

**F3102/ F3107/ F3110/ F3115 Compact IP Camera**



# Content

<b>Safety Instruction</b> .....	<u>2</u>
<b>Minimum System Requirement &amp; Product Feature</b> .....	<u>4</u>
Minimum System Requirement .....	<u>4</u>
Product Feature .....	<u>5</u>
<b>Main Page</b> .....	<u>6</u>
<b>Basic Setup</b> .....	<u>9</u>
Account.....	<u>9</u>
Network.....	<u>10</u>
Date Time.....	<u>14</u>
Video.....	<u>15</u>
Audio.....	<u>17</u>
<b>Live View</b> .....	<u>18</u>
Video.....	<u>18</u>
Audio.....	<u>18</u>
Camera Setting.....	<u>18</u>
PTZ Control .....	<u>20</u>
<b>Playback</b> .....	<u>21</u>
Client PC.....	<u>21</u>
Network Storage .....	<u>22</u>
Local Storage .....	<u>22</u>
<b>Event</b> .....	<u>23</u>
Event Server.....	<u>23</u>
Event List .....	<u>23</u>
Motion Detection .....	<u>25</u>
Audio Detection .....	<u>25</u>
Schedule.....	<u>26</u>
<b>System</b> .....	<u>26</u>
Maintenance.....	<u>26</u>
Date Time.....	<u>27</u>
Security .....	<u>27</u>
Network Basic.....	<u>28</u>
Network Advanced.....	<u>28</u>
Digital I/O .....	<u>28</u>
LED.....	<u>29</u>
System Log .....	<u>29</u>

# User Manual

## Safety Instruction

### ➤ **Before you use this product**

This product has been designed with safety in mind. However, the electrical products can cause fires which may lead to serious body injury if it is not used properly. To avoid such accidents, be sure to heed the following.

### ➤ **Legal Caution**

Video and audio surveillance can be forbidden by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

### ➤ **Don't open the housing of the product**

Don't try to open the housing or remove the covers which may expose yourself to dangerous voltage or other hazards.

### ➤ **Don't use the accessories not recommend by the manufacturer**

### ➤ **Heed the safety precautions**

Be sure to follow the general safety precautions and the “Operation Notice.”

### ➤ **Operation Notice - Operating or storage location**

Avoid operating or storing the camera in the following locations:

- Extremely hot or cold places  
(Operating temperature: 0 °C to + 40 °C [32 °F to 104°F] )
- Exposed to direct sunlight for a long time, or close to heating equipment (e.g., near heaters)
- Close to water (e.g., near a bathtub, kitchen sink, laundry tub)
- Close to sources of strong magnetism
- Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters
- Locations subject to strong vibration or shock

➤ **In case of a breakdown**

In case of system breakdown, discontinue use and contact your authorized dealer.

➤ **In case of abnormal operation**

- If the unit emits smoke or an unusual smell,
- If water or other foreign objects enter the cabinet.
- If you drop the unit or damage the cabinet: 1 Disconnect the cable and the connecting cables. 2 Contact your authorized dealer or the store where you purchased the product.

➤ **Transportation**

When transporting the camera, repack it as originally packed at the factory or in materials of equal quality.

➤ **Ventilation**

To prevent heat buildup, do not block air circulation around the device.

➤ **Cleaning**

- Use a soft, dry cloth to clean the external surfaces of the device. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry.
- Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface.

# Minimum System Requirement & Product Feature

## System Requirement

For normal operation and viewing of the network camera, it's recommended that your system meet these minimum requirements for proper operation:

Item	Requirements
CPU	Minimum Intel® Core 2 Duo or higher (Core i3 or above is recommended)
Graphic Card	256 MB RAM graphic cards (or equivalent on-board graphic cards)
RAM	Minimum 1 GB of RAM,(2GB or above is recommended)
Operating System	Window 2000, 2003, XP, Vista or Windows 7 Mac OS Leopard 10.5
Web Browser	Internet Explorer 6 or later

### **Note:**

- 1. If using Windows 98 or Windows ME, please install IP Installer before using WEB UI to ensure the system runs normally.**
- 2. If not able to view the recorded video file, please install Xvid codec while installing Intelligent IP Installer. (For Windows 98, ME or 2000 server, the codec might not work properly. Please download Xvid codec 1.0 from the internet.)**
- 3. Please keep updating the latest Windows software and service package. (Ex: Net Framework, Windows Media Player, Enhance ActiveX Security)**




# Product Features

SYSTEM	
<b>Resolutions</b>	H.264 / MPEG-4 / Motion JPEG:
<b>Screen Resolution</b>	Higher than 1024 * 720 pixels
<b>Compressing format</b>	H.264 / MPEG-4 / Motion JPEG
<b>Frame Rate</b>	Up to 30 fps at 1280x720
<b>Image settings</b>	Rotation: Mirror, Flip, Mirror Flip
	Brightness / Contrast / Saturation
	Overlay capabilities: time, date, text and privacy image
<b>Image snapshot</b>	Yes
<b>Video Recording</b>	Yes
<b>Full Screen Viewing</b>	Yes
<b>Digital Zoom</b>	10x digital
<b>Audio</b>	Two-way (full / half duplex) with built-in microphone and speaker
	Audio compression: G.711 $\mu$ law, a law, and AMR
<b>Mobile Phone Live View</b>	Through 2.5 WAP
<b>Alarm Sending</b>	FTP Client / SMTP / Network Storage / HTTP Event
<b>Security</b>	Password Protection / HTTPS encryption / IP Filter
<b>Alarm Buffer</b>	Input: alarm buffer, motion detection, audio detection
	Output: network storage, FTP, SMTP, Pre-and post alarm buffer
<b>Supported protocols</b>	Bonjour, TCP/IP, DHCP, PPPoE, ARP, ICMP, FTP, SMTP, DNS, NTP, UPnP, RTSP, RTP, RTCP, HTTP, TCP, UDP, 3GPP/ISMA RTSP
<b>Simultaneous Connection</b>	Up to 10 users
<b>Operating conditions</b>	0°C ~ 40°C (32°F ~ 104°F)
HARDWARE	
<b>Lens</b>	M12 Board lens
<b>IR LED</b>	5 $\phi$ LEDs x 6 (for F3110 / F3115 only)
<b>IR working distnce</b>	10M (for F3110 / F3115 only)
<b>I/O</b>	1in / 1out
<b>PIR Sensor</b>	Passive infrared (PIR) motion sensor with configurable sensitivity. Max range: 6 m (for F3110 / F3115 only)
<b>Local Storage</b>	Support MicroSD card
<b>Power</b>	5V DC, 1A , Max 5W
NETWORK	
<b>Ethernet</b>	10 / 100 Base T
<b>Wireless</b>	IEEE 802.11b/g/n (for F3107 / F3115 only)

