



Grandstream Networks, Inc.

GXV3662_HD/GXV3662_FHD



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GXV3662_HD/FHD User Manual

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WELCOME

The GXV3662 series is a next generation IP cameras for remote monitoring and surveillance over your LAN or internet.

The GXV3662 series combines best in class IP video technology and SIP protocols for a robust IP surveillance solution. The product features H.264 video streams with up to 30 frames per second at 720p resolution for the GXV3662_HD and up to 30 frames per second at 1080p for the GXV3662_FHD, delivering rich image clarity at rapid transmission rates. Integrated SIP can pass alarms to the PSTN, mobile phones, SIP IP phones, SIP videophones and enables 2-way VoIP communication.

The GXV3662 series ensures ease of use, integration and deployment with a multilingual graphical user interface. The GXV3662 series can be quickly installed and connected to your network and accessed from anywhere over the internet. Grandstream's flexible video management software enables users to monitor multiple environments in one easy to use application. The intuitive web interface lets users easily access, manage, view and record live video streams from the device.

The GXV3662 series is a powerful solution for small to medium sized offices, homes and storage facilities looking to safeguard their valuables.

Safety Compliances

These instructions are intended to assist users with the operation of the GXV3662_HD/FHD and also to instruct on how to avoid dangerous situations or damage to the device.

Warnings: Serious injury or death may be caused if any of the warnings below are neglected.

Cautions: Injury or damage to the equipment may occur if any of the following caution messages are neglected.



Warnings Follow these safeguards to prevent serious injury or death.



Cautions Follow these precautions to prevent potential injury or material damage.



Warnings:

Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with DC 12V according to the IEC60950-1 standard. Please refer to the technical specifications for more details.

Do not use a third-party power adapter or power cord

When the device is installed on the wall or ceiling, make sure that it is firmly attached.



Notice:

Make sure that the power supply voltage is correct before using the camera. Do not drop the device or expose it to physical shock.

Do not expose the device to temperatures outside the range of -30 °C to +50 °C PSU and PoE mode when the device is in operation.

Do not expose the device to high electromagnetism radiation.

To avoid heat accumulation, make sure that your operating environment has proper ventilation.

Do not attempt to open, disassemble, or modify the device

A few parts (e.g. electrolytic capacitor) of the equipment shall be replaced regularly according to their average life time. The average life time varies from the differences between operating environments and usage history. Regular maintenance checks are recommended for all users. Please contact your dealer for more details.

Note:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

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

Warranty

If you purchased your GXV3662_HD/FHD from a reseller, please contact the company where you purchased your device for replacement, repair or refund.

If you purchased the product directly from Grandstream, please contact your Grandstream Sales and Service Representative for a RMA (Return Materials Authorization) number before you return the product. Grandstream reserves the right to remedy warranty policy without prior notification.

Caution:

Changes or modifications to this product not expressly approved by Grandstream, or operation of this product in any way other than as detailed by this User Manual, could void your manufacturer warranty. Please do not use a different power adaptor with the GXV3662_HD/FHD as it may cause damage to the products and void the manufacturer warranty.

- This document is subject to change without notice. The latest electronic version of this user manual is available for download at:
http://www.grandstream.com/products/surveillance/gxv3662/documents/gxv3662_usermanual_english.pdf

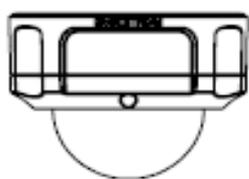
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PACKAGE CONTENTS

Equipment Package Contents

The GXV3662_HD/FHD package contains:

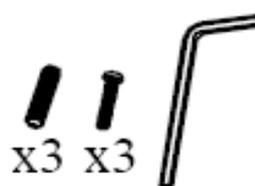
- GXV3662_HD/FHD IP Camera
- 12V DC power Adapter attached to terminal block
- 8-pin terminal block connector – 8-pin connector block for connecting external devices, such as infrared detector, smoke detector, emergency lights, etc., to Alarm IN and Alarm OUT. You can also connect microphones and powered speakers through the audio in and audio out ports.
- Quick installation guide
- Alignment sticker
- Tool set containing a hex key, 3 plastic anchors and 3 screws



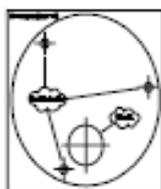
GXV3662



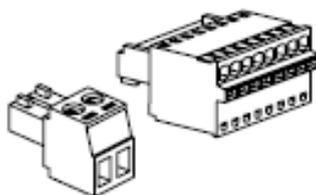
POWER ADAPTER



TOOL SET



ALIGNMENT STICKER



TERMINAL BLOCK



QUICKSTART GUIDE

PRODUCT OVERVIEW

GXV3662_HD/FHD Top View



Figure 1: Top View

GXV3662_HD/FHD Side View

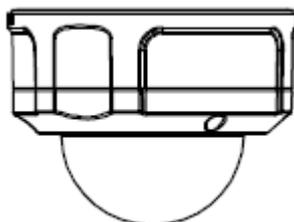


Figure 2: Side View

GXV3662_HD/FHD Bottom View

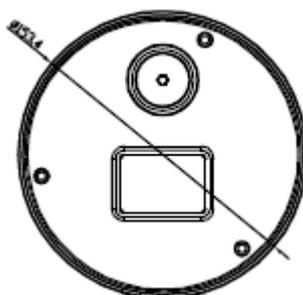
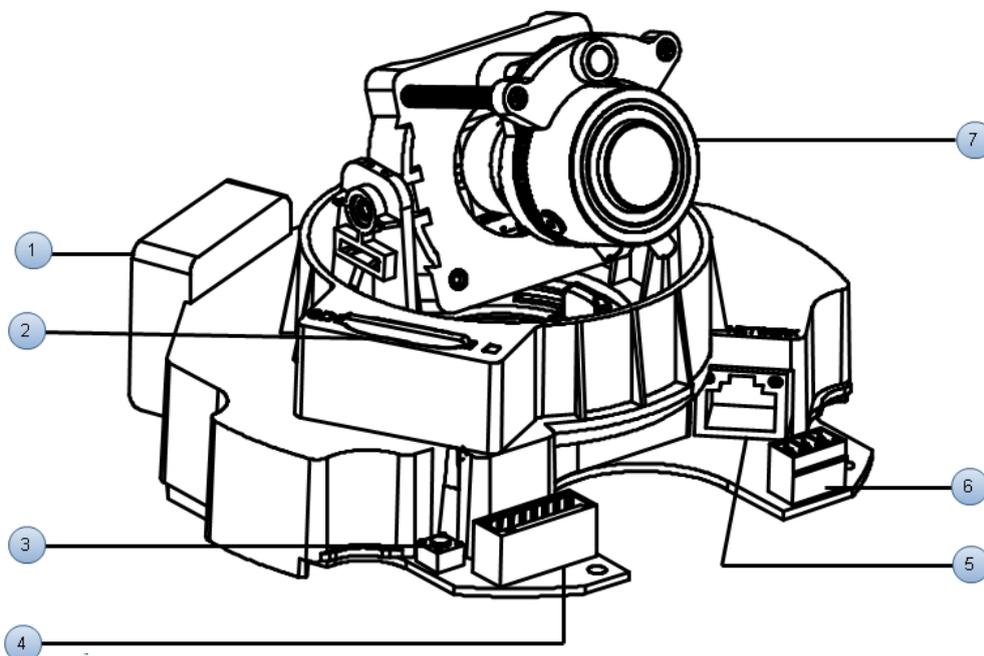


Figure 3: Bottom View

GXV3662_HD/FHD Inside connections



1. **Internal temperature regulator:**

It adjusts the temperature to ensure the camera works normal under different weather.

2. **SD card slot:**

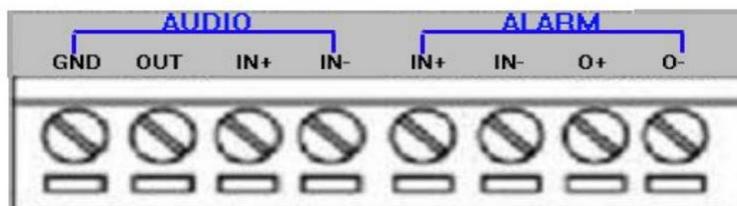
SD card slot.

3. **Reset:**

Press the Reset button for 6 seconds to perform a factory reset

4. **Alarm/Audio:**

Note: GXV3662_HD/FHD do not support zoom



Type	Port	Description
AUDIO	GND	Audio Output
	OUT	
	IN+	Audio Input
	IN-	
ALARM	IN+	Alarm Input
	IN-	
	O+	Alarm Output
	O-	

5. Network:

10/100 Switch LAN port for connecting to Ethernet. The indicator will be steady for connection and flashing for network activity.

6. Power:



Type	Description
12V	12 V DC input
GND	Ground

7. Lens:

For adjusting the lens, unscrew the housing and adjust the lens vertically/horizontally. Screw the housing back when adjustment is done.
Note: Loosening the screws on both sides of axle might be necessary for adjusting the lens vertically.

GXV3662_HD/FHD Sample Connection Diagram

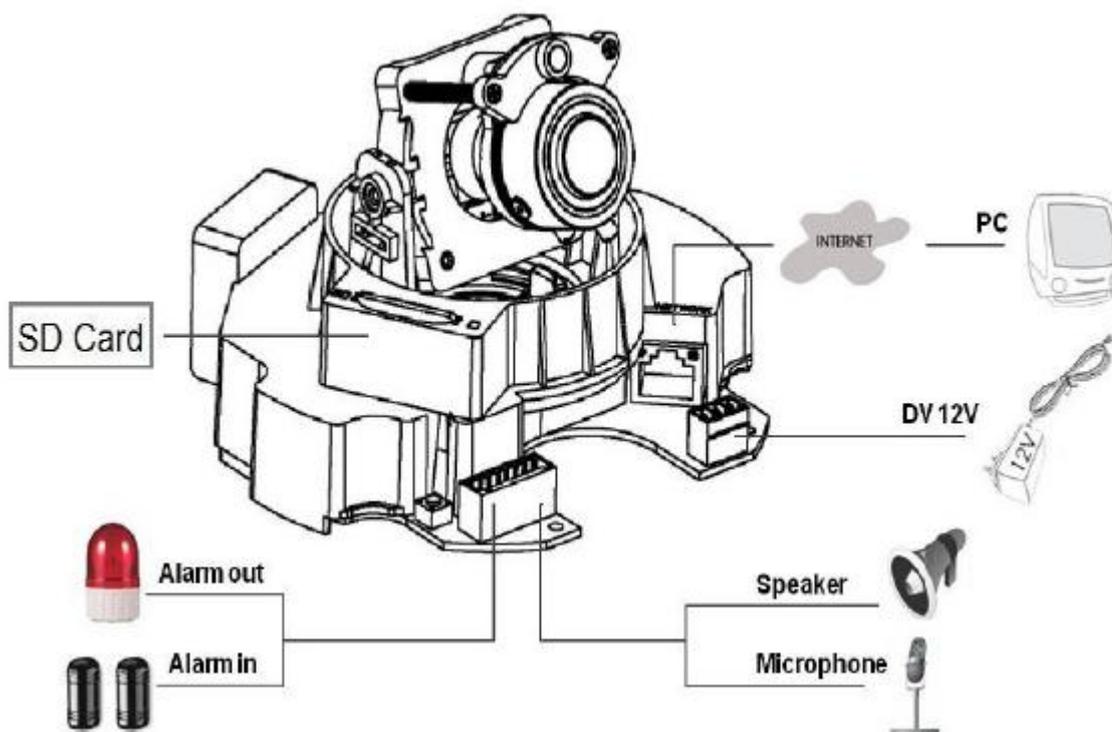


Figure 4: Connection diagram

GXV3662_HD/FHD Key Features

The table below lists the key features the GXV3662_HD/FHD Supports.

Table 1: GXV3662_HD/FHD Technical Specifications

Model	GXV3662_HD	GXV3662_FHD
Video Compression	H.264, MJPEG	
Image Sensor Resolution	1/3", 1.2 Megapixel CMOS, 1280H x 960V	1/3", 3.1 Megapixel CMOS, 2048H x 1536V
Image Sensor Sensitivity	Day & night mode, exceptionally low noise levels and low-light sensitivity. Shutter: 1/10000 – 1/30 second	
Lens Type	1/3", 3.3-12mm, F1.6-F3.2, DC-Iris, Manual focus: 50cm - ∞, H: 89.8°- 23.9°, V: 63.6°- 17.9°	
Operation Mode	Light Sensor, mechanical IR Cut filter, color / black & white mode	
Minimum Illumination	0.05Lux	
Responsivity	5.48V/lux-sec (550nm)	1.9V/lux-sec (550nm)
Pixel Dynamic Range	Wide dynamic range of 120dB with SNR _{MAX} 44dB	Wide dynamic range of 100dB with SNR _{MAX} 39dB
Supported Maximum Video Resolution and Frame Rate	1280x960 (30fps)	2048x1536 (15fps) 1920x1080 (30fps)
Video Bit Rate	32 Kbps ~ 8 Mbps, multi-rate for preview & recording	
Audio Input & Output	LINE-IN & LINE-OUT	
Audio Compression	G.711 U/A, AAC	
IRIS Control	DC-IRIS	
Alarm Input	V _{in} ≤ 15V, I _{in} ≤ 35mA, Normal open	
Alarm Output	125VAC/0.5A, 30VDC/2A, Normal open	
Embedded Analytics	Motion detection (up to 16 target areas)	
Pre-/post-alarm Buffer	24MB	
Snapshots	Triggered upon events, send via email/FTP	
Multi-streaming-rate Preview & Recording	Yes	
ePTZ	Yes (at 320x240 resolution)	
Security	Video watermark, HTTPS, admin/anonymous	
Peripheral Ports	Internal SDHC 2.0 socket	
Network Port	10M/100M auto-sensing, RJ45	
Network Protocol	TCP/UDP/IP, RTP, RTSP, DHCP, DDNS, HTTP/HTTPS, SMTP, FTP, NTP	
Power over Ethernet (PoE)	IEEE 802.3af class 0	
SIP/VoIP Support	Yes, Voice & Video-over-IP	
Dimensions (D x H)	153mm x 115m	
Weight	1.19 kg	
Temperature / Humidity	-30C - +50C (-22F- +122F) for DC and PoE, With heater & fan Humidity 10-90% RH(non-condensing)	
Power Adapter	Output: 12VDC/1A; Input: 100–240VAC, 50–60Hz	
Casing	Vandal resistant, weather-proof with IP66 compliance, attachable to mounting kit of 1.875 diameter	
Compliance	FCC, CE, C-tick, IP66	

GXV3662_HD/FHD Lens Specification

Parameters	GXV3662_HD/FHD
Lens Format	1/3"
Image Sensor	1/3" CMOS
Focal Length	3.3mm – 12mm
Aperture Ratio	F1.6 – F3.2
View Angle	D: 125.7°- 29.9° H: 89.8°-23.9° V: 63.6°-17.9°
IRIS	DC-Iris
Minimum Object Distance	50 cm
IR CUT Filter	Yes

INSTALLATION GUIDE

Minimum Recommended System Requirement

To install GXV3662_HD/FHD, you have to have a computer, PC recommend. The minimum recommended PC system requirement listed below:

- Windows 2000, XP, Windows Vista, Windows 7 (32bit or 64bit)
- CPU: Intel Pentium 4 or higher, 2 GHz
- RAM: 1 GB (4 GB recommended for larger systems)
- Support for DirectX 8.0 and above.

