

**Operation  
Manual**  
Version 8.1.08

## Digital Video Servers Enterprise Series

**Professional Digital  
IP Video Server/Camera  
1 – 4 Channels  
(with Wireless A/P option)**

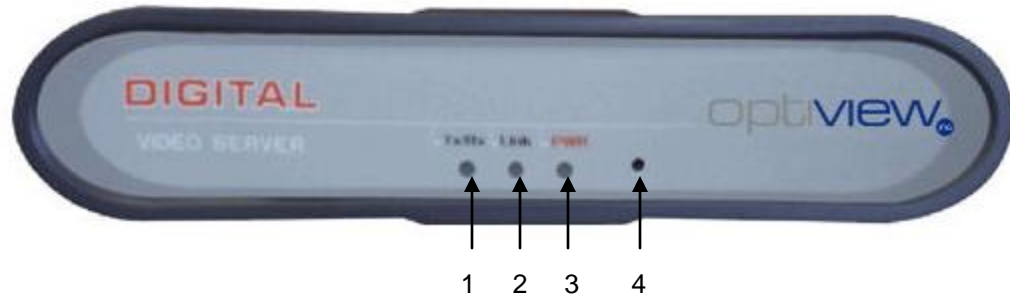




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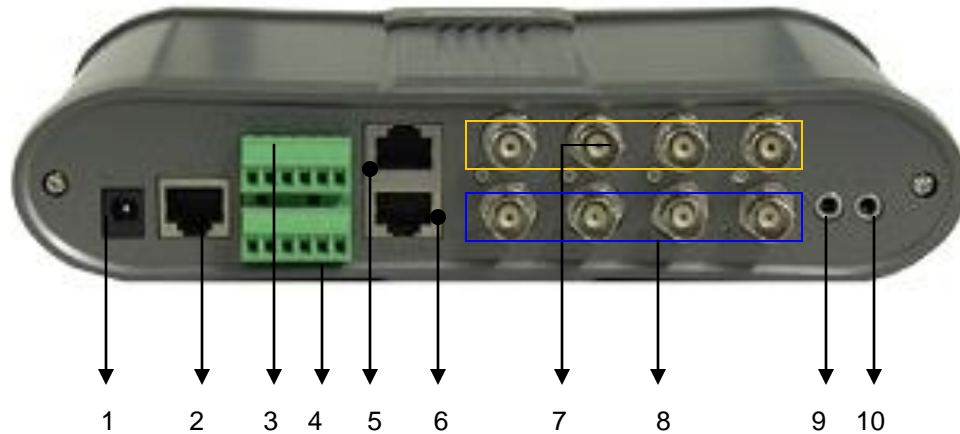
## I. Features and Functions of the Digital Video Server

### 1. Front Panel



- 1.1 **TX/RX** LED indicator – indicates transmit/receive signals
- 1.2 **Link** Led indicator – indicates Ethernet link/connection with the network
- 1.3 **PWR** indicator – indicates power ON/OFF
- 1.4 **Reset switch** – clears the network information such as IP, Gateway etc...(available only on older models)

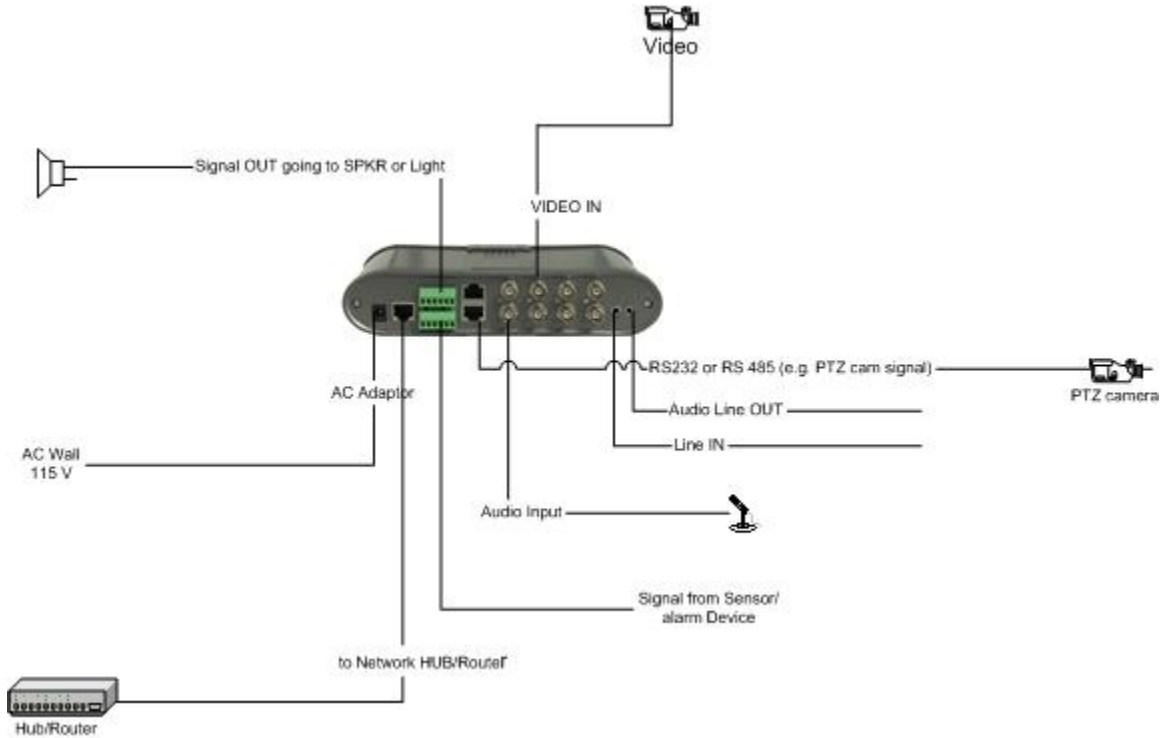
### 2. Back Panel



- 2.1. Power Supply input – 5 or 12 Volts DC input (depending on model)
- 2.2. UTP – Ethernet port for the network connection
- 2.3. Data OUT – alarm or sensor signal output port
- 2.4. Data IN – alarm or sensor signal input port
- 2.5. RS485 – RS485 communication signal port (Use orange and orange/white from a CAT5 cable for PTZ cameras)
- 2.6. RS232 – RS232 communication signal port. Also used to configure IP information for the device
- 2.7. Video IN – video input port
- 2.8. Audio IN – audio input port, one per video input channel
- 2.9. LINE IN – optional audio input
- 2.10. LINE OUT – optional audio output

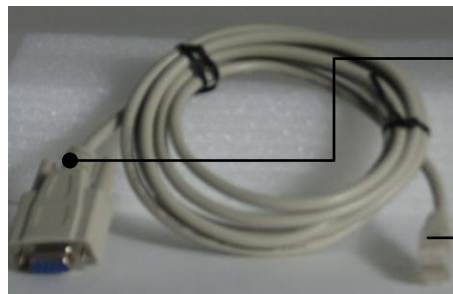
## II. Installation of the Device

### 1. Simple Block Diagram of the Digital Video Server



### 2. Configuring IP Settings through the Hyper-terminal connection

2.1 Connect the RJ45-to-DB9 connector to the Video Server.



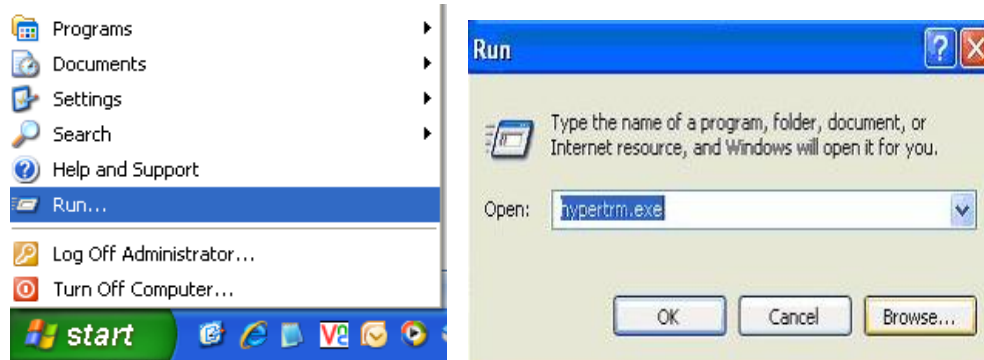
DB9 Connector to go to PC Serial Port

RJ45 connector to go to RS232 port of the Video Server

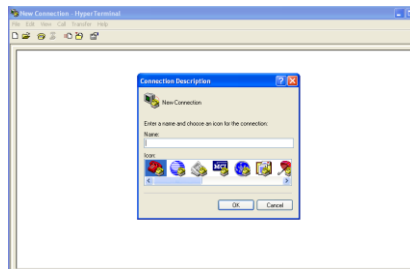
The DB9 goes into the Serial port COM1 on a PC, while the RJ45 connector goes into the RS232 port on the DVS (Digital Video Server). Com port may not always be COM1 on a PC. Please check with your local PC configuration for correct selection of COM port.

2.2 Turn ON the Video Server, and press the Reset Switch at the front panel. Turn OFF/ON the DVS again. Skip this step if your unit does not have a reset switch.

