

GV-4008A

The GV-4008A Card provides up to 8 video and 8 audio channels, recording up to 240 / 200 fps (NTSC / PAL) in total with H.264 hardware compression. The new technology of resolution is employed to enhance the live image without DSP Overlay. Even in multi views, the image on the largest division view can remain at the high-quality resolution without DSP Overlay.

Minimum System Requirements

OS	32-bit	Windows XP / Windows Vista / Windows 7 / Windows Server 2008	
	64-bit	Windows 7 / Windows Server 2008	
CPU	GV-4008A	Core 2 Duo, 2.33 GHz	
	GV-4008A x 2	Core 2 Quad, 2.4 GHz	
RAM	GV-4008A	2 x 1 GB Dual Channels	
	GV-4008A x 2		
HDD	GV-4008A	250 GB	
	GV-4008A x 2	500 GB	
Graphic Card	AGP or PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color		
DirectX	9.0c		
Power Supply	400 Watts		

Packing List

- | | |
|--------------------------------------|--|
| 1. GV-4008A Card x 1 | 5. Internal Power Y Cable x 1 |
| 2. 1-8 DVI-Type Audio Cable x 1 | 6. USB Dongle x 1 |
| 3. 1-8 DVI-Type Video Cable x 1 | 7. Software DVD x 1 |
| 4. Hardware Watchdog Jumper Wire x 1 | 8. Surveillance System Quick Start Guide x 1 |

Connecting One GV-4008A Card

- Connect the video and audio cables to the GV-4008A Card.
- Connect the supplied Hardware Watchdog Jump Wire (Figure 3).
- Connect the computer's internal power supply to the GV-4008A Card. The LEDs (D17, D19, D21, D23) should be lit in green to indicate the card is ready for use.

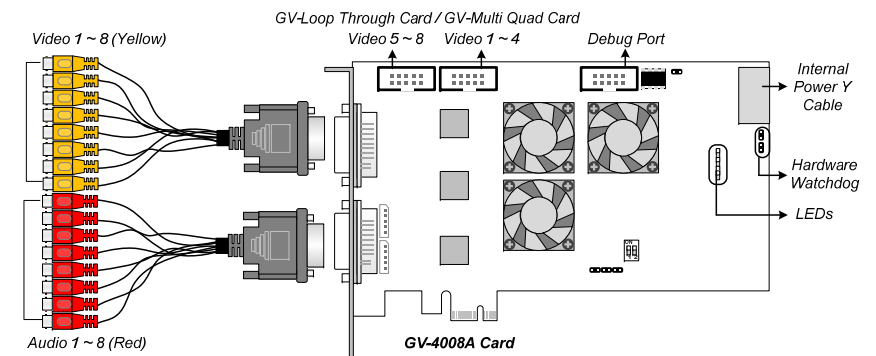
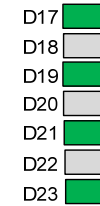


Figure 1

Note:

1. The GV-4008A Card only works when the supplied USB Dongle is inserted to PC.
2. The GV-4008A Card cannot work with microphones which acquire power from the PC. Use microphones which have external power supply.

Connecting Two GV-4008A Cards

You can install two GV-4008A Cards for a total of 16 channels. Master Card is the card with 1-8 channels and Slave Card is that with 9-16 channels. Normally, the card attached to the lower PCI-E slot number will act as Master, and the card attached to the higher PCI-E slot number will act as Slave.

- **Hardware Watchdog Connection:** Connect the supplied Hardware Watchdog Jump Wire to the Master Card only (Figure 3).
- **Accessory Card Connections:**
 - GV-Loop Through Card: Connect the card to two 10-pin connectors on each Master and Slave Card by using a supplied cable with four 10-pin headers.
 - GV-Multi Quad Card: Connect the card to two 10-pin connectors on each Master and Slave Card by using a supplied cable with four 10-pin headers.

