heater
 - 40 ~ -10degree : W/O Fan & Heater

System Requirements

1. Operating System
 - Windows Vista (32 bit) Ultimate, Business Edition
 - Windows 7, 8 (32/64 bit) Ultimate, Professional Edition
2. Processor
 - Intel Core 2 Duo 2.4 GHz or higher (for using 1920*1080 30 fps)
 - Intel Core i7 2.8 GHz or higher (for using 1920*1080 30ps)
3. Memory
 - 2 GB or more
4. Resolution
 - 1280X1024 pixels or higher (32 bit color)
5. Web Browser
 - Microsoft Internet Explorer Ver. 9.0, 10.0 or Higher
 - Safari Ver. 4.0 (Plug-in free viewer only)
 - Google Chrome Ver. 4.0 (Plug-in free viewer only)

Accessing the IP camera

1. Open Web browser
2. Type IP address
 - Enter the camera's IP address in the Internet Explorer® address bar.
 - The default IP address is **192.168.0.10**
 - The default User ID and Password is **admin / admin**

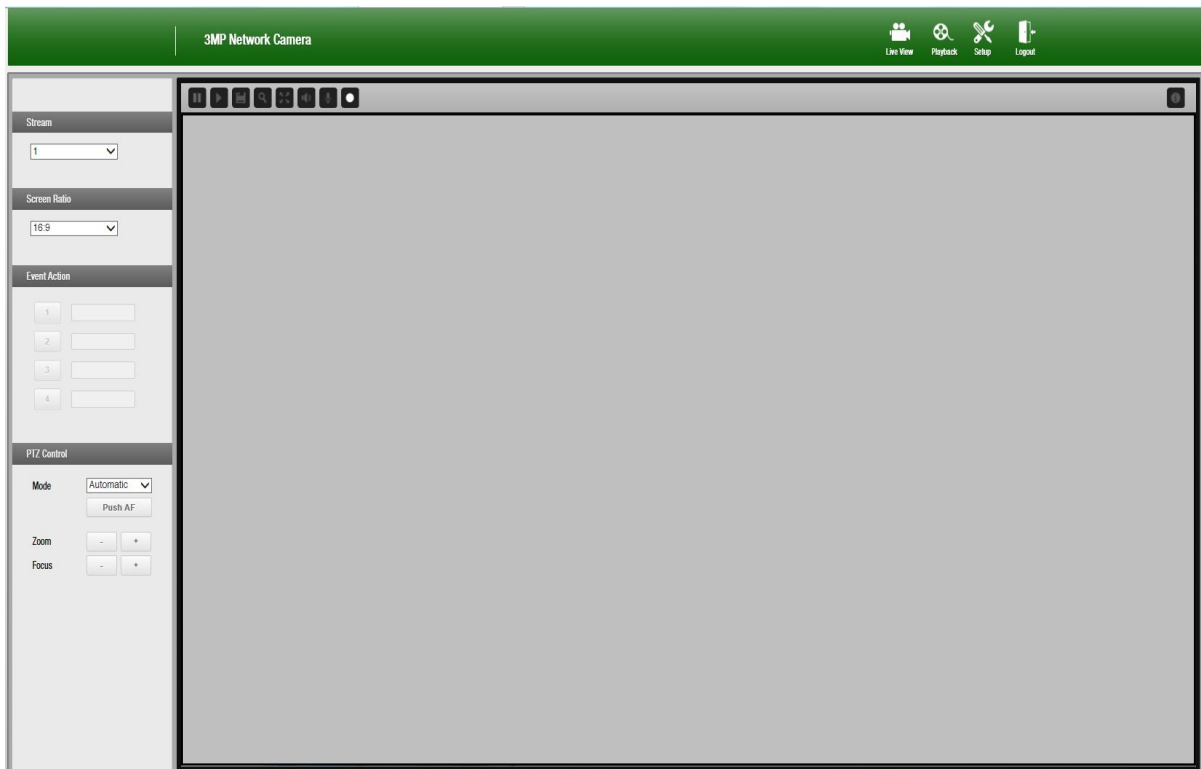


User name


Password


Login

LIVE



 : Displays live video.


 : Enters setup menu.

 : Exit current login and/or Enter new login.

Stream: Specify the viewable video stream source to display in live view page.


Screen Ratio: Specify the viewable video size to display in live view page.

Event Action: Used to start or stop the event out manually according to event settings.

 **Snapshot:** Take a picture of the video image currently on display. Supports the origin image size view, print, and save feature.

 **Zoom:** Supports a digital zoom in live video image.

 **Full screen:** Expand the current windows into maximum monitor size.

 **Information:** Shows the current major setting status.

Quick Setup

Information

Information	
Model	PWT-3MPMIR
MAC Address	AC:1F:D7:00:00:7E
IP Address	192.168.1.208
Zeroconf IP Address	169.254.44.62
Firmware Version	3.0.7.45-RC8

The Information shows the camera basic information such as Model name, MAC address, IP address, Zeroconf IP address, TV output mode and Firmware version.

Users

Users		
User List		
Name	Group	Authority
admin	administrator	live, setup, system

User List: User accounts can be added or modified or removed. The authority depends upon user group automatically and shows the permission status to access the menus. The default user name / password are *admin*.

Name: Shows the name which registered to access the camera.

Group: Shows the assigned permission given to users.

Authority: Shows the permission status to access the menus.

- Click the Add, Edit, or Delete button for managing user account.

Users-Add

Add User	
Name	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
Group	<input type="text" value="guest"/> ▼

To add a new user:

1. Click the Add tab, and then new pop-up window appears.

2. Click in the User name box and password to register
3. Click the OK button to save the settings and add a new user.

Users-Edit page

Edit User

Name: admin

Password: [Empty]

Confirm Password: [Empty]

Group: administrator

OK Cancel

NOTE : The user name can't be modified.

To delete a user:

1. Select one of the User Name in the User List you want to remove.
2. Click the Delete tab. A dialog box appears with confirmation message.
3. Click the OK button. The user profile is removed from the User List profile.

NOTE

The admin user name can't be modified.

Network

Network

IP Address

Obtain IP address via DHCP server

Use the following IP address

IP address: 192 . 168 . 0 . 10

Subnet mask: 255 . 255 . 255 . 0

Gateway: 192 . 168 . 0 . 1

Save Cancel

IP Address: The DHCP (Dynamic Host Configuration Protocol) server has a feature that automatically assigns an IP address to the device if there is a device on the network.

Obtain IP address via DHCP: Select the choice box if you want to assign the IP address from DHCP server automatically, and then the remaining setting are read-only text.

Use the following IP address: Select the choice box if you want to assign the IP address manually.

IP address: The address of the camera connected to the network. Specify a unique IP address for this network camera.

Subnet mask: The address that determines the IP network that the camera is connected to (relative to its address). Specify the mask for the subnet the network camera is located on.

Gateway: The Gateway that accesses other networks. Specify the IP address of the default router (Gateway) used for connecting devices attached to different networks and network segments.

Date & Time

Current Time: Shows the current date and time.

New Time: Select one of the server time.

Synchronize with computer time: Sets the time according to the clock on your computer.

Set manually: Using this option allows you to manually enter the date and time.

Synchronize with NTP Server: This option will obtain the correct time from an NTP server every 60 minutes. The NTP server's IP address or host name is specified in the time server.

