



Veilux VIE-H.264

H.264 1 Channel A/V Server



- Dual codec (H.264 & MJPEG)
- Multi-profile video streaming
- Digital PTZ

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- Standard PoE built-in (IEEE802.3af)
- Two-way audio communication
- Small form factor

Caution

Any changes or modifications in construction of this device which are not explicitly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Directions

Veilux VIE-H.264 is designed for indoor use only. When using Veilux VIE-H.264 in outdoor or equivalent environment, you must use a water-resistant housing for the installation.

Be careful not to cause any physical damage by dropping or throwing the Veilux VIE-H.264. Especially keep the device out of reach from children.

Do not disassemble Veilux VIE-H.264. You will be excluded from After Service when disassembled.

Use only the power adapter provided with the Veilux VIE-H.264.

If you would like to use the Veilux VIE-H.264 for security, monitoring, please check the legal regulations within the country.

Revision History

Date	Rev No	Description
2010-01-08	1.0	Creation of the document

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1. Introduction

1.1. Overview

The Veilux VIE-H.264 is a state-of-the-art video server which transmits synchronized video and audio data in real time with D1 resolution at full frame rate. This is possible through multi-codec (H.264/AVC, MJPEG) technology, which provides high quality video with highly compressed data streams. The Veilux VIE-H.264 can be connected, controlled and monitored from a remote location through an IP connection over internet or intranet.

The Veilux VIE-H.264 is easy to install and owner will experience cost and space savings in the installation owing to the state of the art technologies embedded in the system. Based on Embedded Software Solution (Embedded Web Server, Embedded Streaming Server, Network Protocol), the Veilux VIE-H.264 ensures unprecedented performance and stability to be an ideal video server solution for system integration solutions.

Embedded PoE (Power over Ethernet, IEEE 802.3af) will enable the owner to reduce TCO (Total Cost of Ownership) by reducing on-site wiring works for the installation.

1.2. Specification

Category	Sub-Category	Details	
Video	Compression	H.264/MJPEG	
	Resolution	☐ NTSC (30 frames/sec Max.) : 704x480, 640x480, 704x240, 352x240, 176x112 ☐ PAL/SECAM (25 frames/sec Max.) : 704x576, 640x480, 704x288, 352x288, 176x144	
Audio (Bi-directional)	Up	32 Kbps G.726	
	Down	64 Kbps PCM	
Network	Interface	RJ-45, 10/100 Mbps, PoE (802.3af)	
	Access network	Static, DHCP, PPP/PPPoE	
	Application	IPv4/6, TCP, UDP, IGMP, ICMP, ICMPv6 etc.	
I/O	RS-485	For providing RS-485 device (PTZ device etc.)	
	Sensor In	1	NC, NO Selectable
	Relay Output	1	For alarm annunciation or remote ON/OFF control (30V, 1A)
	Mic/Line In	Selectable in Admin page	
	Line Out	1 V p-p output for amplified speaker	
	CVBS output	BNC, BALUN	
Power Supply	PoE	Power over Ethernet (IEEE802.3af)	
	DC Adaptor	12V DC adaptor	
Motion Detection	3 zones	Arbitrary shape with independent sensitivity	
Upgrade	Firmware upgrade over IP network		
Administration	Remote administration over IP network		
Client & Viewer	Web Viewer	Simple viewing over internet explorer	
	NVR-Pro	Standard CMS software	
	3rd Party CMS	Ask Veilux for details	
Dynamic IP support	DDNS support	Supported	
Security	Video/Audio stream encryption		
	ID and Password protection		

	IP filtering for restricting administrative access for audio and bi-audio	
Time management	Sync to PC	Synchronize to PC
	Manual	Manual time setting
	Internet Time Server	Synchronize to Time Server
	DLS	Day light saving
SDK support	Active-X	
	HTTP	
	Source filter	

1.3. Applications of Veilux VIE-H.264

- Security surveillance (buildings, stores, manufacturing facilities, parking lots, banks, government facilities, Military etc.)
- Real time Internet broadcasting
- Remote monitoring (hospitals, kindergartens, traffic, public areas, etc.)
- Teleconference (bi-directional audio conference)
- Remote Learning
- Weather and environmental observation

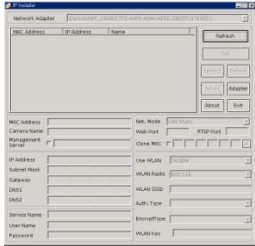
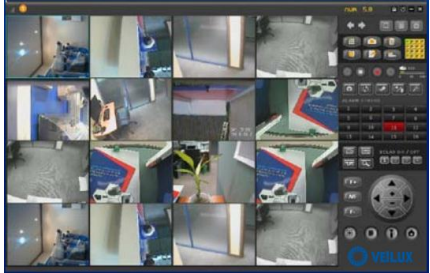
2. Product Description