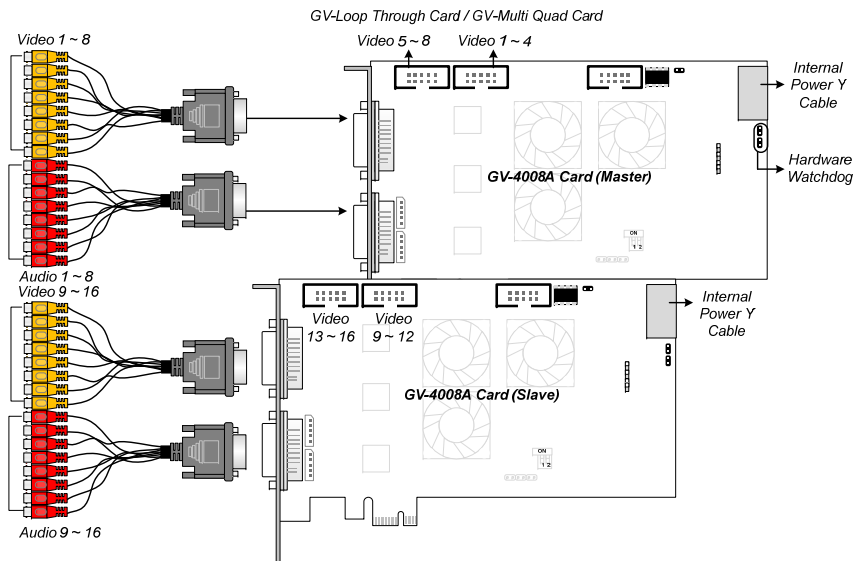


Figure 2

Connecting Hardware Watchdog

Insert the Hardware Watchdog Jumper Wire to the 2-pin connectors on the Card. The (+) pin on the Card must connect to the Reset (+) pin on the motherboard, and the (-) pin on the Card to the Ground (-) pin on the motherboard. Ensure the connection is correct; otherwise the hardware watchdog will not work.

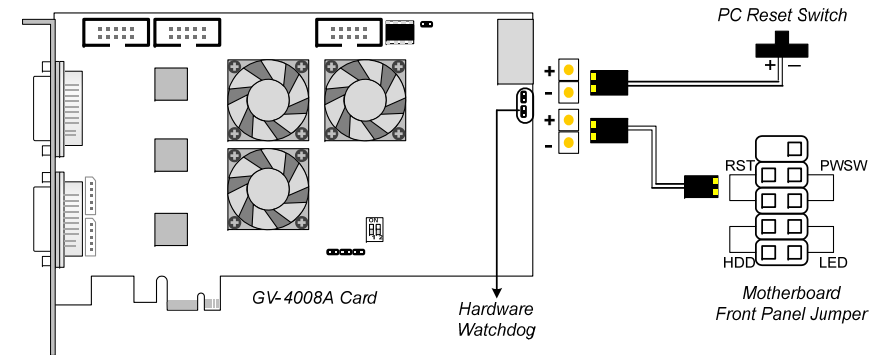


Figure 3

Note: To locate the motherboard's Reset (+) pin and (-) pin, please refer to the motherboard's user manual.

Installing Drivers

After installing the GV-4008A Card in the computer, insert the software DVD to install GV-Series drivers. The DVD will run automatically and an installation window will pop up. Select **Install or Remove GeoVision GV-Series Driver**, and select the following two options to install card and USB dongle drivers.

- **Install or Remove GeoVision GV-Series Card Drivers:** installs card drivers.
- **Install GeoVision USB Device Drivers:** installs USB dongle drivers.

To verify the drivers are installed correctly, go to Windows Device Manager and see if their entries are listed. The image below is an example of installing one GV-4008A card.



Figure 4

Expand the **DVR-Devices** field, you can see:

GV-4008A Card	Entry
Single-card mode	GV4008(A) GV-Series USB Protector
Two-card mode	GV4008(A) GV4008(A) GV-Series USB Protector

Adjusting the Video Settings in the Main System

One distinct feature of GV-4008A Cards is their ability of hardware compression, providing you with higher system performance and DVD recording quality.

To take full advantage of GV-4008A Cards, you can adjust the video settings, including the recording quality and frame rate, before running the GV-System.

Setting up the video settings of the recorded files:

Considering computer performance or recording quality, you may adjust the settings to meet your needs.

1. On the Main System, click the **Configure** button, select **System Configure**, select **Camera Install**, and click **Hardware Compression Setup**. This dialog box appears.