Time Zone: Select the time zone where your camera is located.

Click the "Automatically adjust for daylight saving changes" checkbox to automatically update the time changes caused by daylight saving.

Time zone: The default setting is GMT.

Date & Time Display: Select one of the Date and Time format.

Date Format: The default setting is YYYY-MM-DD.

Time Format: The default setting is 24 hours.

Video

Video

Video	
Video Source	
Mode	1920x1080@50fps
Video Stream1	
Compression	H.264 High Profile
Resolution	1920x1080
Frame rate	50
GOP size	60
Bitrate control	CBR
Bitrate	4000 [Kbps]
Video Stream2	
Compression	MJPEG
Resolution	640x480
Frame rate	25
Quality	60
Video Stream3	
Compression	H.264 High Profile
Resolution	1280x720
Frame rate	25
GOP size	25
Bitrate control	CBR
Bitrate	3000 [Kbps]
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Video Source: Specify the system performance. Depending on video source mode, each stream configuration will be affected and the streaming will be adjusted under system performance automatically.

Mode: The default mode is 1920x1080@30fps (NTSC) or 25fps (PAL) at 2MP mode, and 2048x1536@30fps (NTSC) or 25fps (PAL) at 3MP mode.

Video Stream1: Configures the H.264 setting value for stream1.

Compression: Selects the stream profile that is to be used for transmissions.

Resolution: Specified as the number of pixel-columns (width) by the number of pixel-rows (height). The Resolution can be adjusted in the range from 320x240 to 1920x1080.

Frame rate: Indicates the number of fps (frame per second) available for the video stream configuration.

GOP size: Describes the composition of the video stream. Please consult with your network administrator before changing.

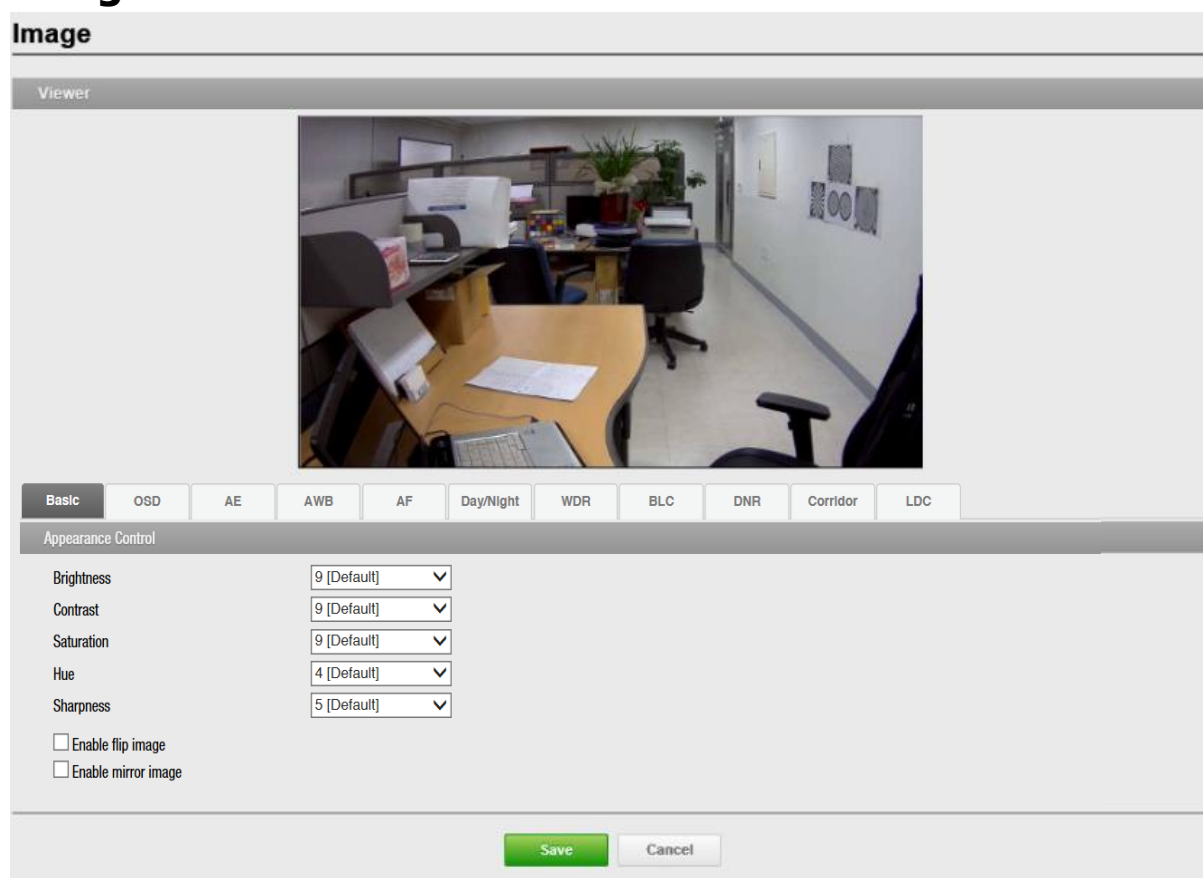
Bitrate control: The bit rate can be set as VBR (Variable Bit Rate) or CBR (Constant Bit Rate).

Bitrate: Indicates the quality of the video stream (rendered in kilobits per second). The higher value means the higher video quality and bandwidth required.

Video Stream2: Configures the MJPEG or H.264 setting value for stream2.
Compression: The default setting is MJPEG.

Video Stream3: Configures the H.264 setting value for stream3.
Compression: Selects the stream profile that is to be used for transmissions.
Resolution: Specified as the number of pixel-columns (width) by the number of pixel-rows (height).

Image-Basic



Appearance Control: The image appearance allows you to adjust the camera setting parameters and change the camera orientation. All of parameters are recommended to be modifying for good image quality suitable for installation place.

Brightness: Controls the brightness of detail in a scene.

Contrast: Controls the contrast of detail in a scene.

Saturation: Controls the saturation of detail in a scene.

Hue: Controls the hue of detail in a scene.

Sharpness: Controls the sharpness of detail in a scene.

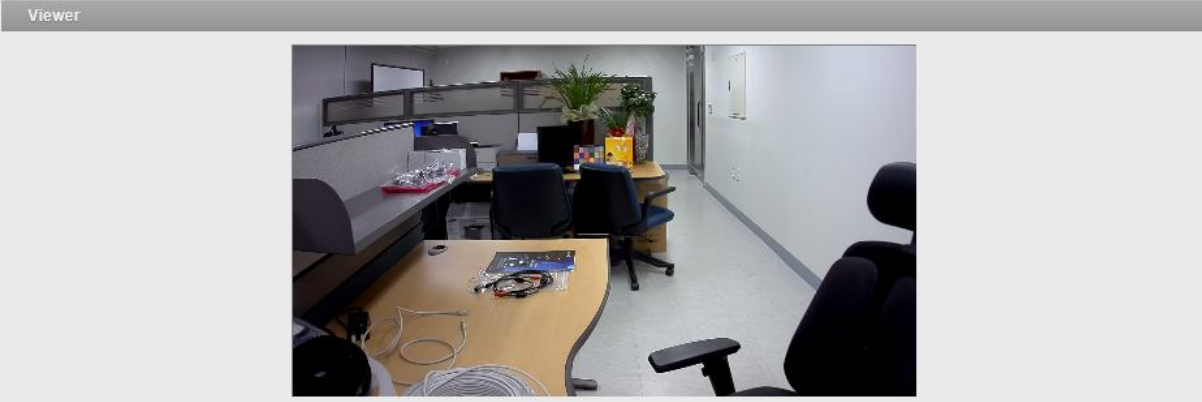
Enable flip image: Rotate the camera image 180 degrees vertically.