Connect your GXV3662_HD/FHD

Using the Power adapter as power supply

- Connect an RJ-45 cable to the NETWORK port of the GXV3662_HD/FHD.
- Connect the other end of the RJ-45 cable to your network or PC.
- Connect the power supply to the DC 12V connector block inside the GXV3662_HD/FHD.
- Connect the other end of the power supply to a wall outlet. The POWER LED will turn solid green.

Using PoE as power supply:

- Connect an RJ-45 to the NETWORK port of the GXV3662_HD/FHD.
- Connect the other end of the RJ-45 cable to a PoE switch. The POWER indicator will turn solid green.

NOTE:

If you are going to connect the device to a hub/switch/router, please use a straight-through cable. A crossover cable should be used if you are going to connect the device directly to a PC.

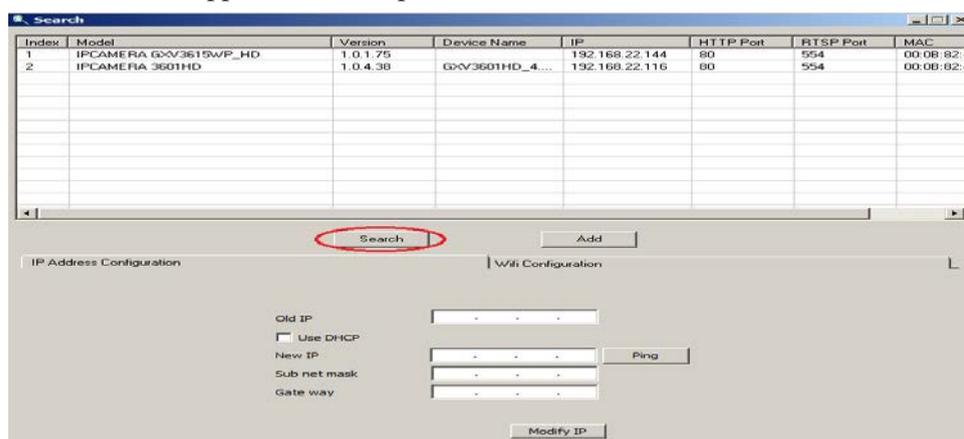
Configuring the GXV3662_HD/FHD via Web Browser

The GXV3662_HD/FHD's embedded Web server responds to HTTP/HTTPS GET/POST requests. Embedded HTML pages allow you to configure your IP camera through Microsoft Internet Explorer.

Access the GXV3662_HD/FHD Web Configuration Menu Connect the Camera to a DHCP server.

The GXV3662_HD/FHD by default enabled as DHCP client, it will automatically get IP address from the network with DHCP server running. User can know the IP address assigned to the camera from DHCP server log or using "Search Tool" from Grandstream GSurf_Pro.

1. Download and install the GSurf_Pro software from Grandstream website:
http://www.grandstream.com/products/tools/surveillance/gsurf_pro.zip
2. Run the "Search Tool" in the pull down Menu of "Manage Tool" tag
3. Click on  button to begin device detection
4. The detected devices will appear in the Output field like below



5. Double click the column of the detected camera, the browser will automatically open and link to the device IP and the web configuration page.
6. The browser will ask for plug-in or ActiveX if not installed, otherwise it will get to Home page and start to show the video captured by the camera (by default the camera enabled anonymous access)
7. Click "Configuration", the browser will ask credentials to authorize configuration.
8. Enter the administrator user name and password to access the Web Configuration Interface, the default user name and password are both set to **admin**.
9. In step 6, IE will indicate that "This website wants to install the following add-on: GSViewerX.cab from Grandstream Networks Inc.", allow the installation.
10. Firefox user need to download and install the plug-in to see the video, the plug-in for Firefox is here:
http://www.grandstream.com/products/tools/surveillance/firefox_plugin.exe

NOTE:

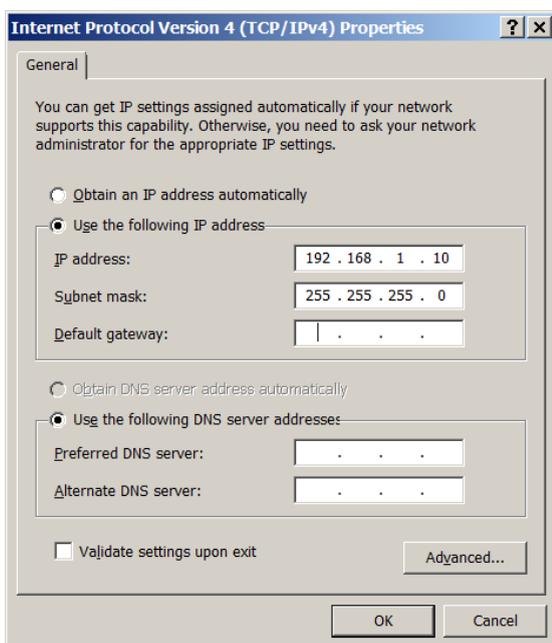
- Please temporarily disable Antivirus or Internet Security Software when download and install the Grandstream Firefox plug-in for video or "GSViewerX.cab" for Microsoft Internet Explorer.

Connect to the Camera using Static IP

If no DHCP server in the network or the camera does not get IP from DHCP server, user can connect the camera to a computer via cross-over cable, using static IP to configure the camera.

The default IP, if no DHCP server; or DHCP offer time out (3 minutes), is **192.168.1.168**

1. Connect the computer via cross-over Ethernet cable directly to the IP camera GXV3662_HD/FHD
2. Configure the computer using Static IP: 192.168.1.XXX (1<XXX<255, but NOT 168) and configure the “Subnet mask” to “255.255.255.0”. Leave the “Default Gateway” to “Blank” like below:



3. Power on the GXV3662_HD/FHD.
4. Start the IE or Firefox browser when the network connection is up.
5. Enter 192.168.1.168 in the address bar of the browser.
6. The browser will ask for plug-in or ActiveX if not installed, otherwise it will get to Home page and start to show the video captured by the camera (by default the camera enabled anonymous access)
7. Click “Configuration”, the browser will ask credentials to authorize configuration.
8. Enter the administrator user name and password to access the Web Configuration Interface, the default user name and password are both set to **admin**.
9. In step 6, IE will indicate that “This website wants to install the following add-on: GSViewerX.cab from Grandstream Networks Inc.”, allow the installation.
10. Firefox user need to download and install the plug-in to see the video, the plug-in for Firefox is here:
http://www.grandstream.com/products/tools/surveillance/firefox_plugin.exe

NOTE:

- Please temporarily disable Antivirus or Internet Security Software when download and install the Grandstream Firefox plug-in for video or “GSViewerX.cab” for Microsoft Internet Explorer.

GXV3662_HD/FHD Home Web Page

The Home Page of GXV3662_HD/FHD shown as Figure 5:

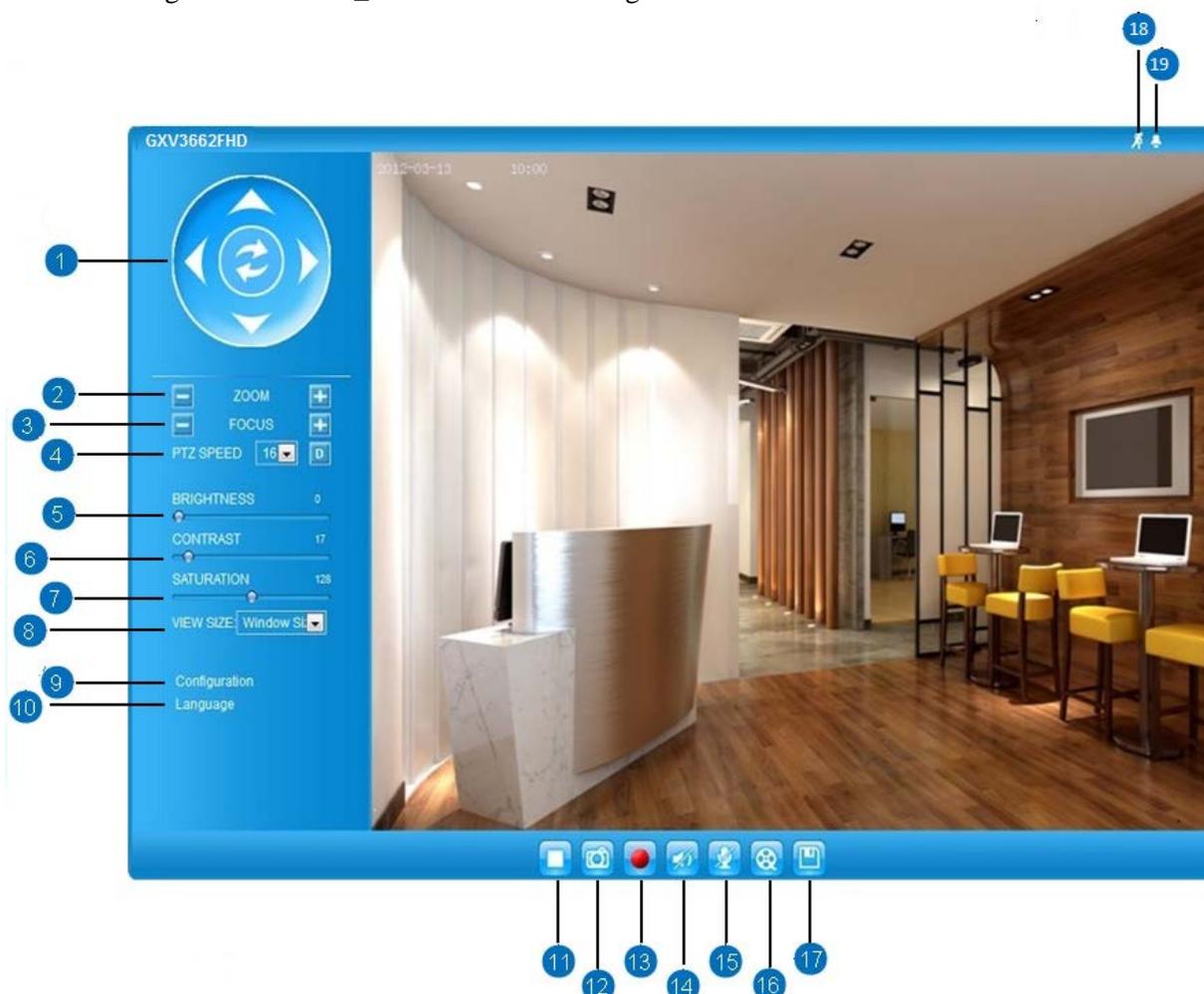


Figure 5: Home Page of GXV3662_HD/FHD

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Control Console: 2. ZOOM: 3. FOCUS: 4. PTZ SPEED/Default Button: 5. BRIGHTNESS: 6. CONTRAST: 7. SATURATION: 8. View Size: 9. Configuration: 10. Language: | <p>PTZ Console controller for ePTZ function.</p> <p>Zoom in or Zoom out during ePTZ operation(The GXV3662HD/FHD does not support zoom).</p> <p>Adjust the focus of image (if equipped with the proper lens).</p> <p>Adjust the rotate speed of the control console(PTZ is not supported in the GXV3662_HD/FHD);</p> <p>Default button to reset the video brightness, contrast and saturation to factory default value.</p> <p>Adjust the image brightness.</p> <p>Adjust the image contrast.</p> <p>Adjust the image saturation</p> <p>Adjust the image display size.</p> <p>Click to enter "Configuration Page" to configure the parameters of GXV3662_HD/FHD (Administration privilege required).</p> <p>Click to switch webpage language.</p> <p>(Current supported: Chinese, English and Russian)</p> |
|---|---|

- 11. **Play/Stop:** Start/Stop Play the video stream in webpage.
- 12. **Snapshot:** Click to capture and save a snapshot of current video displayed.
Default directory: C:\GS_Capture
- 13. **Record:** Click to Start/Stop record of current video into a file.
Default directory: C:\GS_Record
- 14. **Sound On/Off:** Toggle to listen/stop the sound from camera
- 15. **Talk:** Toggle to talk to camera speaker. (PC microphone required)
- 16. **Replay:** Click to playback the recorded video file.
- 17. **Record File Path:** Click to adjust the file path of saved video files.
- 18. **Motion Detection Alarm Indicator:** If motion detection alarm triggered, the indicator will flash in **red**.
Click the indicator icon to turn off the alarm indication.
- 19. **DI Alarm:** If alarm in triggered, the indicator will flash in **red**.
Click the indicator icon to turn off the alarm indication.

GXV3662_HD/FHD Configuration & Language Page

- When click the “Configuration” tab, web page will link to page to configure the related parameters of the GXV3662_HD/FHD.
- There are two big categories of settings: Basic Settings and Advanced Settings. Details will be illustrated in the later Chapter.

When click the “Language” tab, supported languages will be displayed as shown below. Click to select the related webpage display language.



- Currently firmware only support: English (default), Simplified Chinese and Russian.

BASIC SETTINGS EXPLANATION

System Settings Page

This page allow user to configure the system settings of GXV3662_HD/FHD.