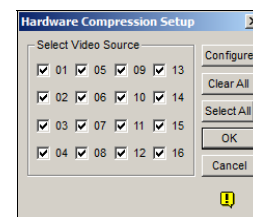


Figure 5

2. Select the cameras you want to set up, and click the **Configure** button. This dialog box appears.

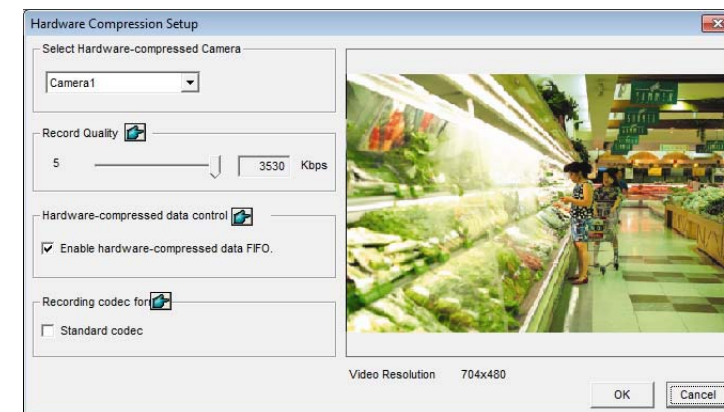


Figure 6

3. In the Select Hardware-compressed Camera section, select one camera to be configured.
4. Select the recording quality.
5. The **Enable hardware-compressed data FIFO** option is disabled by default. When the option is enabled, the hardware-compressed data from the video IP device, such as IP camera, video server and compact DVR, will be transmitted directly to remote servers instead of being compressed again on the DVR. The remote servers include CMS-related servers and WebCam Server. This feature can decrease the system load of DVR but increase that of remote servers.
6. To use standard H.264 codec in recording, enable **Standard codec** in the Recording codec for section.
7. If you want to apply the same setting to all cameras, click the **Finger** button in each section.
8. To access the frame rate settings, on the Main System, click the **Configure** button, select **System Configure**, and select **Camera Configure**. This dialog box appears.

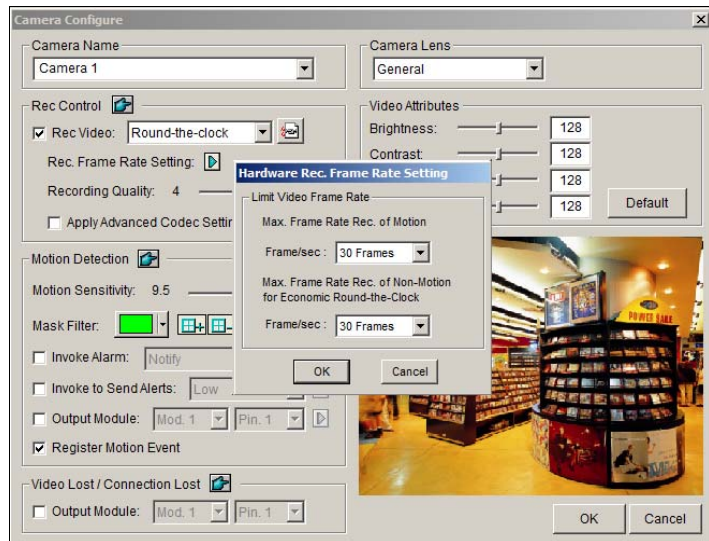


Figure 7

9. In the Rec Control section, click the **Arrow** button. The Hardware Rec. Frame Rate Setting dialog box appears.
10. Set the maximum frame rate for motion and non-motion periods so as to save as much disk space as possible.

11. To adjust image quality, in the Video Attributes section, move the sliders to the desired values or click **Default** to apply default values.

Note: The default settings are as follows: Recording Quality is 3, Video Resolution is 704 x 480 (NTSC) or 704 x 576 (PAL), Codec is Geo H.264 and Frame Rate is 30 (NTSC) or 25 (PAL).

Specifications

		GV-4008A	GV-4008A x 2
Interface		PCI-E (x1)	PCI-E (x1) x 2
Input Type		DVI	
Video Input		8 Cams	16 Cams
Audio Input		8 Channels	16 Channels
Recording Rate (D1)	NTSC	240 fps	480 fps
	PAL	200 fps	400 fps
Display Rate	NTSC	240 fps	480 fps
	PAL	200 fps	400 fps
Video Resolution	NTSC	H/W	704 x 480
		S/W	352 x 240
	PAL	H/W	704 x 576
		S/W	352 x 288
Video Compression Format	S/W	Geo MPEG4, Geo H264	
	H/W	H.264	
Audio Compression Format		AAC (16 kHz / 16 bit)	
Bit Rate Range		2.5M ~ 5M	
GV-NET/IO Card Support		Yes (Note 2)	
GV-Multi Quad Card Support		Yes	
GV-Loop Through Card Support		Yes	
Dimensions (W x H)		169 x 112 mm / 6.65 x 4.41 in	
Note:			
<ol style="list-style-type: none"> GV-4008A does not support the TV-Out function. To work together with GV-4008A, GV-NET/IO Card V3.1 must be set in the I/O Box Mode and connected to the PC through USB. 			