Enable mirror image: Rotate the camera image 180 degrees horizontally. Reflect duplication of camera image.

Image-AE

Image

Viewer



Basic OSD **AE** AWB AF Day/Night WDR BLC DNR Corridor LDC

Exposure Control

Mode	Automatic	▼
Shutter	1/1000 [Default]	▼ [sec]
Min. Shutter	1/10000 [Default]	▼ [sec]
Max. Shutter	1/30 [Default]	▼ [sec]
Gain	10.0 [Default]	▼ [dB]
Min. Gain	0.6 [Default]	▼ [dB]
Max. Gain	46.2 [Default]	▼ [dB]
Auto Iris	On	▼
Auto Flicker-less	Off	▼

Exposure Control: Configure the exposure control to suit the image quality requirements in relation to lighting considerations. This camera features automatic and manual exposure control mode.

Mode: The automatic mode supports the automatic exposure function for automatically adjusting the sensor's gain, shutter time and diaphragm so that the images achieve the appropriate brightness. The manual mode supports the manual exposure control function for manually adjusting the gain and shutter time.

Priority: This function is used for controlling the exposure time and gain to adjust the luminance. Under the dark conditions, this camera automatically expands the frame rate and enters the long exposure mode in this normal AE mode.

Shutter: Used to for controlling the gain while keeping the shutter time fixed to adjust the luminance.

Gain: Gain is the amount of amplification applied to the image. A high gain may provide a better image in low light situations but will increase the amount of image noise. The gain can be adjusted in the range 1.2~54 dB

Auto Iris:

Image-AWB

White Balance Control: White balance control is used to make colors in the image appear the same regardless of the color temperature of the light source

Mode: Configure the options for White Balance. The default setting is ATW-Indoor.

Image-Day/Night

Mode: Configure as one of Automatic, Day and Night mode to transit an IR cut filter. The default setting is Automatic.

Switching Time: Configure the switching time of an IR cut filter transition for the specified dwell time from the point of transition detection.

Image-WDR

Multi Exposure WDR Control: In high-contrast scenes such as against a back light, this function reduces overexposure and underexposure.

Digital WDR Control

Enable defog mode: Click the checkbox to enable defog mode.

Image-BLC

BLC Control: Backlight Compensation.

Image-DNR

2D-NR / 3D-NR Control:

Mode: The default setting is off.

Level: Configure one of Level 1, Level2, Level3 and Level4.

Image-Corridor

Corridor Control: The corridor format allows you to get a vertically oriented video stream from the camera. The video is adapted perfectly to the monitored area, maximizing image quality while eliminating bandwidth and storage waste. The Corridor Format is even more useful for modern HDTV network cameras that deliver a 16:9 aspect ratio since the resulting image will have a 9:16 aspect ratio – just the right thing for narrow corridors, hallways or aisles.

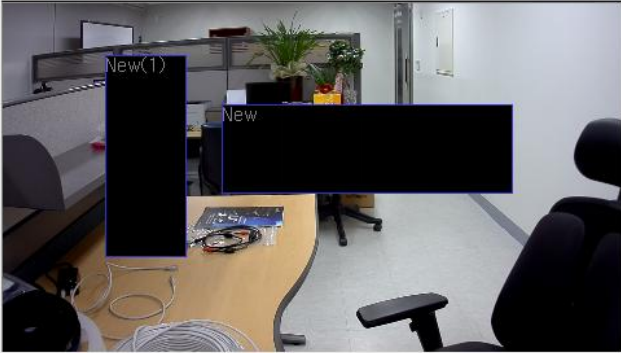
To set the Corridor format

1. Check the Enable corridor checking box.
2. Rotate the camera position compare to normal positioning.
3. Select the Rotation degrees.

Privacy Mask

Privacy Mask

Viewer



Privacy Mask

Enable privacy mask

Color Black

ID	Name	Delete
1	New	X
2	New(1)	X

Save Cancel

Privacy Mask:

To set the privacy mask

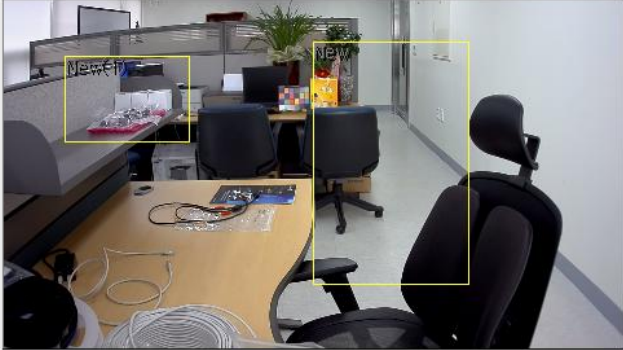
1. Check the Enable privacy mask checking box.
2. Click your mouse right button on the screen and then specify the area.
3. Enter the name and then click Save.
4. If you want to delete an mask area in the list, click the X icon

Events

Motion Detection

Motion Detection

Viewer



Motion Detection

Enable motion detection

Sensitivity: 80 [Default] ▼

Name: New(1)

Dwell: 3 [sec]

ID	Name	Type	Dwell	Delete
5	New	Exclude	0	X
1	New(1)	Include	3	X

Save Cancel

Motion Detection: Motion detection is used to generate an alarm whenever movement occurs (or stops) in the viewer. A total of 8 Motion and/or Mask windows can be created and configured.

Sensitivity: Configure the sensitivity for the motion detection.

Once motion detection windows are configured, this camera can be configured to perform actions when motion is detected.

Possible actions include uploading images, alarm out and E-mailing.

Trigger-Alarm In

Trigger

Alarm In System Manual Network

Alarm In Port

Enable alarm in

Type: NO ▼

Dwell time: 5 [sec]

Save Cancel

Alarm In: Click the Enable alarm in checkbox to enable the Alarm In port.

Type: The default setting is NO.

- **NO:** Normally Open
- **NC:** Normally Close

Dwell time: The default setting is 3 seconds.

NOTE

Dwell time means how long time the alarm input signal hold on as an input signaling source.

Trigger-System

Trigger

Alarm In System Manual Network

System Booting

Enable system booting trigger

Dwell time 3 [sec]

Save Cancel

System Booting: This is used to trigger the event every time the Network Camera is started.

Dwell time: The default setting is 3 seconds.

Trigger-Manual

Trigger

Alarm In System Manual Network

Manual Trigger

Enable manual trigger 1

Dwell time 3 [sec]

Enable manual trigger 2

Dwell time 3 [sec]

Enable manual trigger 3

Dwell time 3 [sec]

Enable manual trigger 4

Dwell time 3 [sec]

Save Cancel

Manual Trigger: The Manual Trigger features an alarm out signaling, JPEG file transfer to FTP server, and sends email to SMTP server whenever operator clicks Manual Trigger button in the Live View window.

NOTE

Dwell time means how long time the alarm output signal hold on as an output signaling source.