# Main Page

## Toolbar of Main Page



Icon	Function Instruction
 Home	Click this tab to return to the page of live view.
 Setting	Click this tab leads to set up all the configuration.
 Information	This tab indicates the usage information for all function.
 Pause	Click this tab to hold the current video stream for a moment.
 Stop	Click this tab could stop the video being displaying.
 Record	This tab is used to record the current video stream , it turns red when starting to record. The video would be filed by the current date and can be saved at anywhere you want to place.
 Snapshot	This tab is used to take a snapshot of the current image. The image can be saved at anywhere you want to place .
 DO	This tab is used to <u>turn on</u> or <u>turn off</u> the output connected device. 
 Sound	This is listen tab , click on it switches to the mute mode. Use the slider to control the volume. 
 Talk	This is talk tab , click on it switches to the mute mode. Use the slider to control the volume. 
 Fullscreen	Click this tab to stretch the view to the entire screen. Press the ESC on the computer







Client Setting	
Profile	Click the drop-down menu to choose video compression mode of Live View among H.264, MPEG-4, MJPEG and H.264. Note: As long as the operating system is not able to afford loading under H.264 mode, please downgrade the mode to MPEG-4 or MJPEG.
View Size	Select the desired view size of image resolution between Fit Screen and Full Screen.
Protocol	Select the transferring protocol among TCP, UDP, and HTTP.
Video Buffer	Turn the Video Buffer function On / Off. The Video Buffer function makes the streaming more smoothly in unsteady network environment, but might cause a little delay in live view.





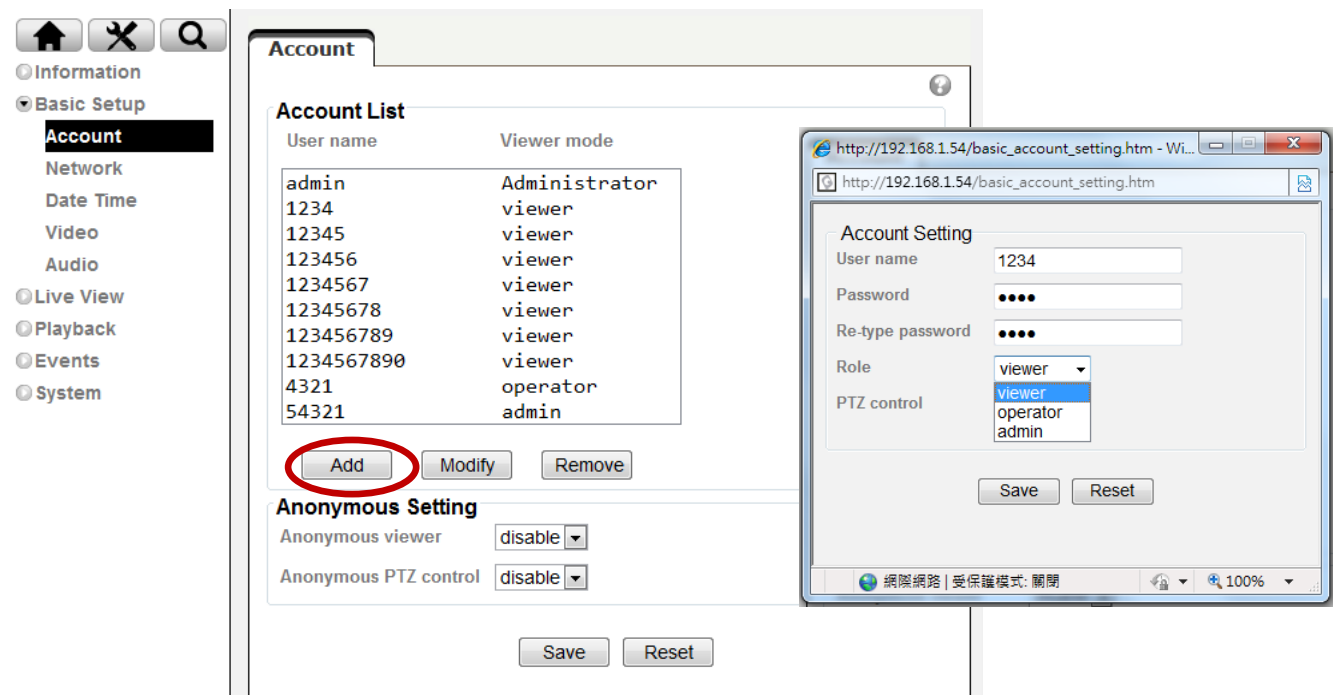
PTZ	
	Click the Home button and it brings you back to the center no matter what position you are at.
	Move the camera view to the direction that the various arrows you click on.
Preset	Use the various direction arrows to steer the camera view to the required position , and name it for the specified position.
Patrol	Before starting this function, it requires to specify Guard tour settings in the Setting

# Basic Setup

## Account

### Account List

The device default account and password setting is “admin / admin”. That means everyone who knows IP address can access the device including all configuration. It is necessary to create a new password if the device is intended to be accessed by specific ones.



Click “Add” to create the accounts to the specific users. There are 1 default account and 9 accounts that you may assign 3 different viewer modes as you wish. The instruction of 3 viewer modes listed as below:

Viewer	It only allows the user to access to the Live View page.
Operator	It allows to view the Live View page, create and modify events, and adjust certain other settings.
Administrator	It allows the user to watch the live view and access all configurations.

### Anonymous Setting

There is a drop-down menu for both “Anonymous viewer” and “Anonymous PTZ control” to disable or enable the function.

# Network

## TCP/IP

### Internet Protocol Version 4 (TCP/IPv4)

**Obtain an IP address automatically (DHCP):** If a DHCP server is installed on the network, to select this while the IP address is assigned by the DHCP server.