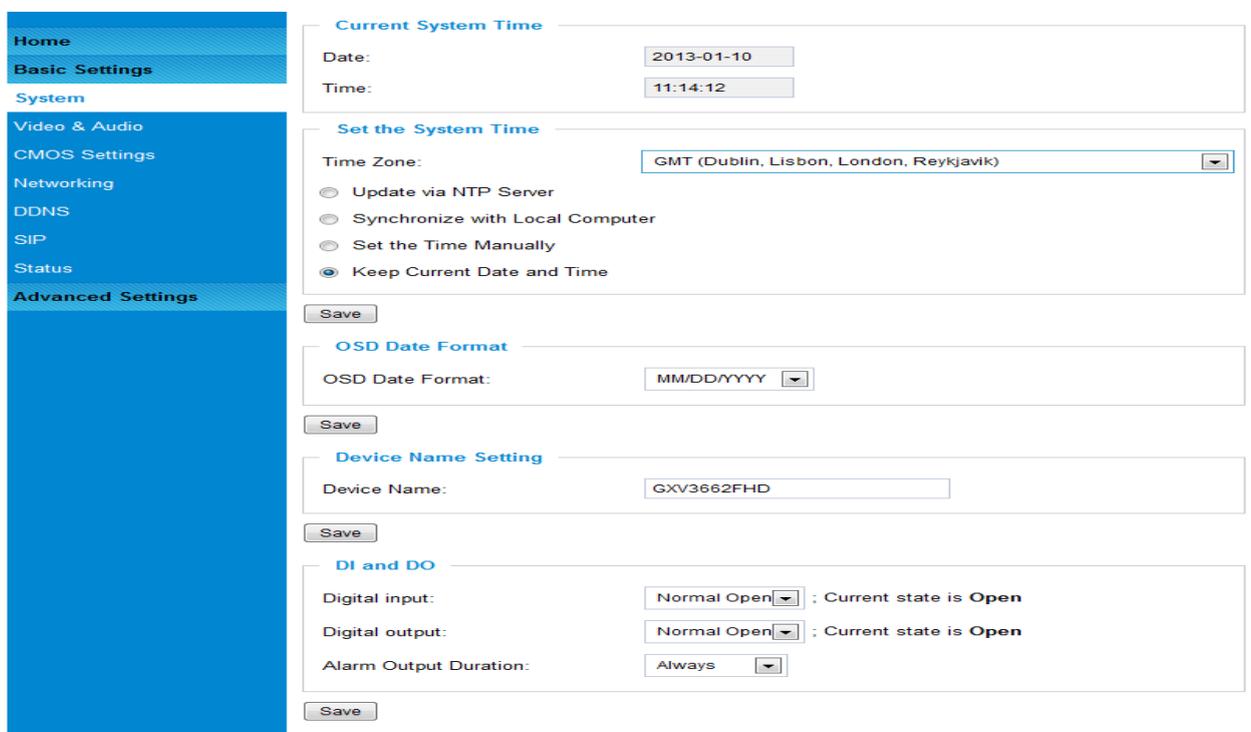


Figure 6: System Settings Page

- **Current System Time:** Display time current system is running at
- **Set the System Time:** Configure the time system is running.
 - Time Zone: Select from pull down menu the time zone unit located
 - Self-Defined Time Zone: Use the self-defined time zone for automatic daylight saving time adjustment. Format please refer to the “help over mouse”
 - Update via NTP Server: Synchronize time using NTP protocol with a Time Server over the Internet cloud (*)
 - Synchronize with Local Computer: Synchronize time with local computer
 - Set the Time Manually: Manually input the time
 - Keep Current D/T: Select to use camera current displayed time
- **OSD Date Format:** Pull down to select date format displayed on video screen.
- **Device Setting:** Setting of Device Operation
 - Device Name: The name of device which will be shown in the result of “Search Tool” of GSurf_Pro VMS program.
- **DI and DO Setting:** Setting the state of the Alarm IN / Alarm out Settings

NOTE:

(*) If select this option, a valid DNS server must be configured under **Basic Settings** → **Networking**

➤ **Save** button has to be clicked to save all the changes made to the device.

Video & Audio Setting Page

This page allows user to configure the video and audio related settings.

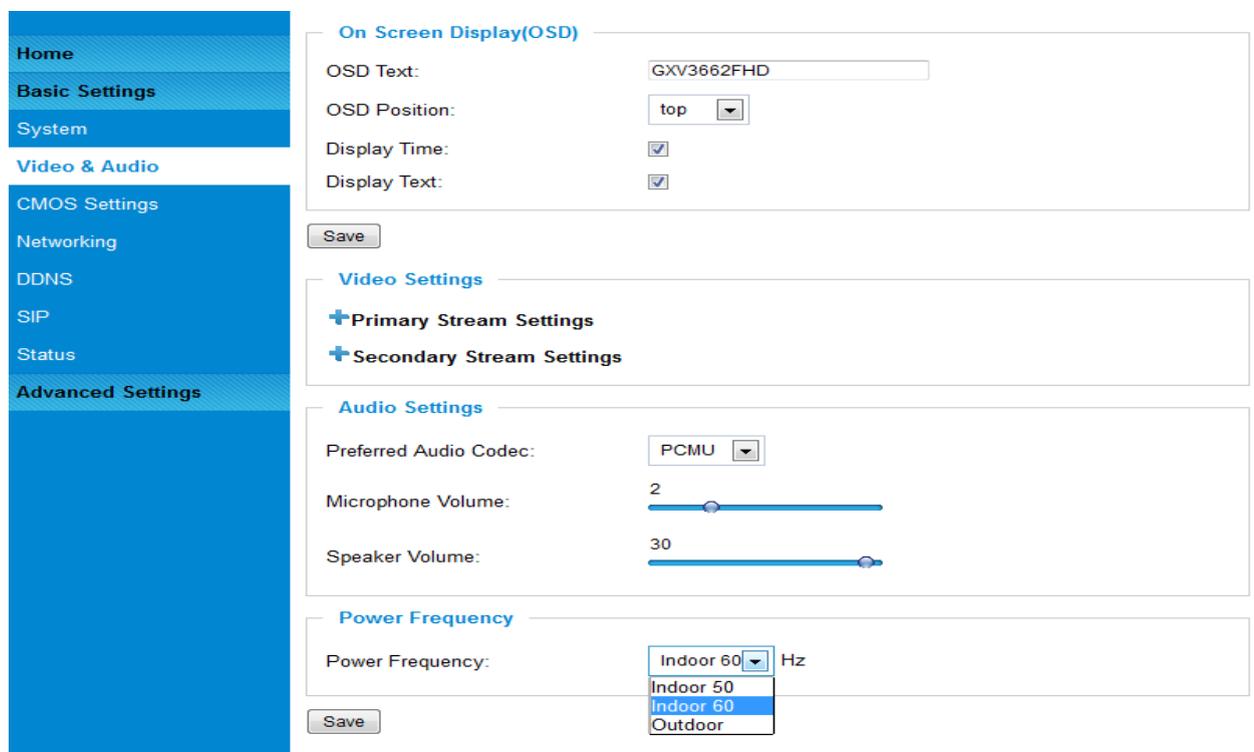


Figure 7: Video & Audio Settings Page

- **On Screen Display (OSD):** Display time stamp and text on the video screen.
 - OSD Text: Inputted text (to identify the camera) shown on the screen.
 - OSD Position: Show the OSD in either top or bottom position on screen.
 - Display Time: When checked, time stamp will display on video screen
 - Display Text: When checked, inputted text will display on video screen.

- **Audio Settings:** Pull down to disable or select different audio codec used in microphone. Three codec supported: G.711u, G.711a and AAC.
 - Microphone Volume: Slide to adjust microphone gain.
 - Speaker Volume: Slide to adjust the speaker volume.

- **Power Frequency:** Select correct local power frequency to avoid video flicking effect under fluorescence light condition.

Video Settings

Primary Stream Settings

Preferred Video Codec: H264

Resolution: 2048*1536 (4:3)

Bit Rate: 2048 kbps

Maximum Frame Rate: 15 fps

Bit Rate Control: CBR VBR

I-frame Interval: 30 Frame(1-100)

Secondary Stream Settings

Preferred Video Codec: H264

Resolution: 320*240 (4:3)

Bit Rate: 256 kbps

Maximum Frame Rate: 15 fps

Bit Rate Control: CBR VBR

I-frame Interval: 25 Frame(1-100)

Figure 8: Video & Audio Settings Page

• **Primary Stream Settings:**

- Preferred Video Codec: H.264 supported.
- Resolution: The video resolution in pixel used in camera video, the higher the resolution is, the better the video quality is, and higher bandwidth is required.
- Bit Rate: The number of bits that are conveyed or processed per unit of time.
- Max Frame Rate: The video frame rate is adjustable based on network conditions. Increasing the frame rate will increase the amount of data significantly therefore consuming more bandwidth. Video will be impaired due to packet loss when there is insufficient bandwidth.
- Bit Rate Control: Variable Bit rate (VBR) and Constant Bit Rate (CBR). Variable Bit Rate - If VBR is selected, the codec varies the amount of output data per time segment. VBR produces a better quality-to-space ratio. The bits available are used to enable more flexibly and encode sound or video data more accurately, with fewer bits used in less demanding passages and more bits used in difficult-to-encode passages. Constant Bit Rate - If CBR is selected, the codec's output data is constant regardless of the input data. The output bit rate is defined in —Bit rate. CBR is useful for streaming multimedia content on limited capacity channels. It is easier to calculate required bandwidth as well as the required storage space using CBR.

- I-frame Interval: While streaming video over a network, compression technologies are used to show the incremental difference between each frame. I-frames are used to help keep the video looking normal. When intervals are shorter, the video quality is higher but uses more bandwidth.
- **Secondary Stream Settings:** Pull down to select, same as Primary steam.

NOTE:

- *H.264 suggested if camera needs to be viewed via Internet.*
- *Grandstream IP Camera provides two video streams; user can use them with flexibility. For example, the high-resolution stream for local recording; another low or high resolution for remote monitoring; or vice versa depending application scenarios.*

- *Use below link to calculate bandwidth and storage before installation*
<http://www.grandstream.com/support/tools/bandwidth-storage-calc>

CMOS Settings Page

This page allows user to adjust the CMOS parameters:

CMOS Parameters Configuration



Flip:

Iris Setting: DC Auto ▼

Shutter Speed: Auto ▼

IR CUT Setting: Automatic(IR sensor control) ▼

IR CUT Sensitivity: 5 ▼

Color Mode: Auto ▼

Figure 9: CMOS Settings Page

- **Flip:** Check this will allow video flip 180° vertically in horizontal axis.
- **Iris Setting:** Select from either automatic, where the iris would open or close depending on the environment conditions, or set it to manual where the user can select from having it open 100/80/60/40/20 percent.
- **Shutter Speed:** Select from either automatic shutter speed depending on the environment conditions, or select one of the available shutter speeds from 1/30 to 1/1000 of a second.
- **IR CUT Setting:** Select from either manual or automatic. If the user selects manual then select from either daytime mode or night mode. If the user selects automatic, then select a sensitivity value from 1 to 5 that adjusts the best to the environment conditions.
- **Color Mode:** Camera Color Mode. There are three options: Color; Black/White; Auto.

NOTE:

- *Flip option recommended if camera requires ceiling installation*
- *Auto option recommended for both Shutter Speed and Color Mode.*

Networking Setting Page

This page allows user to configure network related parameters:

IP Address Configuration

Dynamically Assigned via DHCP

Statically Configured as:

IP Address:

Subnet Mask:

Default Gateway:

DNS Configuration

Obtain DNS Server Address Automatically

Use the Following DNS Server Address:

Primary DNS Server:

Secondary DNS Server:

HTTP

HTTP Port:

Figure 10: Network Setting Page

- **IP Address Configuration:** Camera IP address configuration
 - Dynamically Associated via DHCP: Default setting, DHCP server assign IP to camera.
 - Statically Configured as: Static IP address configuration
- **DNS Configuration:** DNS server IP must be configured correctly if using static IP.
- **HTTP:** Web access TCP port, default 80.

NOTE:

- If camera behind SOHO router with port forwarding configuration for remote access, static IP or static DHCP has to be used to avoid IP address change after router reboot.
- TCP port above 5000 suggested if port forwarding HTTP remote access, due to some ISP would block port 80 inbound traffic. For example, change the default HTTP port from 80 to 8088, to make sure the port forwarding not likely be blocked.
- In addition to HTTP port, RTSP port also required to be configured for port forwarding, in order for remote party viewing the H.264 video.
- If change the default port from TCP 80 to port "A", then RTSP port should be "2000+A". Both TCP port "A" and "2000+A" should be configured for port forwarding in the router. For example, the HTTP port changed to 8088, the RTSP port should be 10088, both 8088 and 10088 should be configured for port forwarding in order for remote camera video access.

DDNS Settings Page

This page allows user to configure dynamic DNS related parameters:

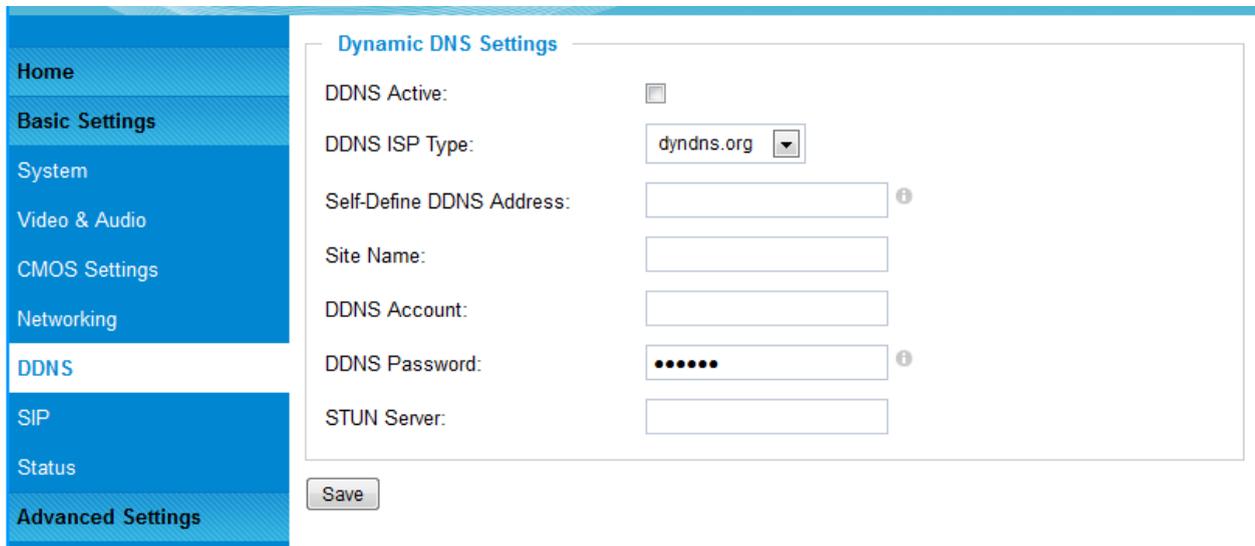


Figure 11: DDNS Setting Page

- **DDNS Active:** Enable DDNS by check this field.
- **DDNS ISP Type:** Select the DDNS service provider from the pull-down menu list
- **Self-Define DDNS Address:** Input the self-defined DDNS address
- **Site Name:** DDNS site name
- **DDNS Account:** DDNS account name
- **DDNS Password:** DDNS password
- **STUN Server:** STUN server FQDN or IP. If device behind non-symmetric router STUN server can help to penetrate & resolve NAT issue.