Trigger-Network

Trigger

Alarm In System Manual **Network**

Network Loss

Enable network loss trigger

Dwell time [sec]

Network Loss: This is used to trigger the event every time the network connection fails.

Click the checkbox to activate the Network Loss event.

Dwell time: The default setting is 3 seconds.

Action-Alarm Out

Action

Alarm Out E-Mail FTP Video

Alarm Out Port Setting

Enable alarm out

Type

Use the alarm output to indicate recording status

Alarm Out Port Setting: This page allows you to configure the alarm output supported by the camera. Port can be given as Normally Open or Normally Close state, and its Normal state can be configured.

Type: The default setting is NO.

Action-E-Mail

E-Mail(SMTP): Use the Simple Mail Transfer Protocol (SMTP) server to send an email notification when an event server is activated. The camera can be configured to send event and email messages via SMTP.

Sender: Click in the Sender box and enter the Email address as the sender.

Interval: Enter the Email sending time interval after event occurred.

Aggregate events: Enter the number of events for Email sending. If the event numbers are reached the setting value, Email sending is available.

Use Email server: Click the Use Email server checkbox and provide the following information for Email server.

Mail Server: Enter the host names or IP addresses for your mail servers in the fields provided.

NOTE

If a host name is used, a valid DNS server must be specified in the Network-Basic settings.

Port: Enter the SMTP server port number for the SMTP Server. The Port number can be adjusted in the range 1-65535. The default setting is 25.

NOTES

- If your mail server requires authentication, click the Use (SMTP) authentication checkbox for use authentication to log in to this server.

- Please consult with your network administrator, if you want to change the port number.

Use (SMTP) authentication: If your mail server requires authentication, click the Use (SMTP) authentication checkbox for use authentication to log in to this server.

User name: Enter the User name as provided by your network administrator.

Password: Enter the Password as provided by your network administrator.

Login method: Select one for SMTP authentication method allowed.

NOTES

- If a PLAIN or LOGIN mechanism is negotiated, the camera sends user name and password to the SMTP server.

- The LOGIN mechanism is supported by Microsoft, as well as by some other clients. Most other clients support the PLAIN authentication mechanism.

- Since the vast majority of Email clients support *only* PLAIN or LOGIN, mail server administrators will probably want to consider using STARTTLS to provide an encryption "tunnel" between the client and server, to protect the user name and password.

Receiver List: Enter the recipient's email address as the receivers.

Receiver1~8: Enter the recipient's email address as the receiver to test.

E-Mail(SMTP) Test: Enter the recipient's email address and click the Test button to test that the mail servers are functioning and that the email address is valid. When the setup is complete, the connection can be tested by clicking the Test button.

Receiver: Enter the recipient's email address as the receiver to test.

Action-FTP

Action

Alarm Out | E-Mail | **FTP** | Video

FTP Setting

Enable FTP

Server: Passive mode

Port:

Remote directory:

User name: Anonymous login

Password:

JPEG Setting

Pre-event: Time: [0... 30] sec FPS: [1... 2] fps

Post-event: Time: [0... 30] sec FPS: [1... 2] fps

Prefix file name:

Additional suffix: None Date&Time Sequence number

Save Cancel

FTP Setting: FTP notification will save a file on the specified FTP server. Click the Enable FTP checkbox and provide the following information for FTP notification.

Server: Enter the IP address or host name of the target FTP server.

• **Passive Mode:** Under normal circumstances the network camera simply requests the target FTP server to open the data connection. Checking this box issues a PASV command to the FTP server and establishes a passive FTP connection; whereby the network camera actively initiates both the FTP control and data connections to the target server. This is normally desirable if there is a firewall between the network camera and the target FTP server.

Port: Enter the port number used by the FTP server. The Port number can be adjusted in the range 1-65535. The default setting is 21.

Remote directory: Specify the path to the directory where the uploaded images will be stored. If this directory does not already exist on the FTP server, there will be an error message when uploading.

User name: Enter the User name as provided by your network administrator.

• **Anonymous login:** Click the Anonymous login checkbox to permit anyone to access FTP server.

Password: Enter the Password as provided by your network administrator.

NOTE

If you permit to login FTP server by anyone without password, click the Anonymous login checkbox.

JPEG Setting: Configure the JPEG to send the FTP server.

Pre-event: Defines how many JPEG file will be made during 0-3 seconds before the event is generated.

Post-event: Defines how many JPEG file will be made during 0-3 seconds after the event is generated.

Prefix file name: Click in the Prefix file name box and type a name for JPEG image file (1 to 32 alphanumeric characters).

Additional suffix: Provide additional information for JPEG image file.

Action-Video

Action

Alarm Out | E-Mail | FTP | **Video**

Video Boost Setting

Enable video1 boost

	Normal State	Event State
Frame rate	30	30 ▾
Bitrate	6000	6000 ▾

Enable video2 boost

	Normal State	Event State
Quality	60	60 ▾

Enable video3 boost

	Normal State	Event State
Frame rate	30	30 ▾
Bitrate	2000	2000 ▾

[Note]
-The boost of bitrate come into action only if VBR control mode

Save | Cancel

Video Boost Setting: When this camera detects an event according to event rule setting, camera will boost the streaming performance dependent on each video stream setting.

Rule

Rule

Event Rule List

Name	Trigger	Action
------	---------	--------

Add | Edit | Delete

This page shows current configuration status when event is activated.

The common event actions will upload images to a specified destination or send an email or active an output port

Event Rule List: An event type is a set of parameters describing how the camera will perform certain actions. Event type may be set up as Triggered according to requirements.

Name: Shows the descriptive name provided by the user.

Trigger: Shows the source of event type as Alarm-In-1, Alarm-In-2, and VMD configured by the user.

Action: Shows the destination of event output as SMTP server, FTP server, Alarm-out port, Audio alert and SD record.

NOTE

To add new event, click the Add button. This button opens new dialog window, which are used to make all the necessary settings for the new event map.

Add: To add a new event map list, select it and click the Add button.

Edit: To modify an existing event map list, select it and click the Modify button.

Delete: To delete an event map list, select it and click the Delete button.

Rule-Add

Event Rule-Add page provides how to configure the event action if there is event triggering such as Alarm-In and Manual trigger.

General: Enter the user favorite event name.

Name: Click in the Name box and type a user favorite event name (1 to 31 alphanumeric characters).

Trigger: Shows the Event source type to be configured.

Type: Selects the Event source type.

Action: The Event Out provides that the camera will perform certain actions.

Active output: Click the Active output port checkbox to enable the Alarm out port.

E-mail: Click the Email checkbox to enable the emailing below each email address.

- **To email address:** Click the each email addresses checkbox.