**Obtain DNS server address automatically:** Select this to obtain the address of DNS server automatically.

**Internet Protocol Version 4 (TCP/IPv4)**

MAC  
00:1B:FE:02:70:C1

Obtain an IP address automatically (DHCP)

Use the following IP address

IP address: 192 . 168 . 1 . 54

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 1 . 54

Use the following DNS server address

Preferred DNS server: 0.0.0.0

Alternate DNS server: 0.0.0.0

**Use the following IP address:** Select this option when the fixed IP address is set.

- IP address: Enter the IP address of the device.
- Subnet mask: Enter the subnet mask.
- Default gateway: Enter the default gateway.

**Use the following DNS server address:** Select this when you set the fixed address as the IP address of DNS server.

- Primary DNS server: Enter the IP address of the primary DNS server.
- Secondary DNS server: Enter the IP address of the secondary DNS server, if necessary.

## HTTP

**HTTP port number:** Select **80** in general situations. If you want to use a port number other than **80**, select the text box and enter a port number between 1024 and 65535.

- When you have set the HTTP port number to a number other than 80 on the Network Setting screen in the Setup Program, access the device by typing the IP address of the device on the web browser as follows: Example: when HTTP port number is set to 2000 <http://192.168.1.100:2000/>

**HTTP**

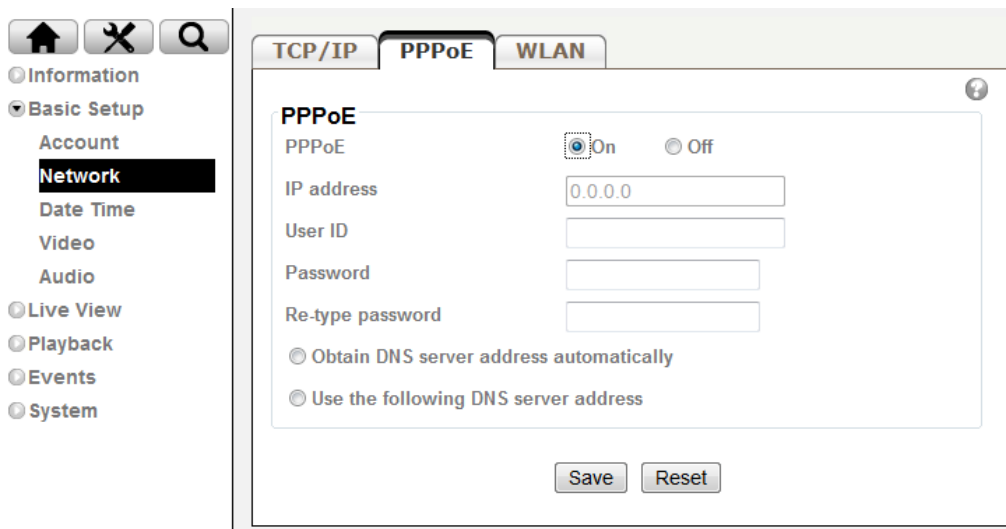
HTTP Port  80  (1124 to 65535)

**Note:** Reboot the IP Camera after the network setting has been made.

**Note:** If you connect the IP Camera with your computer directly, the default network domain of camera is 192.168.1.xx

## PPPoE

If your ISP provides Dynamic IP with authentication by username and password, type all PPPoE information in this part. When using the PPPoE function, you need to turn on the DDNS or IP Notification function at the same time.



The screenshot shows a web interface for network configuration. On the left is a sidebar menu with options: Information, Basic Setup (Account, Network, Date Time, Video, Audio), Live View, Playback, Events, and System. The 'Network' option is highlighted. The main content area has three tabs: TCP/IP, PPPoE (selected), and WLAN. The PPPoE tab contains the following settings:

- PPPoE:  On  Off
- IP address:
- User ID:
- Password:
- Re-type password:
- Obtain DNS server address automatically
- Use the following DNS server address

At the bottom of the form are 'Save' and 'Reset' buttons.

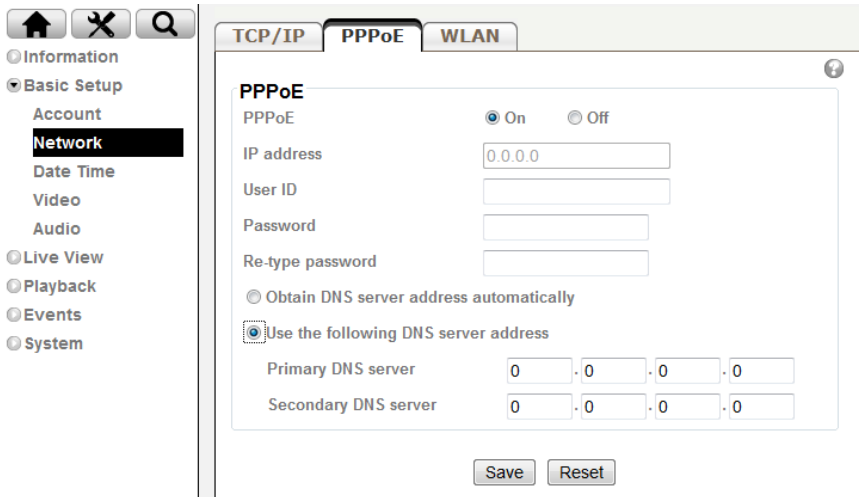
**IP address:** The IP address obtained at the PPPoE connecting with network.

**User ID:** Enter the user ID for authentication necessary for PPPoE connections. Type it up to 64 characters.

**Password:** Enter the password for authentication necessary for PPPoE connections. Type it up to 32 characters.

**Re-type password:** Re-type the password to confirm.

**Obtain DNS server address automatically:** Select this to obtain the address of DNS server automatically.



**Use the following DNS server address:** Select this when you set the fixed address as the IP address of DNS server.

- Primary DNS server: Enter the IP address of the primary DNS server.
- Secondary DNS server: Enter the IP address of the secondary DNS server.

**Note : 1. PPPoE (Point-to-Point Protocol over Ethernet):** PPPoE is a network protocol for encapsulating Point-to-Point Protocol frames inside Ethernet frames. PPPoE connection is used mainly with ADSL service where individual users connect to the ADSL transceiver (modem) over Ethernet work. It is also widely used in XDSL (digital affiliate line such as ADSL, VDSL or SDSL)

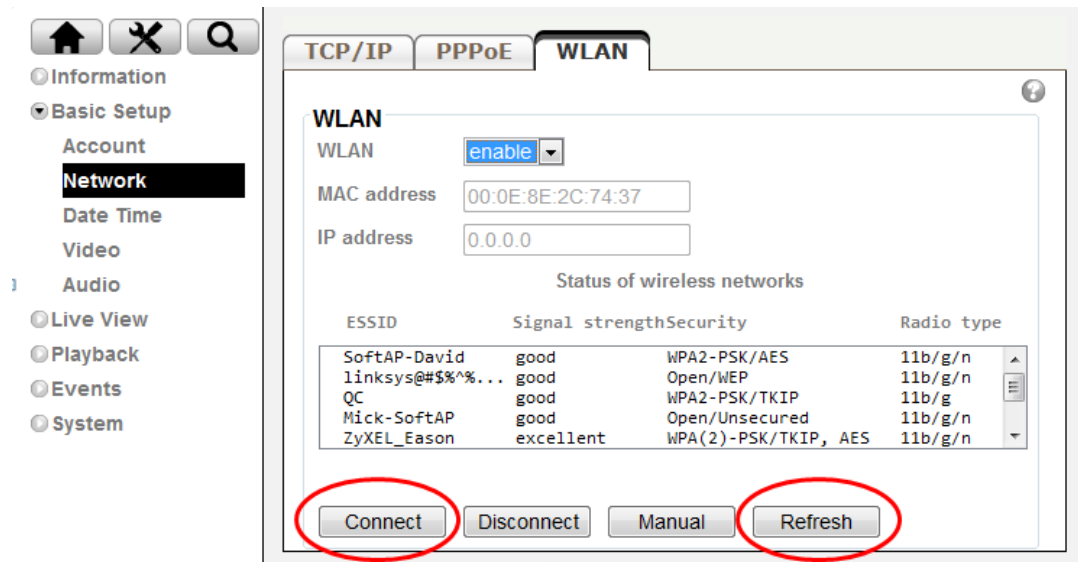
**2. Reboot the IP Camera after the network setting has been made.**

**3. The IP Camera with Intelligent IP Installer can't be founded after turning on the PPPoE and reboot.**

### WLAN ( for F3107/F3115 only )

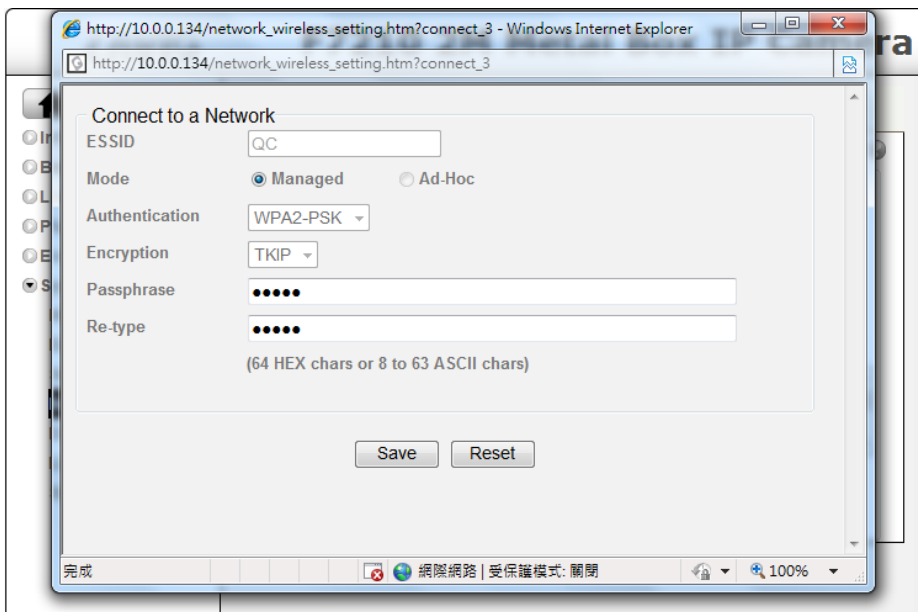
The wireless network has to be set up by using cable network connection. After setting the camera correctly, the wireless function can work without cable network connection. Please follow the setting process below step by step:

1. Make sure IP Camera connect with Wi-Fi USB.
2. Go to "Setting → System → Network → WLAN," select option "Enable". You will see the wireless Setting screen.



3. Then click “Refresh”. All access points (AP) around you will show up.

4. Select the AP you wish to connect and click “Connect”.



5. Enter password at passphrase if you need. If you don't know the setting of the wireless AP, please ask your network administrator.

### WPS ( for F3107/F3115 only)

WPS (Wi-Fi Protected Setup) also known as a standard for easy and secure establishment of a wireless home network. Enable it when wireless is turned on, and you will see the wireless IP and MAC of this IP camera.

## Configuration Method

- **PBC** – Select to start WPS configuration.
- **PIN** – Select and click **Generate new PIN** to generate a new PIN code and start WPS configuration.

This list is the result of network scan that only provide wireless AP with WPS function. It will be shown where the network is currently linked.

# Date Time

## Current Date / Time

It displays current time and date of IP Camera and PC that you connected, and you may select the Date/Time format as you wish in the drop-down menu.

**Note:** If you would like the Date / Time information shows on the Live View screen, please check “**Basic Setup** → **Video** → **Overlay** → **Overlay Type** → **Time Stamp** ” and save the setting.

## Synchronization Method

- **Keep current setting:** Select this mode to keep the current date and time of this IP Camera.
- **Synchronize with Client PC:** Select this mode to keep the date and time of this IP Camera is the same as the monitoring PC.
- **Manual setting:** Select this mode to adjust manually the date and time of this IP Camera.
- **Synchronize with NTP:** Specify the NTP server name and click “Update now” to synchronize the date and time of this IP Camera with those of the time server, known as the NTP server.

## Time Zone

**Time Zone:** Select the Time Zone format of Greenwich Mean Time among different cities. The time display will be the same as the current date / time option.

**Daylight Saving Time:** There are two modes to choose for setting up daylight saving time.

- **By Date:** Set the start and end time by select month, day, hour, and minute.
- **By Week Number:** Set the start and end time by select month, week, hour, and minute.



**Time Zone**

Time zone

Daylight Saving Time  On  Off

Start time  By date  By week number  
    :

End time  By date  By week number  
    :

**Note:** The NTP server (Network Time Protocol) is the time server which is an Internet standard protocol built on the top of TCP / IP. This assures accurate synchronization to the millisecond of computer clock times in a network of computers.

## Video

### Video Setting

### Image

**Image Rotated:** Select the screen display “flip”, “mirror”, or “flip + mirror”.

**Video clip format:** Select **RECORDING compression format** H.264、MPEG-4、MJPEG、EZVuu HQ and EZVuu LQ .

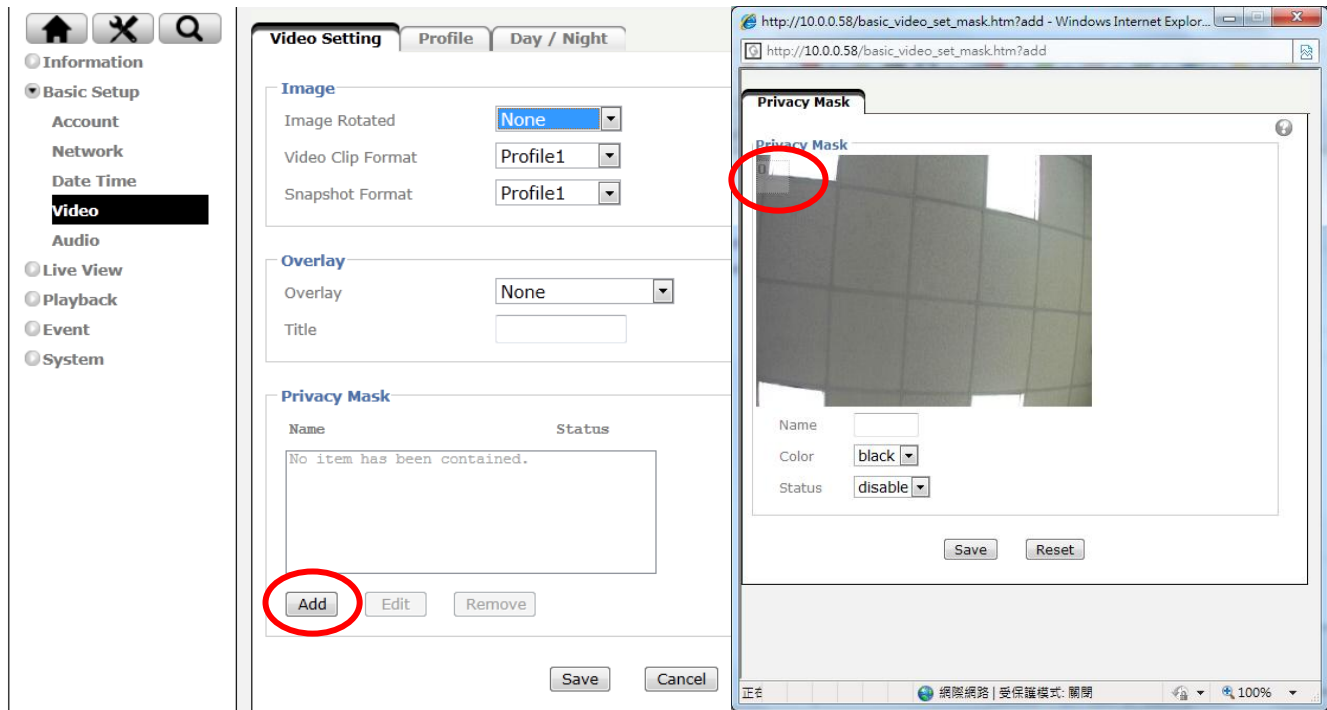
- **Profile1(H.264):** H.264 provides higher compression rate than MPEG-4. Thus, H.264 can decrease the bandwidth usage and further apply on 3G. However, H.264 will occupy more system resources than MPEG-4. As long as the operating system appears operating difficulties under H.264 format, please change to select MPEG-4.
- **Profile2(MPEG-4):** MPEG-4 has the advantage of sending a lower volume of data per time unit across the network (bit-rate) compared to Motion JPEG and therefore provides a relatively high image quality at a lower bit-rate (bandwidth usage).
- **Profile3(MJPEG):** Motion JPEG stream uses considerable amounts of bandwidth, but provides excellent image quality and access to every image contained in the stream.

## Overlay

Text information can be showed on the display screen, such as Date / Time and the user-defined title.

## Privacy Mask

Privacy Mask is an area of solid color that bans users from viewing part of monitored area.



Click “Add” and a setting pop-up window comes out. A translucent rectangle is located at up left of the image, drag it to where you wish to cover and resize it. Enter a descriptive name, select the color and enable it then save.

## Profile

There are five stream profiles available for quick set-up. These settings can be adjusted and new customized profiles can be created. Each profile has a descriptive name, describing its usage and/or purpose. The profiles can be selected from the Live View page.

- Create a new stream profile: Click “Add” and a setting pop-up window comes out,
- Edit the stream profile: Click the profile you appoint to modify and click “Edit” to do the further setting.

**Profile description**

Profile name

Description

---

**Video Setting**

Encoding

View area

Resolution

Maximum frame rate  fps (1~30)

Quality

Fixed quality

Fixed bitrate

---

**Audio Setting**

Audio stream

Current audio setting :

Audio mode

Audio input

Audio output

Day / Night ( for F3110 / F3115 only)

- **IR cut filter mode:** There are 4 modes for IR cut filter to switch Auto, Night Mode, Day Mode, Schedule to make IR cut filter work based on different conditions.
- **IR cut filter switch delay:** This is interval time (by seconds) when the IR cut filter switch has been implemented till it indeed works.
- **IR cut filter threshold:** Dark-This is the threshold for the IR cut filter image environment being bright turning to dark.Bright- This is the threshold for the IR cut filter image environment being dark turning to bright.
- **IR Mode:** Select one among four modes --- auto / active / inactive / schedule. It decides IR working condition.
- **IR Level:** The strength of IR light can be adjusted upon application environment.

**Day / Night**

IR cut filter mode

IR cut filter switch delay

IR cut filter threshold  Dark  Bright

IR mode

IR Level  Dark  Bright

# Audio

## Audio Channel

- **Full duplex:** Select it for simultaneous communication in both direction between the connected administrator and IP CAM. It means both parties can speak and be heard at the same time.
- **Half duplex:** Select it for communication in both directions, but only one direction at a time. It cannot receive signal until the transmission has been done. Therefore, once one party speaks but can't hear the voice, and vice versa.
- **Talk only:** It narrows down to one way just for talking.
- **Listen only:** It narrows down to one way just for listening.

## Audio Input

Select the microphone input gain value you wish in the drop-down menu, and based on your region to select the proper codec and save all settings.

- G.711 U-law : one codec for “Computer Audio”, used in North America & Japan areas.
- G.711 A-law : another codec for “Computer Audio”, used in Europe and the rest of the world.
- AMR Audio: an audio codec of the third generation communication for mobile. PHONE. While the option selected, your mobile phone will receive the audio file from IP Camera. And you can choose the bit rate from 4.75k to 12.2k. However, the usage of this codec will cause frame-rate decreasing.
- Off: audio file won't be transmitted by IP CAM.

## Audio Output

Select the speaker output gain value you wish in the drop-down menu and save it.

**Note:** The Camera does not support echo cancelling; using the full duplex mode may cause audio feedback.

## Live View

## Video

Please refer to p.15~17

# Audio

Please refer to p.17~18

## Camera Setting

### Image Setting

#### Image Enhancement

- **Brightness:** The image brightness can be adjusted in the range 0-100, the a higher value produces a brighter image.
- **Saturation:** Adjust the saturation in the range 0-100, the higher value gets more colorful image.
- **Contrast:** Adjust the image's contrast by raising or lowering the value in the range 0-100.
- **Sharpness:** Controls the sharpness applied to the image in the range 0-100. A sharper image might increase image noise especially in low light conditions. A lower setting reduces image noise, but the image would be less sharp.

#### White Balance

**Color Tone:** 3 optional color tones(cool, real and warm), it depends on individual preference to select.

**Auto White Balance:** This is used to adjust for the different colors present in different light sources, to make the colors in the image appear the same. The IP camera can be set to automatically identify the light source and compensate for its color. Alternatively, the type of light source can be manually selected from the drop-down menu.

#### Exposure Setting

- **Exposure Frequency:** The default setting of lighting environment is **Auto**. However, you may select **50** or **60** Hz upon the lighting environment of your country. The **hold current** option fixes the current exposure settings
- **Automatic exposure:** You can manually set the exposure value, which ranges from 0-100(dark to bright). The default value is 25.
- **Exposure time:** Select a proper exposure time according to the light source of the surroundings. The exposure times are selectable as the following durations: 1/120second, 1/60 second, 1/30 second, 1/12 second, 1/6 second, 1/3 second, and 1second. Shorter exposure time brings less light.
- **Gain:** According to the surroundings in the low light and make the range among 1-64. The higher value makes brighter image, however brings more noise at the same time.

- **Low light behavior:** This is the operation aims at low light and night mode. According to the surroundings you can manually set the preferable settings differ from the regular “Exposure Settings”. Nevertheless, the low light behavior can be scheduled up by **working day**, **weekend**, and **night mode** as user’s preference.
- **Backlight Compensation:** It makes the object clearer display when the image background is too bright or the object is too dark.

### Wide Dynamic Range

Enable **Wide Dynamic Range** auto in different level to improve the exposure when both bright and dark areas simultaneously in the field of view of the camera. The level goes from 1-8, the larger number brings stronger influence, and the default is off.

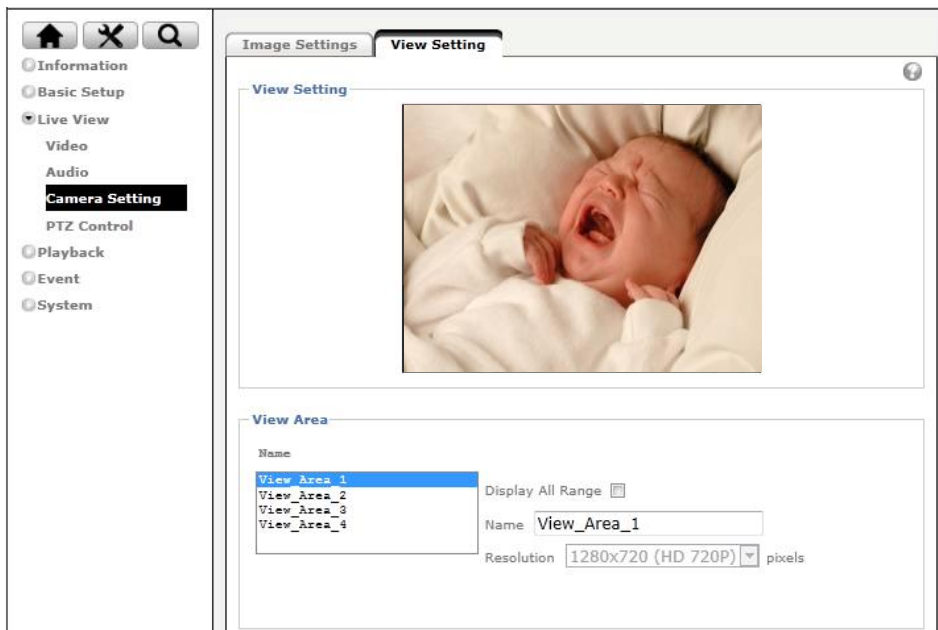
### Noise Reduction

Select the period you wish the noise reduction being executed in the drop-down menu, there are **working day**, **weekend**, and **night mode**.

### View Setting

A view area is a cropped part of the overview image. Each view area is treated as a video source in Live View with its own Video Stream, PTZ and Event settings. There are 4 areas can be preset and 6 various resolutions for each view area.

**Note:** Except the View Area1 has been fixed to be full resolution, the rest of the three are available to be set to resolution you wish in the drop-down menu.



# PTZ Control

## PTZ Setting

You may set the speed of digital pan/tilt/zoom, and also speed for preset/patrol. The range goes 1-100(slow to fast).

## View Area

### Control Panel

This can be set up the selected view area in every profile. Besides the viewing window there is a PTZ control panel to go to the direction you want.

**Note:** Before operating this function, you must set the resolution beneath 1920x1080, and move your view area to your desired position.

### Preset Position

Name your every position and click “add”, you can click “go” to make sure if the preset position has been written in.

### Guard Tour

Click “add” , name the tour first then add in the preset position you desired to form the tour. You can manually set the PTZ speed and the interval time.

# Playback

## Client PC

This is for uploading the recorded file saved in the PC and play back to see the video.





①	Click it to upload the recorded file in the PC
②	Click it to stop the current video
③	Click it to pause the playing video
④	Click it to slow down the playing speed
⑤	Click it to speed up the playing speed
⑥	It displays the current playing video length
⑦	It displays the whole video length
⑧	It displays the current video speed
⑨	Click it to adjust the volume of video and mute
⑩	Click it to make digital zoom

## Network Storage

Network storage provides the storage function for saving image files to the specified computer and folder connected with the operating computer.

Before using this function you must go to Event Server in Event to configure all settings and make the recording file saved here.

## Local Storage

Memory card provides local storage function for saving image files to the specified SD card in your camera. This function can be enabled only when you insert SD card to the camera and the SD/SDHC card works well.

Before using this function you must go to SD card in Event to configure all settings and make the recording file saved here.

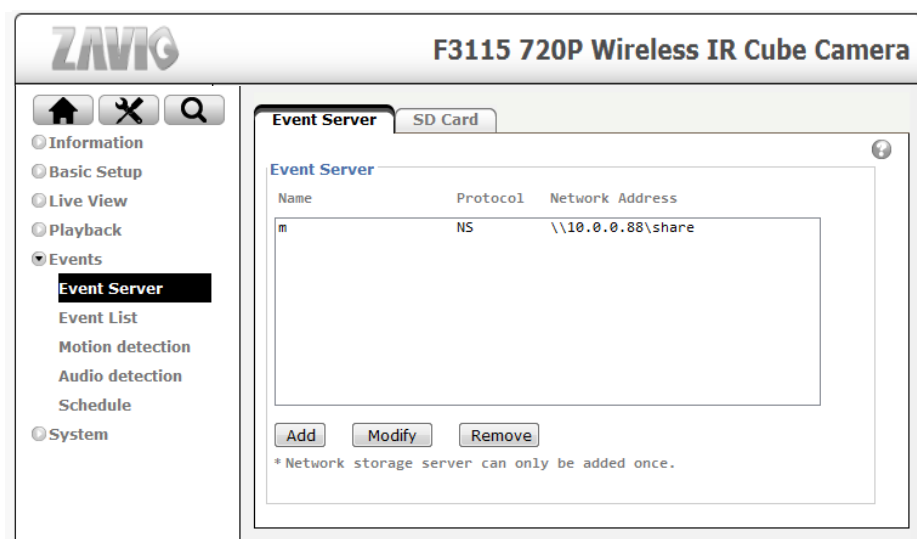
# Event

## Event Server

### Event Server

Click “Add” to create a event server then the setting page pops up. Name it, select your network type put on the storage location. This is optional to create the password for certain group to use it. Then click the “Test” button to see if it works, it will show the information on the pop-up window to see your setting if has been made successfully.

3 types of event transmission offered to select. There is a range 0~7 seconds can be selected individually for pre-event and post-event. 3 suffix options for naming image file by **Name**, **Date Time** and **Sequential Number**.



### SD Card

Make sure to insert the SD Card first then click “on”. Create a folder name for event server in SD Card. Optional selection for overwrite the previous file or not, if not, you may set a warning when the capacity below the following percentage:5%, 10%, 25% and 50%.

## Event List

### Event List

#### General

Name the event file and make it on or off.

## Trigger

You may activate the following trigger types as you wish depends on various conditions:

- **Motion Detection:** Click it on for using Motion Detection function as a sensor. You must configure motion detection function before taking this as the trigger. Set minimum time interval between 2 triggers, and choose the desired detection area. The detection type individually stands for the following meanings:
  - Start:** The trigger would be activated when the target object starts to move.
  - Stop:** The trigger would be activated when the target object stops to move.
  - Start-Stop:** The trigger would be activated during the target object starts to move till it stops.
- **Audio Detection:** Click it on for using Audio Detection function as a sensor. You must configure audio detection function before taking this as the trigger. Set minimum time interval between 2 triggers. The detection type stands for the following meanings individually:
  - Start:** The trigger would be activated when the sound being made.
  - Stop:** The trigger would be activated when the sound being cut off.
  - Start-Stop:** The trigger would be activated during the sound being made and cut off.
- **Tampering Detection:** This setting is set for the trigger will be started for the duration of tampering lasts you configure. The duration range is from 5 seconds to 900 seconds
- **Digital Input:** This can be set to control the external alarm input of I/O port on the rear of the device to start the trigger.
- **Periodical:** This can be set the certain period(by minute) to start the trigger.
- **On boot:** The event is triggered when the IP Camera has been started over .
- **IR Cut Filter:** This can be set the IR Cut filter mode to start the trigger.
- **Capacity Warning:** This is triggered when SD Card capacity is be below the value you set.
- **Network Link Down:** The event is triggered when the network get disconnected.
- **IP Notification:** The event is triggered when the network being restarted or the IP being changed. And there are optional network types to select, such as **DHCP** 、 **Static IP** and **PPPoE**.
- **PIR:** Click it on for using as a sensor. You must configure trigger alternative before taking this as the trigger. Set minimum time interval between 2 triggers.
  - Start:** The trigger would be activated when the sound being made.
  - Stop:** The trigger would be activated when the sound being cut off.
  - Start-Stop:** The trigger would be activated during the sound being made and cut off.

## Action

There are multiple choices for action taking which is optional for user to select all of them or part of them: **Send Image** 、 **Send Notification** 、 **Activate Digital Output** or **Night Mode**.

- **Send Image:** You may set up where the image sent to, options like event server and SD card. You must configure it first, please refer to **Event Server**.
- **Send Notification:** Firstly got to HTTP server configure the HTTP server URL, port, User ID, Password, and Proxy server settings.  
**Note:** The setting of URL should be the same as CGI.
- **Active Digital Output:** Firstly configure the PTZ to set up the preset positions and tour you desired. You may select to return to the last position after the event being triggered.
- **Night Mode:** You may set up this action being activated continually while the event triggered or continually every period(by second) interval.  
**Note :** Only Motion Detection excludes Night Mode

## Schedule

You may set up the event schedule as “always” or scheduled by working day, weekend or night mode. You must configure schedule before using it.

# Motion Detection

Add the motion detection zone and name it, you can adjust the zone of detection with the mouse. There are 10 for detection zone at maximum. The bar on the top of motion detection area is red when the alarm is triggered.