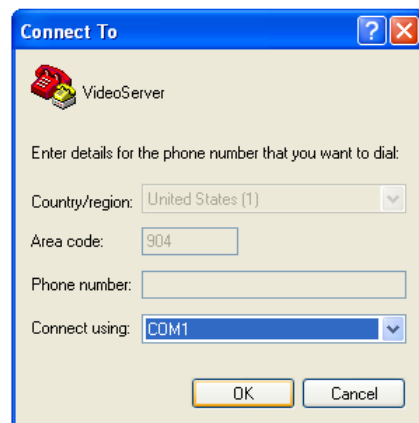
2.3 On the PC, open the Hyper-terminal program. Click on Start, RUN and then type in **hypertrm.exe** Click OK.



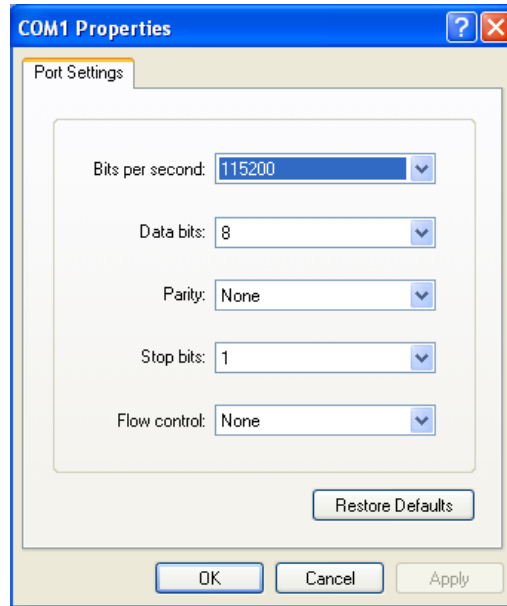
2.4 Enter any name for the connection, such as "VideoServer" and click OK.



2.5 Select the COM port to be used for the connection. Every PC has different COM port number assigned to their serial port. Please check your local PC configuration or consult your local PC manual.

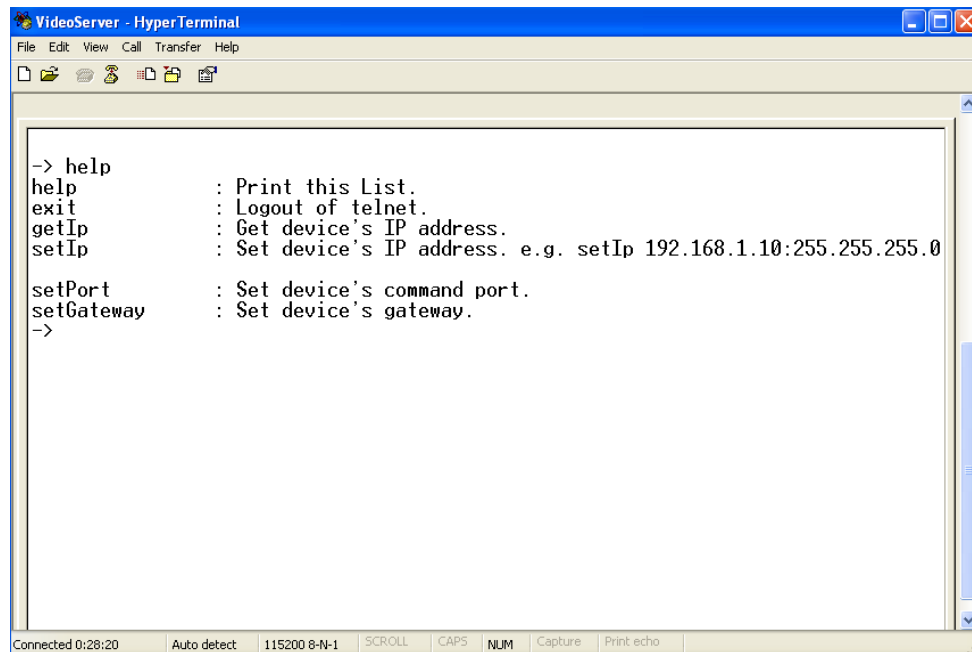


2.6 Configure the settings; set the settings as shown below:



Click OK when done.

2.7 Setting the IP Information - Press **Enter** on the keyboard, there will be a  $\rightarrow$  or # sign appearing on the screen. Type in the word **help**, and then press enter. This will provide you a list of command you can use setting up the network settings on the server. See below for the list of commands to follow on this task:



Note: The commands are caps sensitive; follow exactly how it appears on this example.

## 2.8 Set IP Information on the DVS

Values shown here is only an example. Follow the IP address scheme on your own Local Area Network (LAN). Consult your local IT staff or your Internet Service Provider as to what IP address information you are going to use on this task.

To Set IP Address, Subnet Mask, Default Gateway and Port

→ **setIp** 192.168.1.200:255.255.255.0

→ **setGateway** 192.168.1.1

→ **setPort** 5000

→ **exit**

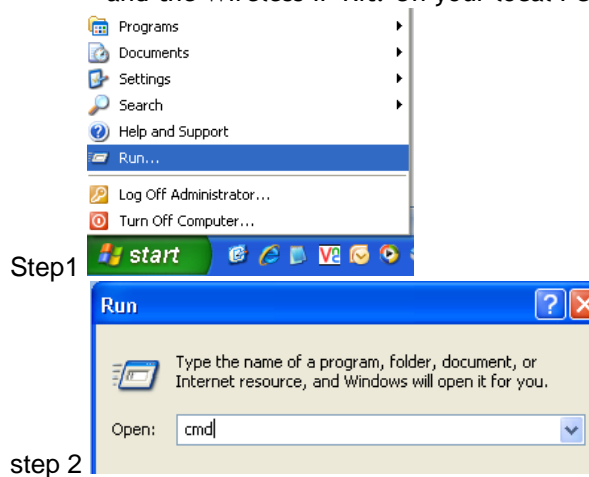
Close the Hyper-terminal program and restart the Video server after the settings has been set up.

## 3. Configure the IP Video Server through Remote Client Software

3.1 You can use these default IP settings as a starting point to connect them to your local PC and reset these IP settings by using Remote Client software to change IP information that will work for your own local network.

1.1.1 Change the IP information of your local PC used to configure the Wireless IP kit. Your PC IP address should be within the same range as that of the Wireless IP Kit. You local PC must be connected to the same router/hub where the Wireless IP kit is also connected.

1.1.2 Make sure you have excellent network connectivity between the local PC and the Wireless IP Kit. On your local PC,



Step 3: Type the command **ping** followed by IP address of the IP video server. (Note: The IP address shown here is an example only and may or may not be your actual IP address).

```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>ping 192.168.1.250
  
```

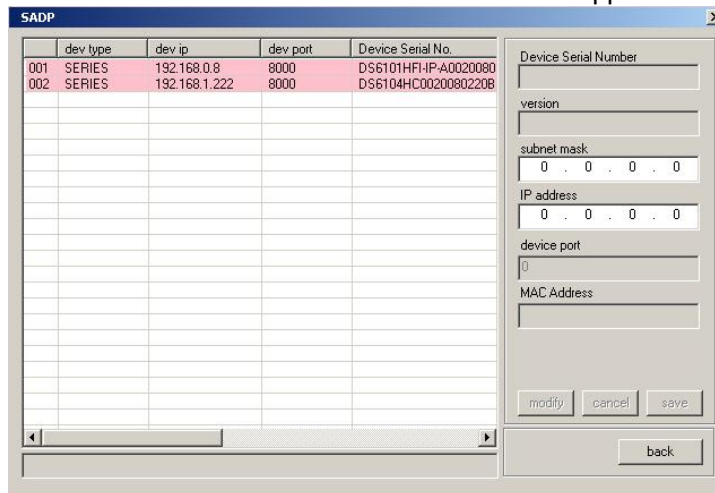
1.2 Use the remote client software of the Video Server to connect to the Video server. Once connected, you will be able to have the option to make changes to the IP settings of the Video Server. Please refer to the Remote Client Manual for details.

## 4. Configure the IP Video Server through WinCap Software

4.1 Using WinPcap Software: the software will search the VR Enterprise IP video servers/cameras, whether the IP address of the IP Video server/camera is within or outside the IP address range of the existing network.

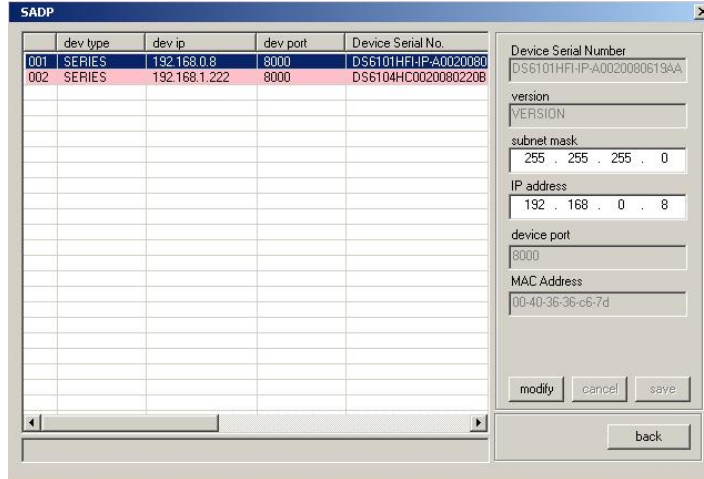
4.1.1 Install the WinPcap software on your local PC. (The software is only supported by Windows 2000 and XP).