NOTE

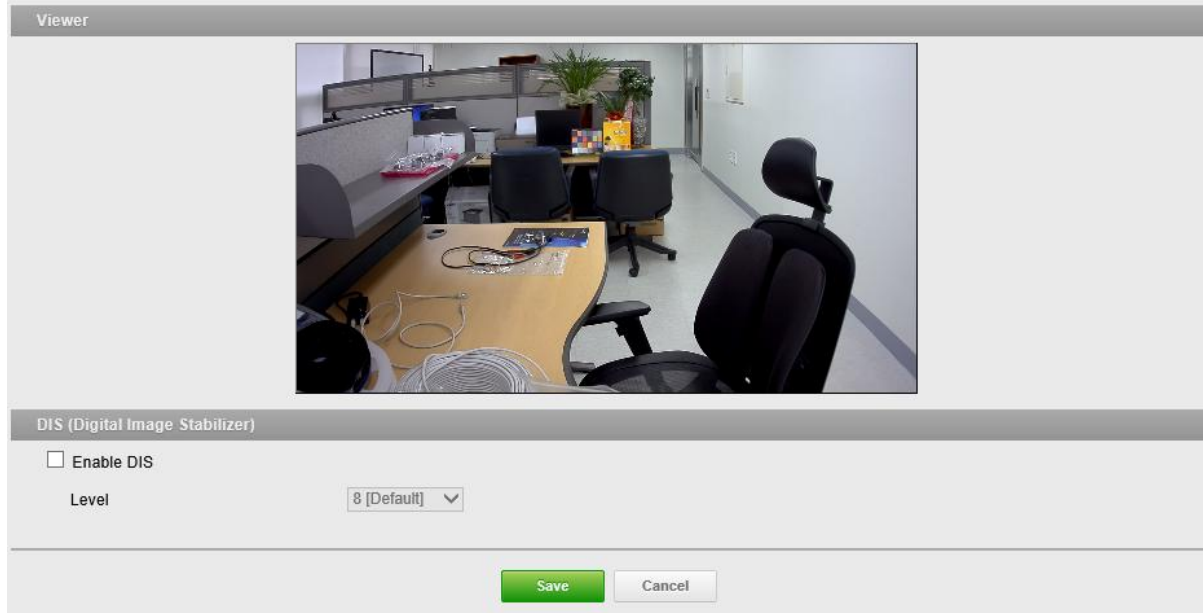
If you want to additional message when emailing, click in the Subject / Additional Info box and type a description for the text you are creating (0 to 255 alphanumeric characters).

FTP: Click the FTP checkbox to enable the image uploading to FTP server using JPEG image.

Video Boost: Click the Video Boost checkbox to enable the video boost streaming.

DIS

DIS



DIS: Compensates the image automatically when it is seen to shake for stable image output.

Level: The default setting is 8.

NOTE

Mitigate the degree of image vibration when the camera vibrates due to the external factors such as wind.

Record

Record

Record
Schedule
Storage

Record Setting

Overwrite when storage is full

[Note]
 - The record video codec supports only H.264 codec

Continuous Record Setting

Enable continuous record
 Video stream 3

Event Record Setting

Enable event record
 Video stream 1
 Recording time 60 [sec]
 Pre recording time 0 [sec]

Record Setting: When the network camera detects an event, it can record the video stream in the Micro SD Memory (not supplied) or NAS (Network Attached Device) as a storage device. Check the box to enable the service.

Click the checkbox to overwrite the storage device.

- Stream source: Set the recording stream source
- Frame rate: Set the recording frame rate
- Bitrate: Set the recording bitrate
- Pre event recording: Set the pre-event recording time
- Post event recording: Set the post-event recording time

Schedule

Record
Schedule
Storage

Schedule Setting

Enable scheduled record

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Mon	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Tue	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Wed	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Thu	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Fri	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Sat	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑

Storage

Record

Record Schedule **Storage**

Storage Setting

Storage Type: SD Card

Format Format the storage.

Remove Remove and eject storage safely.

Storage Information

Status: Available

Total	Used	Available	Used Percent
29.83GB	4.83GB	24.99GB	16.20%

Storage Setting: First select the storage device type to be recorded.

- SD: Secure Digital card
- CIFS: Common Internet File System, a file format for a NAS device.
- NFS: Network File System, a file format for a NAS device.
- Address: Enter IP address for NAS device.
- Remote directory: Enter directory or folder location to be recorded in the NAS device.
- Capacity: Enter the capacity of storage to be used. It must be less than the total storage capacity.
- User: Enter user ID. The network camera will ask for these whenever you access NAS device.
- Password: Enter user password. The network camera will ask for these whenever you access NAS device.
- Format: Click the Format button to format SD card.
- Remove: Remove or eject the storage device safely.
- Check: Check the validity of user ID/Password for CIFS or NFS.

Storage Information: Show current SD card information.

NOTES

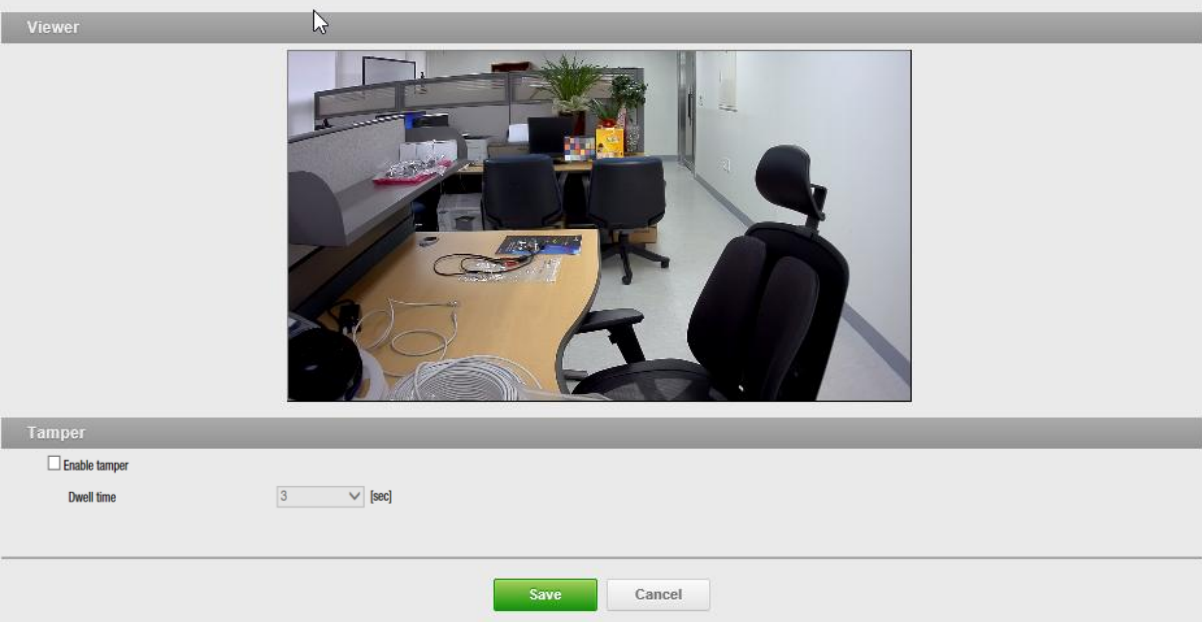
- Common Internet File System (CIFS) is a remote file access protocol that forms the basis for Windows file sharing, network printing, and various other network services. CIFS requires a large number of request/response transactions and its performance degrades significantly over high-latency WAN links such as the Internet.
- Network File System (NFS) is a network file system protocol, allowing a user on a client computer to access files over a network in a manner similar to how local storage is accessed. NFS, like many other protocols, builds on the Open Network Computing Remote Procedure Call (ONC RPC) system.

Video Analytics

Tamper

Tamper

Viewer



Tamper

Enable tamper

Dwell time [sec]

Save Cancel

Tamper: Camera Tampering can generate an alarm whenever the camera is repositioned or severely defocused. To send an alarm, for example an email, an event map must be set up.