2.1. Contents

Open the package and check if you have the followings:

Components	Description	Remarks
Veilux VIE-H.264	Veilux VIE-H.264 Video server	
Power adapter	Built in standard PoE (IEEE 802.3af)	12VDC adaptor (Optional item)
DC power cable	Y-type cable to supply power to analog camera.	1m
CD	Software & User's Guide	
Quick Reference Guide	Quick installation guide	

2.2. Preview

Veilux VIE-H.264	IP-Installer	CMS Software (NVXR-64)
		
H.264 1CH Video Server	PC software to allocate an IP address to the Veilux VIE-H.264	PC software to view and record the A/V streaming data transmitted from Veilux VIE-H.264

2.3. Physical description

2.3.1. External View



Figure 2-1. External view of Veilux VIE-H.264

2.3.2. Front & Rear View



Figure 2-2. Front view



Figure 2-3. Rear view

2.4. Functional Description

Section		Description	Remarks
RJ-45	PoE	Power over Ethernet (IEEE802.3af)	10/100Base-T
12VDC In	Adapter	5W (A/V Server) + Max 25W (Camera)	0.5A ~ 2.5A
12VDC Out	PoE	5W	
	Adapter	Max 25W (Adapter minus 5W)	Dependent on the capacity of the adapter
Video In	CVBS	BNC type	Cannot be used Simultaneously.
	Y/C	S-Video type	
Video Out	CVBS	BNC type	Cannot be used Simultaneously.
		BALUN type	
Audio	In	Line Level (1Vpk) or Microphone	Selectable through Admin page
	Out	Line Level (1Vpk)	
SNS (Sensor)	In	Short / Open (Relay or Open-Drain Load)	12V, 10mA
RLY (Relay)	Out	Normal Open	30VDC/AC, 2A
RS-485	Master	Connection to PTZ control	Terminated

- **RJ-45:** 100Mbps Ethernet (RJ-45) with Standard PoE.
 - LINK LED: Continuous yellow light means that network cable is plugged in.
It will flicker when there is traffic.
 - Status LED: Green color indicates that the product is in normal operation mode, while RED color indicates that the product is in abnormal condition.

- **12VDC Input.**

Apply power through 12VDC Input if PoE is not available or the power consumption of the analog camera powered by the video server exceeds 5Watts.

- **DC12V Power Output:** Power output for analog camera

This output is intended to supply power to analog camera being installed with Veilux VIE-H.264.

Refer to the following table for available power to the analog camera.

of power input.

Type of power input spec	video server consumption	Power Output
PoE(10W)	5W	5W
DC12V, 1.0A (12W)		7W
DC12V, 1.5A (18W)		13W
DC12V, 2.0A (24W)		19W
DC12V, 2.5A (30W)		25W
DC12V, 3A (36W)		Max 25W

There is a power cable for feeding power to the analog camera. Plug one end of the cable into the DC power output of the video server and the other end into the DC power Input of the analog camera. Two sizes of the plug (2.0Φ and 2.5Φ) are available on camera side.

Connection to DC
power input of
analog camera

Connection to DC
power output of
video server.

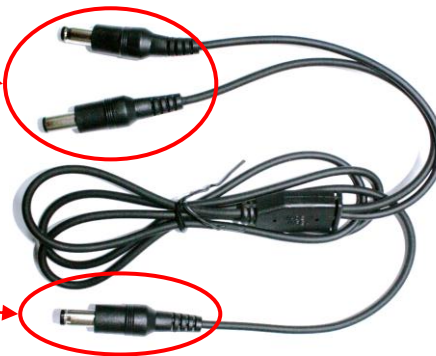


Figure 2-4. Power cable for analog

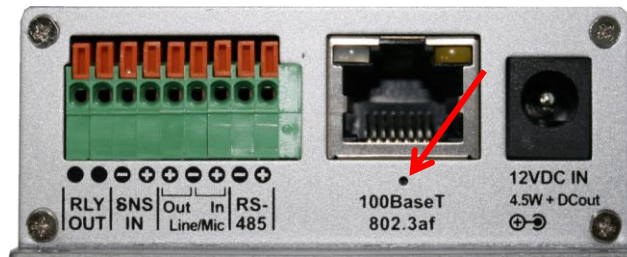


Caution: If Veilux VIE-H.264 is powered by PoE, do not plug in DC Jack with active DC power into DC power input connector.