SIP Setting Page

This page allows user to configure SIP related parameters.

GXV3662_HD/FHD can be configured as SIP endpoint to call out when alarm triggered; or allow permitted number to call in to check the video if Grandstream video IP phone is used.

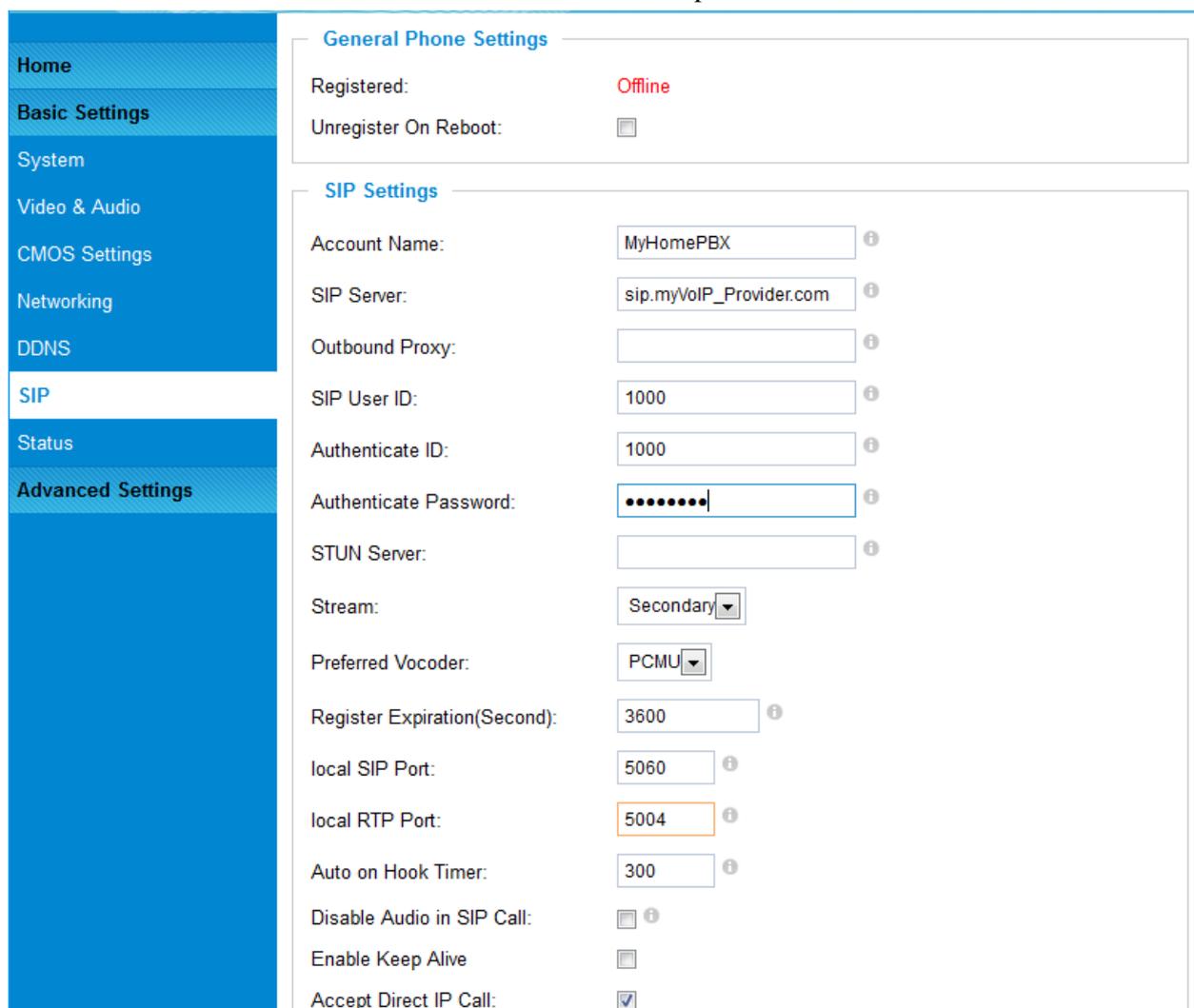
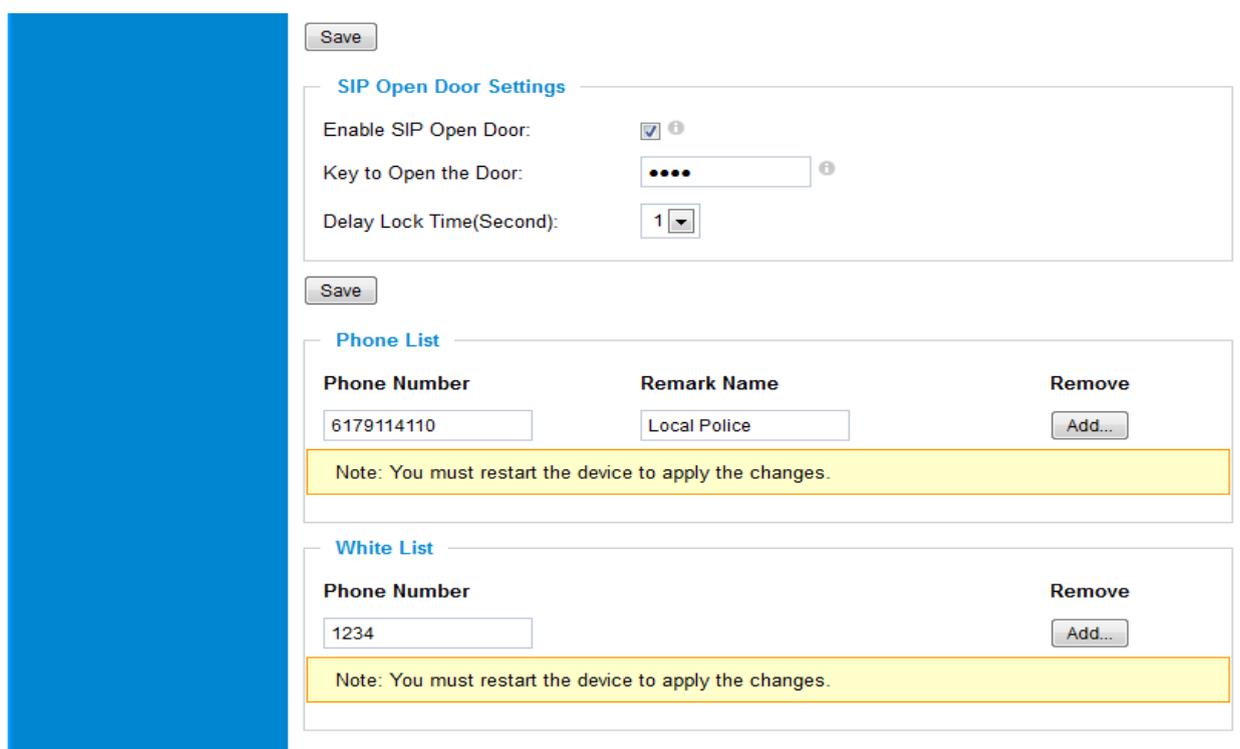


Figure 12: SIP Setting Page

- **Registered:** SIP registration status. Display “Online” in Green, “Offline” in Red.
- **Unregistered on Reboot:** If checked and server support, reboot camera will unbind all registration in same SIP account.
- **Account Name:** SIP account name
- **SIP Server:** FQDN or IP of SIP server from VoIP service provider
- **Outbound Proxy:** IP or FQDN of Outbound proxy server, helps penetrate NAT/Firewall
- **SIP User ID:** SIP username, or telephone number from ITSP
- **Authenticate ID:** Authenticate ID used by SIP proxy
- **Authenticate Password:** Authenticate password used by SIP proxy
- **STUN Server:** STUN server used to resolve NAT if have
- **Steam:** Which stream used for SIP call.

- **Preferred Vocoder:** Audio codec used for SIP call
- **Registration Expiration:** Registration expiration time, default 3600 seconds
- **Local SIP Port:** Local SIP port, default 5060
- **Local RTP Port:** Local RTP port for media, default 5004
- **Auto on hook Timer:** Auto On Hook timer, default 300 seconds
- **Disable Audio in SIP Call:** Checked to disable audio for SIP call
- **Enable Keep Alive:** Checked to enable, help NAT resolution
- **Accept Direct IP Call:** Check to accept peer to peer IP call.
- **Enable White List Number Filter:** Check to allow only white list number to call in, for security
- **Enable Dual-way Audio Warning:** Check to enable two-way audio warning.



The screenshot shows a web interface for configuring SIP Open Door settings, a Phone List, and a White List. The interface is divided into three main sections, each with a 'Save' button at the top.

SIP Open Door Settings:

- Enable SIP Open Door: (with an information icon)
- Key to Open the Door: (with an information icon)
- Delay Lock Time(Second): (with a dropdown arrow)

Phone List:

Phone Number	Remark Name	Remove
<input type="text" value="6179114110"/>	<input type="text" value="Local Police"/>	<input type="button" value="Add..."/>

Note: You must restart the device to apply the changes.

White List:

Phone Number	Remove
<input type="text" value="1234"/>	<input type="button" value="Add..."/>

Note: You must restart the device to apply the changes.

- **Enable SIP Open Door:** This will close the DO connections in the back to close the circuit connected to it.
- **Key to Open the Door:** DTMF key (Currently only SIP INFO DTMF is supported) to close the circuit. Digits 0-9 only.
- **Delay Lock Time(Second):** This is the time in seconds that the circuit will remain closed when this function is triggered
- **Phone List/Phone Number:** Callee or call receiver number when alarm call triggered.
- **White List/Phone Number:** Phone numbers allowed to call into the camera.

Status Page

This page shows the GXV3662_HD/FHD operation status:

Home	<p>System Statistics</p> <p>Product Model: GXV3662FHD</p> <p>Hardware Version: V1.0A</p> <p>Part Number: 9670003710A</p> <p>Bootloader Version: 1.0.0.0</p> <p>Core Version: 1.0.1.68</p> <p>Base Version: 1.0.1.68</p> <p>Firmware Version: 1.0.1.68</p> <p>System Up Time Since: 1 day 10 hours 32 minutes</p>
Basic Settings	
System	
Video & Audio	
CMOS Settings	
Networking	
DDNS	
SIP	
Status	
Advanced Settings	
	<p>Network Status</p> <p>MAC Address: 00:0B:82:27:F1:12</p> <p>LAN IP Address: 66.228.93.48</p> <p>LAN Subnet Mask: 255.255.255.128</p> <p>LAN Default Gateway: 66.228.93.1</p> <p>DDNS Status: Disabled</p> <p>SIP Registered: Offline</p>
	<p>Camera Type</p> <p>Camera Type: Aptina, AR0331 Pixels 2048*1536</p>

Figure 13: Status Page

NOTE:

- When SIP account registered, the status will display “Online” in Green.
- When SIP account unregistered, the status will display “Offline” in Red, as below.

SIP Registered: **Offline**

ADVANCED SETTINGS EXPLANATION

This part explain all the features available under the advanced settings tab.

User Management Page

This page allows user to do user management:

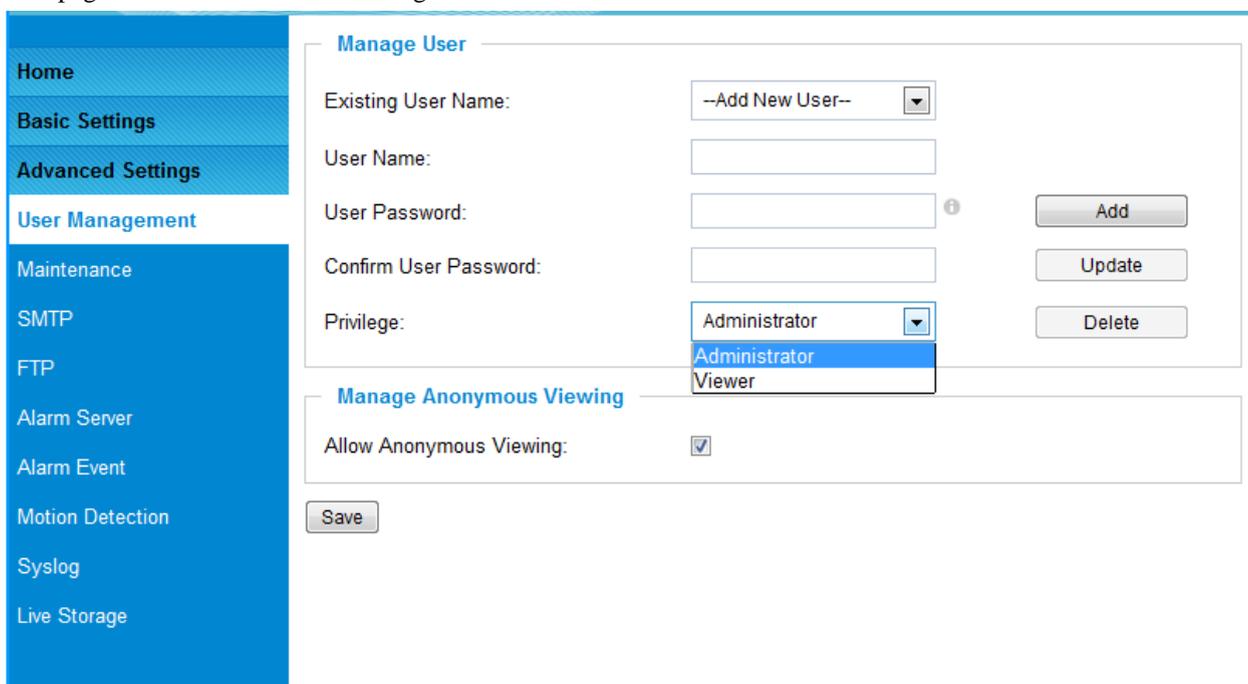


Figure 14: User Management Page

- **Existing User Name:** Allow revise existing user or add new user
- **User Name:** The name of user need to be revised
- **User Password:** New password if revise password
- **Confirm User Password:** Re-enter the new password for verification
- **Privilege:** Choose user privilege
- **Allow Anonymous Viewing:** When checked, no security enhanced. Any person can view the camera if knowing the IP or FQDN of the camera, but can NOT change anything, just view ONLY.