Dwell time: The default setting is 3 seconds.

NOTE

The Dwell time that must elapse before an alarm is generated. This can help prevent false alarms for known conditions that affect the image.

To configure the camera to send an alarm when tampering occurs:

1. Go to Event Map > Add.
2. Select Event In Type.
3. Set Event Out for notification of an image changing if the lens is repositioned or rendered severely out of focus.

System

Security-Users

The screenshot shows the 'Security' section of a web interface. It has tabs for 'Users', 'HTTPS', 'IP Filter', and 'ONVIF'. The 'Users' tab is active, showing a 'User List' table. The table has three columns: 'Name', 'Group', and 'Authority'. There is one row with the following data: Name: admin, Group: administrator, Authority: live, setup, system. Below the table are three buttons: 'Add', 'Edit', and 'Delete'.

Name	Group	Authority
admin	administrator	live, setup, system

Users List: User accounts can be added or modified or removed. The authority depends upon user group automatically and shows the permission status to access the menus. The default user name / password are **admin**.

Name: Shows the name which registered to access the camera.

Group: Shows the assigned permission given to users.

Authority: Shows the permission status to access the menus.

- Click the Add, Edit, or Delete button for managing user account.

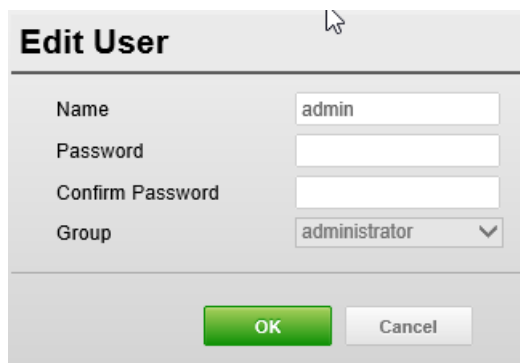
Users-Add

The screenshot shows the 'Add User' dialog box. It has four input fields: 'Name', 'Password', 'Confirm Password', and 'Group'. The 'Group' field is a dropdown menu currently showing 'guest'. At the bottom, there are two buttons: 'OK' and 'Cancel'.

To add a new user:

1. Click the Add tab, and then new pop-up window appears.
2. Click in the User name box and type a new user name (1 to 14 alphanumeric characters).
 - User names are not case sensitive.
3. Click in the Password box and type a password (1 to 8 alphanumeric characters).
 - Passwords are case sensitive.
4. Click in the Confirm password box and retype a password.
5. Click in the User group box and select one of the groups you wish to assign to the user.
6. Click the OK button to save the settings and add a new user.

Users-Edit



Edit User

Name: admin

Password: [Empty]

Confirm Password: [Empty]

Group: administrator

OK Cancel

To edit a user:

1. Select one of the User Name in the User List you want to modify.
2. Click the Edit tab, and then new pop-up window appears.
3. Click in the Password box and type a password (1 to 8 alphanumeric characters).
 - Passwords are case sensitive.
4. Click in the Confirm password box and retype a password.
5. Click in the User group box and select one of the groups you wish to assign to the user.
6. Click the OK button to save the settings and modify a user.

NOTE

The user name can't be modified.

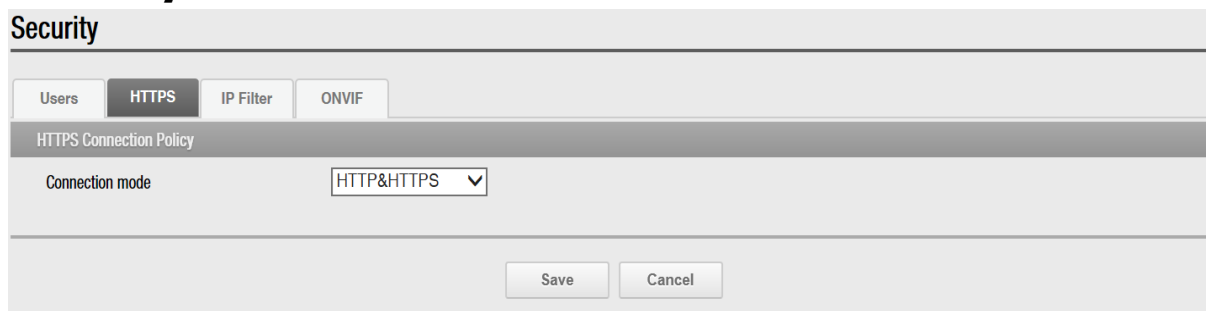
To delete a user:

1. Select one of the User Name in the User List you want to remove.
2. Click the Delete tab. A dialog box appears with confirmation message.
3. Click the OK button. The user profile is removed from the User List profile.

NOTE

The admin user name can't be modified.

Security-HTTPS



Security

Users HTTPS IP Filter ONVIF

HTTPS Connection Policy

Connection mode: HTTP&HTTPS

Save Cancel

HTTPS Connection Policy: Provides the connection policy when user access to the camera using web browser.

Connection mode: The default setting is HTTP&HTTPS.

- **HTTP:** The sensitive data will be transfer without encrypted during transmission. Supports a URL that only starts with "HTTP: "
- **HTTPS:** HTTPS (Hypertext Transfer Protocol over SSL) is a protocol used to provide the encrypted transmission. Supports a URL that only starts with "HTTPS: "

- **HTTP&HTTPS:** Supports both HTTP and HTTPS simultaneously. You can access the camera using a standard "HTTP:" URL, but sensitive data is not encrypted during transmission. To ensure that sensitive data is encrypted, you must use a secure "HTTPS: " URL.

NOTES

- To ensure security on the internet, all web browsers provide several security levels that can be adjusted for site that use SSL (Secure Socket Layer) technology to transfer data. SSL encrypts communications, making it difficult for unauthorized users to intercept and view user names and passwords.
- SSL requires signed certificates to determine if the web browser accessing the camera has a required authentication. This camera can generate a self-signed certificate using Open SSL.
- If you select the HTTP connection policy to HTTP, you cannot access the camera using a URL beginning with "HTTPS:"
- Self-signed certificates are valid for 10 years.

Security-IP Filter

Security

Users
HTTPS
IP Filter
ONVIF

IP Filter Setting

Enable IP address filtering

On/Off	Priority	Policy	Start IP	End IP
<input type="checkbox"/>	1	ALLOW ▾	0 . 0 . 0 . 0	0 . 0 . 0 . 0
<input type="checkbox"/>	2	ALLOW ▾	0 . 0 . 0 . 0	0 . 0 . 0 . 0
<input type="checkbox"/>	3	ALLOW ▾	0 . 0 . 0 . 0	0 . 0 . 0 . 0
<input type="checkbox"/>	4	ALLOW ▾	0 . 0 . 0 . 0	0 . 0 . 0 . 0
<input type="checkbox"/>	5	ALLOW ▾	0 . 0 . 0 . 0	0 . 0 . 0 . 0

IP Filter Setting: Provides the IP filtering elements such as On/Off, Priority, Policy and IP Ranges. The default setting is disabling.

Enable IP filtering: Click the Enable IP filtering checkbox to enable the IP address filtering function. This dialog allows you to add new allowed/denied IP addresses. These can be added whole ranges (subnets) of IP address can be added directly.