4.1.2 From the same unzipped folder, double click on sadpdlg.exe, press “Enter” to run the IP camera search application.



4.2 Software interface will show all the IP cameras/servers found on your network. In order to change the IP settings of a unit, highlight the server/camera using your mouse.





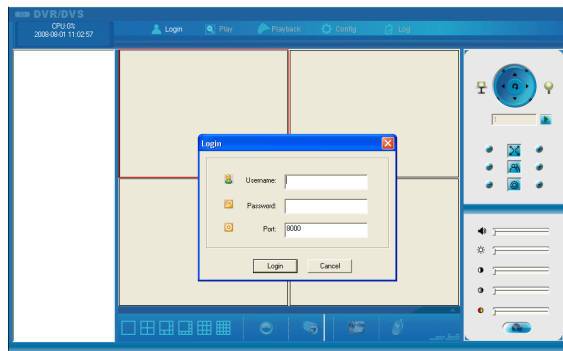
4.3

IP address and subnet mask information will now be active in the text box and ready for editing. Change these two IP information (IP address and Subnet Mask) based on your local network setup. Please consult your local IT staff or Internet Service Provider as to what IP address information you are going to use for your IP video server/camera.

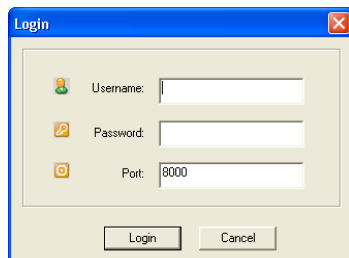
## 5. Remote Connection to Digital Video Server via Internet Explorer

### 5.1 Connecting to the DVR via Web browser, Internet Explorer\*

Once the IP information has been setup on the Video Server and the unit is physically connected to the network. Open the IE on a PC and type in the **local** IP address on the browser's address box to remotely connect to the video server. A local IP address usually starts like 192.168.1.xxx or 10.0.0.xxxx.

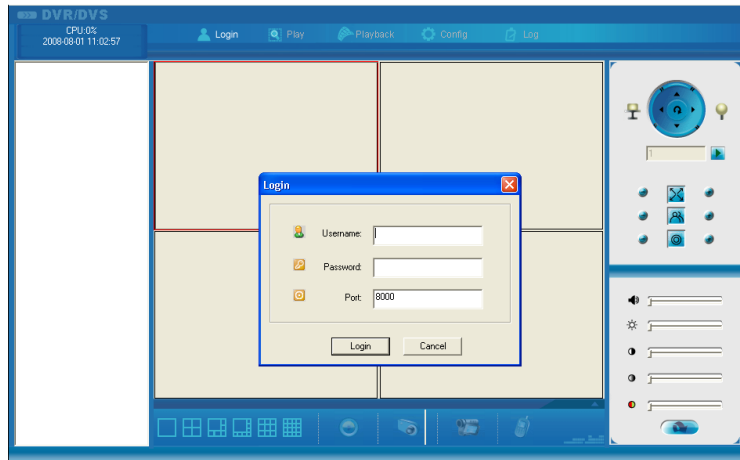


\* Note that this section (4.1) is only applicable locally, meaning accessing your DVR within your local area network.



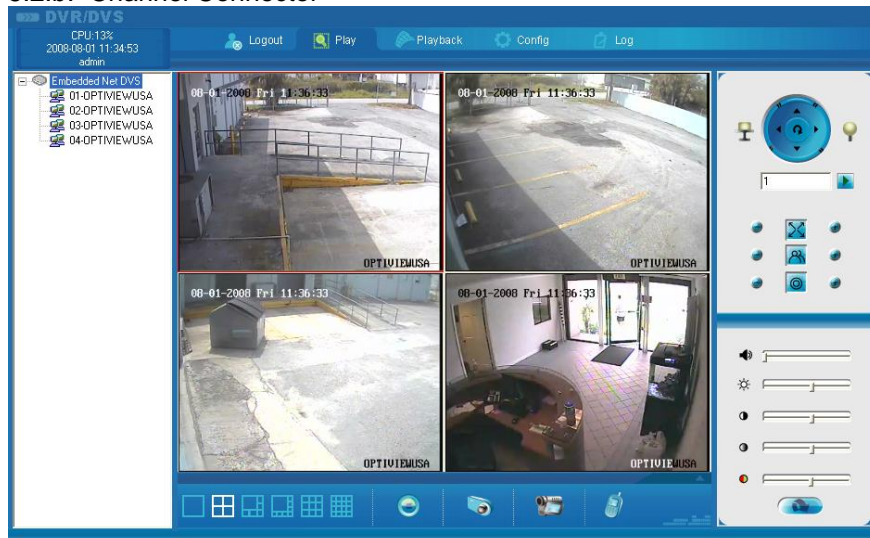
Default login name: admin  
 Password: 12345  
 Default port: 8000

## 5.2 Functionalities of the Web User Interface:

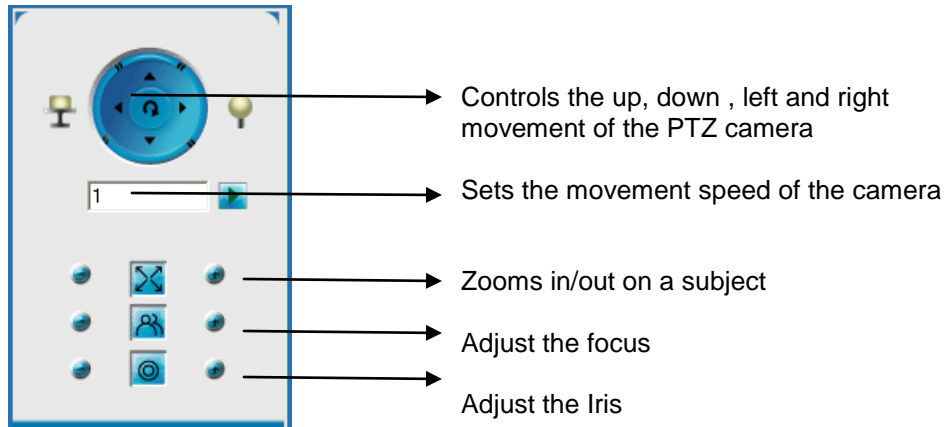


5.2.a. - Select the number of display partition you prefer, from single screen up to 16-partition screen display. Using a mouse, point and click to one of the display partition to select a window screen. A currently selected display partition has a green color square around it. You will then go to Channel Selector as shown below to double click a camera number to connect to it and have it displayed on the window you've just selected.

### 5.2.b. Channel Connector



Select and double click a camera channel number to connect to it remotely. Double click the top Server name to connect to all cameras from the Video Server. A camera number can be displayed on any one of the screen display partition. Simply select a partition from the display screen and double click a camera from this channel connector to connect to the camera. To disconnect a currently connected camera, double click on the channel number in order to disconnect.



5.2.d. - An option to have a voice chat with the other remote user. Speakers and microphone must be provided and connected to the Digital Video Server and the local PC.



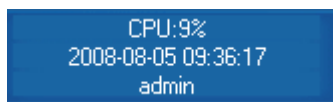
5.2.e. Config- Remotely configures the system settings of the Digital Video Server. The graphical user interface (GUI) for the “Config” is shown below:



5.2.f Capturing Image – captures image on currently highlighted camera window. Use your mouse to left click on a camera window, and then click on this icon to capture the snapshot of the image you are viewing. The directory of the snapshot file will be given to you on a prompt window.