Maintenance Page

This page allows user to maintain the camera:

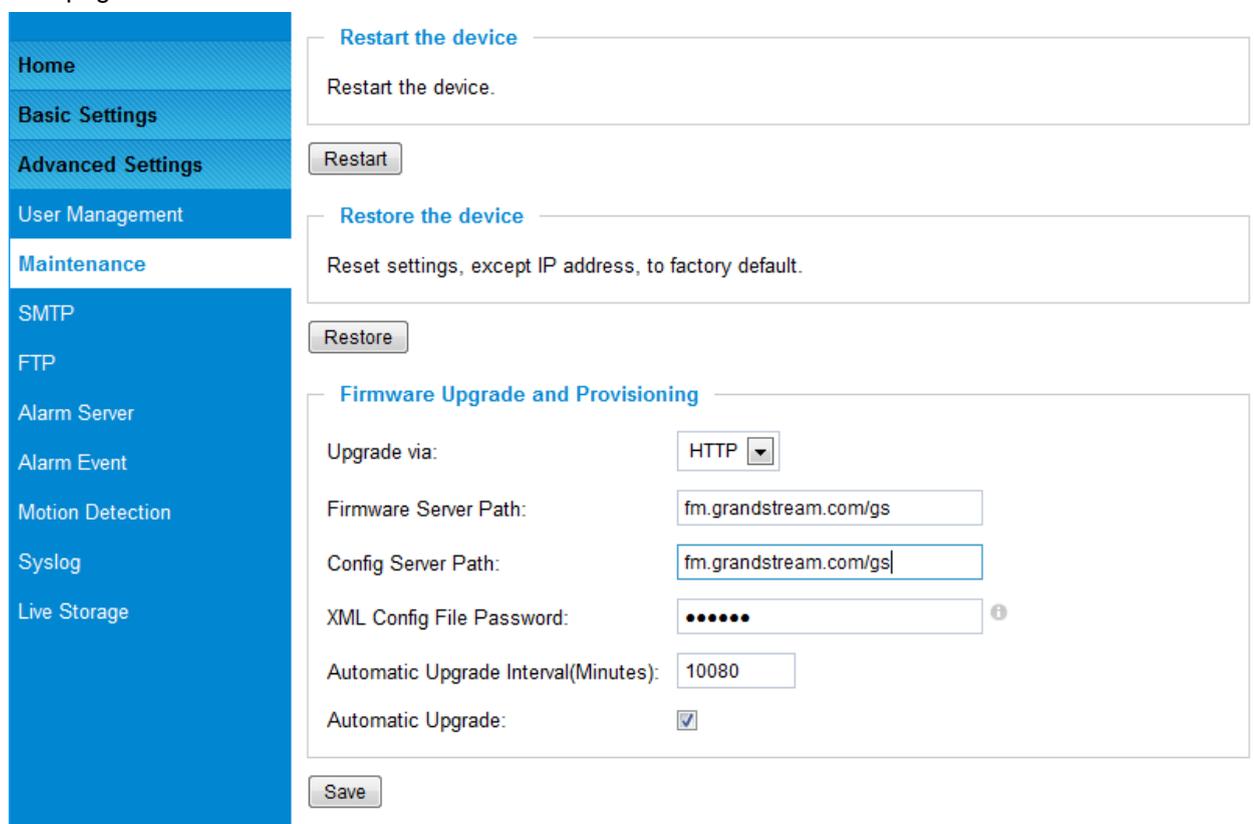


Figure 15: Maintenance Page

- **Restart:** When clicked, the camera will reboot or restart
- **Restore:** When clicked, the camera will be reset to factory default, wiping out all the configurations (except IP address)

Firmware Upgrade and Provisioning:

- **Upgrade via:** Upgrade firmware via TFTP, HTTP or HTTPS
- **Firmware Server Path:** Server path holding the firmware
- **Config Server Path:** Server path holding the configuration file (auto provisioning)
- **XML ConfigFile Password:** Password for encrypt the XML based configuration file
- **Automatic Upgrade Interval (Minutes):** Time interval for automatic upgrade, default 10080
- **Automatic Upgrade:** Checked to enable automatic firmware upgrade and provisioning.

NOTE:

- Only XML based automatic provisioning is supported by GXV3662_HD/FHD.

SMTP Setting Page (Email Alarm)

This page allows user to configure email client to send out email when alarm triggered:

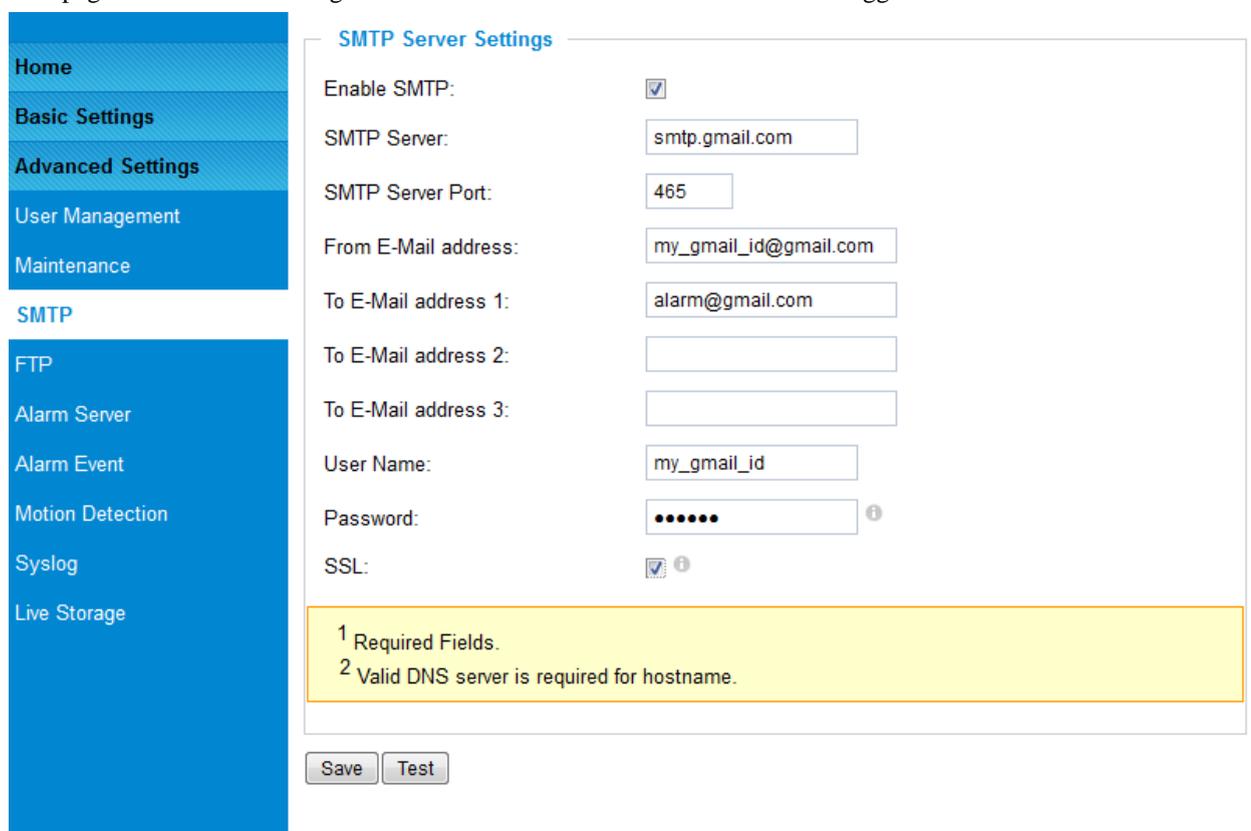


Figure 16: SMTP Setting Page

- **Enable SMTP:** When checked, email client is enabled.
- **SMTP Server:** SMTP Email Server IP or Domain Name
- **SMTP Server Port:** Port number used by server to send email
- **From Email address:** The email address of alarm email sending from, usually client email ID
- **To E-Mail address:** The email address to receive the alarmed email, total 3 included.
- **User Name:** Email client User ID
- **Password:** Email client password
- **SSL:** Check if the SMTP email server requires SSL

NOTE:

- Click “Save” to save the email configuration information.
- Click “Test” after configuration, if setting is correct, a test email will send out and “Test successful!” yellow bar will display like below



FTP Settings Page (Upload Alarm)

This page allows user to configure FTP parameters to upload the alarm or video recording:

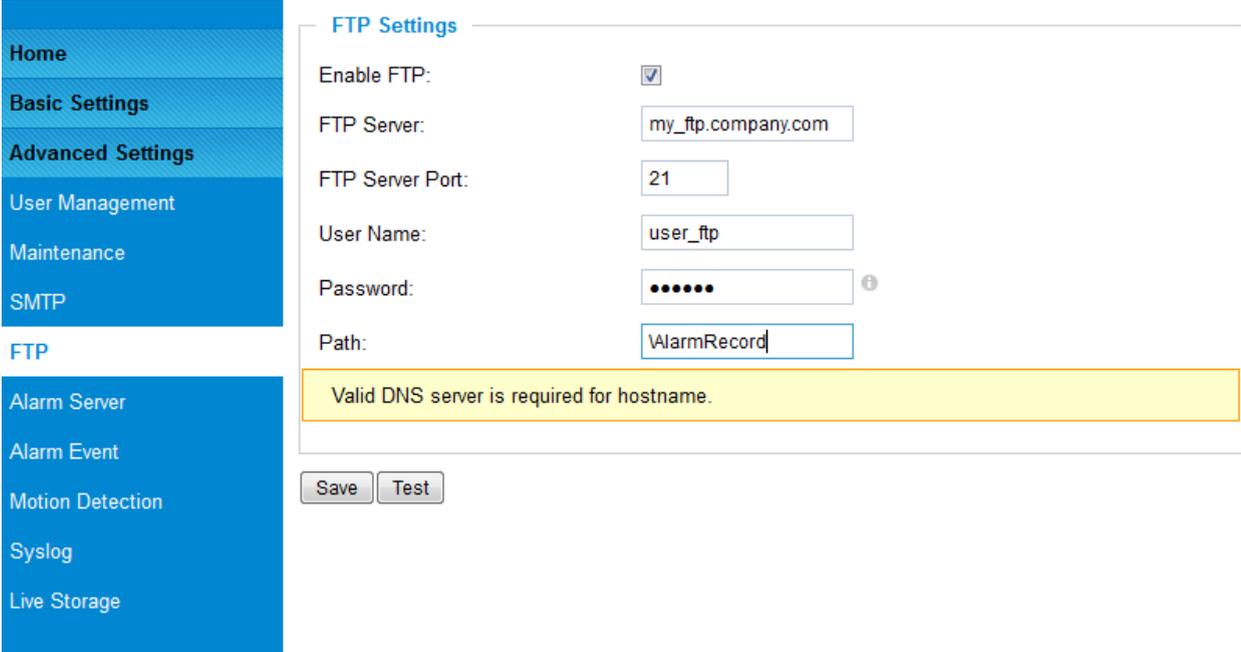


Figure 17: FTP Setting Page

- **Enable FTP:** When checked, built-in FTP client is enabled.
- **FTP Server:** IP or Domain name of FTP site or server
- **FTP Server Port:** TCP port for FTP server, default port number 21
- **User Name:** FTP server User ID
- **Password:** FTP server user password
- **Path:** Path in the server where upload files are stored.

NOTE:

- Click “Save” to save the FTP configuration information.
- Click “Test” after configuration, if setting is correct, a test FTP operation will be performed and “Test successful!” yellow bar will display if the operation is successful.

Alarm Server Settings Page (Upload Alarm to supported VMS or HTTP Server)

This page allows user to configure alarm HTTP server to upload alarms:

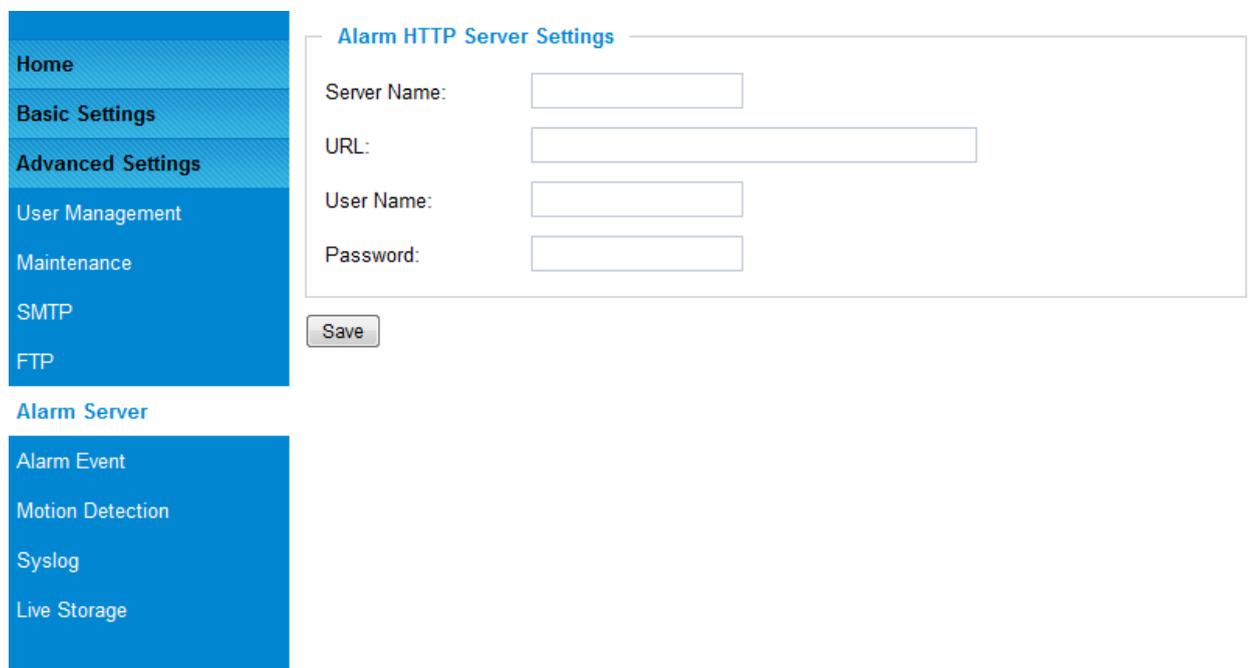


Figure 18: Alarm HTTP Server Setting Page

- **Server Name:** The name of HTTP server or VMS system
- **URL:** URL of the Server
- **User Name:** User ID from that Server
- **Password:** Password for that User ID

NOTE:

- *Grandstream provide HTTP API to help 3rd party company by using HTTP server or VMS to develop further solutions for its customers.*
- *Grandstream IP Camera and DVS (include GXV3662_HD/FHD) are ONVIF certified.*

Alarm Event Page

The GXV3662_HD/FHD supports alarm inputs, for example, infrared detector, smoke detector and so on. Follow the steps to make Alarm Input work:

1. Connect the alarm input equipment to the GXV3662_HD/FHD.
2. Set up the alarm event time schedule.
3. Configure the alarm actions which you would like the GXV3662_HD/FHD to take when the alarm is triggered.

