

Chapter 1

Video Capture Cards

This chapter includes the following information:

- **Minimum system requirements**
- **Packing list**
- **Connection diagrams**
- **Specifications**
- **Driver installation**
- **Comparison chart**

1.1 GV-1120, 1240, 1480

GV-1120, GV-1240 and GV-1480 are a three-in-one combo card including the features of previous GV-Video Capture Card, GV-DSP Card and GV-A16 Card. GV-1120, GV-1240 and GV-1480 provide a single card solution for video and audio recording, as well as real-time display.

Minimum System Requirements

OS	Windows 2000 / Windows XP / Windows Server 2003	
CPU	GV-1120	Pentium 4-2.4C GHz, 800 MHz FSB
	GV-1240	Pentium 4-2.6C GHz, 800 MHz FSB
	GV-1480	Pentium 4-2.8C GHz, 800 MHz FSB
RAM	2 x 256 MB Dual DDR400 SDRAM	
HDD	GV-1120	80 GB
	GV-1240	120 GB
	GV-1480	250 GB
VGA	ATI Radeon 9550 or above (Recommended)	
DirectX	9.0 or above	

Note:

1. For recording resolution of 640 x 480 or above, Pentium 4 processor with Hyper Threading is required.
2. Currently GV-Video Capture Cards are not compatible with VIA-series chipset motherboards.

Packing List

- | | |
|------------------------------------|-------------------------------------|
| ① GV-1120/1240/1480 Combo Card x 1 | ⑥ 9-16 D-Type Audio Cable x 1 |
| ② Audio Extension Card x 1 | ⑦ Installation Guide x1 |
| ③ 1-8 D-Type Video Cable x 1 | ⑧ Software CD x 1 |
| ④ 9-16 D-Type Video Cable x 1 | ⑨ Feature Guide x 1 |
| ⑤ 1-8 D-Type Audio Cable x 1 | ⑩ Hardware Watchdog Jumper Wire x 1 |

Connections

- Plug the Audio Extension Card in the assigned connectors on the GV-Combo card.
- Connect D-Type video and audio cables to the GV-Combo Card and Audio Extension Card respectively.
- Connect the TV monitor to the GV-Combo Card if needed.