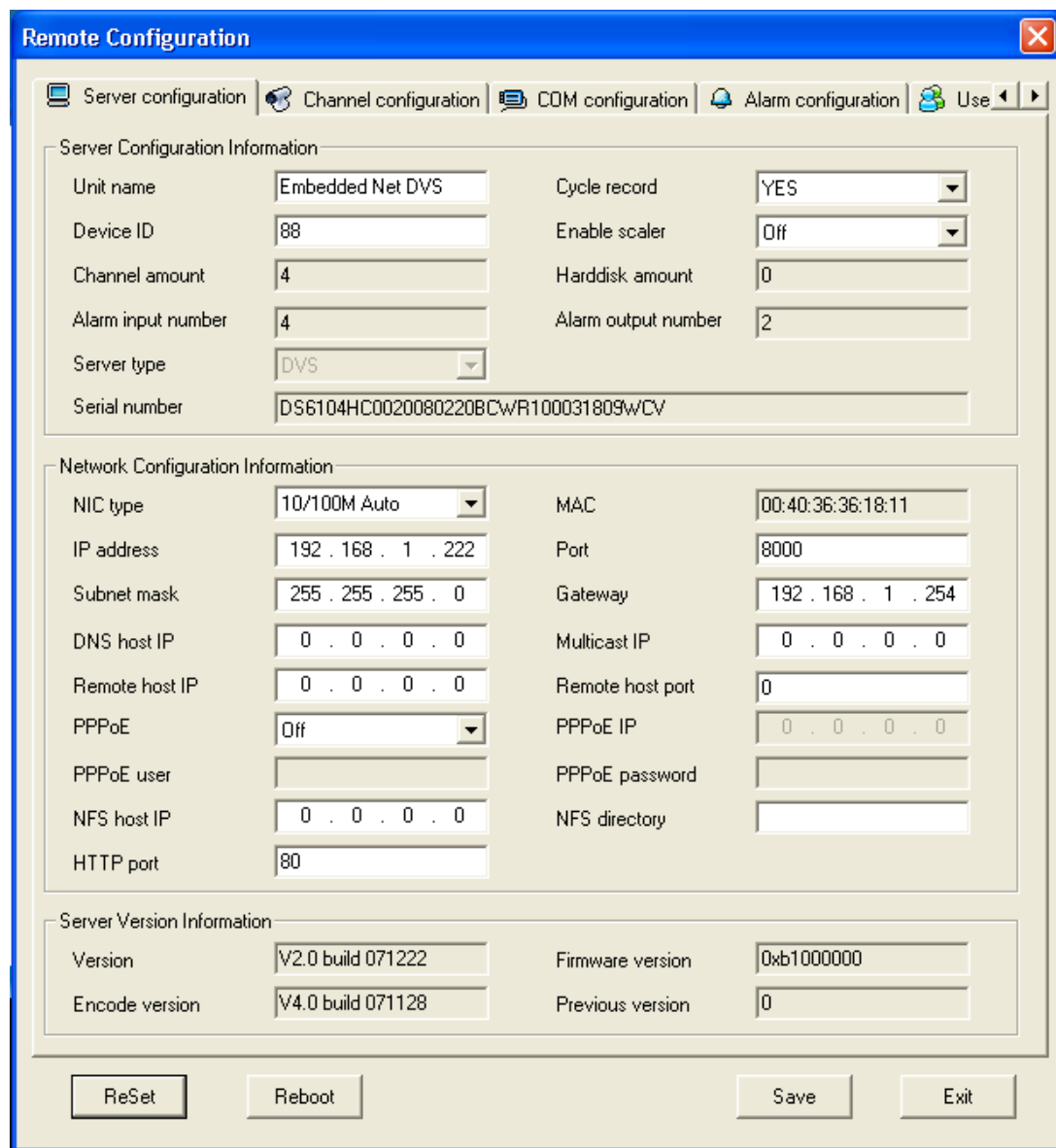


5.2.g. Logout – logs a user out of the Video Server.



5.2.i. Information box – generally gives your local CPU usage rate depending on how many cameras are remotely connected and the user account in use.

## 6. Server Parameter Setup Menu



The screenshot shows the 'Remote Configuration' window with the following settings:

Server Configuration Information	
Unit name	Embedded Net DVS
Device ID	88
Channel amount	4
Alarm input number	4
Server type	DVS
Serial number	DS6104HC0020080220BCwR100031809wCV
Cycle record	YES
Enable scaler	Off
Harddisk amount	0
Alarm output number	2

Network Configuration Information	
NIC type	10/100M Auto
IP address	192 . 168 . 1 . 222
Subnet mask	255 . 255 . 255 . 0
DNS host IP	0 . 0 . 0 . 0
Remote host IP	0 . 0 . 0 . 0
PPPoE	Off
PPPoE user	
NFS host IP	0 . 0 . 0 . 0
HTTP port	80
MAC	00:40:36:36:18:11
Port	8000
Gateway	192 . 168 . 1 . 254
Multicast IP	0 . 0 . 0 . 0
Remote host port	0
PPPoE IP	0 . 0 . 0 . 0
PPPoE password	
NFS directory	

Server Version Information	
Version	V2.0 build 071222
Encode version	V4.0 build 071128
Firmware version	0xb1000000
Previous version	0

Buttons at the bottom: ReSet, Reboot, Save, Exit

The common settings configured on the Video server's Server Parameters are the following:

- 5.1 Unit Name – enter a unique name to your Video server (this option is not a required field)
- 5.2 IP address of the DVS – Enter the IP address of the DVS according to your own local network settings.
- 5.3 Port number – This the port number used to communicate to the Remote client PC.
- 5.4 Subnet mask – Enter the subnet mask according to your own local network settings.
- 5.5 NIC Type – the 10M/100M Auto is recommended.

5.6 Gateway IP address - Enter the Gateway IP address according to your own local network settings.

5.7 HTTP Port – Enter the port number to be used when accessing the DVR via a web browser. The default is port 80 for HTTP, but it may differ according to your own local network settings.

5.8 DNS IP – this IP address can be taken from the ISP

## 6. Channel Parameter Setup Menu

The screenshot shows the 'Remote Configuration' window with the 'Channel configuration' tab selected. The settings are as follows:

- Server configuration | **Channel configuration** | COM configuration | Alarm configuration | Use
- Channel configuration
  - Select channel: Channel01
  - Camera name: OPTIVIEWUSA (Note: Channel name can not be copied)
  - Schedule (Setup) | PreRec T.: 5s | PostRec T.: 5s
  - Motion Det. (Area setup) | Schedule | PTZ link (Note: Area can not be copied)
  - Channel name | X-coordinate: 501 | Y-coordinate: 448
  - OSD | X-coordinate: 0 | Y-coordinate: 32 |  Display week
  - Properties: Opaque&&Steady | Type: MM-DD-YYYY (MDY)
  - Type: Major stream | Frame type: BBP | I Frame: 30
  - Image quality: High | Frame rate: 30N/25P | Stream type: Video&&Audio
  - Resolution: CIF | Bitrate type: Fixed | Max bitrate: 512Kbps
  - Copy to: All channels | copy
  - Overlay text

	x	y	Overlay content
<input type="checkbox"/> Area 1	0	96	a
<input type="checkbox"/> Area 2	0	128	b
<input type="checkbox"/> Area 3	0	160	c
<input type="checkbox"/> Area 4	0	192	d

Buttons: ReSet | Reboot | Save | Exit

6.1 Channel No.  select the channel number you would like to work on.

6.2 Channel Name  You can name each camera with your own descriptive name.

Major stream (Record)

Image Quality  Stream Type  Resolution

Bit Rate  Frame Rate  Max Bit Rate   bps

6.3 The settings on Major stream will affect how the video itself is processed and sent by the Video Server, such as the image quality output which will also affect how many days will be stored on your hard drive (remotely). Set the stream type to Video only if there is no audio recording in order to save HDD space and lower the files size sent to the network.

Minor stream (Net)

Image Quality  Stream Type  Resolution

Bit Rate  Frame Rate  Max Bit Rate   bps

6.4 These settings affects how the video file is send through the network either LAN or WAN. Minor stream has a low quality video resolution.

Remote Configuration

Server configuration | Channel configuration | COM configuration | Alarm configuration | Use < >

Channel configuration

Select channel

Camera name  (Note: Channel name can not be copied)

Schedule

Motion Det.

Channel name X-coordinate

OSD X-coordinate

Properties

Type

Image quality

Resolution

Copy to

Overlay text

	x
<input type="checkbox"/> Area 1	0
<input type="checkbox"/> Area 2	0
<input type="checkbox"/> Area 3	0
<input type="checkbox"/> Area 4	0

Set motion detect areas

08-05-2008 Tue 11:08:31

OPTIMEWUSA

Note: Press "Ctrl" key and use mouse to set area

Show areas      Sensitivity:

Set areas

6.5

Motion Detection – check this option to setup the video server’s motion detection feature. Click on “Area Setup” button to set an area for motion detection and adjust the motion sensitivity.

## 6.5.1 To Send video from the IP server/camera to the main DVR Server

From the Main DVR server, to where the IP server is linked:

1. Right click over the IP server window and click on **IP Camera Setup**
2. Click on **CHANNEL** tab
3. Go to **Record Schedule** sub-menu to select the recording schedule, enable recording, Days to record, “All Day” or per selected time period, when to record-record type (is it on timing record-based on time period, motion detect, motion detect/alarm etc...)
4. Click on **Save**
5. Click on **Alarm Setup** tab.
6. Select Camera number, select Alarm type: Motion detect
7. Click on **Level**: select 3
8. Click on **Whole**
9. On Policy, click on **Upload to Center**
10. Check **Trigger Camera Record**

## 7. COM/Serial Parameters Setup Menu

RS485 Configuration Information

Channel No. Channel01

Baud rate 2400 Data bits 8 Stop bits 1

Parity No Flow control None

PTZ type Pelco-D PTZ address 1

Copy To All channels copy

RS485- Used for configuring the settings when using a PTZ camera with the Video Server. Check your actual PTZ camera dip switch settings and copy them over to this menu.

## Physical Wiring Interface: Socket Pin definition

### 1.2.1 Standard RS232 port - RJ-45 socket pin definition

Video server has a RS232 standard port, adopt 1-45 socket definition of each pin is below, I means video server input, O means video server output.