- **CVBS, Y/C Video In:** Connect conventional analog video signal. Simultaneous connection is not allowed.
- **CVBS Out (BNC/BALUN):** Support to connect external monitor. Simultaneous connection is not allowed.

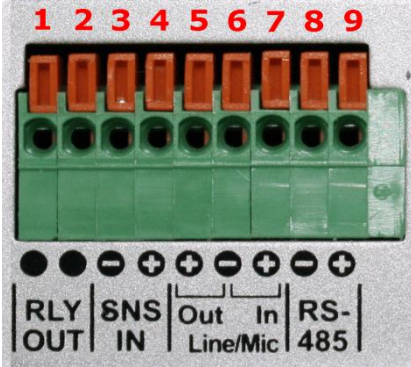
• Factory Default Switch

There is a switch provided for returning the video server to factory default state. Press the switch through a tiny hole located below 100BaseT connector using a tool with sharp tip for a few seconds while power is applied.



Caution: Restoring the factory default will erase all settings.

- **Terminal Block:** Used for connecting P/T device, sensor, alarm devices and audio.

Pin	Description	Misc.	
1	RLY OUT	Relay output: closed circuit in alarm to indicate alarm status.	
2	RLY OUT		
3	SNS IN (-)	NC/NO selectable in admin page.	
4	SNS IN (+)		
5	Line Out	Line Level (1Vpk)	
6	Audio GND	Audio In/Out Common Ground	
7	Mic / Line In	Line Level (1Vpk) or Microphone	
8	RS-485 (-)	Master Operation	
9	RS-485 (+)	Termination Fixed	

- **LINE OUT** : Audio from remote site is output through Line-Out in bi-directional audio mode. This output signal is 1Vpk. For speaker, it is required to a external amplifier.
- **MIC /LINE IN** : Connect a microphone or the Line-Out(1Vpk) of a audio device.
- **RS-485** : Used for connecting Pan/Tilt and Zoom devices having RS-485 interface standard.
- **SNS (Sensor) IN**

Examples of sensing devices are infrared sensors, motion sensors, heat/smoke sensors, magnetic sensor, etc. Connect the two wires of the sensors to "SNS In". When these pins are short, the current is 10mA. Multiple sensor devices can be connected in parallel.

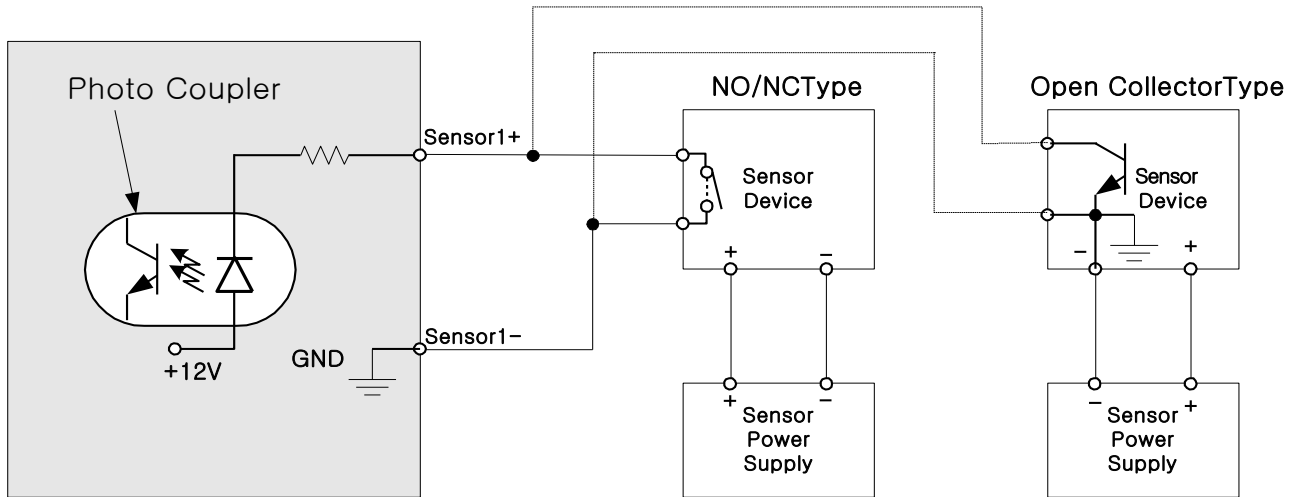


Figure 2-4. SENSOR input of Veilux VIE-H.264

• RLY(Relay) OUT

A Relay output is provided for connecting alarm devices or remote on/off control of device such as light. Relay circuit is normal open and circuit is closed upon alarm output or remote on. The relay is capable of switching **30V AC/DC, 2A**.