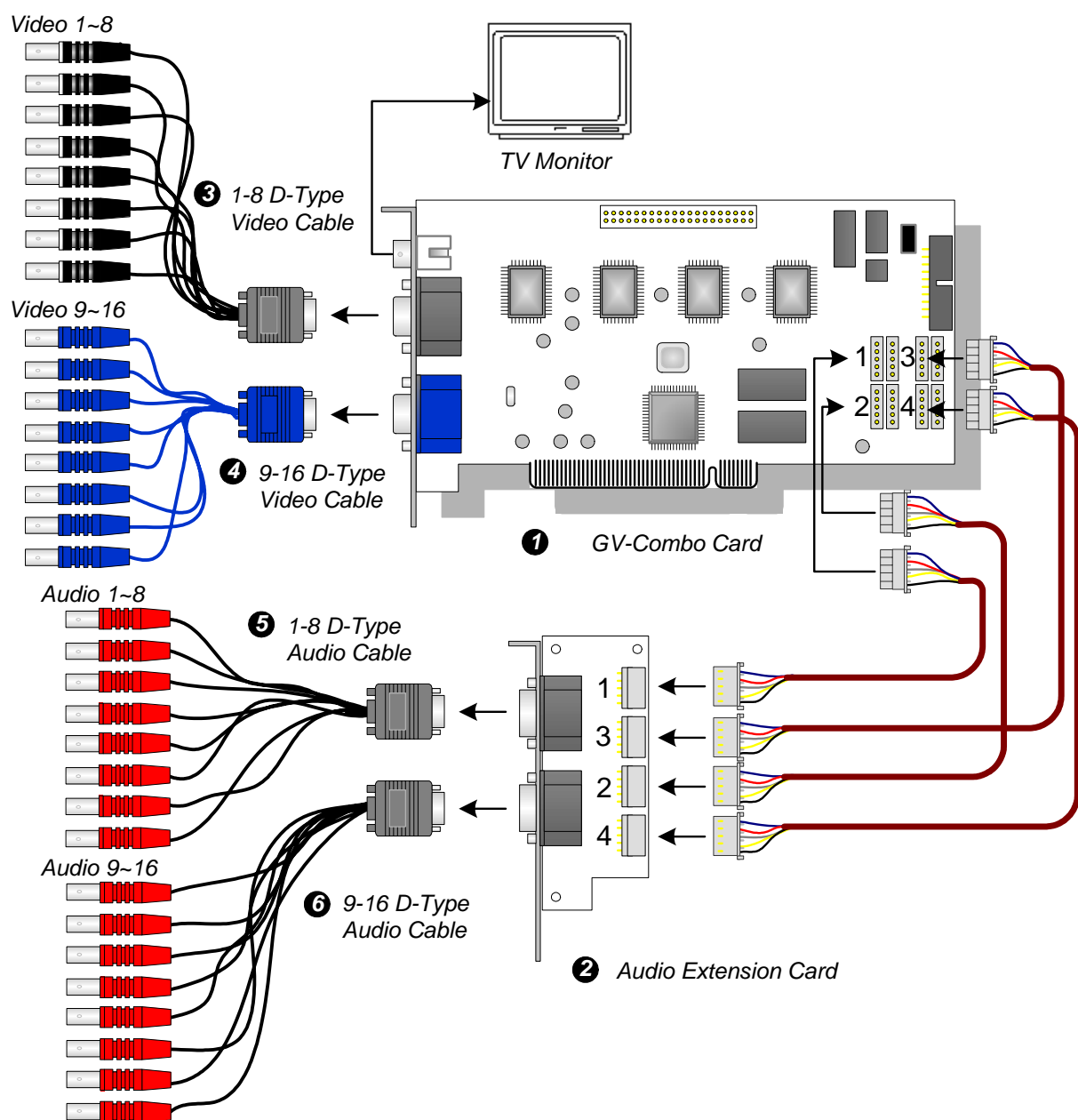


Figure 1-1 GV-Combo Card connections

Specifications

		GV-1120	GV-1240	GV-1480
Input Type		DB15 x 2 (Video), DB9 x 2 (Audio)		
Video Input		8, 12, 16 Cams	8, 16 Cams	16 Cams
Audio Input		8, 12, 16 Channels	8, 16 Channels	16 Channels
TV Output		RCA connector x 1		
Recording Rate	NTSC	120 fps	240 fps	480 fps
	PAL	100 fps	200 fps	400 fps
Display Rate	NTSC	480 fps		
	PAL	400 fps		
Video Resolution	NTSC	720 x 480, 720 x 480 De-interlace, 720 x 240, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240		
	PAL	720 x 576, 720 x 576 De-interlace, 720 x 288, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240		
Compression Format		Wavelet, MPEG-4, Geo MPEG4, Geo MPEG4 (ASP), Geo H.264		
GV-NET/IO Card Support		Yes		
GV-Hybrid DVR Card Support		Yes		
Dimensions (W x H)		195 mm x 100 mm		

1.2 GV-650, 800

The GV-650 and GV-800 Card have the same appearance, system requirements and packing list so that we introduce both together in this section. However, you may choose between the two according to your need for recording rate and audio channels.

Minimum System Requirements

OS	Windows 2000 / Windows XP / Windows Server 2003
CPU	Pentium 4-2.0 GHz
RAM	256 MB DDR SDRAM
HDD	80 GB
VGA	NVIDIA GeForce 2 MX200 32 MB (Recommended)
DirectX	9.0 or above

Note: Currently GV-Video Capture Cards are not compatible with VIA- series chipset motherboards.

Packing List

- | | |
|---|-------------------------------------|
| ❶ GV-800 or GV-650 Card x 1 | ❹ Hardware Watchdog Jumper Wire x 1 |
| ❷ Audio Extension Card x 1 ** | ❺ Software CD x 1 |
| ❸ 1-8 Cams with 4-Port Audio D-Type Cable x 1 | ❻ Feature Guide x 1 |
| ❹ 9-16 Cams D-Type Cable x 1 * | ❼ Installation Guide x1 |
| ❺ BNC Video Extension Card ***
(Quantity depends on model purchased) | |

* Supplied with 12-16 Cams D-Type Video Capture Card

** Supplied with BNC Video Capture Card

*** Supplied with 8-16 Cams BNC Video Capture Card

Connections

There are two types of GV-800 and GV-650 Cards: BNC and D-type. BNC type only provides four video channels; video and audio extension cards are required for extension. D-type can provide up to 16 video channels and four audio channels together.