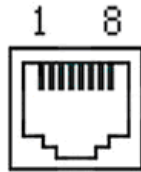


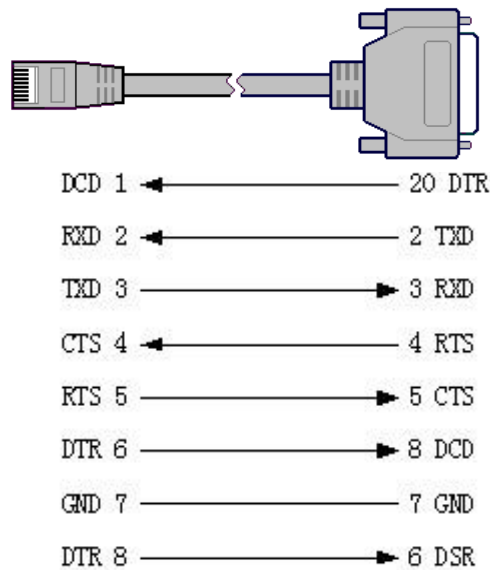
Chart 2.1 RJ-45

2.1 RS232 RJ-45 define

PIN	Dec.	I/O	explain
1	DCD	I	carrier wave in effect
2	RxD	I	Receive Data
3	TxD	O	Send Data
4	CTS	I	Clear
5	RTS	O	Request
6	DTR	O	Ready
7	GND		
8			

- (1) When video server's port is connected with DTE/DCE equipment, one side of the cable is RJ45 socket the other side is DB25 style socket. 25 cores bore style socket. The way to connect 25 cores bore style socket with RJ45 is below:

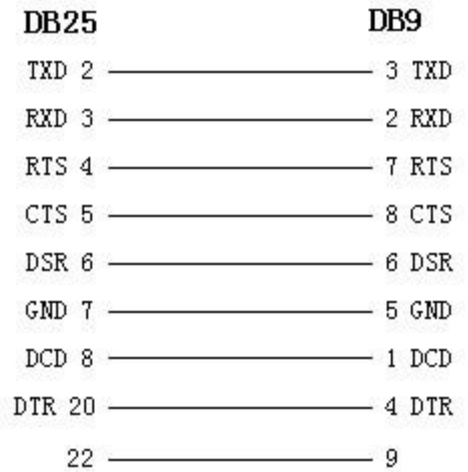
- (2)



picture2.2 the connection with RJ45 and DB25 (DTE)



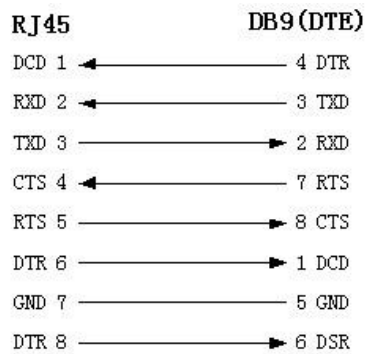
- (3) To connect 25 cores bore style socket with 9 cores bore style socket conversion is below :



picture2.3 the connection with DB25 and DB9

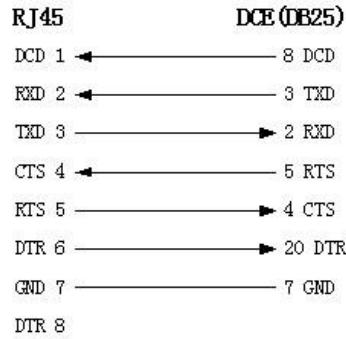
- (3.1) the cable connect video server with DTE( terminal) equipment

One side of the cable is 8 cores RJ45 socket, the other side is DB9 core style socket.



picture 2.4 the connection with RJ45 and DB9

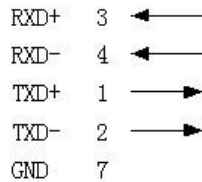
- (4) When connect video server's port with DCE ( MODEM) equipment, one side of the cable is 8 cores RJ45 socket, the other side is DB25 needle style socket. the connection with 25 cores bore socket and RJ45 is below:



Picture 2.5 the connection with RJ45 and DB25 ( DCE)

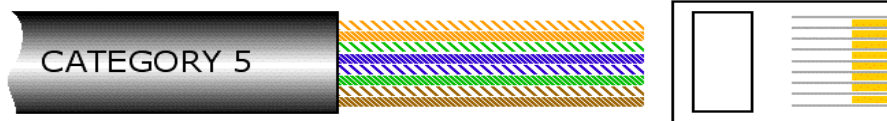
## Definition of RS485 port - RJ-45 socket pin.

To use CAT5 cable for PTZ control, cut one end of a standard CAT5 network cable and use the orange and orange/white for the RS485 data connection of the PTZ camera. Other end of the RJ45 connector pin should plugged in to the RS485 port of the Video Server.



EIA/TIA 568B WIRING STANDARD	
PIN	Wire Color*
1	White w/Orange Stripe
2	Orange w/White Stripe
3	White w/Green Stripe
4	Blue w/White Stripe
5	White w/Blue Stripe
6	Green w/White Stripe
7	White w/Brown Stripe
8	Brown w/White Stripe

For Cross Over Cable Wiring  
Wire ONE End using 568B and one end as 568A (Swap Orange and Green Pairs)





## Configuring the Wireless Access Point/Bridge

The Wireless IP Kit has a summary sheet enclosed inside the box for the default IP settings of the Video Server and Wireless Access point. There are two ways to configure or make changes to the IP settings of these two devices. First, use the default IP information; second, make changes of IP settings to these two devices by making direct connections to both devices.

### A. Configuring the IP Address of Wireless Access Point/Bridge

#### 1. Introduction

The Outdoor Wireless Bridge/Client Router/AP/Repeater operates seamlessly in the 2.4 GHz frequency spectrum supporting the 802.11b (2.4GHz, 11Mbps) and faster 802.11g (2.4GHz, 54Mbps) wireless standards. It's the best way to add wireless capability to your existing wired network, or to add bandwidth to your wireless installation. EOC-3220 Series Wireless Access Point/Bridge has high transmitted output power and high receivable sensitivity. High output power and high sensitivity can extend range and coverage to reduce the roaming between APs to get more stability in wireless connection. It also can reduce the expense of equipment in the same environment. To protect your wireless connectivity, it can encrypt all wireless transmissions through 64/128-bit WEP data encryption and also supports WPA/WPA2. The MAC address filter lets you select exactly which stations should have access to your network.

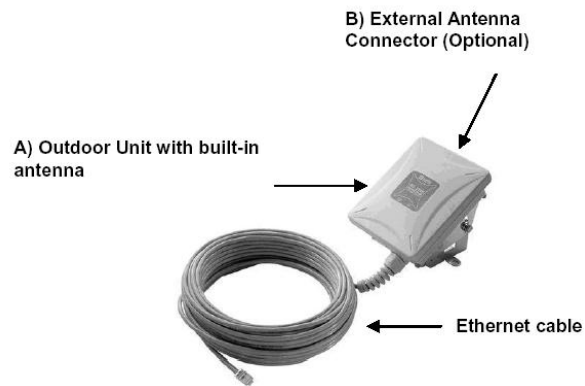
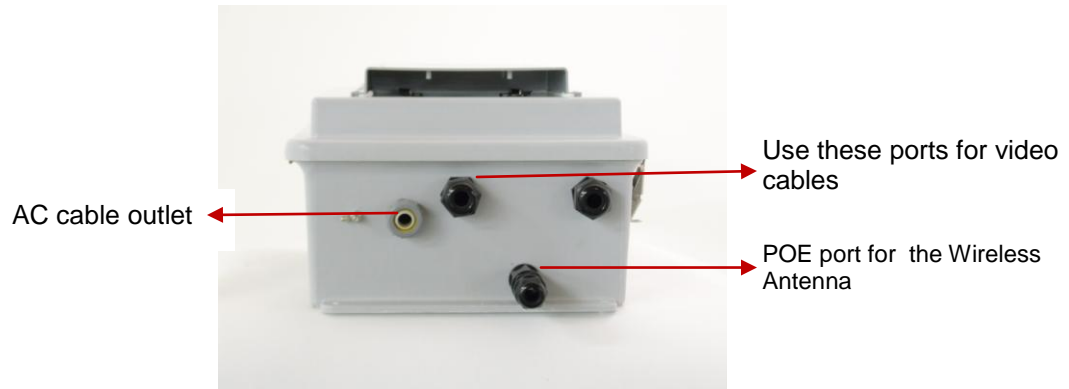
#### 1.1 Initial Wiring Setup to Configure Wireless Access Point/Bridge



Step 1:  
Remove the CAT5 from the IP video server and insert the RJ45 coupler



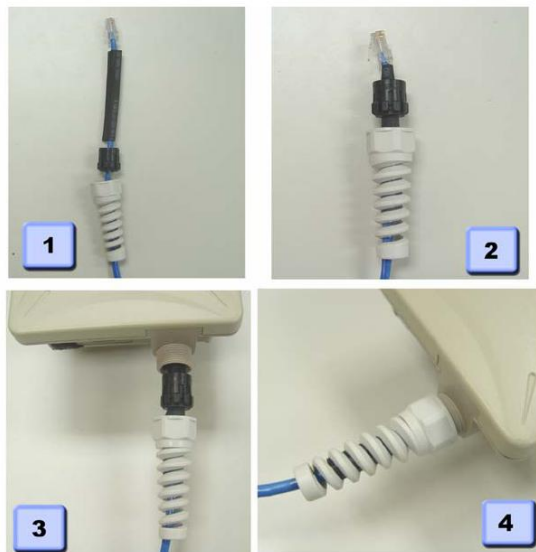
Connect a network cable from your PC (If using a cross over cable, otherwise it will be a network cable from a hub/switch) into this RJ45 coupler in order to access the Web interface of the router's configuration menu.



Step 2: Connect the Wireless Antenna Ethernet cable to the POE port of the Wireless Kit box. Plug in the main AC cable to your AC wall outlet to power up the whole system.