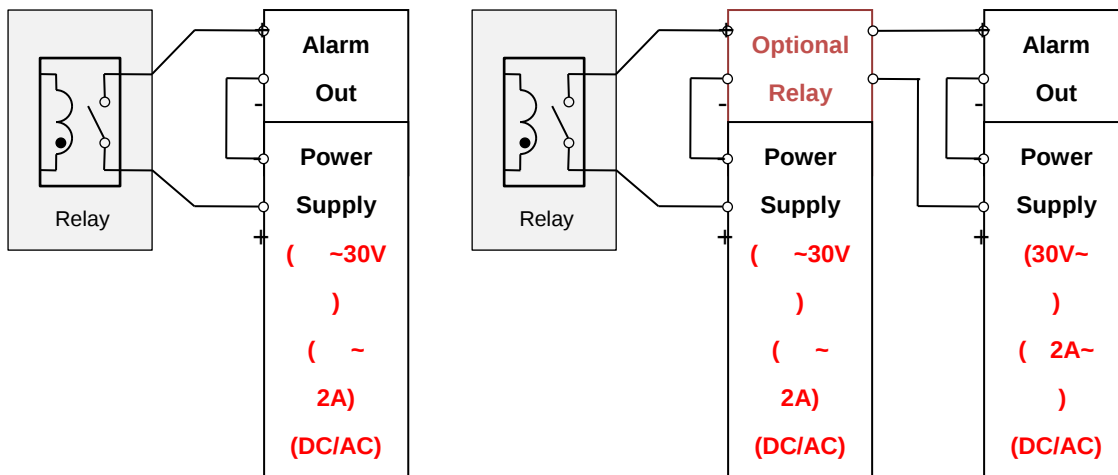


Figure 2-5. RELAY Output of Veilux VIE-H.264

3. Getting Started

3.1. PC Requirement

AV streaming data received from Veilux VIE-H.264 can be decoded or stored in a PC running NVR-Pro program which is a viewing & recording program for a PC. Minimum requirement of the PC is described below:

	Minimum	Recommended
CPU	Pentium IV 3G above	
Main Memory	1GB or above	
Operating System*	Windows XP or later (32 bit)	
Web Browser	Internet Explorer 6.0 or above	
Graphic Card	64M above	Higher than 1600x1200
Network	100 Base-T Ethernet	

* Operating Systems supported: Windows 2000 Professional, Windows XP / Vista / 7 (32 bit)

3.2 Quick Installation Guide

1. Connect PC and Veilux VIE-H.264 to network.

- 1) Prepare a PC to run programs for the installation and video connection
(PC is needed to assign IP address to Veilux VIE-H.264)
- 2) In case of using PoE, connect the PC and Veilux VIE-H.264 to the network using one of the following ways.

If your LAN Switch does not support standard PoE, connect Veilux VIE-H.264 as shown in dotted line in Figure 3-1. The DC power is applied through DC adaptor.