For the D-type video capture card, plug the black video/audio cable into the black connector on the GV-650/800 Card; the blue video cable into the blue connector, as illustrated below.

Note: The GV-650 Card only supports two audio channels so that only two audio ports can work in the supplied 1-8 Cams with 4-Port Audio D-Type cable.

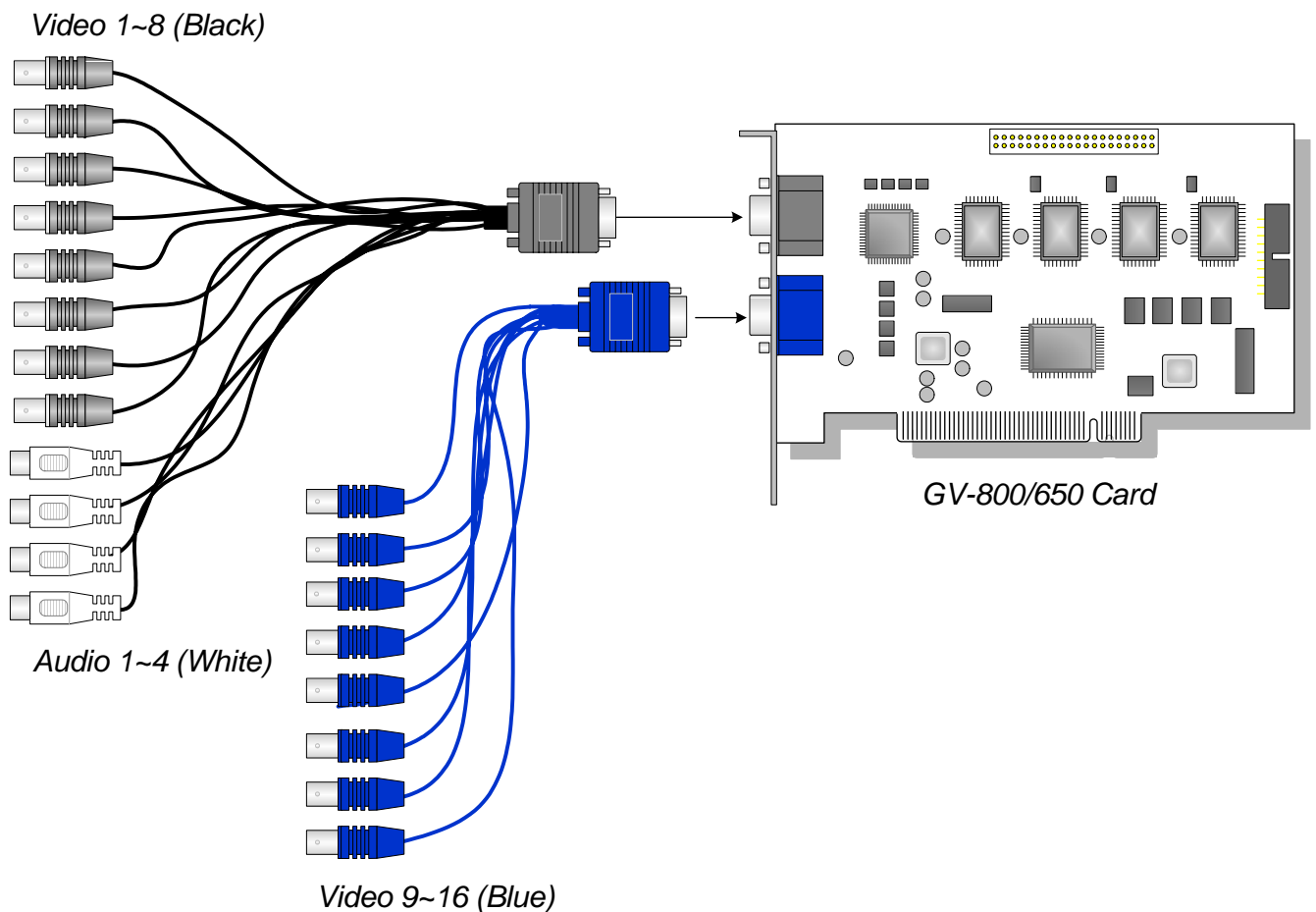


Figure 1-2 D-type GV-650 or GV-800 Card connections

For the BNC-type video capture card, plug the Audio Extension Card into No. 1 or No. 2 connector on the GV-650/800 Card, as illustrated below. Both connectors are okay for connection.