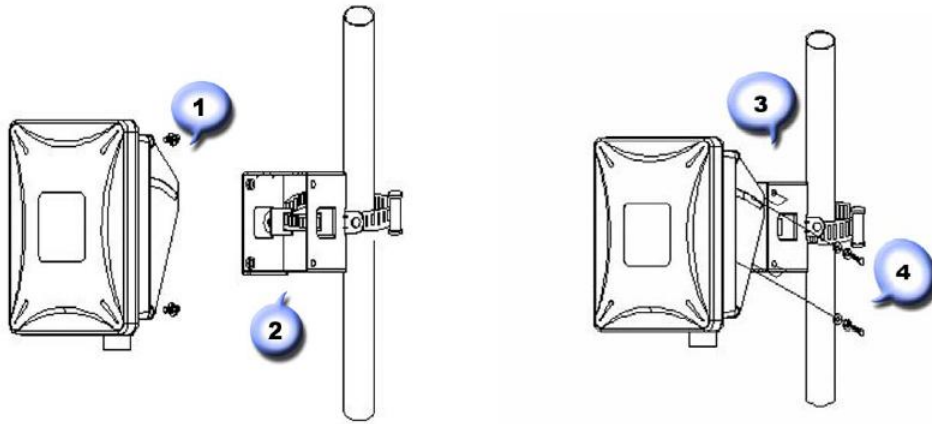
## 1.2 Ethernet cable water proof kit Install Guide

Install the Ethernet cable with the waterproof kits shown as below pictures 1~4.



## 1.3 Mounting Install Guide

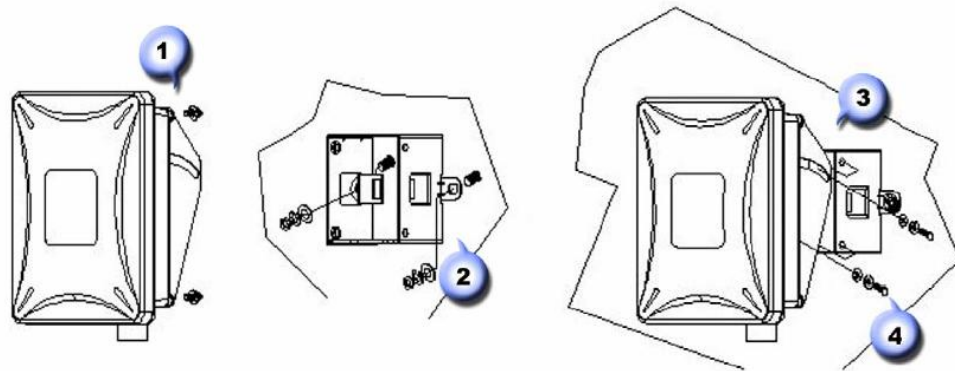
### A. Pole Mounting



- 1) Lock the bracket on device.
- 2) Using hoop to fix on pole and bind with U-clamp.
- 3) Adjust degree of device.
- 4) Using washer screw to lock with device.



### B. Wall Mounting



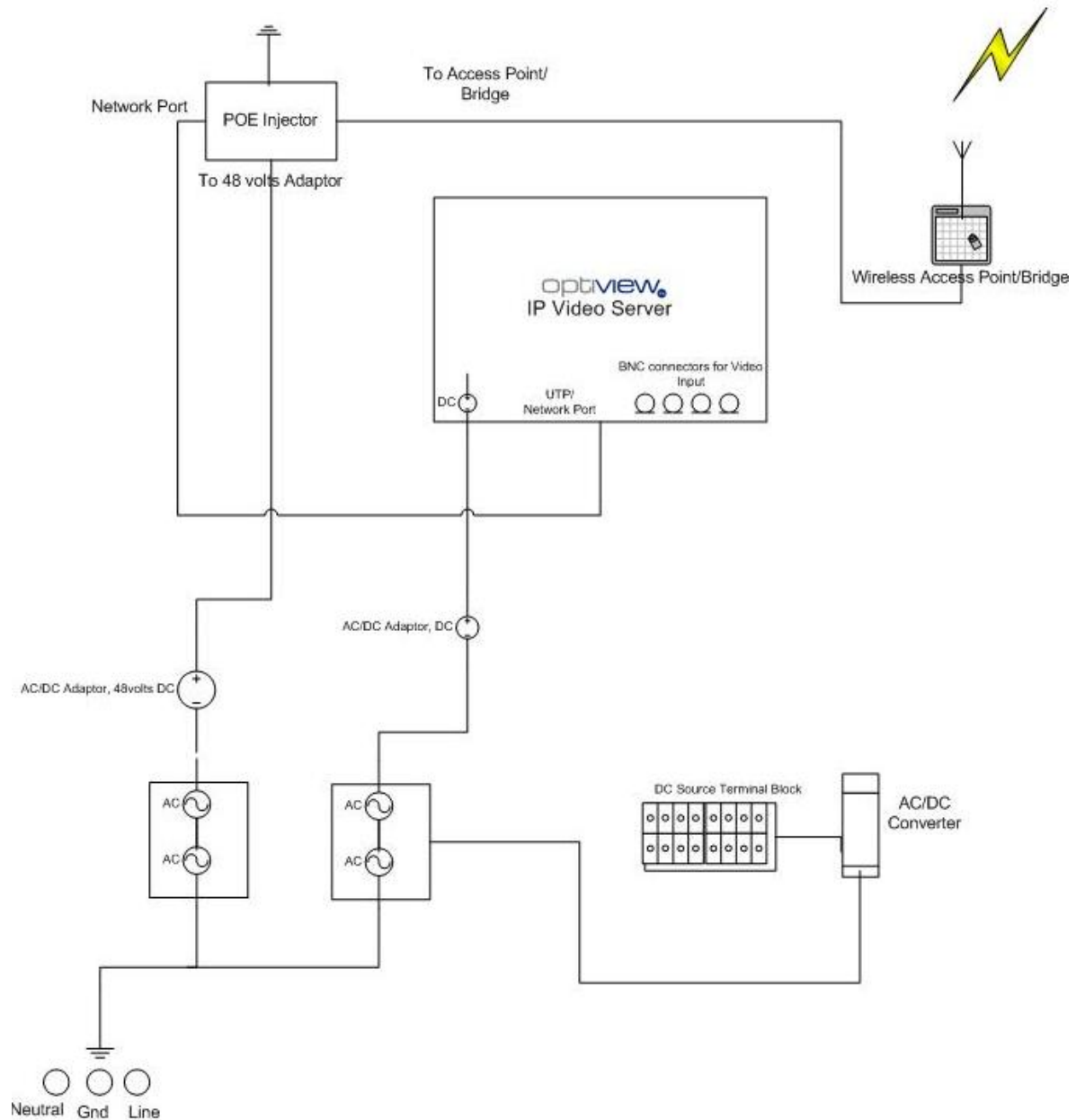
- 1) Lock the bracket on device.
- 2) Lock the wall mount bracket on wall..
- 3) Adjust degree of device.
- 4) Using washer screw to lock with device.



## 2. Understanding the Hardware and Configuration

2.1 The figure below shows the simple block diagram how the whole Wireless IP Video Server Kit is wired and setup.

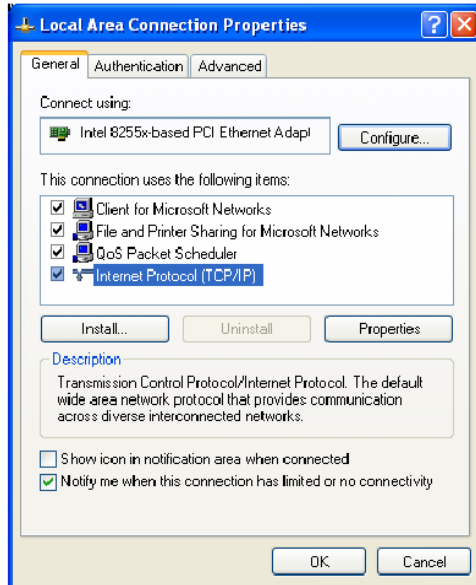
## Simple Block Diagram: Wireless IP Video Server Kit



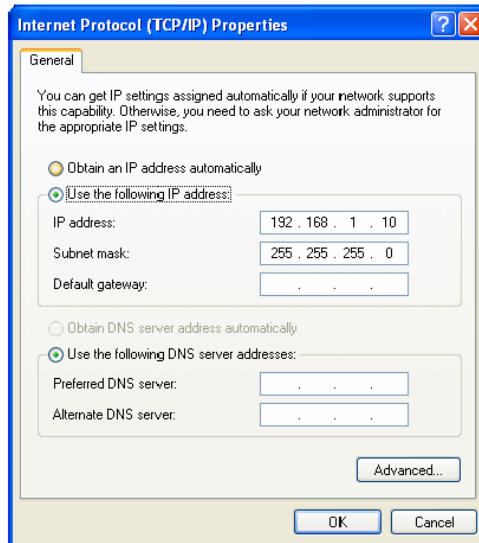
### 2.2 IP Address Configuration

This device can be configured as a Bridge or Access Point. The default IP address of the device is **192.168.1.1**. By default, we will set the Wireless A/P to use Bridge Mode for this DVR application. In order to log into this device, you must first configure the TCP/IP settings of your PC/Notebook.

1. In the control panel, double click Network Connections and then double click on the connection of your Network Interface Card (NIC). You will then see the following screen.



2. Select **Internet Protocol (TCP/IP)** and then click on the **Properties** button. This will allow you to configure the TCP/IP settings of your PC/Notebook.



3. Select **Use the following IP Address** radio button and then enter the IP address and subnet mask. Ensure that the IP address and subnet mask are on the same subnet as the device.