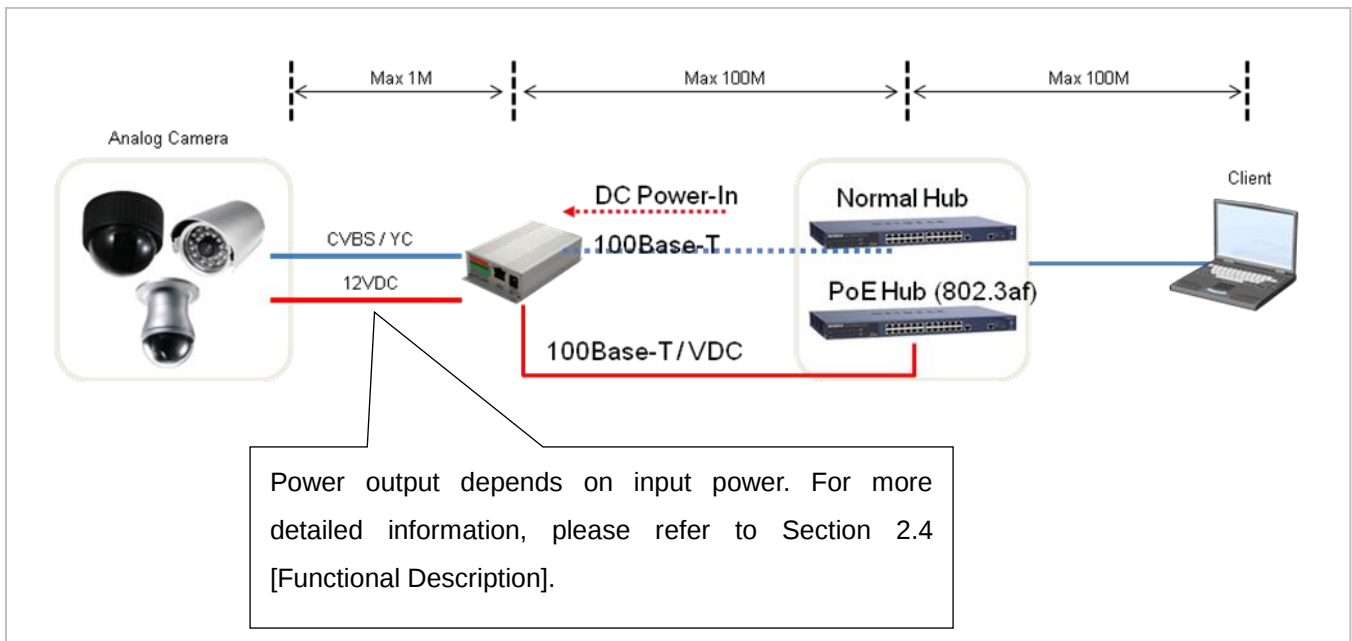


Figure 3-1. Power and network connection

2. Install “IP installer and set IP parameters on Veilux VIE-H.264

Insert the CD provided with the product into the PC. Install WinPcap and IP Installer in sequence. Please note that IP Installer can't run without WinPcap.