On/Off: Click the checkbox to active the settings (Priority, Policy, and IP ranges).

Priority: The number means a priority if there are duplicated IP address each IP ranges.

Policy: Determines the filtering attribute of the IP address selected.

Start IP: Enters the start IP address to ALLOW/ DENY in the IP range selected.

End IP: Enters the end IP address to ALLOW/ DENY in the IP range selected.

NOTES

To add a subnet of network addresses, these must be added in CIDR (Classless Inter-Domain Routing) notation. For example: entering 192.168.1.0/24 will add all the addresses in the range 192.168.1.1 to 192.168.1.254. Please contact with your network administrator for more detail.

- If you are accessing the network camera via a proxy server, the IP address for the proxy server must be added as an allowed address.

Day & Time

Date & Time

Current Time

Date	<input type="text" value="2015-11-09"/>	Time	<input type="text" value="09:57:16"/>
------	-----------------------------------------	------	---------------------------------------

New Time

Synchronize with computer time

Date	<input type="text" value="2015-11-09"/>	Time	<input type="text" value="09:57:19"/>
------	-----------------------------------------	------	---------------------------------------

Set manually

Date	<input type="text" value="2015-11-09"/>	Time	<input type="text" value="09:56:53"/>
------	-----------------------------------------	------	---------------------------------------

Synchronize with NTP server

Server	<input type="text" value="time.nist.gov"/>	Interval	<input type="text" value="12"/> [Hour]
--------	--------------------------------------------	----------	----------------------------------------

Time Zone

▼

Automatically adjustment for daylight saving time changes

Date & Time Display

Date Format	<input type="text" value="YYYY-MM-DD"/> ▼
Time Format	<input type="text" value="24 Hour"/> ▼

Current Time: Shows the current date and time.

Date: The default setting is 1970-01-01.

Time: The default setting is 00:00:00.

New Time: Select one of the server time.

Synchronize with computer time: Sets the time according to the clock on your computer.

Set manually: Using this option allows you to manually enter the date and time.

Synchronize with NTP Server: This option will obtain the correct time from an NTP server every 60 minutes. The NTP server's IP address or host name is specified in the time server.

Time Zone: Select the time zone where your camera is located.

Click the "Automatically adjust for daylight saving changes" checkbox to automatically update the time changes caused by daylight saving.

Time zone: The default setting is GMT.

Network-TCP/IP

Network

TCP/IP DDNS RTP UPnP Zeroconf Bonjour

IP Address

Obtain IP address via DHCP server
 Use the following IP address

IP address	192 . 168 . 0 . 10
Subnet mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 0 . 1

IPv6 Address

Enable IPv6
IPv6 address: fe80::ae1f:d7ff:fe00:7e/64

DNS

Obtain DNS address via DHCP server
 Use the following DNS address

Domain name	
Primary DNS server	168 . 126 . 63 . 1
Secondary DNS server	0 . 0 . 0 . 0

Hostname

Hostname: PWT-3MPMIRAC1FD700007E

Port

HTTP port	80
HTTPS port	443
RTSP port	554

Save Cancel

IP Address: The DHCP (Dynamic Host Configuration Protocol) server has a feature that automatically assigns an IP address to the device if there is a device on the network.

Obtain IP address via DHCP server: Select the choice box if you want to assign the IP address from DHCP server automatically, and then the remaining setting are read-only text.

Use the following IP address: Select the choice box if you want to assign the IP address manually.

IP address: The address of the camera connected to the network. Specify a unique IP address for this network camera.

Subnet mask: The address that determines the IP network that the camera is connected to (relative to its address). Specify the mask for the subnet the network camera is located on.

Gateway: The gateway that accesses other networks. Specify the IP address of the default router (Gateway) used for connecting devices attached to different networks and network segments.

IPv6 Address: Check this box to enable IPv6 address configuration. Other settings for IPv6 are configured in the network router.

DNS: DNS (Domain Name Service) provides the translation of host names to IP addresses on your network.

Obtain DNS server via DHCP server: Select the choice box if you want to use the DNS server settings provided by the DHCP server automatically, and then the remaining settings are read-only text.

Use the following DNS server address: Select the choice box if you want to use the desired DNS server manually.

Domain name: Enter the domain to search for the host name used by the network camera.

Primary DNS server: Enter the IP address of the primary DNS server.

Secondary DNS server: Enter the IP address of the secondary DNS server.

Hostname: This camera can be accessed using a host name instead of an IP address. The host name is usually the same as the assigned DNS name.

Port: Allows the user to access the camera using web browser encrypted communication.

HTTP port: The default HTTP (Hypertext Transfer Protocol) port number is 80 and can be changed to any port within the range 1024-65535.

HTTPS port: The default port number is 443 and can be changed to any port within the range 1024-65535.

RTSP port: RTSP (Real Time Streaming Protocol) allows a connecting client to start a video stream. The default setting is 7070 and can be changed to any port within the range 1024-65535.

Network-DDNS

Network

TCP/IP **DDNS** RTP UPnP Zeroconf Bonjour

Internet DDNS(Dynamic Domain Name Server)

Enable DDNS

DDNS server

Registered host

User name

Password

Confirm password

Interval

The DDNS (Dynamic DNS) service can provide the camera with its own URL (web address), which can then be used to access it over the Internet. Use the DDNS service to assign a host name for easy access to your network camera.

NOTES

- If the camera has not previously been registered at the Dynamic DNS Service, you need the registration process first.
- If the camera is already registered at the Dynamic DNS Service and its IP address changes, the DNS service must be updated with this new IP address.
- These regular updates will always occur at the set interval, with no regard to whether automatic updates have been configured or not.

Internet DDNS (Dynamic Domain Naming Service): Provides user with host name to access the camera.

Enable DDNS: Click the Enable DDNS checkbox to active DDNS service.

DDNS server: Enter the DDNS server name. The default DDNS server is security-device.name

Registered host: Enter the registered host name.

User name: Enter the registered user name to be used for accessing the DDNS server.

Password: Enter user password to be used for accessing the DDNS server.

Confirm password: Enter user password again to confirm.

Interval: Set the interval at which to regularly update the Dynamic DNS service. The default setting is 1 hour.

Network-RTP

Network

TCP/IP DDNS **RTP** UPnP Zeroconf Bonjour

Port Range

Start port: 30000 [30000... 39800; Only even values are available]
End port: 30199

Multicast - Stream1

Destination IP: 231 . 1 . 128 . 20 [224.0.0.0... 239.255.255.255]
Port: 40000 [1024... 65530; Only even values are available]
TTL: 1 [1... 255]
 Enable always multicast

Multicast - Stream2

Destination IP: 231 . 1 . 128 . 21 [224.0.0.0... 239.255.255.255]
Port: 40000 [1024... 65530; Only even values are available]
TTL: 1 [1... 255]
 Enable always multicast

Multicast - Stream3

Destination IP: 231 . 1 . 128 . 22 [224.0.0.0... 239.255.255.255]
Port: 40000 [1024... 65530; Only even values are available]
TTL: 1 [1... 255]
 Enable always multicast

Save Cancel

Port Range: The RTP Port range defines the range of ports from which the video/audio ports are automatically selected. This feature is useful if the camera is connected to a NAT router with manually configured port mapping.