For Example:      Device IP address: 192.168.1.1  
                           PC IP address: 192.168.1.10  
                           PC subnet mask: 255.255.255.0

4. Click on the **OK** button to close this window, and once again to close LAN properties window.



### 3. Choosing the Operation Mode

This device can be configured as a Bridge or Access Point. The default IP address of the device is **192.168.1.1** in Bridge mode. This will describe the steps to switch from Access Point to Bridge.

- 1 Enter the default IP address (192.168.1.1) of the bridge into the address bar of the web-browser.
- 2 By default, a user name and password has not been configured. If you have configured a user name and password, please enter them into the field to continue
- 3 Once you have logged in, click on the **Operation Mode** link under the **Management** menu.

## Operation Mode

You can setup different modes to LAN and WLAN interface for NAT and bridging function.

- Bridge:** Client Bridge provides connectivity between two wired LAN segments, and is used in point-to-point or point-to-multipoint configurations.
- Bridge Router:** Client Router designed to connect a small number of wireless nodes to a single device for LAN and WLAN connectivity to another network.
- AP:** Access Point is probably the most common wireless LAN device with which you will work as a wireless LAN administrator. Access point provides clients with a point of access into a network.

The customer can always change these entire configurations in order to suit their own local network setup. All the settings and examples shown here are for initial setup only and must not be assumed to be the final and actual settings in order for the device to work. Please consult your own local network staff for network setup details. Optiview does not provide detailed technical support to configure your own local/private network.

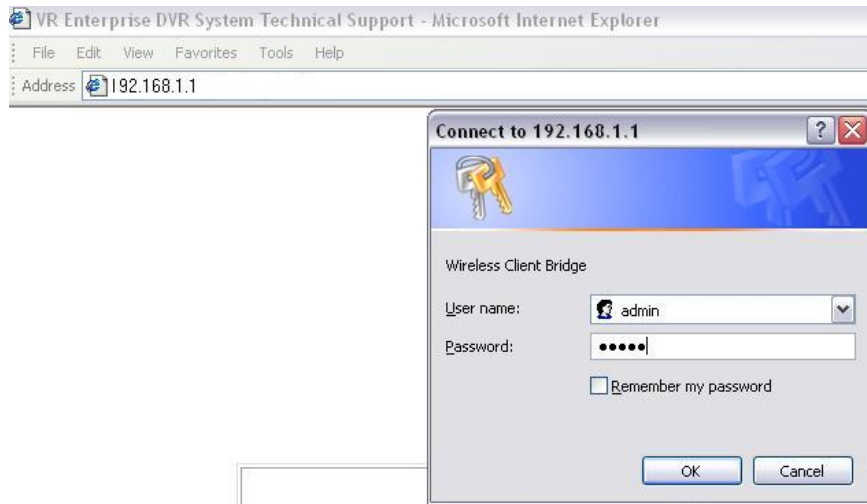
### 4. Wireless Access Point/Bridge Router Mode: Web configuration

#### 4.1 Logging In

- To configure the Bridge through the web-browser, enter the IP address of the Bridge (default: **192.168.1.1**) into the address bar of the web-browser and press **Enter**.



- Make sure that the Bridge and your computers are on the same subnet. Refer to **Chapter 2** in order to configure the IP address of your computer.
- Username : **admin**; Password : **admin**



After logging in you will see the graphical user interface (GUI) of the bridge. The navigation drop-down menu on left is divided into three main sections:

1. **Management:** This includes operation mode, status, statistics, logs, upgrade firmware, save/reload settings, and password.
2. **TCP/IP Settings:** This includes the configuration of the LAN port and settings for the LAN IP, subnet mask, DHCP client, spanning tree and MAC cloning.
3. **Wireless:** This includes the basic, advanced, security and site-survey settings for the wireless interface.

The Bridge status page is also displayed once you have logged in. This includes details about the system, wireless, and TCP/IP configuration.

## Client Bridge Status

This page shows the current status and some basic settings of the device.

System	
Uptime	0day:0h:11m:41s
Firmware Version	v1.42.01
Wireless Configuration	
Mode	Infrastructure Client Bridge
Band	2.4 GHz (B+G)
SSID	optiview
Channel Number	9
Encryption	Disabled
BSSID	00:00:00:00:00:00
State	Scanning
Signal Strength	0.00
Noise Level	0.00
TCP/IP Configuration	
Attain IP Protocol	Fixed IP
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.254
DHCP	Disabled
MAC Address	00:02:6f:4e:74:c8

- **System**
  - **Uptime:** Duration of time since the device was last reset.
  - **Firmware version:** Version of the firmware that is currently loaded on the device.
- **Wireless Configuration:**
  - **Mode:** Wireless configuration mode such as client bridge, AP, or WDS.
  - **Band:** Frequency and IEEE 802.11 operation mode (b-only, g-only, or b+g).
  - **SSID:** The name used to identify the wireless network.
  - **Channel Number:** The channel used to communicate on the wireless network.
  - **Encryption:** The type of security used on this network. It may be disabled, WEP, WPA, etc.
  - **BSSID:** The MAC address of the SSID.
  - **State:** The current state of the bridge. It may be scanning or associated or disabled.
  - **Signal Strength:** The signal strength of the wireless device.
  - **Noise Level:** The level of interference.
- **TCP/IP Configuration:**
  - **Attain IP Protocol:** The IP address setting may be dynamic or static.
  - **IP Address:** Displays the current IP address of the LAN port.
  - **Subnet Mask:** Displays the current subnet mask for the IP address.
  - **Default Gateway:** Displays the default gateway for the device.
  - **DHCP:** Displays the DHCP setting.
  - **MAC Address:** Displays the MAC address of the device.

**4.2 Management** - Click on the **Management** link on the navigation drop-down menu. You will then see five options: operation mode, status, statistics, log, upgrade firmware, save/reload settings, and password.

Each option is described below.



4.2.1 Selecting Operation Mode – for DVR applications, we will be using Bridge mode. However, your own IT staff will still have the final word as to what mode you will select on this menu depending on your private/local network setup.

## Operation Mode

You can setup different modes to LAN and WLAN interface for NAT and bridging function.

- Bridge:** Client Bridge provides connectivity between two wired LAN segments, and is used in point-to-point or point-to-multipoint configurations.
- Bridge Router:** Client Router designed to connect a small number of wireless nodes to a single device for LAN and WLAN connectivity to another network.
- AP:** Access Point is probably the most common wireless LAN device with which you will work as a wireless LAN administrator. Access point provides clients with a point of access into a network.

- Select the **AP**, **Bridge** or **Bridge Router** and then click on the **Apply Change** button.

Please wait...

## 4.2.2 Setup Router's Password

- **Management**
  - ▶ Operation Mode
  - ▶ Status
  - ▶ Statistics
  - ▶ Log
  - ▶ Upgrade Firmware
  - ▶ Save/Reload Settings
  - ▶ Password
- **TCP/IP Settings**
  - ▶ LAN Interface
  - ▶ SNMP Settings
- **Wireless**
  - ▶ Basic Settings
  - ▶ Advanced Settings
  - ▶ Security
  - ▶ Site Survey
  - ▶ Logout

Click on the **Password** link under the **Management** menu. This option allows you to create a user name and password for the device. By default, this device is configured without a user name and password. For security reasons it is highly recommended that you create a user name and password.

### Password Setup

This page is used to set the account to access the web server of Access Point. Empty user name and password will disable the protection.

User Name:

New Password:

Confirmed Password:

- Enter a **user name** into the first field.
- Enter a password into the **New Password** field and then re-type the password into the **Confirmed Password** field. Then click on the **Apply Changes** button.
- By clicking on the **Reset** button, the user name and password fields will become blank indicating that the username and password has been disabled.

## 4.3 TCP/IP Settings



### 4.3.1 LAN Interface

Click on the **LAN Interface** link under the **TCP/IP Settings** menu. Using this option you may change the IP address of the device as well as toggle the DHCP setting.

## LAN Interface Setup

This page is used to configure the parameters for local area network which connects to the LAN port of your Access Point. Here you may change the setting for IP address, subnet mask, DHCP, etc..

<b>IP Address:</b>	<input type="text" value="192.168.1.1"/>
<b>Subnet Mask:</b>	<input type="text" value="255.255.255.0"/>
<b>Default Gateway:</b>	<input type="text" value="192.168.1.254"/>
<b>DHCP:</b>	<input type="text" value="Disabled"/> ▾
<b>DHCP Client Range:</b>	<input type="text" value="192.168.1.100"/> - <input type="text" value="192.168.1.200"/> <input type="button" value="Show Client"/>
<input type="button" value="Apply Changes"/> <input type="button" value="Reset"/>	

Please wait...

- **IP Address:** Enter the IP address.
- **Subnet Mask:** Enter the subnet mask for the IP address.
- **Default Gateway:** Enter the IP address for the default gateway.
- **DHCP:** If this device is a DHCP client and will receive its IP settings from a DHCP server, then select **Enabled** from the drop-down list. Enabling the DHCP client will disable the IP address, subnet mask, and default gateway fields. If the DHCP option is **Disabled**, then the IP address, subnet mask, and default gateway fields must be filled in.
- Click on the **Apply Changes** button to confirm the changes. This device will automatically restart once these changes have been applied.



## 4.4 Wireless



Click on the **Wireless** link on the navigation drop-down menu. You will then see four options: basic settings, advanced settings security and site survey. Each option is described below.

### 4.4.1 Basic Settings (Infrastructure, Ad-Hoc)

Click on the **Basic Settings** link under the **Wireless** menu. Using this option you may configure the 802.11b/g settings as well as the frequency, channel, and SSID.