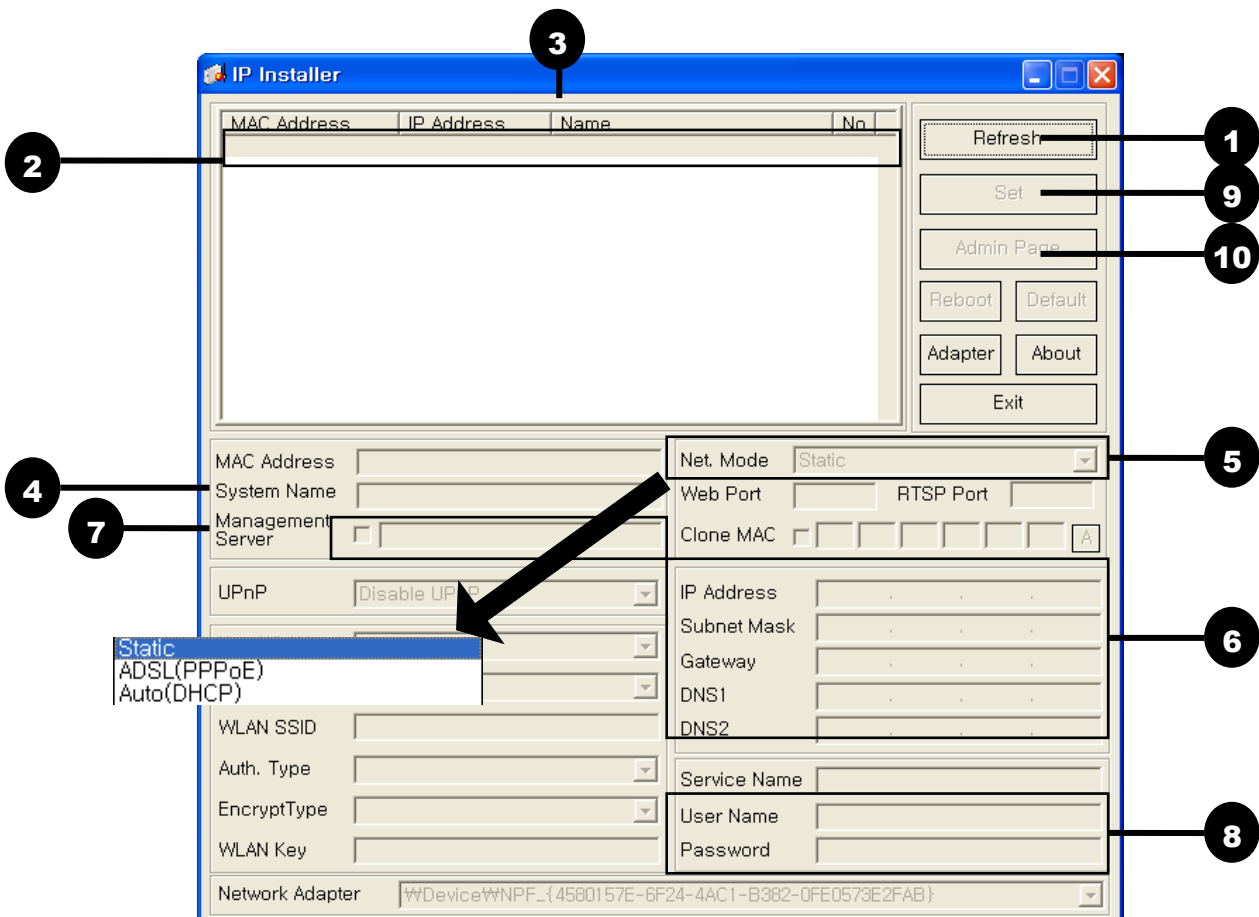


IP installer Ver. **3.0.1 or later** is needed in the configuration of Veilux VIE-H.264.

Follow the sequence below for setting the IP parameter

- i) Run IP installer > Select Network Adaptor > OK
- ii) Click ① in IP installer window.> Double click on ② > Fill in ④ > make a selection in ⑤ > Fill the

- parameters in ⑥
- iii) Click on ⑨ to apply the settings.
- iv) You can connect to admin page by clicking on ⑩.



Click on the filed in ③ for sorting and rearranging the list.

Select network mode that best suits your case from the drop down list in ⑤. You can choose either Static or ADSL and Auto(DHCP), respectively. If ADSL and Auto are selected, the fields in ⑥ is deactivated.

In case of ADSL, fill the User Name and Password in ⑧ with the values provided by your ISP.

If DDNS service is needed, do the followings:

- i) Check at the box and fill the empty field with mgmt.net-video.net in ⑦.

ii) Register the Video server on DDNS. Visit <http://www.net-video.net> for the registration. If you don't have an account on www.net-video.net, open an account and register the Video server after login.

3. Remote video connection to Veilux VIE-H.264

1) Connection through Web Viewer

Web Viewer offers simplest way of video connection to Veilux VIE-H.264. For video connection, enter the IP address of Veilux VIE-H.264 in the URL field of Internet Explorer as:

"http://IP address:HTTP port number"

When default HTTP port (port 80) is used, you do not need to include http port number.

Ex: **http://172.16.89.62** is equivalent to
http://172.16.89.62:80.

Upon connection to Veilux VIE-H.264, the PC will launch web viewer to show the video.



Note: Active-X module should be installed on your PC before actual connection. If your PC is not connected to the internet, you cannot download Active-X module. Most convenient way of installing the Active-X module is installing NVR-pro which is available from the CD or our web site.

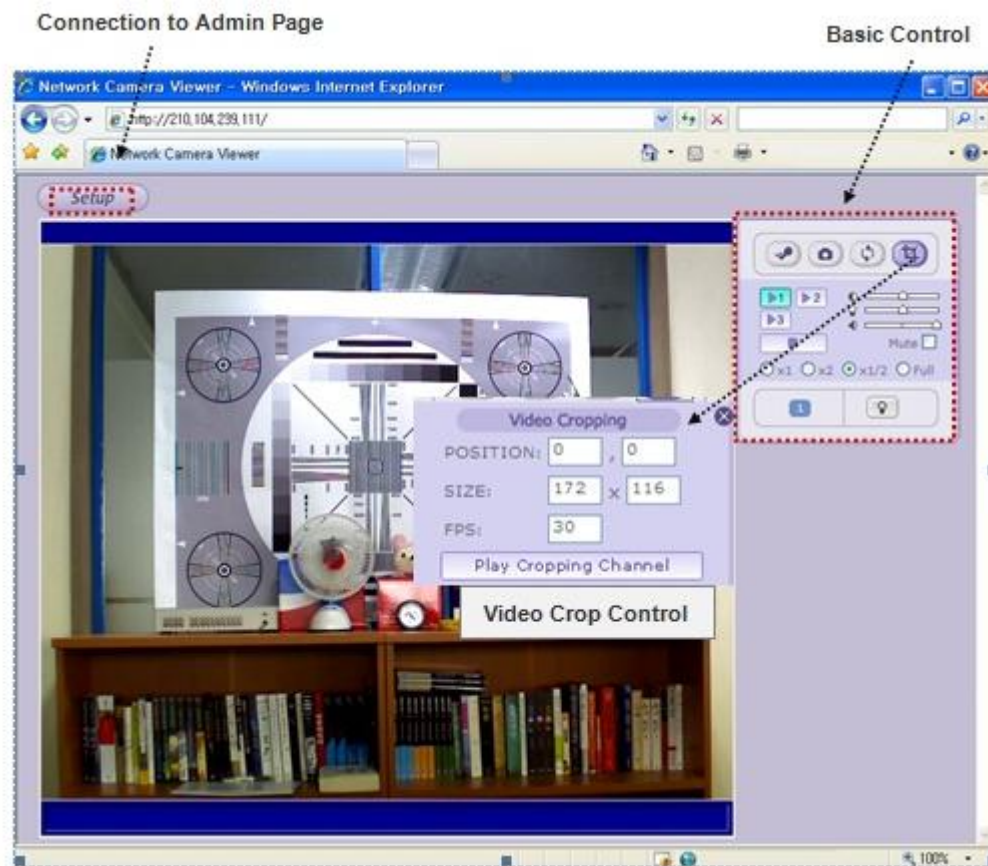


Figure 3-2. Web Viewer

2) Connection through NVXR-64

NVXR-64 is a multi-channel CMS program for to IP camera or Video server. Install NVXR-64 on remote PC to connect to these products. It is needed to assign connection information to NVR-Pro program before connection. Details for the NVXR-64 can be found in [NVXR-64 User's Guide].

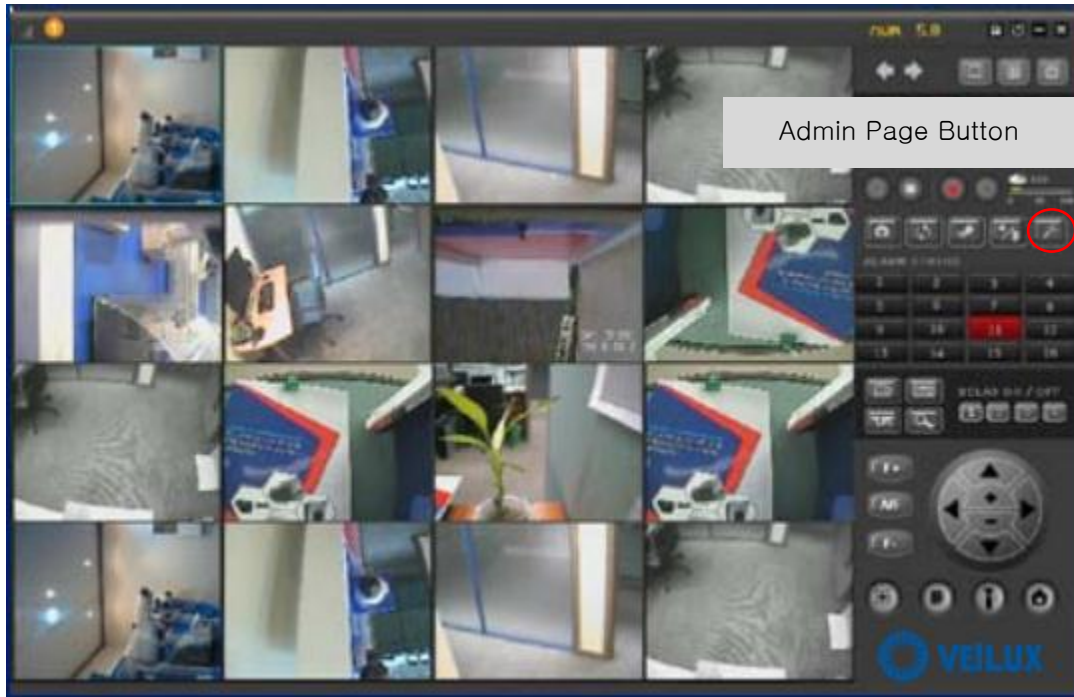


Figure 5-2. NVXR-64

4. Additional settings through connection to the Admin Page

All the parameters of new Video server follow factory default values. For more sophisticated target application it is needed to change parameters. The admin page can be connected through

"http://IP address:HTTP port number"/admin.htm

It is needed to enter ID and password of the administrator. Default ID and password are **root, admin**. It is highly recommended to change the ID and password to prevent illegal access to the Video server.

4. Trouble Shooting

4.1. No power is applied

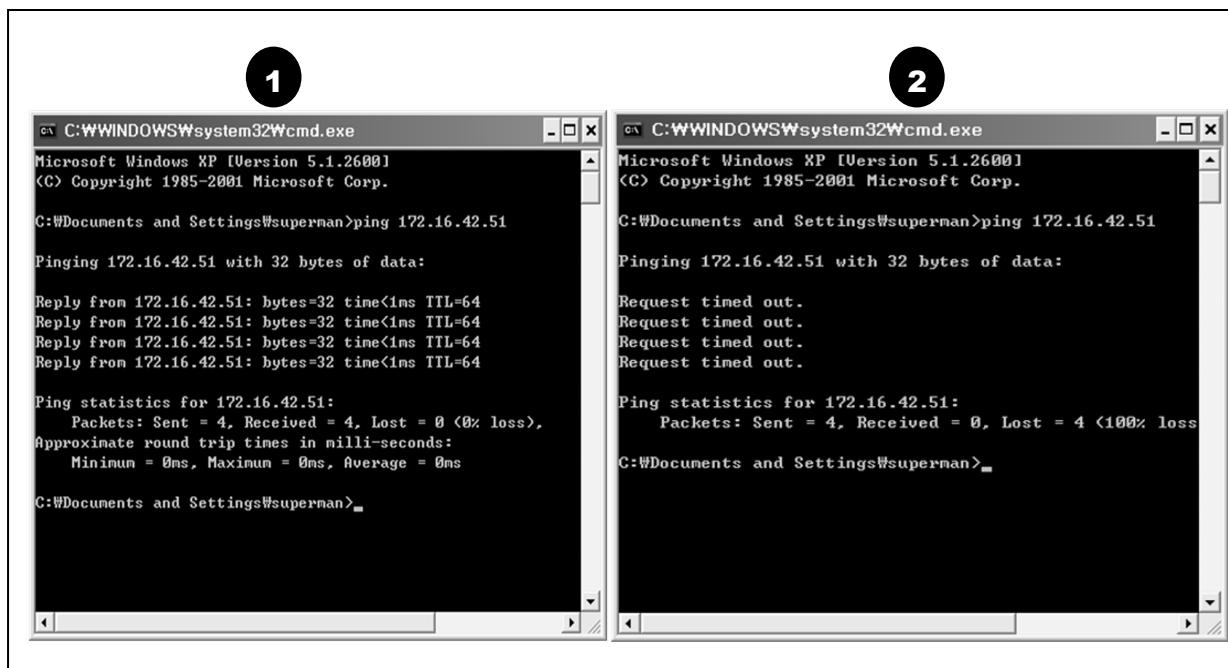
- In case of Standard PoE (Power over Ethernet)
Power supply through standard PoE is possible only when the following conditions are met.
 1. Standard PoE is supported on the product.
 2. The LAN switch supports standard PoE.Make sure that both the IP camera and the LAN switch support standard PoE (IEEE 802.3af)
- In case of DC adaptor
If PoE is not applied, the power and network connection should be made through separate cables. It is recommended to use DC adaptor supplied by Veilux for the feeding of the power. In case of replacing the DC power supply, make sure that the power supply meets with the power requirement of the IP camera to prevent damage or malfunction.

4.2. Cannot connect to the Video

Check the status of the network connection through PING test.

Try the following on your PC:

- Start > Run > Cmd > Ping IP address (Ex : Ping 172.16.42.51)
- If “Reply from ~” message is returned (① in the figure below), the network connection is in normal state. Try connection to the video again. If the problem persists, or refer to other trouble shooting notes.
- If “Request timed out” message is returned (② in the figure below), the network connection or network setting is not in normal state. Check the network cable and settings.



4.3. How to Upgrade the Veilux VIE-H.264

Unless otherwise instructed, the owners of the Veilux VIE-H.264 are recommended to upgrade the system when upgraded firmware is released using manual upgrade procedure.

Followings are the procedure to apply for the manual upgrade

- 1) Save the upgrade system software to your PC. Upgrade software can be downloaded from Veilux home page.
- 2) Log on to administrative mode and select "Update & Reset" menu.
- 3) Click "Browse..." to find the files you want to use for upgrade. This will open a "Choose file" dialogue window. The file extension is ".ief".
- 4) When you've found the file, click "Open." This will select the file and close the "Choose file" dialogue window.
- 5) Click the "INSTALL" button. An alert message box will pop up. Click "OK" button then it will start uploading the file. This may take some time.
- 6) Upgrade completion message will appear after the system upgrade has been completed.
- 7) Reboot Veilux VIE-H.264 by performing "System Reset".
- 8) After rebooting, log on to the server in administrative mode again and click the "Status Report".
- 9) Check the version number and release date of the Veilux VIE-H.264.



You can download the system software from Veilux homepage.
<http://www.Veilux.net>

4.4. Technical Assistance

If you need any technical assistance, please contact your dealer. For immediate service please provide the following information.



1. **Model name**
2. **MAC address and Registration number**
3. **Purchase date**
4. **Description of the problem**
5. **Error message**