This page allows user to configure alarm event:

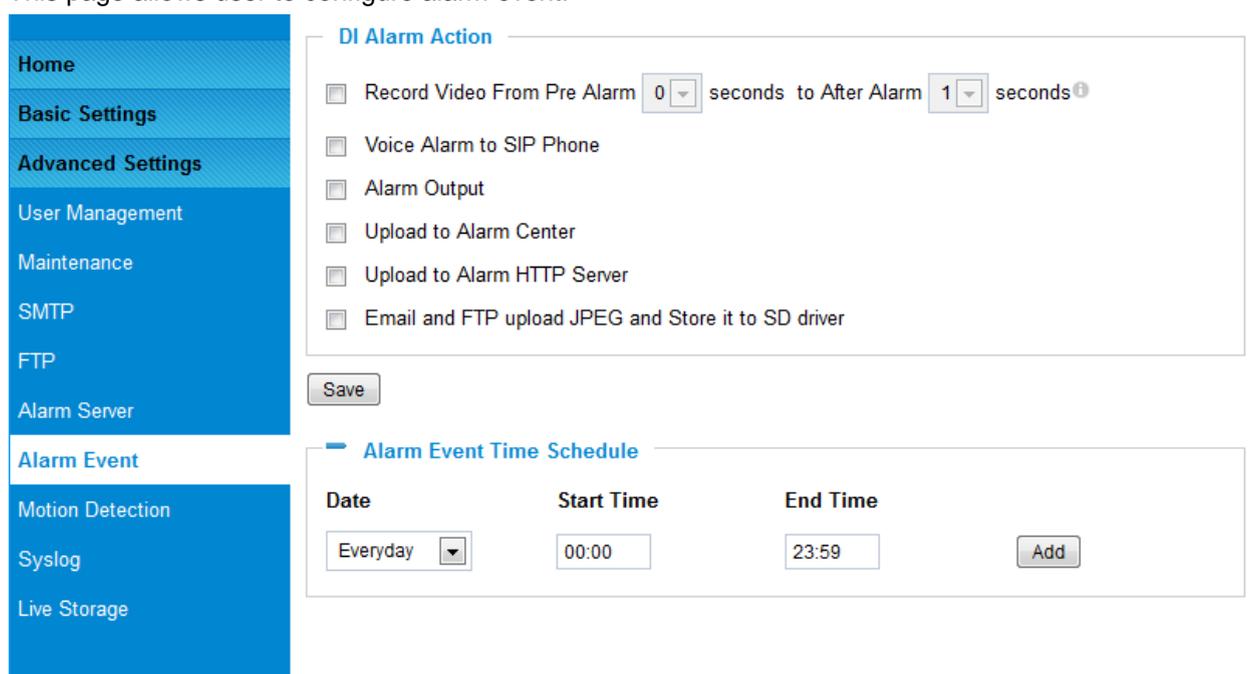


Figure 19: Alarm Event Setting Page

How Alarm Input and Alarm Output Work

Alarm-in is the alarm input port; users are able to connect sensors such as infrared sensor (PIR), smoke sensor or light sensor to it. The detectable signal voltage range for alarm-in is from 1.8V to 15 V

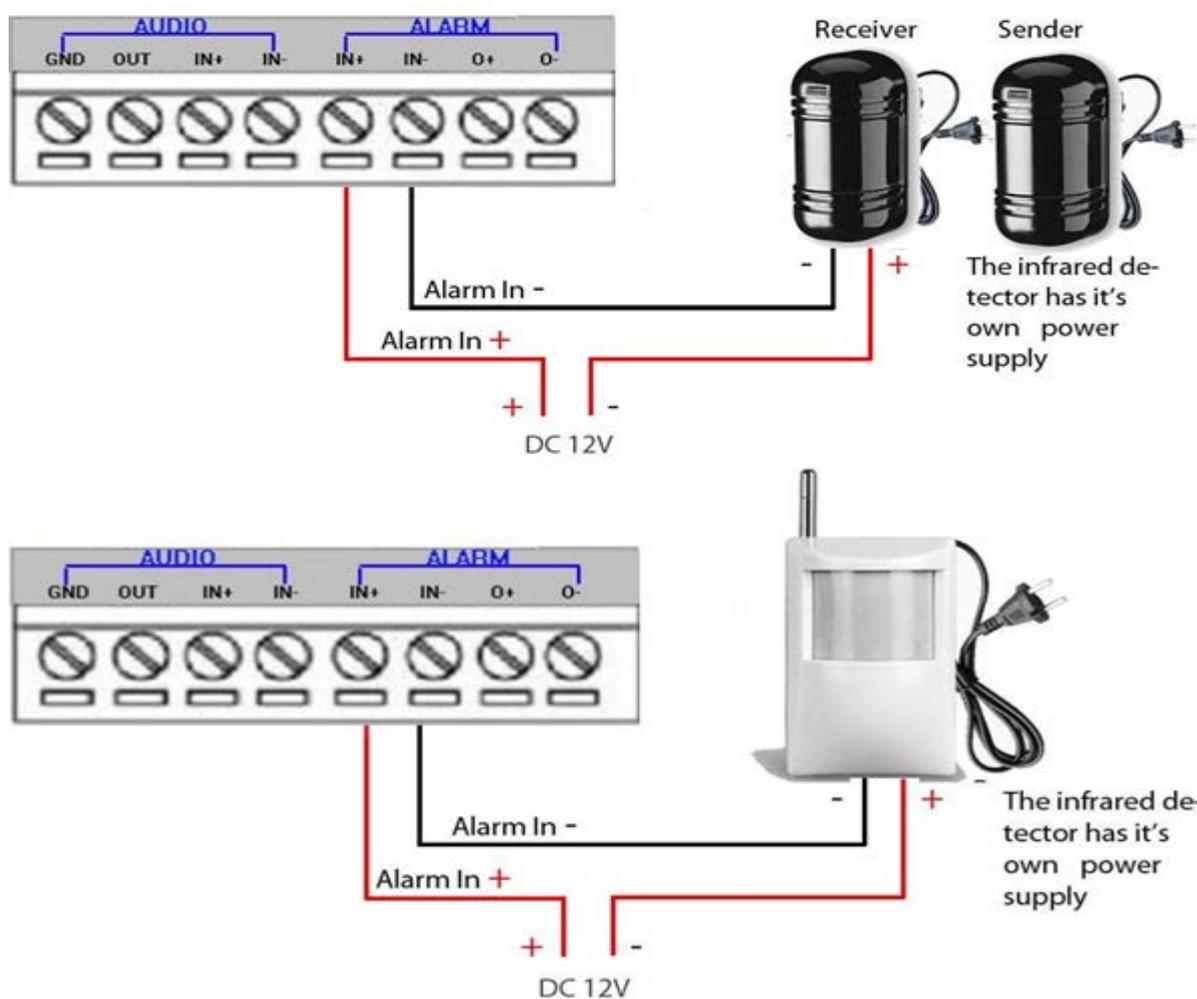
NOTE:

- Please do not connect a device that has a signal voltage that is higher than 15V, this will damage the IP camera.

Internally, the Alarm-out uses relays as a switch (30VAC/2A); users can connect devices such as an alarm siren, alert lights or electric strike to this port. Under normal circumstances, the circuit is open. When there is an alarm event, the GXV3662_HD/FHD will close the circuit to trigger the alarm.

Connect Alarm Input Equipment to the GXV3662_HD/FHD

Here are two sample connection diagrams. Connect the alarm equipment to the GXV3662_HD/FHD by following the diagram below:



Set up Alarm Actions

An alarm action is what the GXV3662_HD/FHD is going to do when an alarm is triggered during the defined time period – the time schedule. The GXV3662_HD/FHD allows multiple alarm actions.

- Record Video:** If this option is selected, the GXV3662_HD/FHD will record the video when an alarm is triggered. You can enter the length of the video recording (in seconds). You can also choose the storage method for video files: SD card, USB Flash drive, or USB hard drive.
- Voice Alarm to SIP Phone:** If this option is selected, the GXV3662_HD/FHD will make calls to the number listed in the Phone List page using the configured

SIP account when an alarm is triggered. To use this function, the settings in SIP page must be configured properly.

- **Alarm Output:** If this option is selected, the alarm will output via the configured method/equipment when it is triggered.
- **Upload to Alarm Center:** This option is an integrated feature with GSurf_Pro. If this option is checked, the GXV3662_HD/FHD will report the alarm event to GSurf_Pro.
- **Upload to Alarm HTTP Server:** This option is used when the Alarm Server is configured, the GXV3662_HD/FHD will send an HTTP GET request to the pre-configured HTTP Server.
- **Email and FTP upload JPEG and Store it to USB card or SD driver :**

If this option is selected, the GXV3662_HD/FHD will capture the image and store it to connected live storage device when an alarm is triggered.

Set up Alarm Event Time Schedule

This section allows you to configure the time during which the GXV3662_HD/FHD will monitor the Alarm Input. The GXV3662_HD/FHD not only can monitor your settings but also can take actions when the alarm is triggered.

Dropdown list for date

Available time schedules

Alarm Event Time Schedule

Date	Start Time	End Time	
Tuesday	00:00	23:59	<input type="checkbox"/> Add
Monday	00:00	23:59	<input type="checkbox"/>
Tuesday	00:00	23:59	<input type="checkbox"/>

Check All

To add a schedule, select the date from the dropdown list, Start Time and End time and Click Add to add a new time schedule.

To delete a schedule, check the schedule you would like to remove and click Delete.

How to connect an Alarm Output Equipment to GXV3662_HD/FHD

Here is a sample connection diagram. Connect the alarm output equipment to the GXV3662_HD/FHD by following the diagram below.

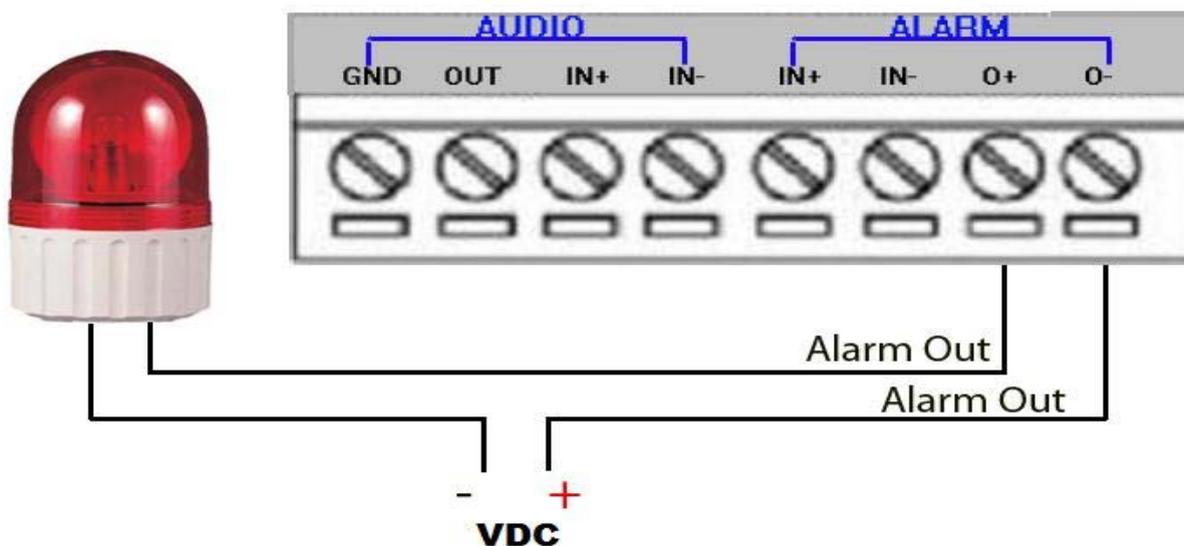
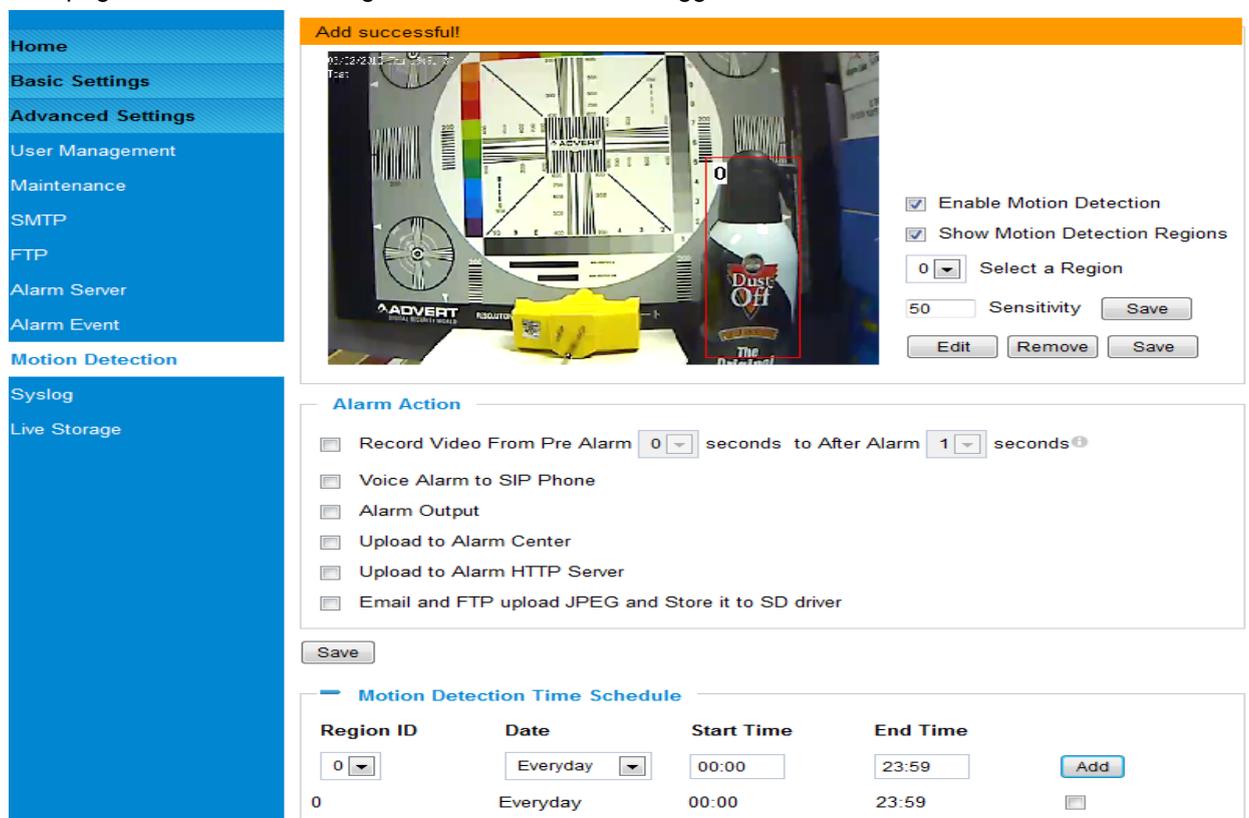


Figure 20: Alarm Output connection

Motion Detection Configuration Page (Set Alarm)

This page allows user to configure motion detection to trigger alarms:



Region ID	Date	Start Time	End Time	
0	Everyday	00:00	23:59	Add
0	Everyday	00:00	23:59	

Figure 21: Motion Detection Configuration Page

- **Enable Motion Detection:** When checked, Motion Detection enabled.
- **Show Motion Detection Regions:** When checked, Motion Detection region with number will be displayed in White Rectangle in the screen; when “Edit” clicked, the Rectangle will become Red, as shown in Figure 23.
- **Select a Region:** Pull down to select and configure alarm region, altogether 16 alarm region available, from 0 to 15.
- **Sensitivity:** Select configured alarm region number, input number for sensitivity to trigger alarm, 100 is the maximum sensible value.

Alarm Action:

- **Record Video From.....** the Allow user to select how long pre/after Alarm trigger moment, video be captured.
- **Voice Alarm to SIP Phone:** When checked, a SIP alarm phone call will be made to pre-configured number.
- **Upload to Alarm Center:** When checked, the alarm video will be transferred to Alarm Center, like Grandstream free GSurf_Pro VMS software.

NOTE:

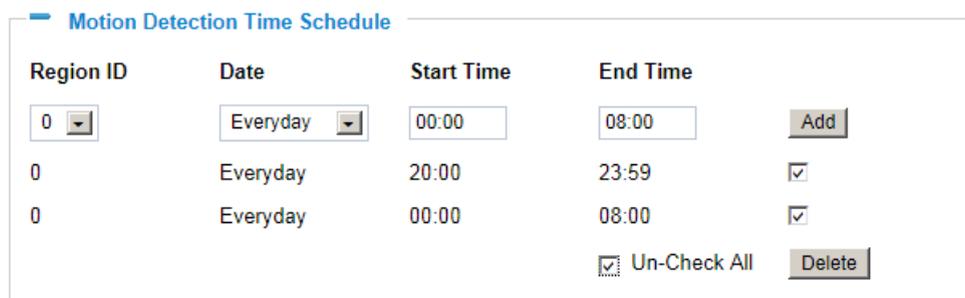
- Grandstream free GSurf_Pro VMS software can be downloaded here:
http://www.grandstream.com/products/tools/surveillance/GSurf_Pro.exe

- **Upload to Alarm HTTP Server:**
When checked, alarm will be transferred to the HTTP server via HTTP API.
- **Record Video and Upload to FTP Server:**
When checked, the alarm will be recorded and FTP to pre-configured FTP server.
- **Email and FTP upload JPEG and Store it to SD driver:**
When checked, a snapshot of trigger moment will be generated and email to pre-configured email account, also save to the SD card in the SD card slot. (SD card not provided).

NOTE:

- *Email/Snapshot storage is mutual exclusive with SD card DVS recording in next section.*

This page allows user to configure Motion Detection Operation Schedule:



The screenshot shows a web interface titled "Motion Detection Time Schedule". It features a table with columns for "Region ID", "Date", "Start Time", and "End Time". There are three rows of data, each with a "Delete" button. The first row has a dropdown menu for "Region ID" set to "0", a dropdown for "Date" set to "Everyday", and input fields for "Start Time" (00:00) and "End Time" (08:00), with an "Add" button. The second row has "Region ID" as "0", "Date" as "Everyday", "Start Time" as "20:00", and "End Time" as "23:59", with a checked checkbox. The third row has "Region ID" as "0", "Date" as "Everyday", "Start Time" as "00:00", and "End Time" as "08:00", with a checked checkbox. At the bottom, there is a checked checkbox labeled "Un-Check All" and a "Delete" button.

Region ID	Date	Start Time	End Time	
0	Everyday	00:00	08:00	Add
0	Everyday	20:00	23:59	<input checked="" type="checkbox"/>
0	Everyday	00:00	08:00	<input checked="" type="checkbox"/>

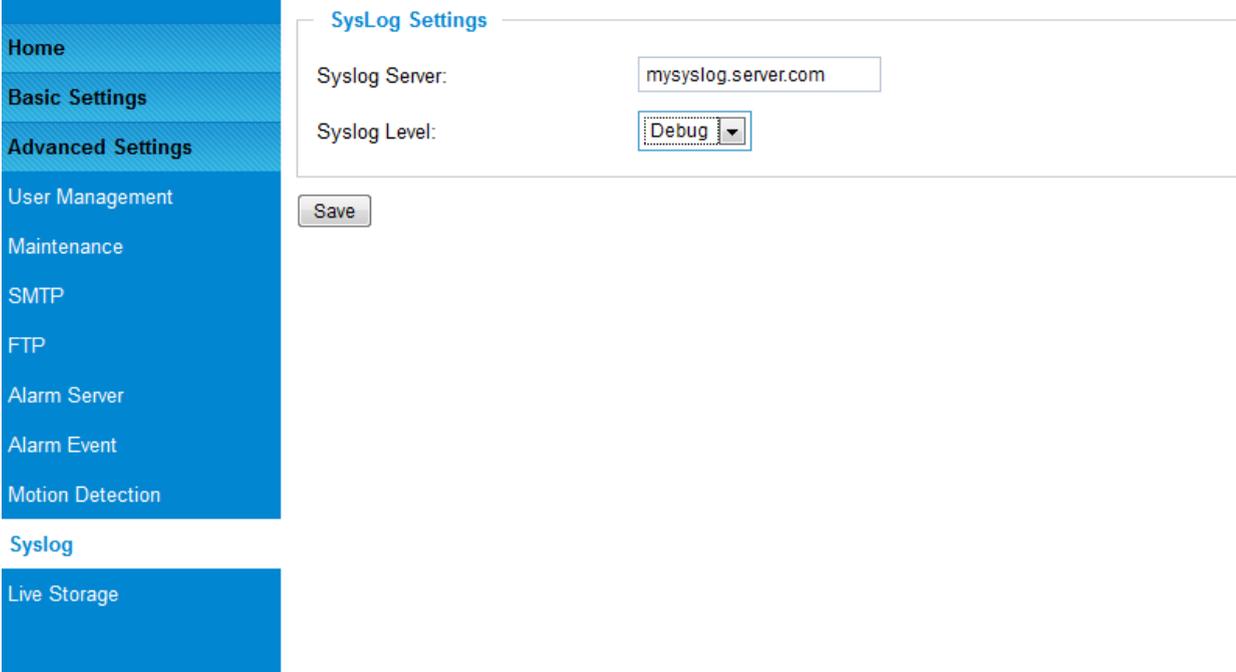
Un-Check All Delete

Figure 22: Motion Detection Schedule Configuration page

- *As shown in Figure 24, user can configure the Motion Detection Region with related Start and Stop time to control the motion detection operation.*

Syslog Settings Page (Troubleshooting)

This page allows user to enable the Syslog to help troubleshooting problems:



SysLog Settings

Syslog Server:

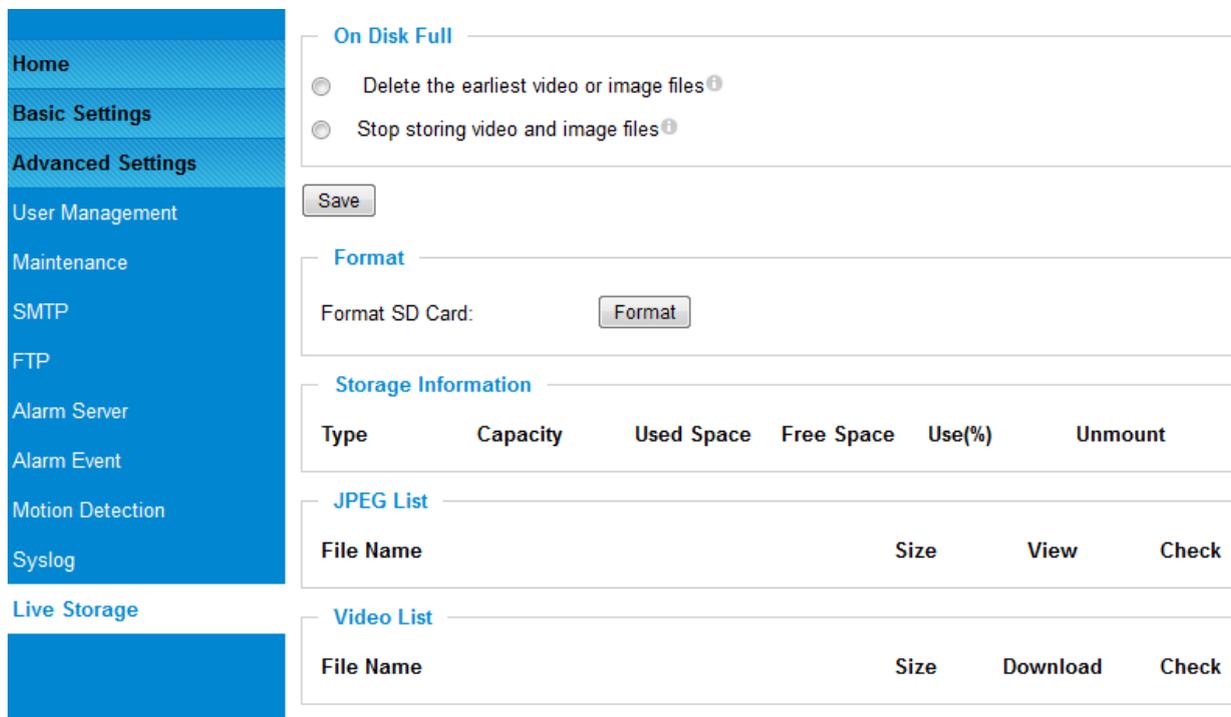
Syslog Level:

Figure 23: Syslog Configuration Page

- **Syslog Server:** Syslog server IP or Domain Name
- **Syslog Lever:** Lever of syslog message sent to the syslog server:
None, Debug, Info, Warning, Error.

Live Storage Setting Page (SD card File Management)

This page allows user to manage the recorded files in SD card:



The screenshot shows a web interface with a blue sidebar on the left containing navigation links: Home, Basic Settings, Advanced Settings, User Management, Maintenance, SMTP, FTP, Alarm Server, Alarm Event, Motion Detection, Syslog, and Live Storage. The main content area is divided into several sections:

- On Disk Full:** Contains two radio button options: "Delete the earliest video or image files" and "Stop storing video and image files". A "Save" button is located below these options.
- Format:** Contains a "Format SD Card:" label and a "Format" button.
- Storage Information:** A table with columns: Type, Capacity, Used Space, Free Space, Use(%), and Unmount.
- JPEG List:** A table with columns: File Name, Size, View, and Check.
- Video List:** A table with columns: File Name, Size, Download, and Check.

Figure 24: Live Storage Management Page

- **On Disk Full:**
Select below two different operations when SD card is full
 - Delete the earliest video or image files
 - Stop storing video and image files
- **Storage Information:**
The SD card information will be displayed in this column.
- **JPEG List:**
Motion triggered Snapshot JPEG file will be listed here.
- **Video List:**
Motion triggered video recording clip will be listed here.

NOTE:

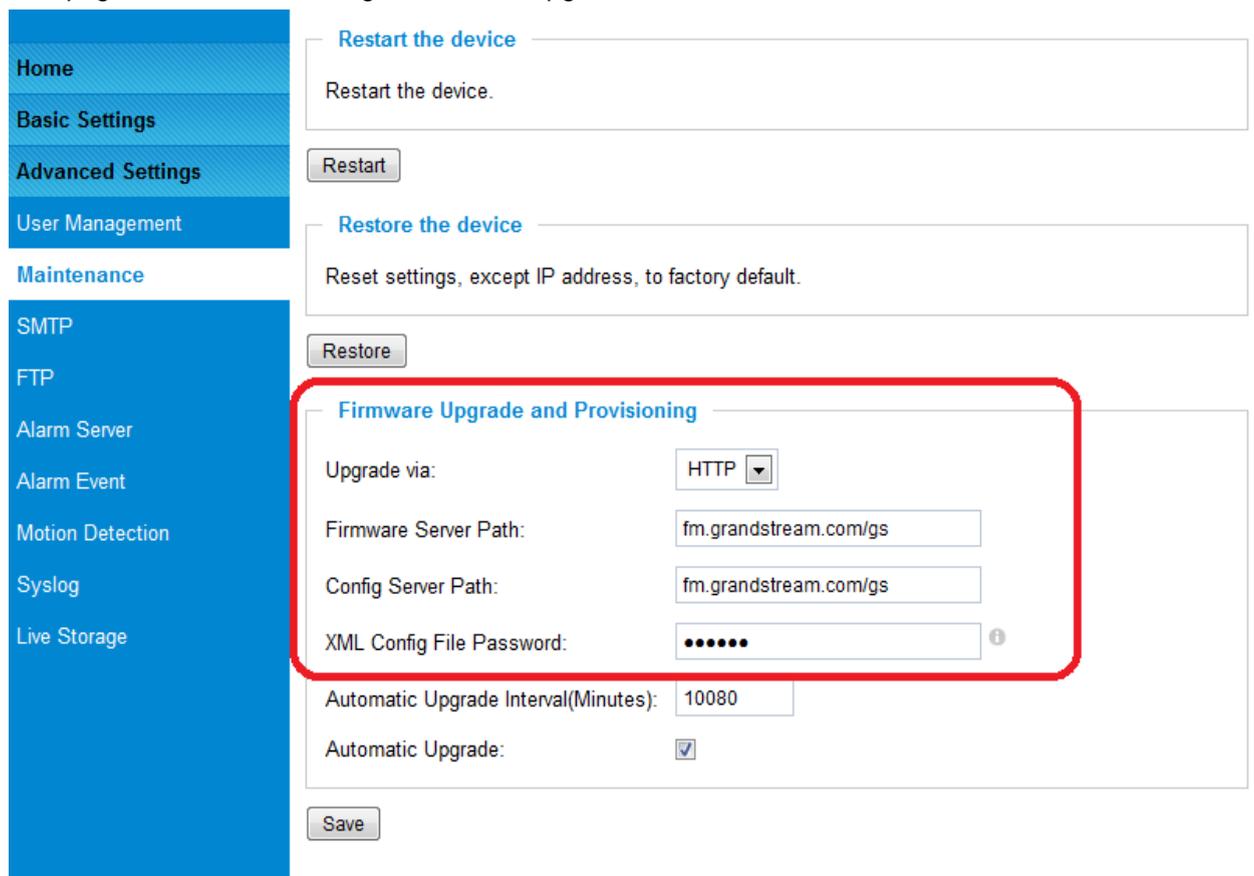
- Grandstream free GSNVR DVR software can be downloaded here:
http://www.grandstream.com/products/tools/surveillance/GSNVR_1.0.0.28_en.exe

SOFTWARE UPGRADE

Software upgrade can be done either via TFTP, HTTP or HTTPS. The corresponding configuration settings are in the ADVANCED SETTINGS configuration page.

Software Upgrade via TFTP, HTTP or HTTPS

This page allows user to configure firmware upgrade:



The screenshot shows a web interface with a left-hand navigation menu. The 'Maintenance' section is expanded, showing options like SMTP, FTP, Alarm Server, Alarm Event, Motion Detection, Syslog, and Live Storage. The 'Firmware Upgrade and Provisioning' section is highlighted with a red box. It contains the following fields and controls:

- Restart the device**: A text area with the text 'Restart the device.' and a 'Restart' button below it.
- Restore the device**: A text area with the text 'Reset settings, except IP address, to factory default.' and a 'Restore' button below it.
- Firmware Upgrade and Provisioning**: A section with a red border containing:
 - Upgrade via:** A dropdown menu set to 'HTTP'.
 - Firmware Server Path:** A text input field containing 'fm.grandstream.com/gs'.
 - Config Server Path:** A text input field containing 'fm.grandstream.com/gs'.
 - XML Config File Password:** A text input field with masked characters '.....' and an information icon.
 - Automatic Upgrade Interval (Minutes):** A text input field containing '10080'.
 - Automatic Upgrade:** A checked checkbox.
- Save**: A button at the bottom of the section.

Figure 25: Firmware Upgrade and Provisioning

NOTES:

- Grandstream recommends end-user use the Grandstream HTTP server. Its address can be found at <http://www.grandstream.com/support/firmware>. Currently the HTTP firmware server FQDN is **firmware.grandstream.com**. For large companies, we recommend to maintain their own TFTP/HTTP/HTTPS server for upgrade and provisioning procedures.

Instructions for local firmware upgrade using TFTP server:

1. Unzip the file and put all of them under the root directory of the TFTP server.
2. Put the PC running the TFTP server and the device in the same LAN segment.
3. Please go to File -> Configure -> Security to change the TFTP server's default setting from "Receive Only" to "Transmit Only" for the firmware upgrade.
4. Start the TFTP server, in the phone's web configuration page
5. Configure the Firmware Server Path with the IP address of the PC
6. Update the change and reboot the unit

End users can also choose to download the free HTTP server from <http://httpd.apache.org/> or use Microsoft IIS web server.

Configuration File Download

Grandstream SIP Device can be configured via Web Interface as well as via Configuration File through TFTP or HTTP/HTTPS. "Config Server Path" is the TFTP or HTTP/HTTPS server path for configuration file. It needs to be set to a valid URL, either in FQDN or IP address format. The "Config Server Path" can be same or different from the "Firmware Server Path".

A configuration parameter is associated with each particular field in the web configuration page. A parameter consists of a Capital letter P and 1 to 3 (Could be extended to 4 in the future) digit numeric numbers. i.e., P2 is associated with "Admin Password" in the ADVANCED SETTINGS page. For a detailed parameter list, please refer to the corresponding firmware release configuration template.

When Grandstream Device boots up or reboots, it will issue request for configuration file named "cfgxxxxxxxxxxx", where "xxxxxxxxxxx" is the MAC address of the device, i.e., "cfg000b820102ab". The configuration file name should be in lower cases.

Currently GXV3662_HD/FHD only support XML configuration.

RESTORE FACTORY DEFAULT SETTING

WARNING!

Restoring the Factory Default Setting will DELETE all configuration information of the camera. Please BACKUP or PRINT out all the settings before approach to following steps. Grandstream will not take any responsibility if you lose all the parameters of setting or cannot connect to your VoIP service provider.

FACTORY RESET

There are three (3) methods for resetting your unit:

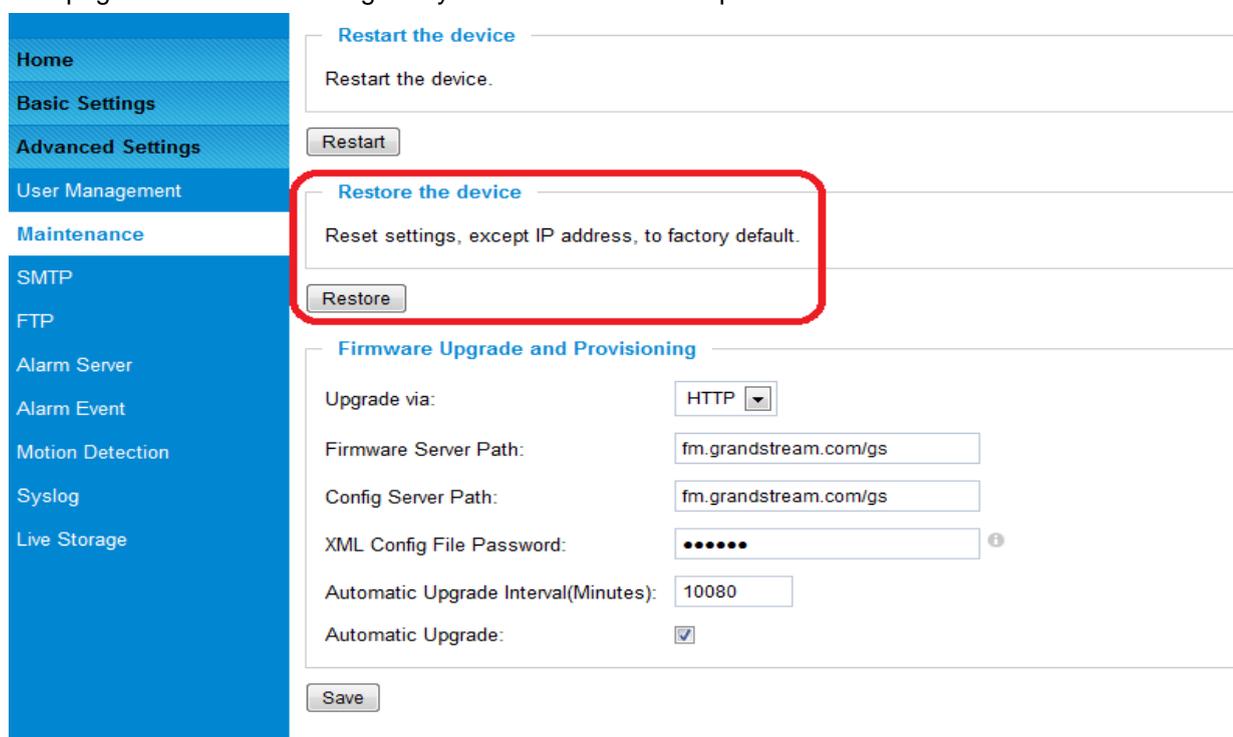
Reset Button

Reset default factory settings following these four (4) steps:

1. Unplug the Ethernet cable.
2. Locate a needle-sized hole on the back panel of the camera above the power jack.
3. Insert a pin in this hole, and press and hold for about 15 seconds till reboot
4. Take out the pin. All unit settings are restored to factory settings.

Reset from Web Interface

This page allows user to configure dynamic network related parameters:



The screenshot shows the web interface with a left-hand navigation menu. The 'Maintenance' section is selected. The main content area has three sections: 'Restart the device', 'Restore the device', and 'Firmware Upgrade and Provisioning'. The 'Restore the device' section is highlighted with a red box. It contains the text 'Reset settings, except IP address, to factory default.' and a 'Restore' button. The 'Restart the device' section contains the text 'Restart the device.' and a 'Restart' button. The 'Firmware Upgrade and Provisioning' section contains several input fields: 'Upgrade via:' (HTTP), 'Firmware Server Path:' (fm.grandstream.com/gs), 'Config Server Path:' (fm.grandstream.com/gs), 'XML Config File Password:' (masked with dots), 'Automatic Upgrade Interval(Minutes):' (10080), and 'Automatic Upgrade:' (checked). A 'Save' button is located at the bottom of the 'Firmware Upgrade and Provisioning' section.

Figure 26: Factory Reset from Web Interface

IP VIDEO SURVEILLANCE FAQ

1. What is the default IP address of the GXV-3662_HD/FHD?

The default IP configuration is DHCP.

2. Why can I not view the live video stream in Microsoft Internet Explorer?

Please check whether the IE add-on is installed correctly.

Once you log into the GXV 3662_HD/FHD web interface, Internet Explorer will indicate that -This website wants to install to following add-on: 'GSViewer.cab' from Grandstream Networks, Inc. Please install this add-on when prompted by IE.

3. How do you manually uninstall the Grandstream video viewer add-on for IE?

Please follow these steps to uninstall the add-on:

1. Delete the *GSViewerX Control* from C:\WINDOWS\Downloaded Program Files directory
2. Delete *GSNetClient.dll*, *GS_Replay.exe*, *GSViewerX.ocx*, *hi_h264dec_w.dll*, *lik_VoiceEngine_dll.dll* and *GSViewerX.inf* from C:\WINDOWS\system32

4. Why can't I access the GXV-3662_FHD web configuration interface?

Q 1: Is your internet service down?

A 1: Connect a PC to the internet to test the connection.

Q 2: Are the PC and the device in different subnets?

A 2: Check the subnet mask and default gateway of the device and PC.

Q 3: Is there a conflict with another IP address?

A 3: Try to change the IP address of the device.

Q 4: Has the HTTP port been changed?

A 4: Contact the administrator of the device for more information.

5. The GXV-3662_FHD web configuration page is not displayed correctly in Internet Explorer 8?

In IE8, Compatibility View might need to be enabled for the GXV-3662_FHD web configuration page to load properly. To enable compatibility view, open IE8, click *Tools, Compatibility View Setting*, and add the GXV-3662 web configuration pages to the Compatibility View.

6. Why does IE indicate to install Grandstream Video Viewer add-on after a firmware upgrade? The add-on was properly installed before the firmware upgrade process.

New firmware will often upgrade the add-on as well. To watch the live video stream, you must install the newest version of the add-on.

7. How do you watch secondary video stream?

Login to the home page of the GXV-3662_FHD web GUI, click Play to watch the video stream. To watch a secondary video stream, right click on the video, and select *Secondary Stream* on the pop-up menu. Try reinstalling the Grandstream Viewer add-on for IE if you cannot see the video stream.

8. Why is audio missing from the recorded video when an alarm is triggered?

Please double check whether the device has an audio input connected. GXV3662_HD/FHD has a MIC IN port for an audio input.

9. What is DDNS? Is it important for IP surveillance product to have DDNS support?

DDNS is an acronym for Dynamic Domain Name Service. It is important to choose an IP network camera that has DDNS support for dynamic IP addresses.

Chances are that the network has a dynamic IP address (which changes with every log on). A DDNS service makes sure that the camera's IP address always matches up to the current server address. DDNS also allows for a website to be linked to the IP camera that is constantly updated with the correct information and has a reliable feed.

10. Why is Windows Media Player unable to play the recorded videos files?

The GXV-3662_FHD uses the H.264 video codec. Windows Media Player may lack the proper H.264 decoder to play the recorded video. Please download the Microsoft FFDSHOW H.264 decoder from <http://sourceforge.net/projects/ffdshow-tryout/> and install it.

11. Alarm Triggered Events do not work in GSurf_Pro.

Please double check the Alarm Action on your GXV-3662_HD/FHD. Login to the web GUI of the GXV3662_HD/FHD, go to the Motion Detection or Alarm Events page, and make sure option Upload to Alarm Center is checked.

12. How can I use a cell phone to watch the GXV3662_HD/FHD video stream?

You must set the video resolution to QCIF to watch the GXV3662_HD/FHD video stream from a cell phone. Make sure to set the bit rate to 64kbps to ensure the best video quality.

13. Why doesn't the IP address of the device reset when I click the "Restore" button on the Maintenance page?

The GXV3662_HD/FHD could be installed in areas that are not easy to access. For example, it could be installed on the roof of a building or the ceiling of an office. This makes it difficult to reinstall the device, therefore the -Restore function will not clear the IP address. Press the RESET button on the device for at least 6 seconds until you hear a beep to perform a factory reset of all parameters (including the IP address).

14. Why can't the live video stream be viewed using a mobile phone or GSurf_Pro after changing the HTTP Port of the device?

Make sure that the RTSP port of the device is set to 2000 plus the HTTP Port number. For example, if the HTTP port is 88, then the RTSP port of the device that you configured on GSurf_Pro / mobile phone should be 2088.

15. Some notes on using SD cards

1. The GXV3662 only supports FAT32 formatted SD cards
2. The GXV3662 supports SD and SDHC
3. It takes 10-15 seconds to read SDHC cards with large memory capacities. Please wait 15 seconds to unplug the SD card after you plug them into the device.
4. If there are many files (ie. 1800 or more image batch files) on the SD card, it can take up to 5 minutes to read them. Please do not refresh the web interface at this time as the GXV3662 will restart reading the SD card. Grandstream is currently working on a fix for this issue.

16. Port forwarding

Two ports must be forwarded on your router to watch video from a GXV3662_HD/FHD that is located on a private network from a PC in a public network. The web port (HTTP) and the RTSP port. Please make note that the RTSP port number changes according to the web port. If the web port is 80, then the RTSP port is 554. If the web port is not 80, then the RTSP port equals the web port +2000. For example, if the web port is 88, then the RTSP port will be 2088.

17. Tested PC display adapters.

Display Adapter	Test Result
SiS 650/651/740/661 FX/741/760 Series	Works normally
Intel(R) 82945R Express Chipset Family	Works normally
VIA/S3G UniChrome Pro IGP	Works normally
NVIDIA Geforce 7300GS	Works normally
SiS 661FX	Works normally
SiS Mirage Graphics	Works normally
SiS 661 Series	Works normally
Intel(R) G33/G31 Express	Works normally
SiS Mirage3 Graphics	Works normally
SiS 661FX/GX Mirage Graphics	Works normally
S3 Graphics ProSavageDDR(Microsoft Corporation)	Works normally
XGI Velari Z7/Z9/Z9S V1.08.12	There is some delay when playing videos.
Intel 965 Express Chipset Family	Works normally
ATI Mobility Radeon X1300	Works normally
Intel(R) G45/G43 Express Chipset	Works normally
Mobile Intel 965 Express Chipset Family	Works normally
Mobile Intel(R) 4 Series Express Chipset Family	Works normally
Mobile Intel® 945GM Express Chipset Family	Works normally
Mobile intel® 915GM/GMS, 910GML Express Chipset	Works normally
Family	
Intel® G45/G43 Express Chipset	Works normally
ATI Technologies, RAGE XL PCI	This display adapter cannot display videos.