## Wireless Basic Settings

This page is used to configure the parameters for wireless LAN clients which may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters.

**Band:**

**Network Type:**

**SSID:**

**Desired BSSID:**

**Channel:**

**Enable Universal Repeater Mode (Acting as AP and client simultaneously)**

**SSID of Extended Interface:**

- **Band:** Depending on the type of wireless clients that are connected to the network, you may select **B**, **G**, or **B+G**. If you are not sure about which clients will be accessing the wireless networks, it is recommended that you select **B+G** for the best performance.
- **Network Type:** Select **Infrastructure** or **Adhoc** from the drop-down list. Infrastructure is a point-to-multipoint (PtMp) topology where as Adhoc is a point-to-point topology (PtP).
- **SSID:** The SSID is a unique named shared amongst all the points of the wireless network. The SSID must be identical on all points of the wireless network and cannot exceed 32 characters.
- **Desired BSSID** Enter the MAC address of AP Radio.
- **Channel:** Select a channel from the drop-down list. The channels available are based on the country's regulation. When selecting Infrastructure mode, a channel is not required, however, when selecting Adhoc mode, you must select the same channel on all points.
- **Enable Universal Repeater Mode:** Select **Enable** to activate Universal Repeater Mode and type below SSID for extended wireless interface.

#### 4.5 Site Survey

Click on the **Site Survey** link under the **Wireless** menu. This page displays the list of Access Points in the coverage area and allows you to connect to them if you have the required credentials.

### Wireless Site Survey

SSID	BSSID	Channel	Type	Encrypt	Signal	Select
DinoNet	00:20:ed:0d:26:96	11 (B)	AP	WEP	69	<input type="radio"/>
TDL-DI-624	00:0f:3d:3d:8e:02	6 (B+G)	AP	WEP	27	<input checked="" type="radio"/>
default	00:90:96:28:24:26	6 (B)	AP	no	26	<input type="radio"/>

- The site survey table lists the following:
  - SSID: This is the unique name of the wireless network.
  - BSSID: This is the MAC address of the Access Point.
  - Channel: This indicates the current channel that the Access Point is operating on, along with the 802.11 network type (B, G, or B + G).
  - Encrypt: This indicates the encryption type.
  - Signal: This indicates the signal strength of the Access Point.
- You may select the radio button of a specific Access Point and then click on the **Connect** button. If the credentials of this device match that of the Access Point then you will be connected immediately, if not, you must specify the appropriate credentials.
- You may click on the **Refresh** button at any time to re-scan the area.



## Features and Technical Specifications: Outdoor Access Point/Client Bridge and IP Video Server

### Technical Specifications: Outdoor Access Point/Client Bridge

Technical Specifications	Details
Data Rates	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps
Standards	IEEE802.11b/g, IEEE802.1x, IEEE802.3, IEEE802.3u
Compatibility	IEEE 802.11g/ IEEE 802.11b
Power Requirements	Active Ethernet (802.3af) – 48 VDC/0.35Amps.
Regulation Certifications	FCC Part 15, ETSI 300/328/CE
RF Information	
Frequency Band	2.400• 2.4835 GHz (US, EU)
Media Access Protocol	Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA)
Modulation Technology	Orthogonal Frequency Division Multiplexing (OFDM) DBPSK @ 1Mbps DQPSK @2Mbps CCK @ 5.5 & 11Mbps BPSK @ 6 and 9 Mbps QPSK @ 12 and 18 Mbps 16-QAM @ 24 and 36 Mbps 64-QAM @ 48 and 54 Mbps
Receive Sensitivity (Typical)	88dBm @ 6Mbps 70dBm @ 54Mbps
Available transmit power	Up to 26dBm @ 1~24Mbps 23dBm @ 36Mbps 21dBm @ 48Mbps 20dBm @ 54Mbps
Antenna	Option A: 9dBi Internal(Patch) Option B: 5dBi External (Dipole) Option C: 16dBi Built-in (Patch)
RF Connector	SMA (Fr) Type (Optional for External Antenna use)
Networking	
Topology	Ad-Hoc, Infrastructure
Operation Mode	Point-to-Point/ Point-to-Multipoint Bridge/Client Router/ AP/ WDS/ Repeater
Interface	. Wireless IEEE802.11b/g . One 10/100 RJ-45 port . RS232 connector
Security	. IEEE802.1x Authenticator / RADIUS Client (EAP-MD5/TLS/TTLS) Support in AP Mode . WPA /WPA2 . MAC address filtering . Hide SSID in beacons . User isolation . NAT in CR mode
IP Auto-configuration	DHCP client/server
Management	
Configuration Interface	. Web-based configuration (HTTP) . SNMP V1, V2c . Telnet
Firmware Upgrade	Upgrade firmware via web-browser
Physical	
Dimensions	163.8(L)mm * 135.2(W)mm * 47.0(H)mm
Weight	1.2 Kg (2.6 lbs)
Temperature Range	Operating: 0°C to 60°C (32°F to 140°F) - Storage: -20°C to 80°C (-4°F to 176°F)
Humidity (non-condensing)	5%~95% Typical





## Features and Benefits: Outdoor Access Point/Client Bridge

Features	Benefits
High Speed Data Rate Up to 54Mbps	Capable of handling heavy data payloads such as MPEG video streaming
High Output Power EIRP up to 35 dBm (with 9 dBi Patch Antenna)	Excellent output power spreads the operation Distance. Using 5dBi antenna will provide a good wireless connection up to 965 feet on clear view environment.
IEEE 802.11b/g Compliant	Fully Interoperable with IEEE 802.11b/IEEE802.11g compliant devices/
Watertight and Weatherproof	Avoid water invaded and weather corroded for outdoor environment.
SNMP Remote Configuration Management	Help administrators to remotely configure or manage the Access Point easily.
Point-to-point, Point-to-multipoint Wireless Connectivity	Let users transfer data between two buildings or multiple buildings
WPA2/WPA/ IEEE 802.1x support	Powerful data security
Hide SSID (AP Mode)	Avoids unallowable users sharing bandwidth, increases efficiency of the network.
DHCP Client/ Server	Simplifies network administration
WDS (Wireless Distributed System)	Make wireless AP and Bridge mode simultaneously as a wireless repeater
Universal Repeater	The easiest way to expand your wireless network's coverage
MAC address filtering (AP mode)	Ensures secure network connection
User isolation support (AP mode)	Protect the private network between client users.
PPPoE function support (CR mode)	Easy to access internet via ISP service authentication
Power-over-Ethernet (IEEE802.3af)	Flexible Access Point locations and cost savings
Keep personal setting	Keep the latest setting when firmware upgrade



## IP Video Server Specifications

Specifications	VS-1	VS-4
Video/Audio Input channel	1	4
Video Compression Standard	H.264	
Resolution	PAL: CIF, QCIF; NTSC: CIF, QCIF;	PAL: 4CIF, DCIF, 2CIF, CIF, QCIF; NTSC: 4CIF, DCIF, 2CIF, CIF, QCIF;
Video Input Interface	BNC (Electrical Level: 1.0Vp-p, Resistance: 75Ω) NTSC, PAL System Auto Recognition	
Video Frame Rate	PAL: 1/16—25 Frame/Second NTSC: 1/16—30 Frame/Second	
Code Stream	Can Select Single Video Stream or Composite Stream	
Video Compression Input Bit rate	32K~2M bps self-defined (8M maximum)	
Audio Input interface	BNC (Linear Electrical Level, Resistance: 600Ω)	
Audio Output	1 Output, RCA jack	
Audio Compression Standard	OggVorbis	
Audio Compression Code Rate	16Kbps	
Voice Audio Input (MIC)	1 Input, RCA jack	
Communication interface	1 RJ45 10M/100M Self-adaptable Ethernet Interface 1 RS232 interface 1 RS 485 interface for PTZ	
Alarm input	4 ports	
Alarm output	2 ports	
Power Supply	DC +5V or 12 V (depends on model)	
Power Consumption	Less than 4.5W	
Working Temperature	-10°C-- +50°C	
Working Humidity	10%-90%	
Size	198mm*123mm*39mm	
Weight	1.5 Kg /3.3 lbs.	



## Features and Benefits of IP Video Server

Features	Benefits
Scalability	It can be used as an independent IP Video server, connecting up to 4 analog camera and transmit the video signal through the LAN or WAN. It can also be linked to a main Hybrid DVR Server where the video signal is received and recorded to its local hard drive or NAS.
Networking Capability	Network access ready, either via Local or Wide Area Network, hard-wired or Wireless network connectivity. Supports TCP/IP, DHCP, PPPoE and HTTP.
Leverage and Management	Allows remote management of its internal control configurations, user accounts management, upgrades and maintenance.
High Resolution	Supports NTSC:4CIF,DCIF,2CIF,CIF,QCIF at real-time for 1-ch servers and CIF, QCIF for 4-ch Video servers. High performance DSP hardware compression Uses the latest H.264 video compression technology for clear and better video quality even at full screen resolution.
PTZ Camera Support	Supports RS485 for Pan/Tilt/Zoom cameras which can be locally or remotely controlled via IP Server software interface.
Remote Access	Allow multiple users to log in to the system via LAN/WAN either through IE7 Web browser or remote client software. DVR users may have their own user rights and privileges assigned by main administrator which has the leverage for the user's accounts.