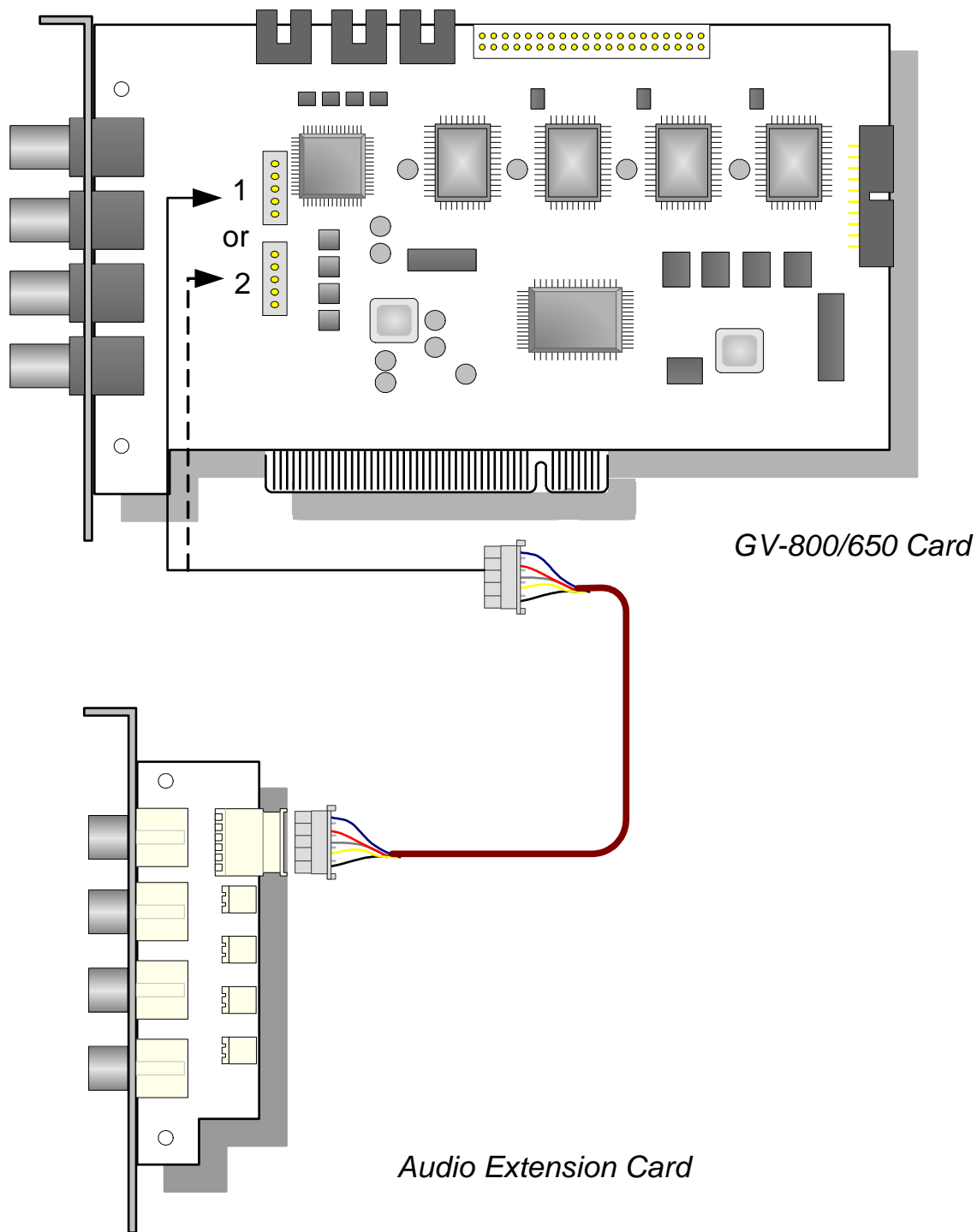


Figure 1-3 BNC-type GV-650 or GV-800 Card connections

Specifications

		GV-650	GV-800
Input Type	BNC	BNC x 4	
	D-type	DB15 x 2	
Video Input		4, 8, 12, 16 Cams	
Audio Input		2 Channels	4 Channels
Recording Rate	NTSC	60 fps	120 fps
	PAL	50 fps	100 fps
Display Rate	NTSC	60 fps	120 fps
	PAL	50 fps	100 fps
Video Resolution	NTSC	720 x 480, 720 x 480 De-interlace, 720 x 240, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240	
	PAL	720 x 576, 720 x 576 De-interlace, 720 x 288, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240	
Compression Format		Wavelet, MPEG-4, Geo MPEG4, Geo MPEG4 (ASP), Geo H.264	
GV-DSP Card Support		Yes	
GV-A16 Support		Yes	
GV-NET/IO Card Support		Yes	
Dimensions (W x H)	BNC	175 mm x 98 mm	
	D-type	175 mm x 98 mm	

1.3 GV-600

There are two types of GV-600 Cards: BNC and D-type. BNC type only provides four video channels; video and audio extension cards are required for extension. D-type can provide up to 16 video channels and one audio channel together.

Minimum System Requirements

OS	Windows 2000 / Windows XP / Windows Server 2003
CPU	Pentium 4-2.0 GHz
RAM	256 MB DDR SDRAM
HDD	80 GB
VGA	NVIDIA GeForce 2 MX200 32 MB (Recommended)
DirectX	9.0 or above

Note: Currently GV-Video Capture Cards are not compatible with VIA- series chipset motherboards.

Packing List

- | | |
|---|-------------------------------------|
| ❶ GV-600 Card x 1 | ❹ Hardware Watchdog Jumper Wire x 1 |
| ❷ Audio Extension Card x 1 ** | ❺ Software CD x 1 |
| ❸ 1-8 Cams with 4-Port Audio D-Type Cable x 1 | ❻ Feature Guide x 1 |
| ❹ 9-16 Cams D-Type Cable x 1 * | ❼ Installation Guide x1 |
| ❺ BNC Video Extension Card ***
(Quantity depends on model purchased) | |

* Supplied with 10-16 Cams D-Type Video Capture Card

** Supplied with BNC Video Capture Card

*** Supplied with 6-16 Cams BNC Video Capture Card

Connections

For the D-type video capture card, plug the black video/audio cable into the black connector on the GV-600 Card; the blue video cable into the blue connector, as illustrated below.

Note: The GV-600 Card only supports one audio channel so that only one audio port can work in the supplied 1-8 Cams with 4-Port Audio D-Type cable.

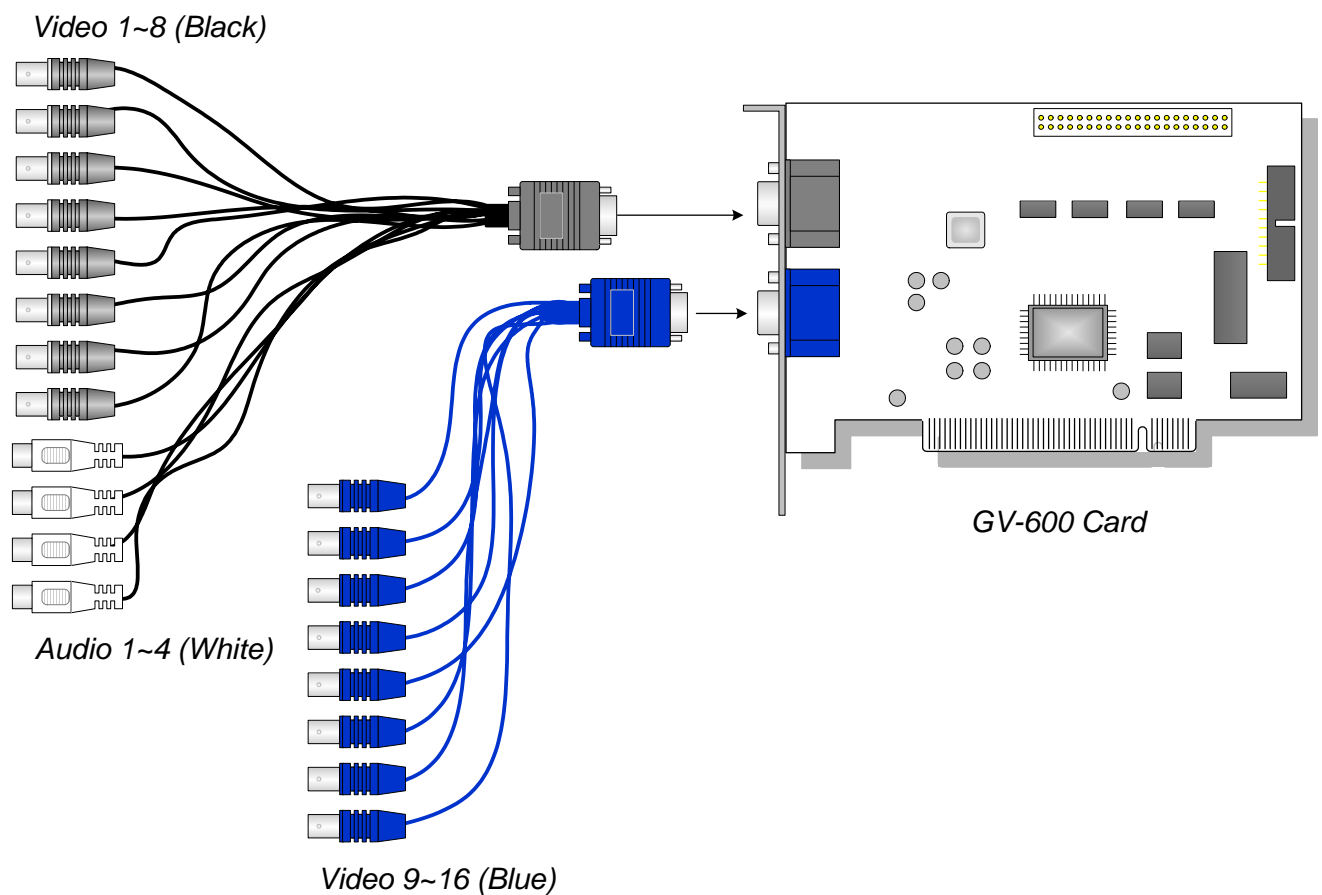


Figure 1-4 D-type GV-600 Card connections

For the BNC-Type video capture card, plug the Audio Extension Card into No. 1 or No. 2 connector on the GV-600 Card, as illustrated below. Both connectors are okay for connection.

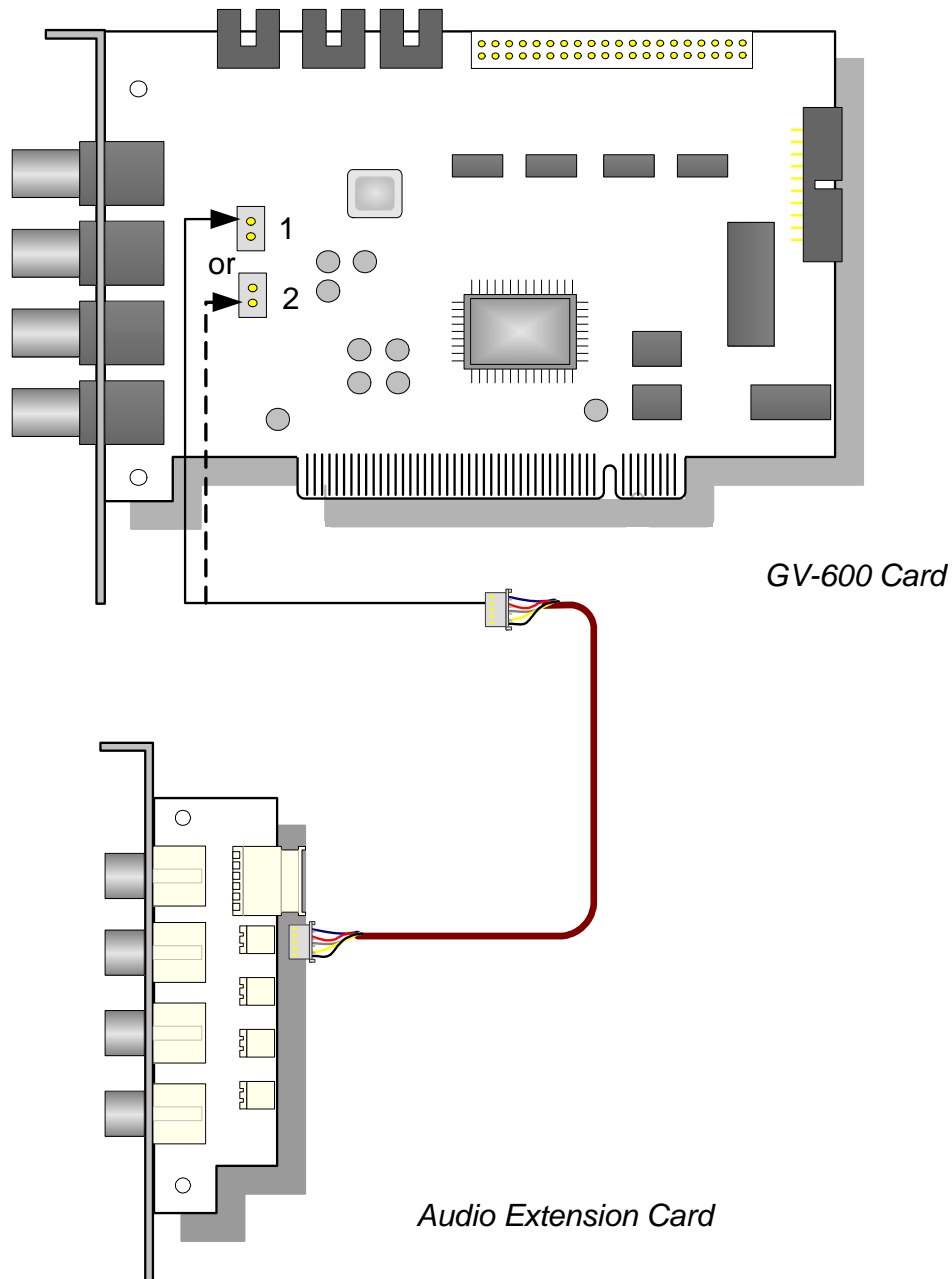


Figure 1-5 BNC-type GV-600 Card connections

Specifications

GV-600		
Input Type		GV-600 BNC: BNC x 4
		GV-600 D-type: DB15 x 2
Video Input		4, 6, 8, 10, 12, 14, 16 Cams
Audio Input		1 Channel
Recording Rate	NTSC	30 fps
	PAL	25 fps
Display Rate	NTSC	30 fps
	PAL	25 fps
Video Resolution	NTSC	720 x 480, 720 x 480 De-interlace, 720 x 240, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240
	PAL	720 x 576, 720 x 576 De-interlace, 720 x 288, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240
Compression Format		Wavelet, MPEG-4, Geo MPEG4, Geo MPEG4 (ASP), Geo H.264
GV-DSP Card Support		Yes
GV-A16 Support		Yes
GV-NET/IO Card Support		Yes
Dimensions (W x H)	BNC	145 mm x 97 mm
	D-type	145 mm x 97 mm

1.4 GV-250

There are two types of GV-250 Cards: BNC and D-type. BNC type only provides four video channels; video and audio extension cards are required for extension. D-type can provide up to 16 video channels and one audio channel together.

Minimum System Requirements

OS	Windows 2000 / Windows XP / Windows Server 2003
CPU	Pentium 4-2.0 GHz
RAM	256 MB DDR SDRAM
HDD	80 GB
VGA	NVIDIA GeForce 2 MX200 32 MB (Recommended)
DirectX	9.0 or above

Note: Currently GV-Video Capture Cards are not compatible with VIA- series chipset motherboards.

Packing List

- | | |
|---|-------------------------------------|
| ❶ GV-250 Card x 1 | ❹ Hardware Watchdog Jumper Wire x 1 |
| ❷ Audio Extension Card x 1 ** | ❺ Software CD x 1 |
| ❸ 1-8 Cams with 4-Port Audio D-Type Cable x 1 | ❻ Feature Guide x 1 |
| ❹ 9-16 Cams D-Type Cable x 1 * | ❼ Installation Guide x1 |
| ❺ BNC Video Extension Card ***
(Quantity depends on model purchased) | |

* Supplied with 12-16 Cams D-Type Video Capture Card

** Supplied with BNC Video Capture Card

*** Supplied with 6-16 Cams BNC Video Capture Card

Connections

For the D-type video capture card, plug the black video/audio cable into the black connector on the GV-250 Card; the blue video cable into the blue connector, as illustrated below.