NOTE

Limit the range of ports permitted for RTP unicast/multicast by entering the Start port and End port in the provided fields.

Start port: The Start port can be entered in the range 1024-65532. The default setting is 5008.

End port: The End port can be entered in the range 1024-65532. The default setting is 50999.

NOTE

The video/audio ports entered here must be even values.

Multicast-Stream1~3:

Only IP addresses within certain ranges can be used for multicasting. The camera has been pre-configured with addresses from these ranges, and does not normally need to be reconfigured. If an address does need to be changed, please contact your network administrator.

Destination IP: Click in the destination IP box and type IP address.

NOTES

- Multicast addresses are allocated according to these IANA policies.
- The default setting IP address is **231.1.128.20**

RTP port: The RTP port can be entered in the range 1024-65532. The default setting is 5000.

NOTE

The RTP port entered here must be even values.

TTL: The TTL can be entered in the range 1-255. The default setting is 1.

NOTES

- TTL (Time To Live) If IP packets (i.e. data) fail to be delivered to their destination within a reasonable length of time (which could be for various reasons), this setting tells network routers when to discard the packet.
- The value is usually measured in 'hops', i.e. the number of network routers that can be passed before the packet arrives at its destination or is dropped.

Network-UPnP

The screenshot shows a configuration window titled "Network" with a sub-tab "UPnP (Universal Plug & Play)". The "UPnP" tab is active, and the "Enable UPnP" checkbox is checked. Below it, the "Friendly name" field contains the text "PWT-3MPMIR-AC1FD700007E". At the bottom of the window, there are "Save" and "Cancel" buttons.

UPnP is enabled by default, and the network camera then is automatically detected by operating systems and clients that support this protocol.

UPnP (Universal Plug & Play): Click the Enable UPnP checkbox to disable the UPnP. The default setting is enabling.

Friendly name: Click in the Friendly name box and type a description for the text you are creating (1 to 32 alphanumeric characters). If your computer is also enabled, the camera is automatically detected and a new icon is added to "Model Name-MAC address".

NOTE

UPnP must also be enabled on your Windows computer. To do this, open the Control Panel from the Start Menu and select Add/Rename programs. Select Add/Remove Windows Components and open the Networking Services section. Click Details and then select UPnP as the service to add.

Network-Zeroconf

Network

TCP/IP DDNS RTP UPnP **Zeroconf** Bonjour

Zeroconf

Enable zeroconf

IP Address 169.254.44.62

Save Cancel

Zero configuration networking (zeroconf) is a set of techniques that automatically creates a usable Internet Protocol (IP) network without manual operator intervention or special configuration servers.

Zero configuration networking allows devices such as computers and printers to connect to a network automatically. Without zeroconf, a network administrator must set up services, such as Dynamic Host Configuration Protocol(DHCP) and Domain Name System(DNS), or configure each computer's network settings manually, which may be difficult and time-consuming.

Zeroconf: The default setting is enabling.

IP Address: The default zeroconf ip is 169.254.xxx.xxx

Maintenance

Maintenance

Maintain

Restart Restart the unit.

Reset Resets all parameters to the original factory settings, except the IP address and PTZ configurations.

Default Resets all parameters to the original factory settings.

Upgrade

Upgrade the unit with the new firmware.

Specify the firmware to upgrade to :

 and click

[Note]

Do not disconnect power during the upgrade. The unit restarts automatically after the upgrade has completed. (3-4) minutes.

Setup Export

Save all parameters and user-defined script to a export file.

Setup Import

Import configurations from exported file.

Specify the file to import :

 and click

Maintain: Provides software reset of the camera when troubleshooting.

Restart: The camera is restarted without changing any of the setting. Use this method if the unit is not behaving as expected.

Reset: The unit is restarted and most current settings are reset to factory default values, but the following settings does not reset.

- The boot protocol (DHCP or static)
- The static IP address
- The default router
- The subnet mask
- The system time

Default: The Default button should be used with caution. Pressing this returns the camera's settings to the factory default values including the IP address.

Upgrade: Provides the latest firmware into this camera. When you upgrade the firmware with a file, your camera receives the latest available functionality and unparalleled reliability. Upgrades the new firmware as following steps;

1. Click Browse button.
2. Browse to the desired firmware file on your computer.
3. Click Upgrade button.

NOTE

Do not disconnect power to the unit during the upgrade. The unit restarts automatically after the upgrade has completed. (2~3 minutes)

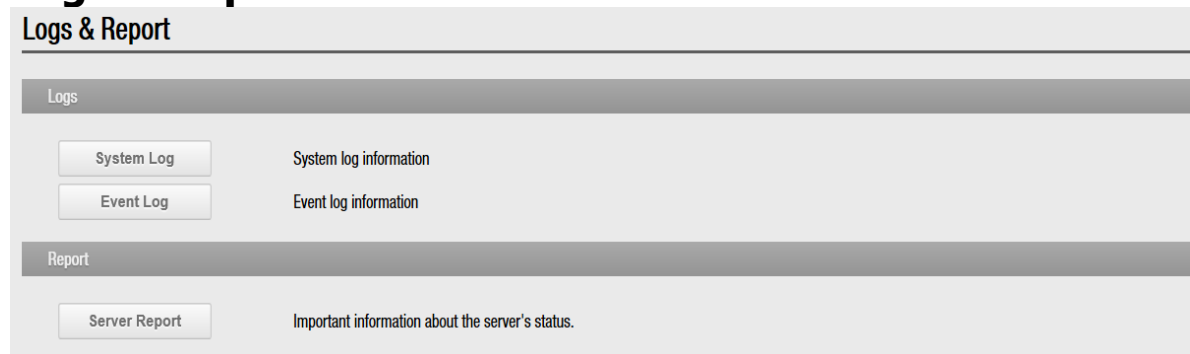
Setup Export: Save all parameters and user-defined scripts to a backup file. Click the Backup button to take a backup of all the parameters, and any user-defined script.

Setup Import: Use a saved backup file to return the unit to a previous configuration. Click the Browse button to locate the saved backup file and then click the Restore button.

NOTE

Setup Export and Import function can only be used on the same unit with running the same firmware. This feature is not intended for the configuration of multiple units or for firmware upgrades.

Logs & Report



Log & Report: The log files records event in the unit since the last system restart and

can be a useful diagnostic tool when troubleshooting. The Report contains important information about the system.

System Log: Provides the system log information.

Event Log: Provides the events log information.

Server Report: Provides the information about the server status and should be included when requesting report. Information be found here includes the camera's firmware version, MAC address, system information, IP address and network connections.

Troubleshooting

If you suspect a problem is being caused by incorrect configuration or some other minor problem, consult the troubleshooting guide below.

Upgrading the Firmware

Firmware is software that determines the functionality of the network camera. One of your first actions when troubleshooting a problem should be to check the current firmware. The latest version may contain a correction that fixes your particular problem. The current firmware version in your camera is displayed on the Basic Configuration or About. For the latest firmware of the camera, please contact with your product administrator. Detailed instructions on how to perform the upgrade process are provided with each new release. See also the Maintenance/ Upgrade for more information.

Camera Reset

When there is a failure in the network connection, please proceed in the following order.

: After opening the COVER, power on the camera while remaining to press Reset Button for about 10 seconds.

General Troubleshooting

The following list covers some of the problems that may be encountered and suggests how to remedy them: