

# ONVIF 1080P60 H264 Video Decoder



## User Manual ver.1.0

---

## Safety Precaution

We appreciate you purchasing video server.  
Before installing the product, please read the following with care.

- **Make sure to turn off the power before installing the video server.**
- **Do not install under the direct sunlight or dusty areas.**
- **Make sure to use the product within the temperature and humidity specified in the specification.**
- **Do not operate the product innerness of vibrations or strong magnetic fields.**
- **Do not put electrically conducting materials into the ventilation holes.**
- **Do not open the top cover of the products. It may cause a failure or electric shock on the components.**
- **To prevent from overheating, make sure to keep the distance at 10cm from the ventilation holes.**
- **Make sure proper voltage is used before connecting power.**

# 1. Introduction

## About this manual

This user manual provides information on installation setup and operation of the video server, as well as troubleshooting tips.

### **FEATURES**

This Video Decoder is an IP Decoder for various forms of video streaming (RTSP MPEG TS RTMP ONVIF) Supporting HDMI 3G HD-SDI and Composite video outputs. A 100 camera spot monitor function is provided either sequencing or remote controlled.

### **VIDEO**

- Up to 1920x1080 @ 60 fps Decode
- Highly efficient compression algorithm, H.264 & MJPEG support
- Wide range of transmission rates: 32kbps - 16mbps
- Various transmission modes: CBR, VBR
- Motion detection

### **AUDIO**

- Multi-Transmission Mode: Uni-directional Mode (IP-server to Client PC or Decoder / Client PC to Decoder to IP-server), Bi-directional Mode.

### **NETWORK**

- Fixed IP & Dynamic IP (DHCP) support
- 1:1, 1:N support
- Multicasting
- Automatic transmit rate control according to network conditions
- Onvif, PSIA compliant

### **SERIAL DATA**

- RS-485 support
- Data pass-through mode: Serial data communication between Encoder - Decoder

### **USB**

- Connection to internal or external USB storage for remote access, recording and playback.

### **USER INTERFACE**

- Diagnose and upgrade through dedicated program called True Manager
- System configuration using Internet Explorer
- 

### **HIGH RELIABILITY**

- Reliability embedded system
- System recovery by dual watch-dog functions

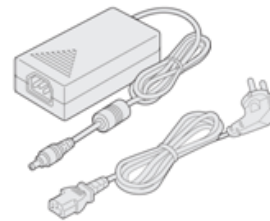


---

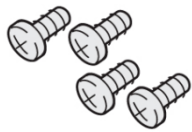
## Product and Accessories



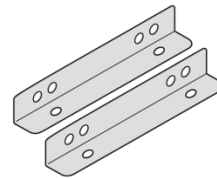
**QUICK START MANUAL**



**POWER ADAPTER AND CABLE**



**SCREWS**



**BRACKETS**



## SYSTEM CONNECTIONS

Video Decoder operates in one mode; Decoder Video server systems can be connected in either 1 to 1 fashion where one encoder is connected to one decoder or 1 to many fashion where one encoder is connected to many decoders.

**Following charts shows data status of video, audio and serial data.**

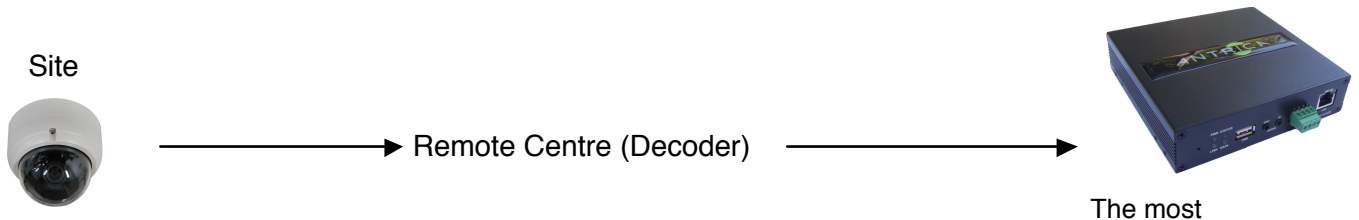
System Mode	Video	Audio	Serial Data
Decoder	Receive	Transmit/Receive	Transmit/Receive

The system mode is defined by the video communication and the system mode is capable of single directional transmission of audio and bi directional serial data.

## TOPOLOGY

Generally the encoder and decoder are connected in 1 to 1 mode to support specific situations, 1 to multiple connections is also supported.

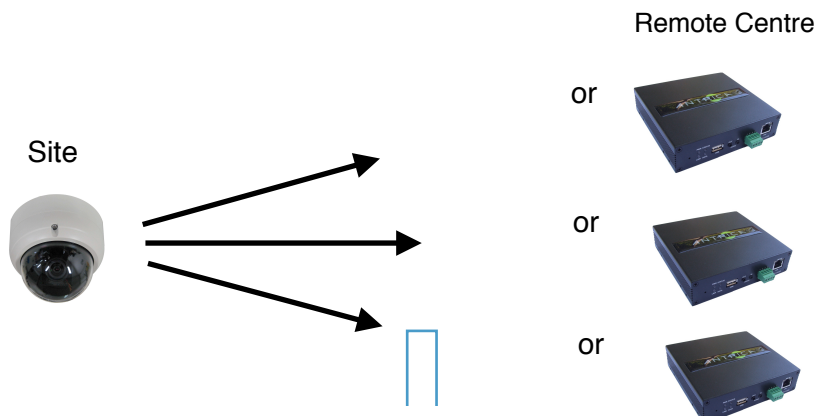
### • 1:1 CONNECTION (UNIDIRECTIONAL TRANSMISSION).



The most commonly used configuration is 1 to 1 connection. An encoder is installed at a site where video images can be transmitted and a decoder is installed at a location to receive and view the video images on monitors. Audio and serial data are transferred in either direction.

A decoder and encoder can be connected by setting the encoders address at the decoders remote IP.

### • 1:N CONNECTION (MULTIDIRECTIONAL TRANSMISSION).



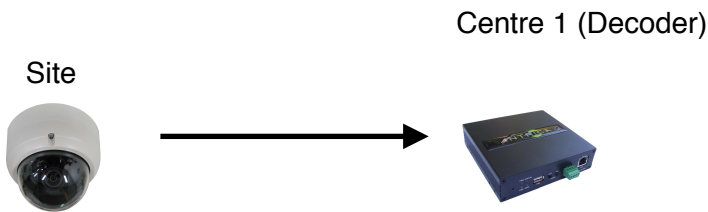
In this configuration, a site can be monitored from many remote centre locations. Maximum connections would be limited by the network bandwidth.

Functionally, the VMS (Video Management System) software can replace the decoder.

### **MULTICAST MODE**

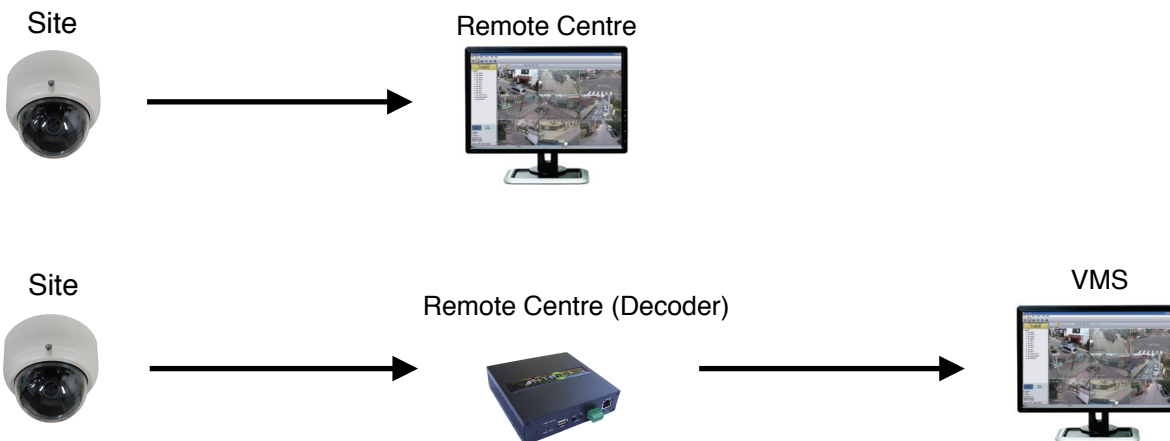
In the network supporting multicast mode, if multicast is setup as a system protocol, you can use bandwidth efficiently regardless of the number of decoders. In 1:N connection, a large number of decoders can receive audio and video data from a decoder by using a single streaming transmission.

#### **• RELAYING**



In this arrangement, video and audio can be retransmitted from a centre to another centre. The arrangement is useful when the network bandwidth at the site is limited while there is more than one centre wanting to monitor the site.

#### **• VMS (VIDEO MANAGEMENT SYSTEM)**



VMS (Video Management System) is a Windows based remote monitoring program to access multiple decoders for real-time monitoring or control of the decoder. Please refer to VMS User Manual for more information on VMS.

## 2. Installation

Check if it works

Once the power is supplied to the Decoder it will start booting. The system will boot up to an operating mode after approximately 40-60seconds. The green LED on the Ethernet port will flash indicating the system is ready.

Software provided called **True Manager** allows you to check the IP address and other network details of the camera. Please refer to the True Manager manual for instructions on how to find the IP address of the device. and if required changing it.

PWR	STATUS	LINK	DATA
○	○	○	○
Red	Green Blinking		OFF

● **Decoder  
LED Display**

These LEDs show that the Decoder has started without connecting to a input source. Once a input source is connected, the colour of “LINK” LED will be turned to green and the “DATA” LED will blink as video and/or audio data transmissions occur.

### **DESCRIPTION OF LED**

System status can be monitored with LED display.

<b>LED</b>	<b>State</b>	<b>Description</b>
<b>PWR</b>	Off	Power off
	Red	Power on
<b>STATUS</b>	Green blinking	Normally operating
	Red	System failure: Needs diagnostics
<b>LINK</b>	Off	No connection to remote system
	Green	Connected to the remote system
	Red blinking	Decoder only: trying to connect
	Orange	Illegal connection (unsupported combination of system modes)
<b>DATA</b>	Green	Data transmission in progress
	Red	Data loss
	Off	No data transmission



### 3. System Operation

● **REMOTE VIDEO MONITORING**

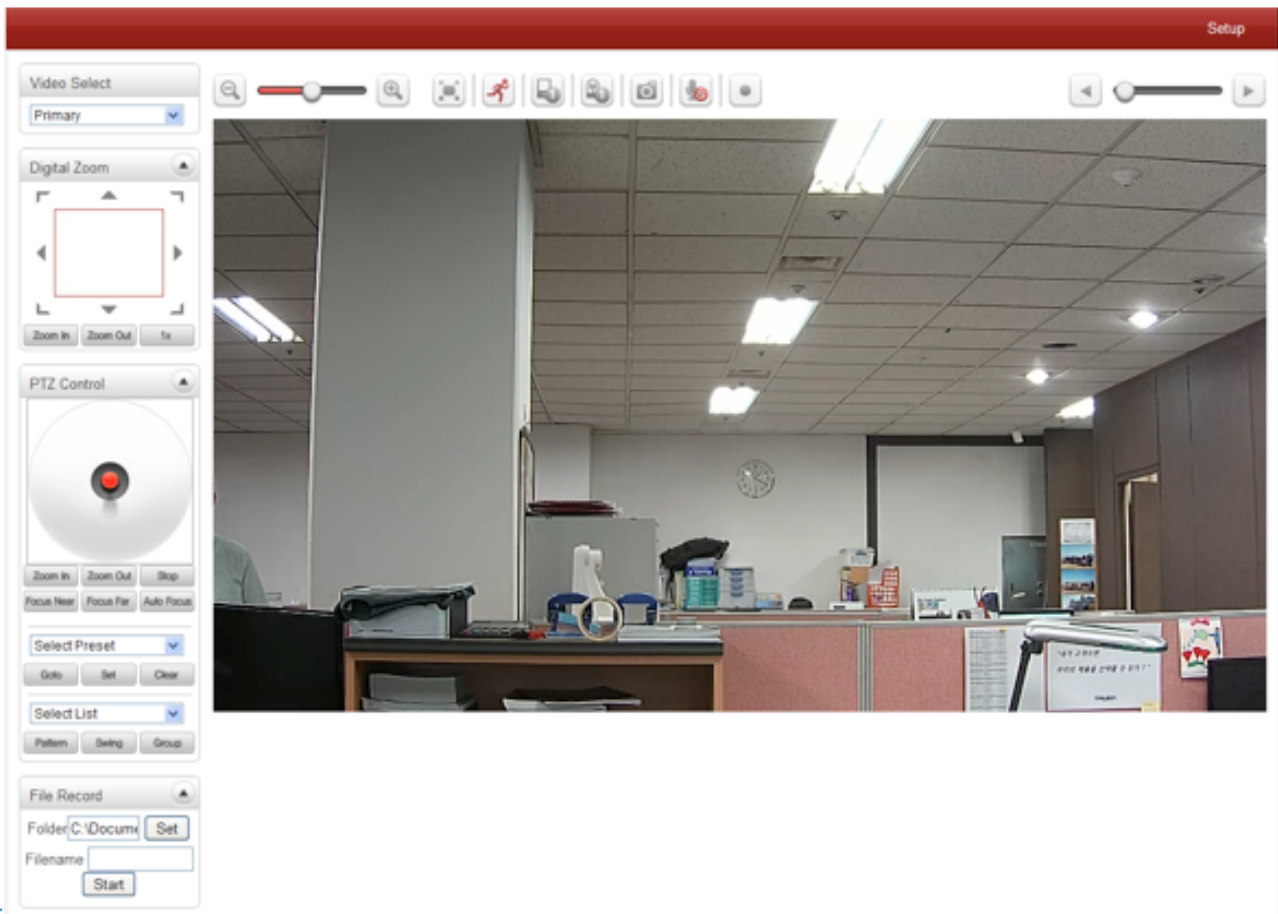
There are two ways to monitor video when the centre system and IP camera / Decoder are connected. In order for proper operation, an IP address must be set accordingly. Please refer to **True Manager Manual enclosed with product** for further details.

- ◆ **Default ID: admin**
- ◆ **Default Password: 1234**

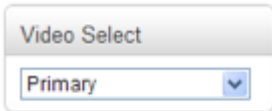
**VIDEO MONITORING USING INTERNET EXPLORER**

Open Internet Explorer and enter Decoders IP address. The system will ask for confirmation to install Active-X control. Once authorised, Internet Explorer will start to display the images from the Decoder as shown below.

- ◆ **Default IP Address: <http://192.168.10.100>**



## **VIDEO SELECT**



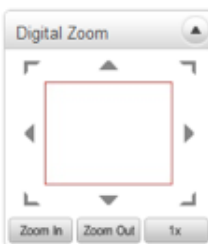
Select the video stream to be viewed: primary, secondary, tertiary or quartic streaming. This camera is capable of dual streaming; primary streaming and secondary streaming. Video will be displayed according to the resolution set on video configuration. If dual streaming (“**Use Dual Encode**” **Menu Video page**) is not activated, secondary video is not available.

## **VIEW SIZE**



Adjust the size of the screen. Screen size is initially adjusted according to the compression resolution. Click on 50% icon and the screen size will be reduced to half size.

## **DIGITAL ZOOM**



Control the Digital zoom on the screen. The more the camera zooms in, the smaller the square of control panel is. Position of the image can be changed by moving the position of the square. If you press x1, the screen will return to normal size.

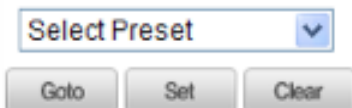
## PTZ CONTROL (OPTICAL ZOOM & DIGITAL ZOOM BUILT-IN THE CAMERA)



Control PTZ and PTZ Control Panel is used for controlling external PTZ devices when external PTZ devices are connected through serial port. It is possible to make zooming control by **Zoom in/out** buttons of PTZ control panel (in order to use digital zoom, select **Digital Zoom On** in camera tab).

- **Stop**  
Stop on-going action
- **Focus Near, Focus Far, Auto Focus**  
Adjust the focus of the lens

### • SELECT PRESET



Set preset position and move to the specific preset position.

- **Go To**  
Move to the selected preset entry if the preset entry is set.
- **Set**  
Set the current position to the selected preset entry.
- **Clear**  
Delete the selected preset entry.

## SENSOR INPUT AND ALARM OUTPUT



Display the status of the sensor in real time.

This camera supports one sensor input. When the sensor of the camera is working, the sensor light turns red. Operate the alarm device by pressing the number icon. This camera supports one alarm output. A number icon indicates status of the alarm device.

## SNAPSHOT



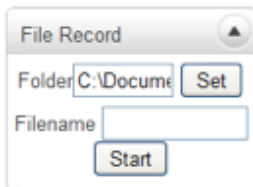
Capture video images and store them as BMP or JPEG files.

## TALK



Transfer audio from PC's mic to the camera.

## FILE RECORD



Recording to an AVI file on Live View page is available. AVI files are generated in specified folder or in a specified file name on the pc where web browser is running.

1. Press “**Set**” button to select a folder or create a new folder. Enter the file name on a filename field.
2. Press “**Start**” button to start recording.
3. Press “**Stop**” button to stop recording.
4. An AVI file name “IP Address\_hh\_mm\_ss” or “File name\_IP Address\_hh\_mm\_ss” will be generated in the specified folder depending on where the path specified folder or a prefix of the file name.

## DISPLAY BUFFER



Set the number of video frames to be buffered before being displayed on web browser. Larger value results in smoother video by sacrificing the latency. A setting of 10 ~ 15 frames can be used generally for most situations.

## VIDEO MONITORING WITH DECODER SYSTEM

Once camera's IP address is set in the remote IP address section of the decoder, the decoder system will connect to the camera and start receiving the video images. Normally, a monitor connected to the decoder will display video images.

### Initialise of IP Address

If a system IP address is lost the system can be reset to the system default IP address using the reset button in the back of the Decoder.

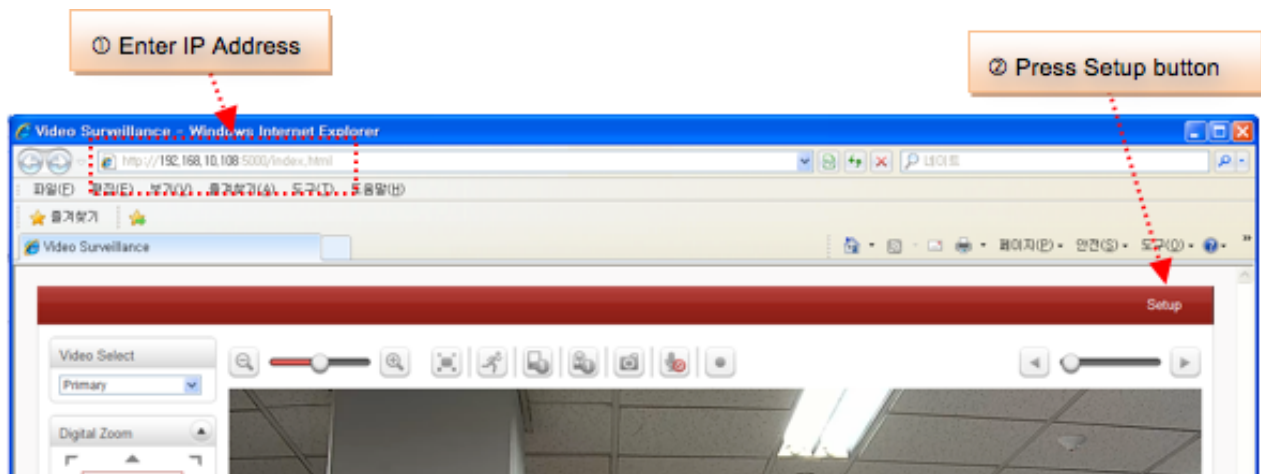
1. While the system is in operation, press the reset button for more than 5 seconds.
2. The system will reboot automatically.
3. Once the system reboots, IP address will be set to the system default as below

<b>IP Mode</b>	Fixed IP	<b>IP address</b>	192.168.10.100
<b>Subnet Mask</b>	255.255.255.0	<b>Gateway</b>	192.168.10.1
<b>Base Port</b>	2222	<b>HTTP Port</b>	80

## REMOTE CONFIGURATION

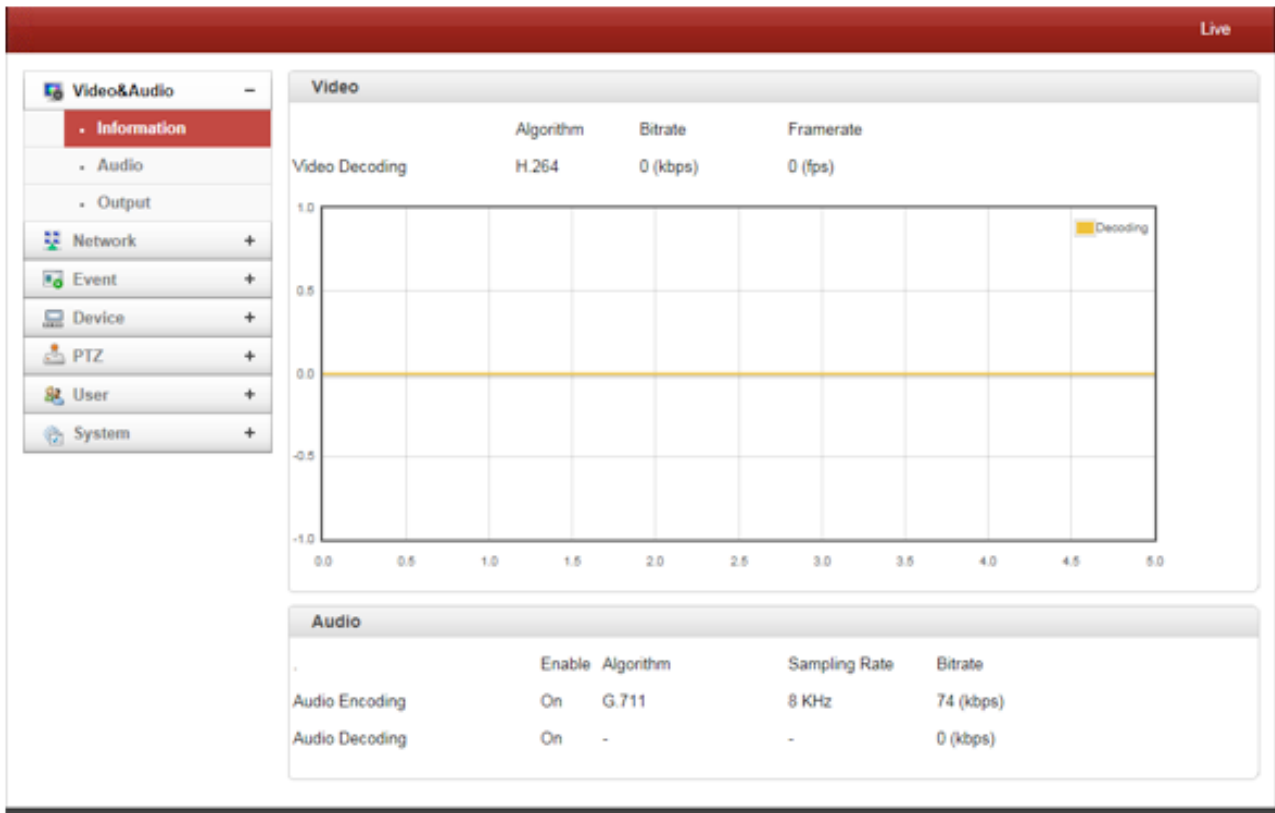
### ● Using Web Browser

Remote setting is available by using web browser. Enter IP address of camera and then a live view screen appears as below. Press Setup button located in the upper right of the monitoring screen to go to the server setup. For Remote Setting, user should be authorised higher than manager level.



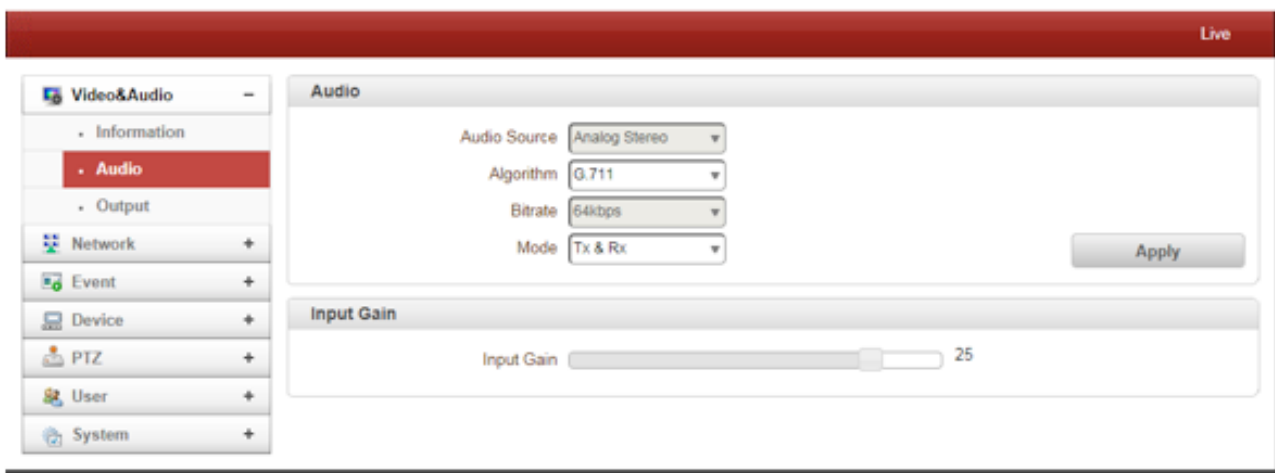
The configurations are grouped into 9 categories: **Video & Audio, Image, Network, Event, Record, Device, PTZ, System, User**. Leaving the page without pressing **Apply** button, any changes in the page will be discarded.

● VIDEO & AUDIO  
Information



The information provides current information regarding the settings for Video and Audio.

**Audio**



## - AUDIO SOURCE

Select the audio source: Analog stereo

## - ALGORITHM

Select the audio algorithm: G.711 or AAC.

G.711 and AAC from client to server direction are supported. Thus, bidirectional audio communication is supported.

## - SAMPLE RATE

The sampling rate defines the number of samples per unit of time taken from a continuous signal to make a discrete signal.

## - BIT RATE

Select the bitrate between 64kbps and 128kbps when AAC is selected.

The sampling rate is fixed to 8KHz and 32Hz for G7.11 and AAC respectively.

Note that when camera is connected to decoder, the decoder's audio algorithm should be set identically to transmit audio properly.

## - MODE

Select audio operation mode:

Mode	Action
Off	No operation
Tx-Only	Transmit only
Rx-Only	Receive only
Tx & Rx	Transmit and Receive

## - INPUT GAIN

Set audio input gain from 0 to 31

## Output

The screenshot shows a software interface with a sidebar on the left and a main content area on the right. The sidebar has a 'Video&Audio' section with sub-items: Information, Audio, Output (highlighted), Network, Event, Device, PTZ, User, and System. The main content area has two panels: 'Video' and 'Audio'. The 'Video' panel shows 'Output Format' set to '1080PsF23.98 (1920x1080)', a 'Buffering' slider set to 1, and 'Output Mode' with 'Stretch' selected and 'Crop' unselected. An 'Apply' button is at the bottom right of the 'Video' panel. The 'Audio' panel shows 'Audio Output' with 'Decoded Audio' selected and 'Loopback' unselected. An 'Apply' button is at the bottom right of the 'Audio' panel. A red bar at the top right of the interface contains the word 'Live'.

## - OUTPUT FORMAT

Select the format of output when Enable Preview is selected.

## - BUFFERING

Set the number of video frames to be buffered. Larger value results in smoother video by sacrificing the latency. A setting of 10 ~15 frames can be used generally for most situation.

## ● NETWORK

### IP & PORT

The screenshot shows the 'IP & Port' configuration page. The left sidebar menu includes: Video&Audio (+), Network (-), IP&Port (selected), QoS, Remote, Discovery, SNMP, DDNS, IP filtering, Connecting, Decode List, Event (+), Device (+), PTZ (+), User (+), and System (+). The main configuration area is divided into sections: **Local**: IP Mode (Fixed IP), Local IP (192.168.40.200), Local Gateway (192.168.10.1), Local Subnet (255.255.0.0). **DNS**: Obtain DNS server address automatically (unselected), Use the following DNS server addresses (selected), Primary DNS Server (0.0.0.0), Secondary DNS Server (0.0.0.0). **IPv6**: IPv6 Address (empty), IPv6 Subnet Prefix Length (0), IPv6 Default Gateway (empty), IPv6 LinkLocal (fe80::21c:69ff:feaa:699::64). **Port**: Base Port (2222), HTTP Port (80), HTTPS Port (443), RTSP Port (554), Audio Receive Port (2280). **MTU Size**: MTU Size (1500). **Multicast**: Multicast IP (224.10.0.0), TTL (64). An 'Apply' button is at the bottom right.



- **LOCAL**

Select the IP mode: Fixed IP or DHCP.

Depending on the selected modem further configuration items come as follows;

IP Mode	Selection	Description
Fixed IP	Local IP	Fixed IP Address
	Local Gateway	Gateway IP Address
	Local subnet	Subnet Mask
DHCP	N/A	N/A

**Please ask IP address information from ISP provider or Network Manager.**

- **DNS**

- **Obtain DNS server address automatically.**

Get DNS server automatically when IP mode is DHCP.

- **Use the following DNS server address**

Enter the DNS server IP address: Primary or Secondary DNS server.

Domain name system (DNS) is a database system that translate a computers fully qualified domain name into and IP address. Networked computers use IP addresses to locate and connect to each other, but IP addresses can be difficult to remember. For example, on the web, it's much easier to remember the domain name 'www.amazon.com' than it is to remember its corresponding IP address '207.171.166.48'.

- **IPV6**

- **IPV6 Address:** Enter the designated ipv6 address.
- **IPV6 Subnet prefix length:** Enter the bit number of ipv6 subnet.
- **IPV6 Default Gateway:** Enter the designated IPV6 gateway.
- **IPV6 Link Local:** Display IPV6 Link Local.

- **Port**

- **Base Port (1025 ~ 65535)**

Enter the Base Port number.

Network base port is used for communication with remote clients. In order for camera and remote systems to connected, the port number must be identically configured in camera side client side.

- **HTTP Port (80, 1025-65535)**

Enter HTTP port used for web-based connection.

- **HTTPS Ports (443, 1025 - 65535)**

Enter HTTPS port used for secured HTTP connection,

- **RTSP Port (554, 1025 -65535)**

Enter RTSP port used for RTSP-based connection. The default RTSP port is 554.

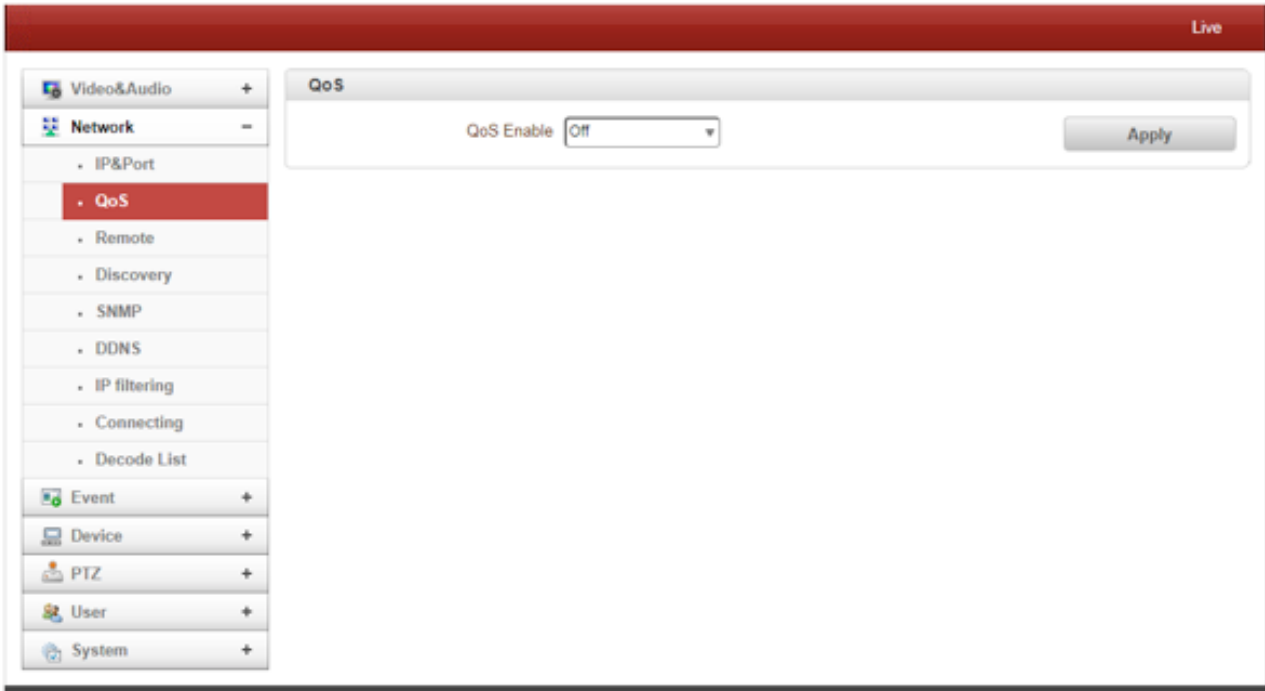
**RTSP** (Real Time Streaming Protocol) is a standard for media between server and client.

## - Multicast

The Multicast menu is used for configuring the multicast IP address to which media stream is delivered when a client such as a decoder, VMS or NVR software is connected in multicast mode.

The multicast IP address selection range is between 224.0.0.0 and 239.255.255.255. The selection can be used only when media protocol is set to Multicast.

## QoS



## - QoS

QoS is the overall performance of a telephony or computer network, particularly the performance seen by the users of the network.

**Remote:** This is where you setup the details of the Camera or Encoder you wish the Decoder to Decode.

Live

Video&Audio +

Network -

- IP&Port
- QoS
- Remote
- Discovery
- SNMP
- DDNS
- IP filtering
- Connecting
- Decode List

Event +

Device +

PTZ +

User +

System +

Remote

Remote Type: Normal

Media Protocol: TCP

Address: 192.168.10.219

Port: 2222

Remote Channel: Channel#1

Use Streaming Server: Off

SS IP Address: 0.0.0.0

SS Port: 2222

ID: admin

Password: \*\*\*\*

Apply

#### - Remote type

Normal: Normal connection with Antrica IP Cameras via base port.

RTSP: RTSP connection with RTSP stream via RTSP port.

RTMP: RTMP connection with RTMP stream via RTSP port.

MPEG-TS: Decode Mpeg-TS stream specific port user defined

ONVIF: Decode streaming from onvif device. User should get a profile list from onvif device.

#### Discovery

Live

Video&Audio +

Network -

- IP&Port
- QoS
- Remote
- Discovery
- SNMP
- DDNS
- IP filtering
- Connecting
- Decode List

Event +

Device +

PTZ +

User +

System +

Discovery

UPnP  Off  On

Zeroconf  Off  On

WS Discovery  Off  On

Apply

## - UPNP

By the setting UPNP to on, it allows the discovery by clients according to UPNP (Universal Plug and Play) protocol.

## - Zeroconf

By setting Zeroconf to ON, it allows the discovery by the clients according to zeroconf protocol.

## - WS Discovery

Discovery function based on web service is enabled. It allows the discovery by the client SW which is supporting Onvif.

## SNMP

The screenshot shows a web-based configuration interface for a device. On the left is a sidebar menu with categories: Video&Audio, Network, Event, Device, PTZ, User, and System. The 'Network' category is expanded, showing sub-items: IP&Port, QoS, Remote, Discovery, **SNMP** (highlighted in red), DDNS, IP filtering, Connecting, and Decode List. The main content area is titled 'SNMP' and contains three configuration fields: 'SNMP Listen Port' with the value '161', 'SNMP Trap Destination IP' with the value '0.0.0.0', and 'SNMP Trap Destination Port' with the value '162'. Each field has a range of values in parentheses: (0, 161, 1025-65535) for the Listen Port, and (0, 162, 1025-65535) for the Trap Destination Port. An 'Apply' button is located at the bottom right of the configuration area. A 'Live' status indicator is visible in the top right corner of the interface.

Setup for using SNMP (Simple Network Management Protocol). It is compatible to both SNMPv1 and SNMPvec. Settings for SNMP are as following;

### - **SNMP Listen Port (0, 1025 ~ 65535)**

The port is for connecting external device when system operates as a SNMP client. SNMP is not used by setting 0 value.

### - **SNMP Trap Destination IP**

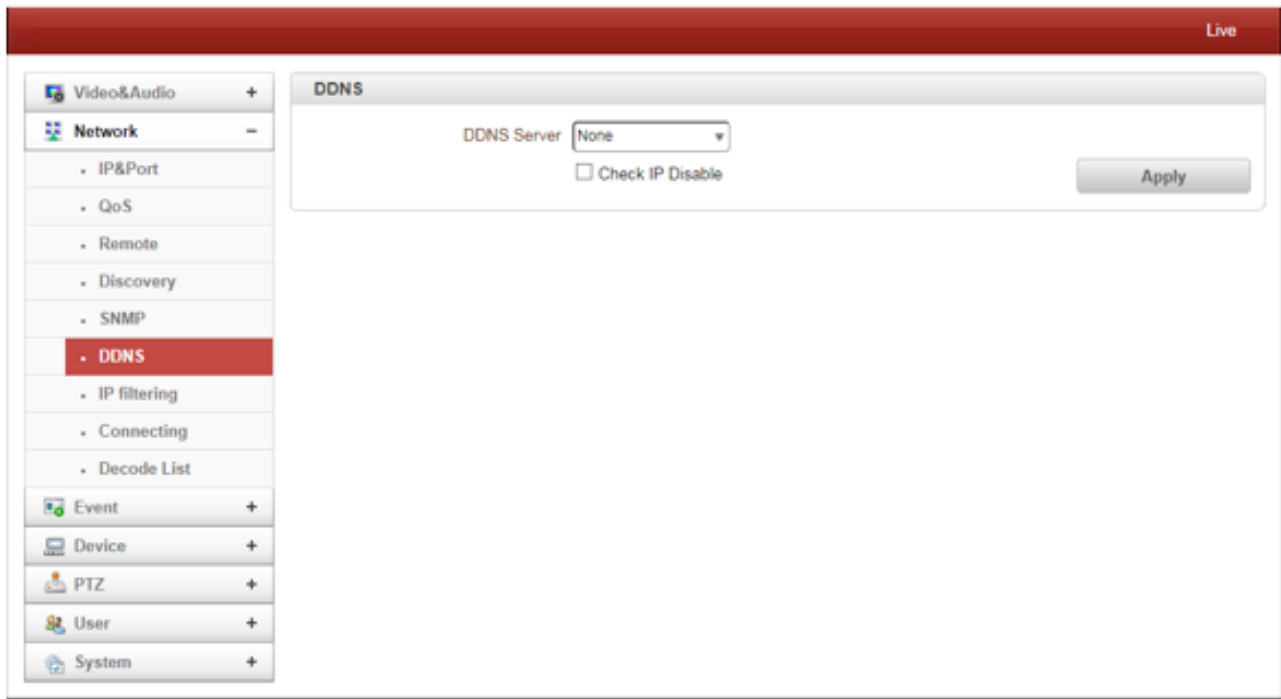
Set SNMP Trap destination IP.

### - **SNMP Trap Destination Port (0, 162, 1025 ~ 65535)**

Set the SNMP Trap Destination Port. SNMP is not used by setting 0 value.

Simple Network Management Protocol (SNMP) is used by network management systems to communicate with network elements. SNMP lets TCP/IP-based network management client use a TCP/IP-based internetwork to exchange information about configuration and status of the nodes. SNMP can also generate trap messages used to report significant TCP/IP events asynchronously to interested clients. For example, a router could send a message if one of its redundant power supplies fail.

## **DDNS**



Select DDNS (Dynamic DNS) server to use. One of the two can be selected.

### **- TrueDNS**

True DNS service is used in the mode. Systems can register on the website for True DNS service, <http://ns1.truecam.net>. A system will get a domain name of [xxx.truecam.net](http://xxx.truecam.net). Please refer to the user guide document for True DNS service.

### **- DynDNS**

Dyn DNS service is used in this mode. Refer to [www.dyndns.org](http://www.dyndns.org) for details. ID, Password and Domain name are needed when DYN DNS is set.

### **- Vdyn**

Vdyn is a DDNS service provided by visionica (<http://visionica.com>). No further configuration is required for using this service. it internally uses MAC address for registration. When it succeeds, the domain name of the form [001C63A607EC.visionica.info](http://001C63A607EC.visionica.info) is displayed on Current Domain entry of Network page. Email setting is not mandatory.

## - Check IP Disable

If 'Check IP Disable' is selected, it will skip to check its own IP. in fixed IP mode, the set IP will be registered on DDNS server. in DHCP mode, dynamically assigned IP will be registered on DDNS server. Normally Check IP Disable should be unchecked in order to obtain public IP in the network.

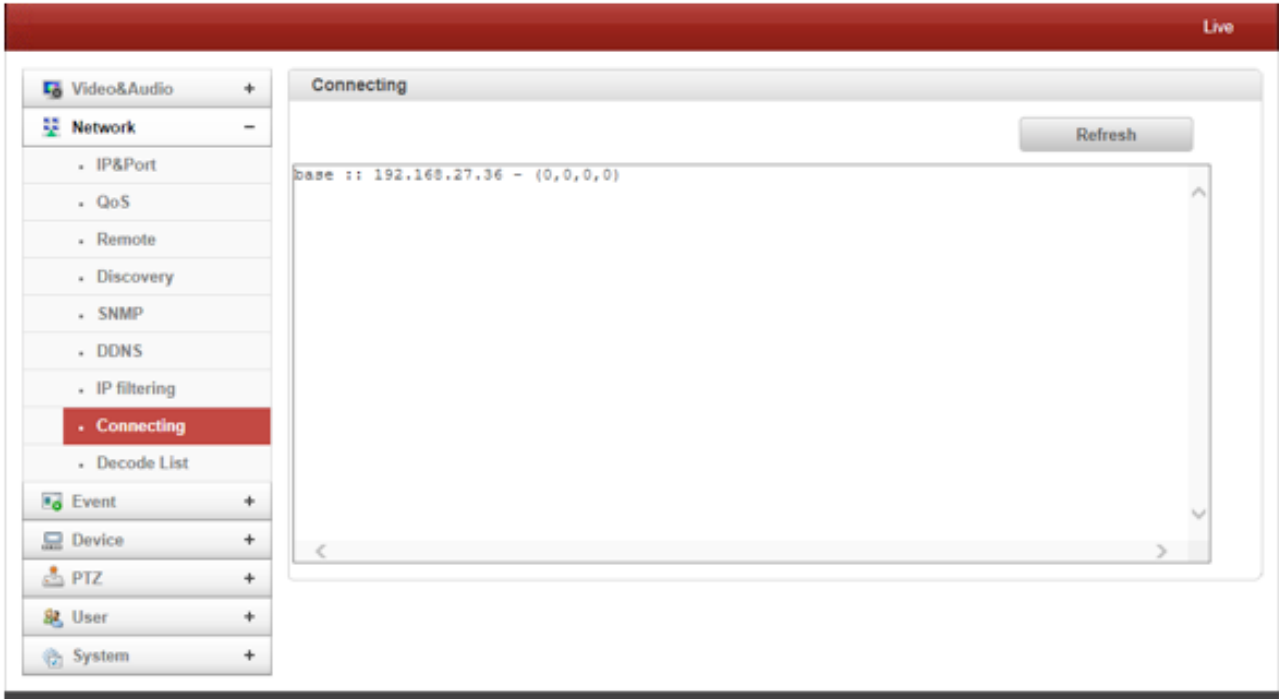
## IP Filtering

The screenshot displays the 'IP Filtering' configuration window. On the left is a sidebar with categories like Video&Audio, Network, Event, Device, PTZ, User, and System. The 'Network' section is expanded, showing options like IP&Port, QoS, Remote, Discovery, SNMP, DDNS, IP filtering (highlighted), Connecting, and Decode List. The main panel shows 'Basic Policy' set to 'Allow all'. Below this, a message states 'Access from IPs in the following list will not be allowed.' A table follows with 20 rows, each with a 'No.' column, 'From' and 'To' IP address input fields, and an 'Enable' checkbox. All input fields are currently set to '0.0.0.0'. An 'Apply' button is at the bottom right.

No.	From	To	Enable
1	0.0.0.0	0.0.0.0	<input type="checkbox"/>
2	0.0.0.0	0.0.0.0	<input type="checkbox"/>
3	0.0.0.0	0.0.0.0	<input type="checkbox"/>
4	0.0.0.0	0.0.0.0	<input type="checkbox"/>
5	0.0.0.0	0.0.0.0	<input type="checkbox"/>
6	0.0.0.0	0.0.0.0	<input type="checkbox"/>
7	0.0.0.0	0.0.0.0	<input type="checkbox"/>
8	0.0.0.0	0.0.0.0	<input type="checkbox"/>
9	0.0.0.0	0.0.0.0	<input type="checkbox"/>
10	0.0.0.0	0.0.0.0	<input type="checkbox"/>
11	0.0.0.0	0.0.0.0	<input type="checkbox"/>
12	0.0.0.0	0.0.0.0	<input type="checkbox"/>
13	0.0.0.0	0.0.0.0	<input type="checkbox"/>
14	0.0.0.0	0.0.0.0	<input type="checkbox"/>
15	0.0.0.0	0.0.0.0	<input type="checkbox"/>
16	0.0.0.0	0.0.0.0	<input type="checkbox"/>
17	0.0.0.0	0.0.0.0	<input type="checkbox"/>
18	0.0.0.0	0.0.0.0	<input type="checkbox"/>
19	0.0.0.0	0.0.0.0	<input type="checkbox"/>
20	0.0.0.0	0.0.0.0	<input type="checkbox"/>

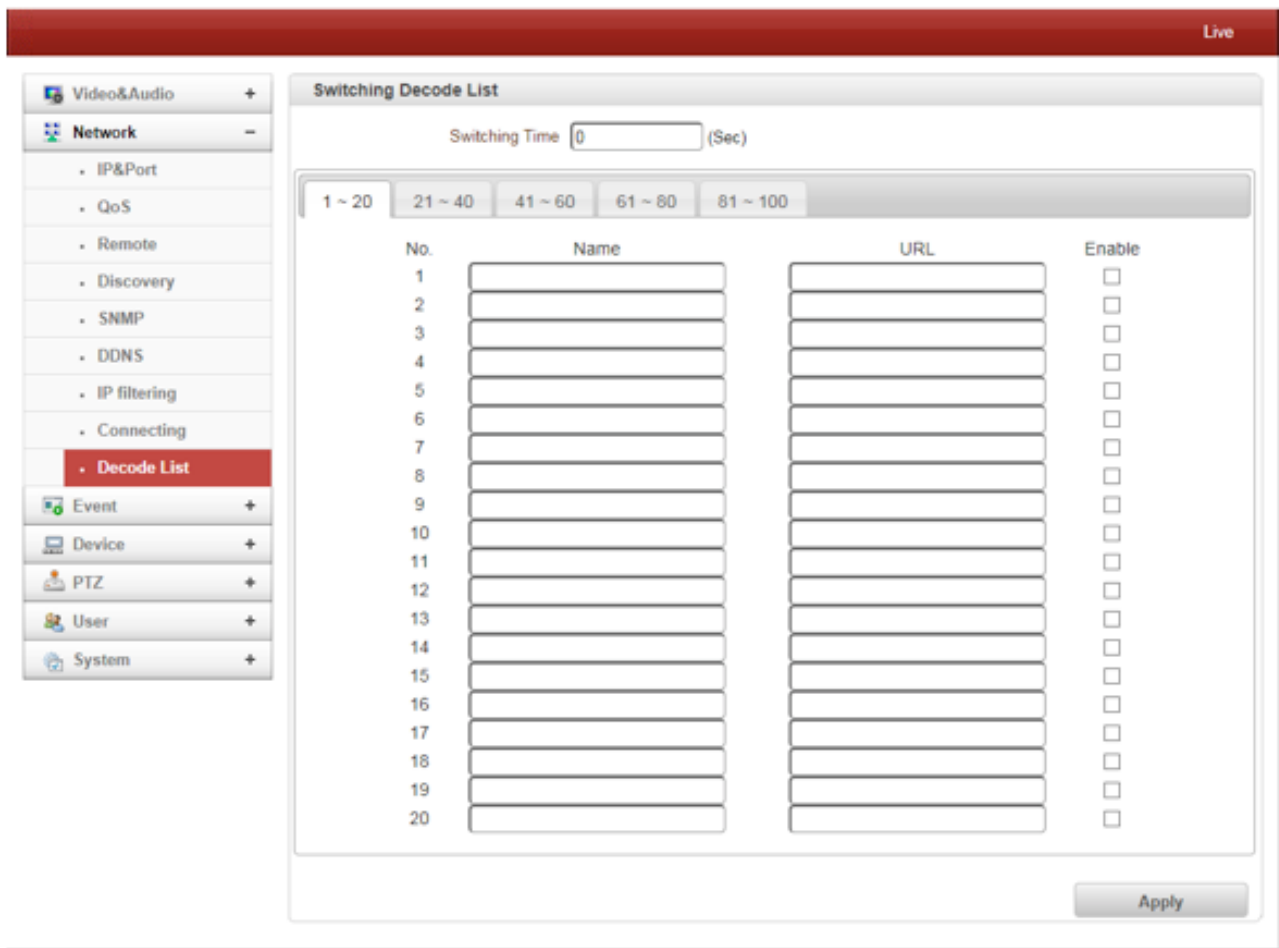
IP filtering is simply the mechanism that decides which types of IP datagrams will be processed normally and which will be discarded.

## Connecting



Client IP Addresses that are currently connected to system are listed. (1) indicates

**Decode List:** This allows the decoder to cycle through pre set lists of camera URLs and display them at pre set times or remote control . Type in the camera URLs and the time you wish each camera to be displayed for. Up to 100 cameras can be pre programmed. Remote control of this feature will appear in future firmware upgrades.



## Notification

Remote			
Sensor 1	Beep	<input checked="" type="checkbox"/> Alarm1	Alarm2
Sensor 2	Beep	Alarm1	<input checked="" type="checkbox"/> Alarm2
Sensor 3	Beep	Alarm1	Alarm2
Sensor 4	Beep	Alarm1	Alarm2
On Video Loss	Beep	Alarm1	Alarm2
On Motion	Beep	Alarm1	Alarm2

On Disconnect			
On Disconnect	Beep	Alarm1	Alarm2

Apply

### - Local

When a decoder instead of a PC client is connected to an ip camera, one system becomes a local system and the other a remote system (Generally a system which is being used by the users is called Local system). Then, actions for events can be configured for events from the remote system as well as when a sensor device in remote (site) IP camera is triggered. Local section configures the actions for events from local (self) system, and configuration activates local devices and Remote sections configure the actions for events from remote (peer) system.

The following table lists possible actions for events

Action	Description
Beep	Triggers beep port.
Alarm out	Triggers alarm (relay) port.

### - On Video Loss

Configure the actions when video input signal is lost. Multiple actions can be set for a single event.

### - On Disconnect

Configure the actions when the link (connect) with peer system is disconnected. Multiple actions can be set for a single event. This event happens when the last client which has been receiving video from the camera loses the connection.



## Alarm

Live

Video&Audio +

Network +

Event -

Notification

**Alarm**

Device +

PTZ +

User +

System +

**Alarm**

Beep Duration 1 sec

Alarm1 Duration 1 sec

Alarm2 Duration 1 sec

Apply

Set the duration of alarm or beep activation in case of an event. If it is set to continuous, it will be in active state until the operator resets it manually.

## • Device

### Information

Live

Video&Audio +

Image +

Network +

Event +

Record +

Device -

**Information**

Serial

PTZ +

User +

System +

**Device Information**

COM1	Tx=0 (bps)	Rx=0 (bps)
COM2	Tx=0 (bps)	Rx=0 (bps)

The information provides current serial communication status.

## Serial

The screenshot shows a configuration window for serial ports. On the left is a sidebar with categories: Video&Audio, Image, Network, Event, Record, Device, Information, Serial (highlighted), PTZ, User, and System. The main area is divided into two sections: COM1 (RS-232 Port) and COM2 (RS-422/485 Port). Each section has dropdown menus for Protocol, Bitrate, Data Bit, Parity, and Stop Bit. The COM2 section also includes a dropdown for 485 Terminating Resistors. An 'Apply' button is at the bottom right.

Port	Protocol	Bitrate	Data Bit	Parity	Stop Bit	485 Terminating Resistors
COM1 (RS-232 Port)	RS-232	9600 bps	8 Bits	None	1 Bits	-
COM2 (RS-422/485 Port)	RS-485	2400 bps	8 Bits	None	1 Bits	Off

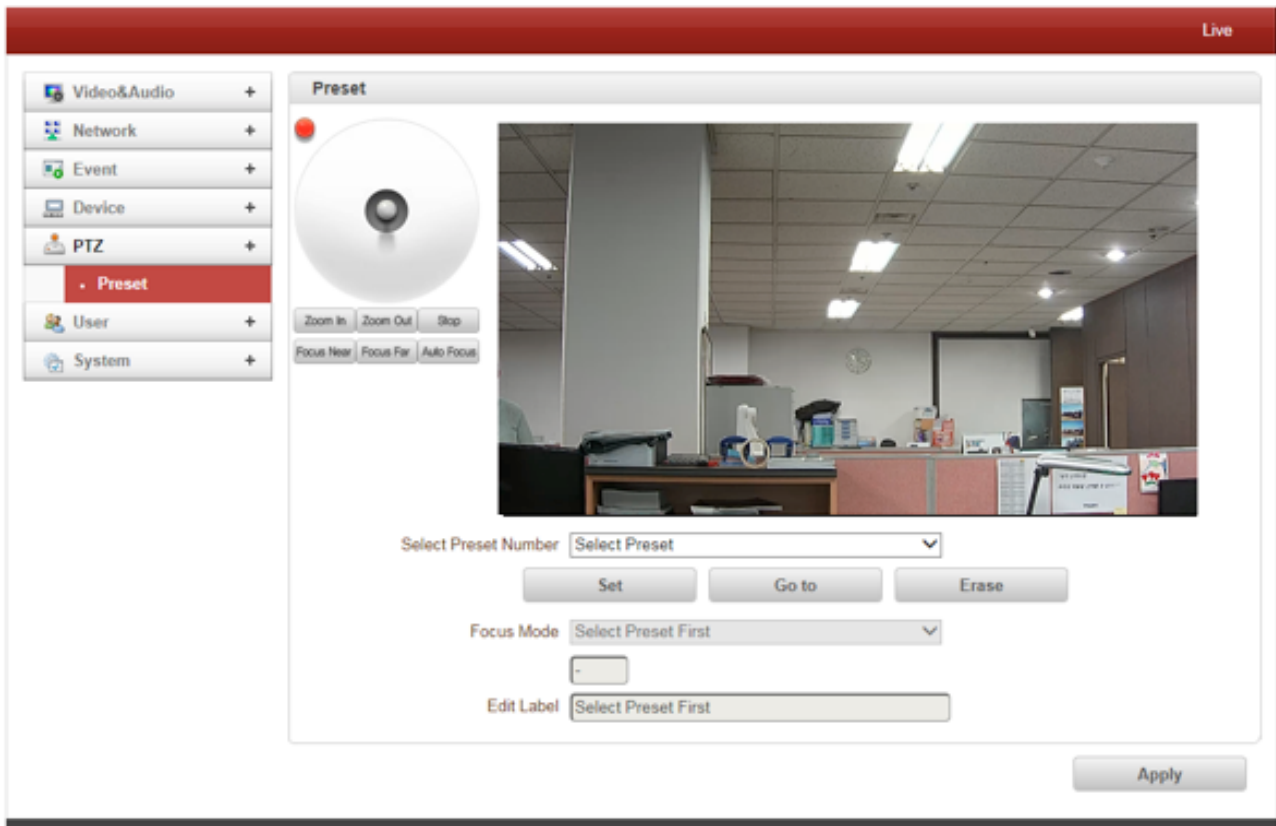
- Serial Protocol - There are two serial ports, RS-232, RS-422/485 in video server. Select RS-422 or RS-485 in RS-422/485 port.
- Serial Port Configuration: The serial ports can be configured as follows.

### **Each of the serial ports-configurations must be same as the connecting device**

Mode	Selection
Bitrate	2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
Data Bit	5, 6, 7, 8 bits
Parity	NONE, EVEN, ODD bit
Stop Bit	1, 2 bit

# • PTZ

## Preset



Max 128 preset positions can be defined.

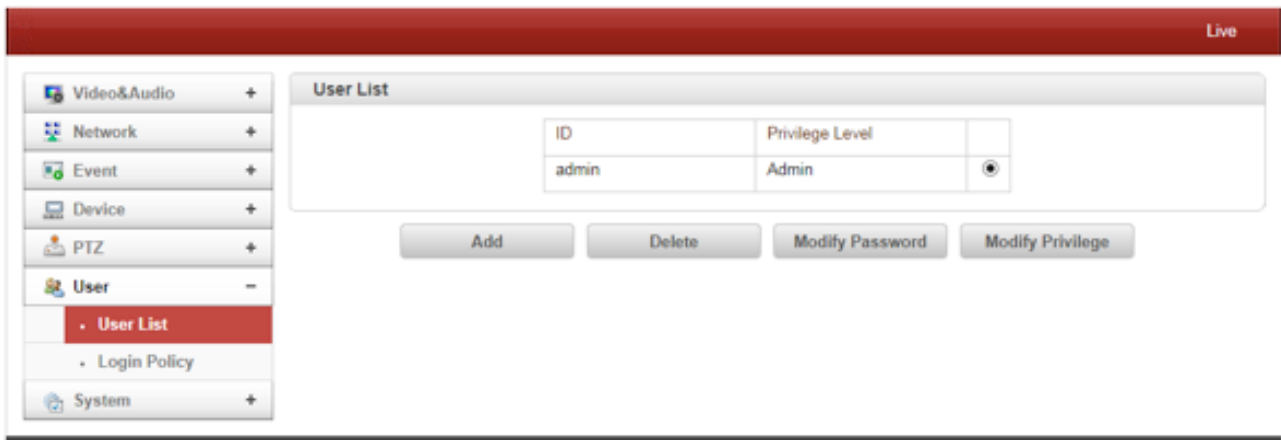
- Select Preset Number: Select an entry in the list to be assigned to current camera position.
- Focus Mode: Select the focus mode after preset Goto is executed.
  - Do not change: current focus position saved when preset set
  - Focus Manual: move to the focus position saved when preset.
  - Focus Auto: auto-focusing is executed after the preset moved
- Event Holding Time: Set the time to stay at the preset position when the preset moved by event.

**If it is set to 0, the camera doesn't return to original position after moving to the preset position by event.**

- Edit Label: Assign a label to the preset position. Only the first 15 presets entries (Preset-1 ~ Preset-15) can have labels.

# • User

## User List



User can be registered and privilege level of a user can be specified. User configuration is allowed only to admin user. Max 16 users can be registered and each user can have one of four privileges.

Privilege	Allowed Operations	Remarks
<b>Admin</b>	All Operations	User ID = admin
<b>Manager</b>	All Operations except for user configuration	
<b>User</b>	Live viewing and PTZ control	
<b>Guest</b>	Live viewing only	

- Add User

Press Add button. The following window will appear.

**Add User** ✕

ID

Password

Confirm Password

Privilege Level

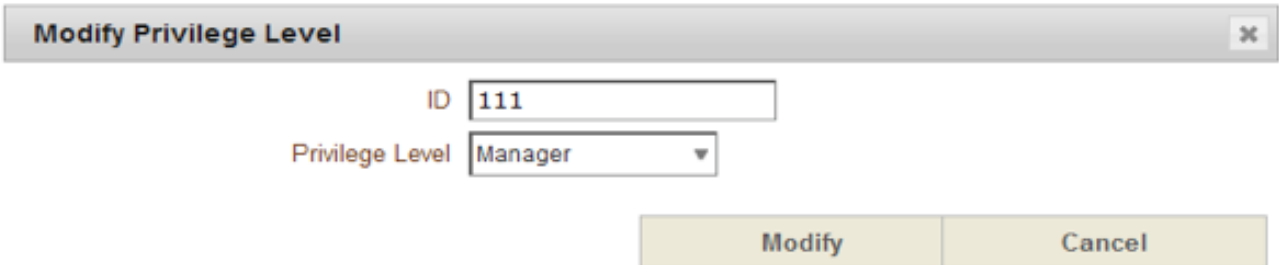
Enter User ID and password (Up to 15 characters) and select Privilege Level.

- Delete User

Select the User to be deleted and press Delete button

- Change Password

Press Modify Password button. The following window will appear.



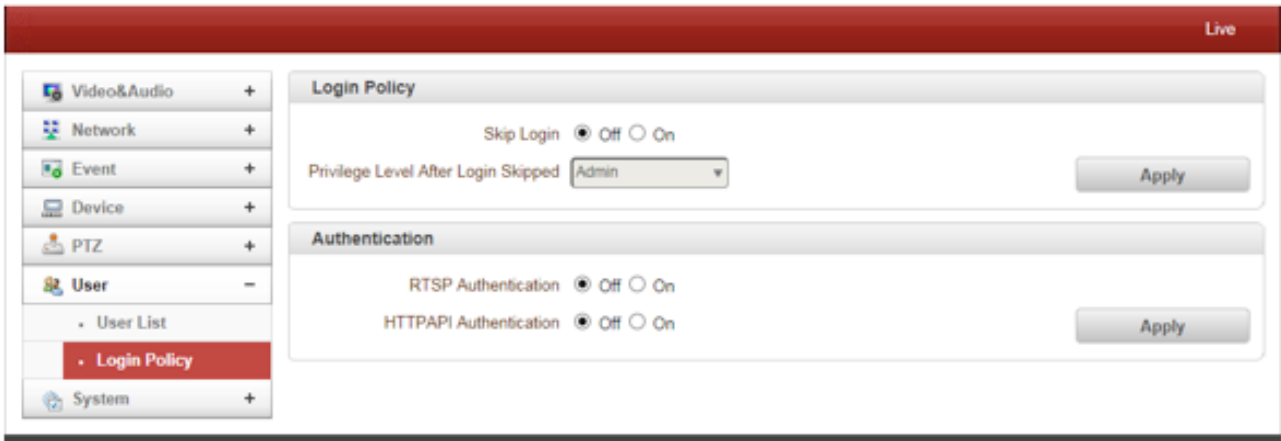
Modify Privilege Level

ID 111

Privilege Level Manager

Modify Cancel

**Login Policy**



Live

Video&Audio +

Network +

Event +

Device +

PTZ +

User -

- User List
- Login Policy

System +

Login Policy

Skip Login  Off  On

Privilege Level After Login Skipped Admin

Apply

Authentication

RTSP Authentication  Off  On

HTTPAPI Authentication  Off  On

Apply

- **Login Policy**

Skip Login provides for convenient access to the server when authentication is not required. When Skip Login is set to Enable, login step is skipped. The privilege level after login in this way is determined by setting of Privilege Level After Login Skipped.

- **Authentication**

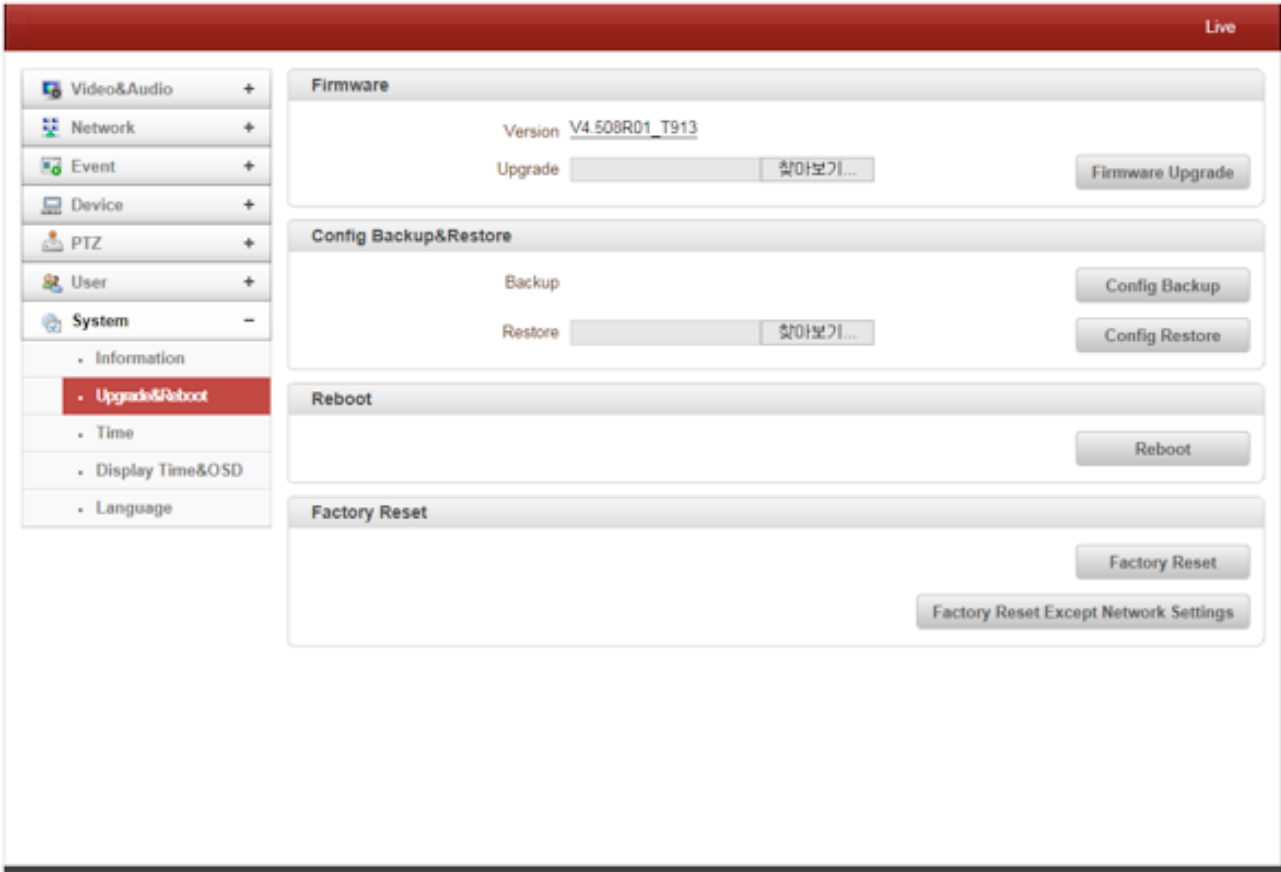
HTTP authentication based on RFC 2617(HTTP Authentication: Basic and Digest Access Authentication) is supported.

# • System

## Information

System Information	
Model	ANT-36000 (3003)
Version	V4.508R01_T913
MAC Address	00:1C:69:AA:06:99
Current IP	192.168.40.200
Current Domain	Not RegisteredB

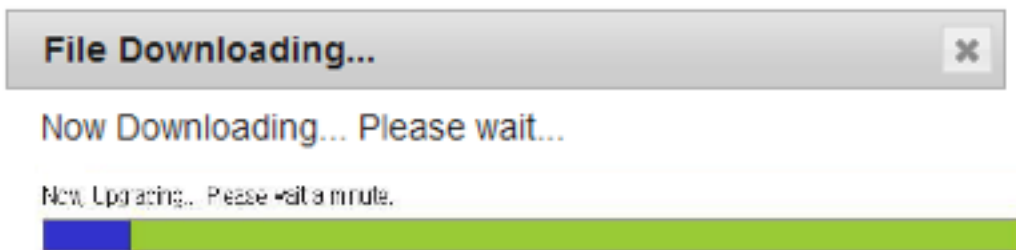
- System information
- Followed network information is displayed (Read only)
- **Model**  
Display the model name.
- **Version**  
Display the current firmware version.
- **Mac Address**  
Display the MAC address of the camera. In case the camera is registered at DDNS server, the MAC address is used in DDNS registration.
- **Set Current Time**  
Display Current date and time
- **Current Domain**  
In case the camera is registered at DDNS server, the registered domain name is displayed.



- Firmware
  - Version: Display the current firmware version
- Upgrade : To upgrade firmawre;

1. Press Browser button to select a firmware file from PC
2. Press Firmware Upgrade button to start upgrading.
3. A message for showing status (downloading / upgrading) will be displayed.

**Do not turn the camera off during upgrading.**



- Config Backup & Restore
- Backup

All the setting of configuration can be stored.

- Restore

Stored configuration can be browsed and restored. The server is rebooted once Config Restore button is pressed.

- Reboot

Do not press Reboot unless server needs a reboot.

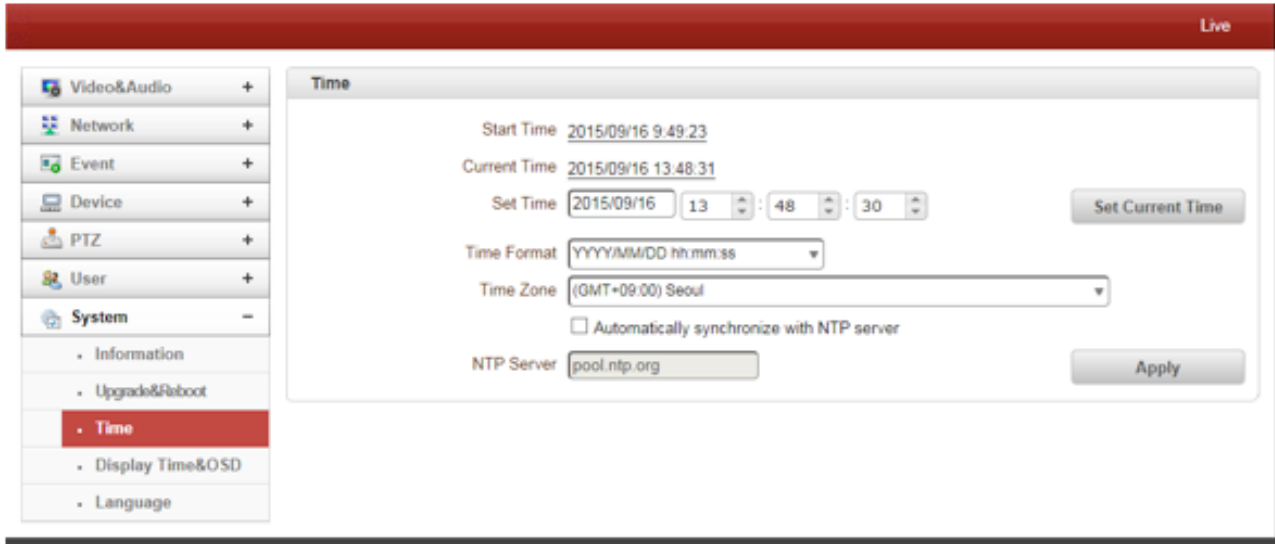
- Factory Reset

All settings including User Accounts and logs are cleared.

- Factory Reset Except Network Settings

All settings except for current network settings are changed to the default value.

## Time



- Start Time

The latest the camera's booting date and time.

- Current Time

Current date and time.

- Time Format

Change the time format. The selectable time formats are as below:

1. YYYY/MM/DD hh:mm:ss (Eg. 2015/10/30 12:30:45)
2. DD/MM/YYYY hh:mm:ss (Eg. 10/30/2015 12:30:45)
3. MM/DD/YYYY hh:mm:ss (EG. 30/102015 12:30:45)

- Time Zone

Select time zone of where the camera is installed.

Depending on the time zone, Daylight saving time will work automatically.

A **time zone** is a region of the earth that has uniform standard time, usually referred to as the **local time**. By convention, time zones compute their local time as an offset from UTC (Coordinated Universal Time). In casual use, GMT (Greenwich Mean Time) can be considered equivalent to UTC. Local time is UTC plus the current time zone offset for the considered location.

### Automatically synchronise with NTP server

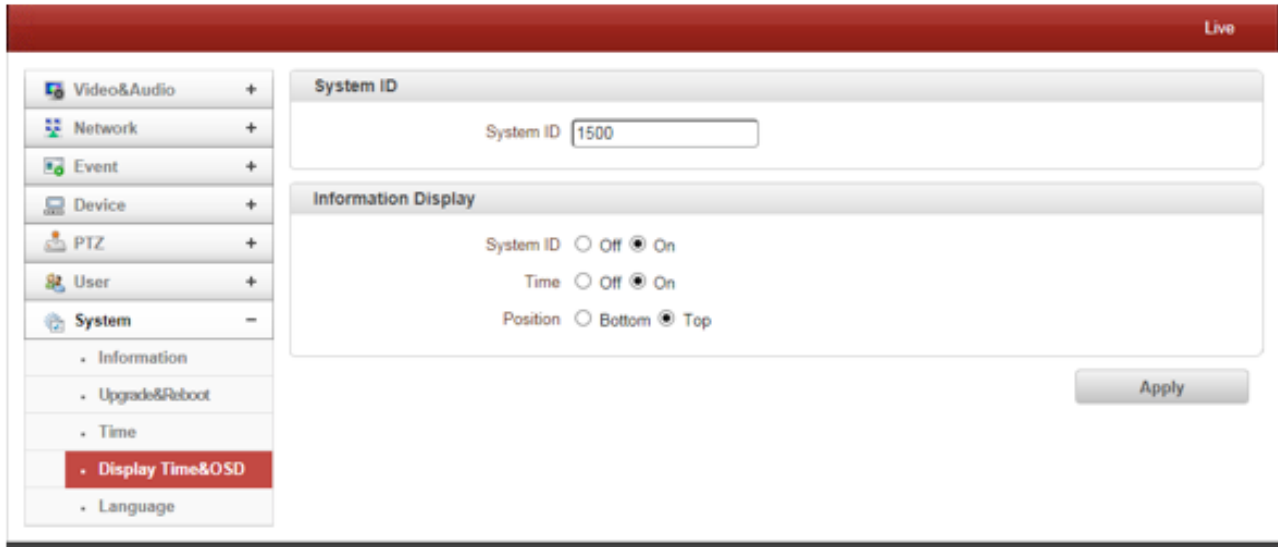
Synchronise the camera time with an NTP server using NTP network time protocol.

Name of the NTP server should be registered on NTP server name.



The Network Time Protocol (NTP) is a protocol for synchronizing the clocks of computer systems over packet-switched, variable-latency data networks. It is designed particularly to resist the effects of variable latency by using a jitter buffer.

## System ID



### - System ID

Enter System ID that is used as a camera title.

The set system ID is displayed with video image on a web browser. The System ID is also transferred to remote software, such as VMS, and displayed on it.

### - Information Display

System ID and/or server time can be display over the video window in internet Explorer. Each item can be turn on or off separately, and position also can be configured. this information is displayed **after the video is decompressed.**

### - Burnin OSD

Insert system ID and date/time in the compressed video. System ID and time respectively can be turned on or off in the video. Position and Front size an be configured also, System ID for burnin OSD exists independently from normal System ID.

Note that size of Burnin OSD display varies according to the encoding resolution setting. This is inevitable because Burning OSD is inserted to the frames before encoding is performed. The following table describes the rule forBurnin OSD display.

Resolution <sup>↕</sup>	Small (8x8) <sup>↕</sup>	Middle (16x16) <sup>↕</sup>	Large (32x32) <sup>↕</sup>
352x480 / 352x240 / 352x576 / 352x288 <sup>↕</sup>	2 <sup>↕</sup>	1 <sup>↕</sup>	0 <sup>↕</sup>
720x480 / 720x240 / 720x576 / 720x288 / 640x480 / 800x600 <sup>↕</sup>	2 <sup>↕</sup>	2 <sup>↕</sup>	1 <sup>↕</sup>
1024 x 768 / 1280x720 / 1280 x 960 / 1280x1024 / 1440x900 / 1600x900 / 1680x1050 / 1920x1056 / 1920x1080 / 2048x1536 / 2560x1600 / 2592x1936 <sup>↕</sup>	2 <sup>↕</sup>	2 <sup>↕</sup>	2 <sup>↕</sup>

1. Both system ID and Time are displayed.
2. Either system ID or Time can be displayed. When both are enabled, System ID is displayed.
3. No items are displayed. This is because video area is too small to display OSD text in large text.

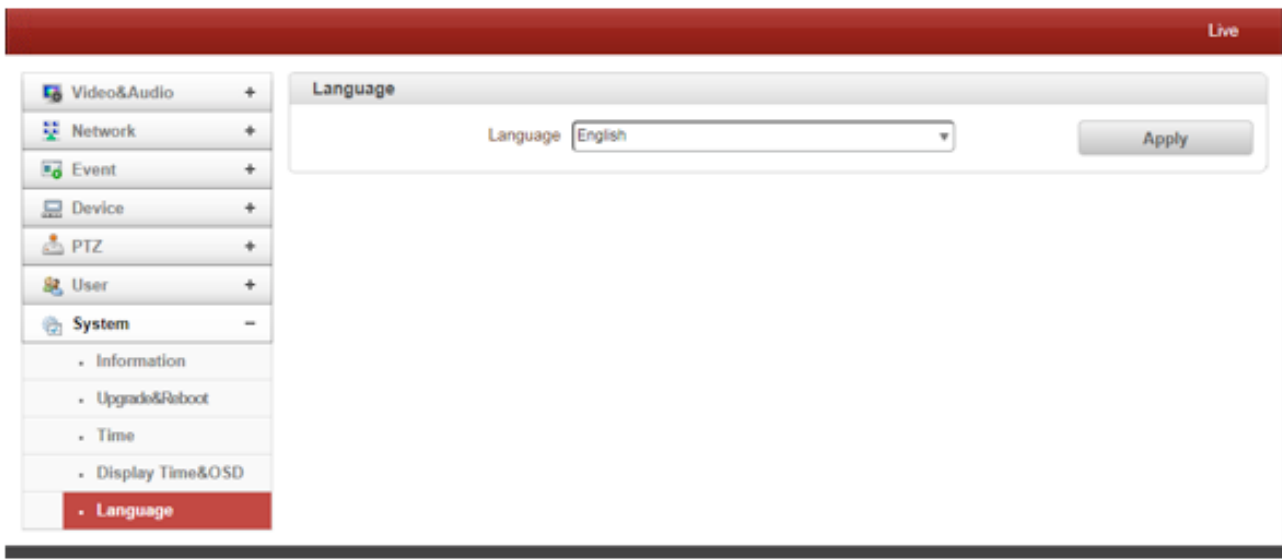
- User defined OSD

You can enter any text you like independent.

X-coordinate or Y-coordinate

For example, if you enter 500, 500 values, OSD is placed center of images.

## Language



- Language

Select the language to be used for web-based configuration.

# Appendix A: Sensor and Alarm Port

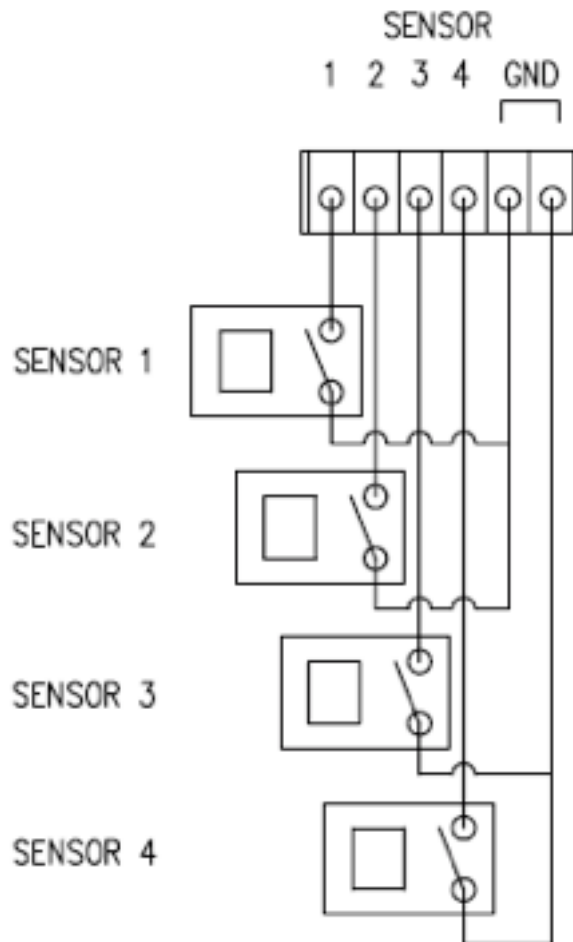
## **Sensor Port**

- Terminal Type
- Voltage Rating: 150VAC
- Current Rating: 2A
- Colour: Red

## **Sensor Signal Input Type**

- No Contact Signals

## **Connection to External Device**



## **Alarm Port**

- Terminal Type
- Voltage Rating: 150VAC
- Current Rating: 2A

## **Relay Type**

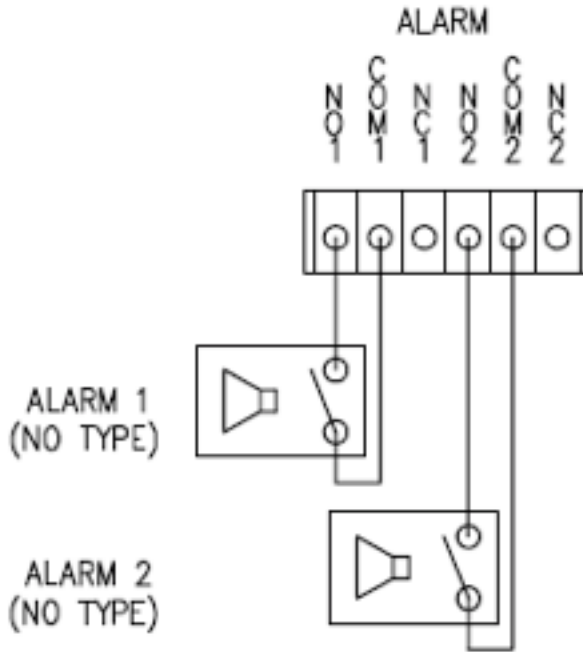
- Contact Rating: 1A 30VDC
- Switching Power: Max 30W 62.5VA

- Switching Voltage: Max 60VDC

**Alarm Signal Output Type**

- NO/NC Contact Signals

**Connection to External Device**

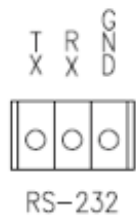


**Appendix B: Serial Port**

**RS-232 Port**

• **Port Type**

- 3 Pin
- Pin Arrangement



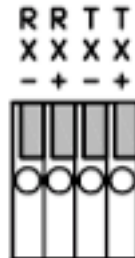
- Pin Description

Pin NO	Pin Name	Description
1	TX	RS232 TX(Transmit)
2	RX	RS232 RX(Receive)
3	GND	Ground

## RS-422/485 Port

- Port Type
- 4 PIN
- PIN Diagram

### RS-422/485 TERMINALS



#### - Pin Description

Pin No.	Pin Name	Description
1	RX-	RS422 RX-
2	RX+	RS422 RX+
3	TX-	RS422 TX- or RS485 TRX- It is selectable by S/W Setup
4	TX+	RS422 TX+ or RS485 TRX+ It is selectable by S/W Setup