**Threshold:** Set the threshold of the alarm in the motion detection zone. The higher threshold is, lesser detections can be triggered.

**Sensitivity:** Set the sensitivity for motion detection zone. The higher sensitivity is, the more sensitive it gets.

# Audio Detection

Select “on” if you want to activate the audio detection. The bar on the top of motion detection area is red when alarm is triggered.

**Threshold:** Set alarm threshold for audio detection. The higher threshold is, the lesser detections can be triggered.

**Sensitivity:** Set alarm sensitivity for audio detection. The higher sensitivity is, the more sensitive it gets.

# Schedule

The schedule is made for **Event List** to set the recording period. There are already 3 modes(**Working Day**、**Weekend** and **Night Mode**) has been set for user, there are 7 more modes are available to set manually.

## System

# Maintenance

## Restart

Restart button is for reboot the IP Camera digitally, you may reboot the camera manually or automatically.

Click “on” and shows two modes for user to reboot the camera automatically. **Sequential Mode** offers the selection that how many days you would like to reboot, 7 days at most. **Schedule Mode** is able to select the certain day and time to reboot.

## Backup/Restore

**Default:** Click this button to recover this IP Camera to the factory default setting. A confirmation dialogue will appear and then click “OK” to execute. The network indicator on this IP Camera will start to blink. This IP Camera will reboot automatically after completing adjustments to the default setting. Don't turn off this IP Camera until the device reboots. Furthermore, the **IP** and **Date Time** that are already set up can be fixed.

**Backup:** You can save the setting data of this IP Camera into a file. Click “Save” and follow the instructions on the browser to save the setting data file to the location you specified.

**Restore:** Download the saved setting data of this IP Camera. Click “Browse” and select saved file. Click “OK” and this IP Camera is adjusted according to the loaded data and then restarted.

## Firmware Upgrade

Update the device software. Click “Browse” and select the file for updating. A confirmation dialogue will appear. Click “OK” to start. This IP Camera will reboot upon completion.

# Date Time

Please refer to p.14~15

# Security

## Account

Please refer to p.9

## IP Address Filter

Once enabled it, the listed IP address are allowed or denied access to the product. Add the IP Address that you'd like to allow or deny and select allow or deny from the list and save it.

## HTTPS

**HTTPS** is a URL scheme used to indicate a secure HTTP connection. It is syntactically identical to the http:// scheme normally used for accessing resources using HTTP. Using an https://URL/ with a different default TCP port (443) and an additional encryption / authentication layer between the HTTP and TCP. You can use the IP camera through HTTPS easily by using https:// instead of http://.

- **Create & Install:** Create a self-signed certificate for HTTPS to recognize.
- **Installed Certificate:** Display or remove the properties of the installed certificate.
- **HTTPS Connection Policy:** Set HTTPS connection policy for different level of users.
- To use the HTTPS encryption, please set up “**Create self-signed certificate**” for the first time you use the HTTPS function, and then set up the connection policy for different users.

**Note:** When enable HTTPS with RTSP on mode, the IP Camera only protect the setting such as username and password and do not protect video and audio. When enable HTTPS with RTSP off mode, the IP Camera will protect all setting including video and audio.

# Network Basic

Please refer to p.10~14

# Network Advanced

## RTSP

### General

**RTP Port Range:** The default value of port range is 5000 ~ 7999 and can be changed from 1124 to 65534.

**RTSP Port:** The default value is 554. If the IP Cameras connected with router and installed outside are over 2 sets and all of them need support RTSP, please fill the value in the blank space in the range from 1124 to 65534.

## RTSP Configuration

Configure the RTSP by profile, then enable or disable the authentication.

### Multicast

**Status:** This can be enabled or disabled the multicast.

**Access Name:** This will be shown and changed along with the profile you select.

**Multicast Address:** Specify the multicast server address.

**Video / Audio Port:** Specify the transmission port number of the video data, from 1124 to 65534.

**Time to Live:** Set the maximum TTL that multicast can pass through. The default value is 15.

### UPnP

If you have a Router to access to internet and the Router supports UPnP IGD function, you need to turn on the UPnP Port Forwarding function.

- **HTTP port:** Enter the HTTP port number and default HTTP port is 80.
- **SSL port:** Enter the SSL port number and default SSL port is 443.
- **RTSP port:** Enter the RTSP port, default value is 554 for computer view.

**Note :** UPnP (Universal Plug and Play): UPnP is a set of computer network protocol. It allows devices to connect seamlessly and simplify the implementation of networks in the home and corporate environments.

### Bonjour

Bonjour, also known as zero-configuration networking, enables automatic discovery of computers, devices, and services on IP networks. Bonjour uses industry standard IP protocols to allow devices to automatically discover each other without the need to enter IP addresses or configure DNS servers.

- **Device Name:** Enter Device Name you wish.

**Note:** How to use Bonjour in your Windows Browser UI? Please check the link below:

<http://www.apple.com/support/downloads/bonjourforwindows.html>



## DDNS

DDNS is a system which allows the domain name data held in a name server to be updated in real time. The most common use for DDNS is allowing an internet domain name to be assigned to a computer with a varying / dynamic IP Address.

This makes it possible for other sites on the internet to establish connection to the machine without needing to track the IP Address themselves.

- **Server name:** Choose the DDNS Server from the list.
- **User ID:** Enter the user ID for authentication necessary for DDNS connections. Type it up to 64 characters.**Password:** Enter the password for authentication necessary for DDNS connections. Type it up to 32 characters.
- **Re-type password:** Re-type the password to confirm.
- **Host name:** Enter the host name that is registered to the DDNS server.
- **Periodical Update:** Update your DDNS information periodically.

## Digital I/O

You can set Alarm Input and Output function in this menu to control the I / O port on the rear of the device linked to the alarm detection and the timer. Select open circuit and grounded circuit as your alarm.

## LED

This is optional for user to select to show the LED indicator or not to as the IP Camera is turned on. What benefit it gets when LED off is it's not easily to be aware when somebody sneak in the space where the camera installed, especially at the darkness.

## System Log

### System Log

Enable the remote log to let the log being saved in the remote server in case that the camera being cut down. Put on the server name and select the sever port and save it.

## **FCC statement in User's Manual (for class B)**

### **"Federal Communications Commission (FCC) Statement**

This Equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **FCC Caution:**

1. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference, and
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
3. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

### **IMPORTANT NOTE :**

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.