Note: The GV-250 Card only supports one audio channel so that only one audio port can work in the supplied 1-8 Cams with 4-Port Audio D-Type cable.

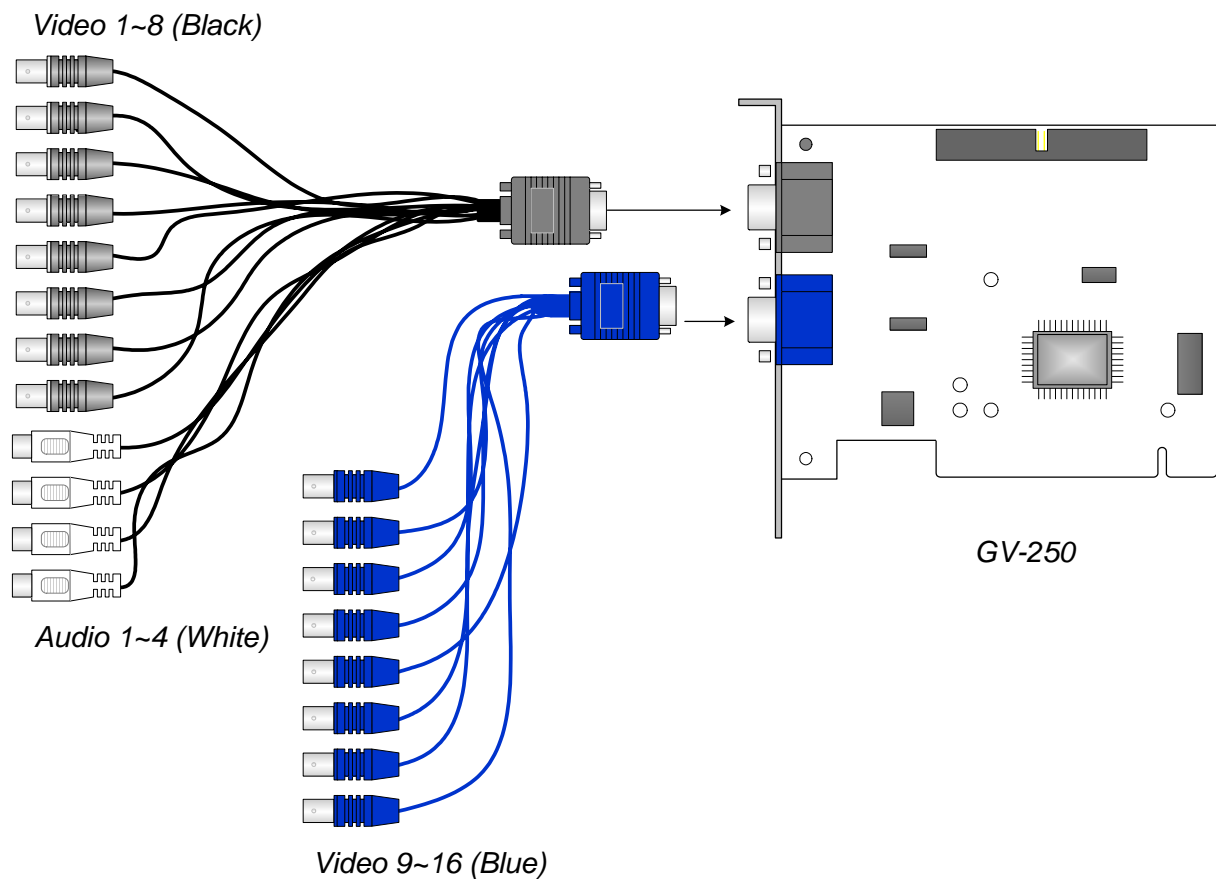


Figure1- 6 D-type GV-250 Card connections

For the BNC-type video capture card, plug the Audio Extension Card into the connector on the GV-250 Card, as illustrated below.

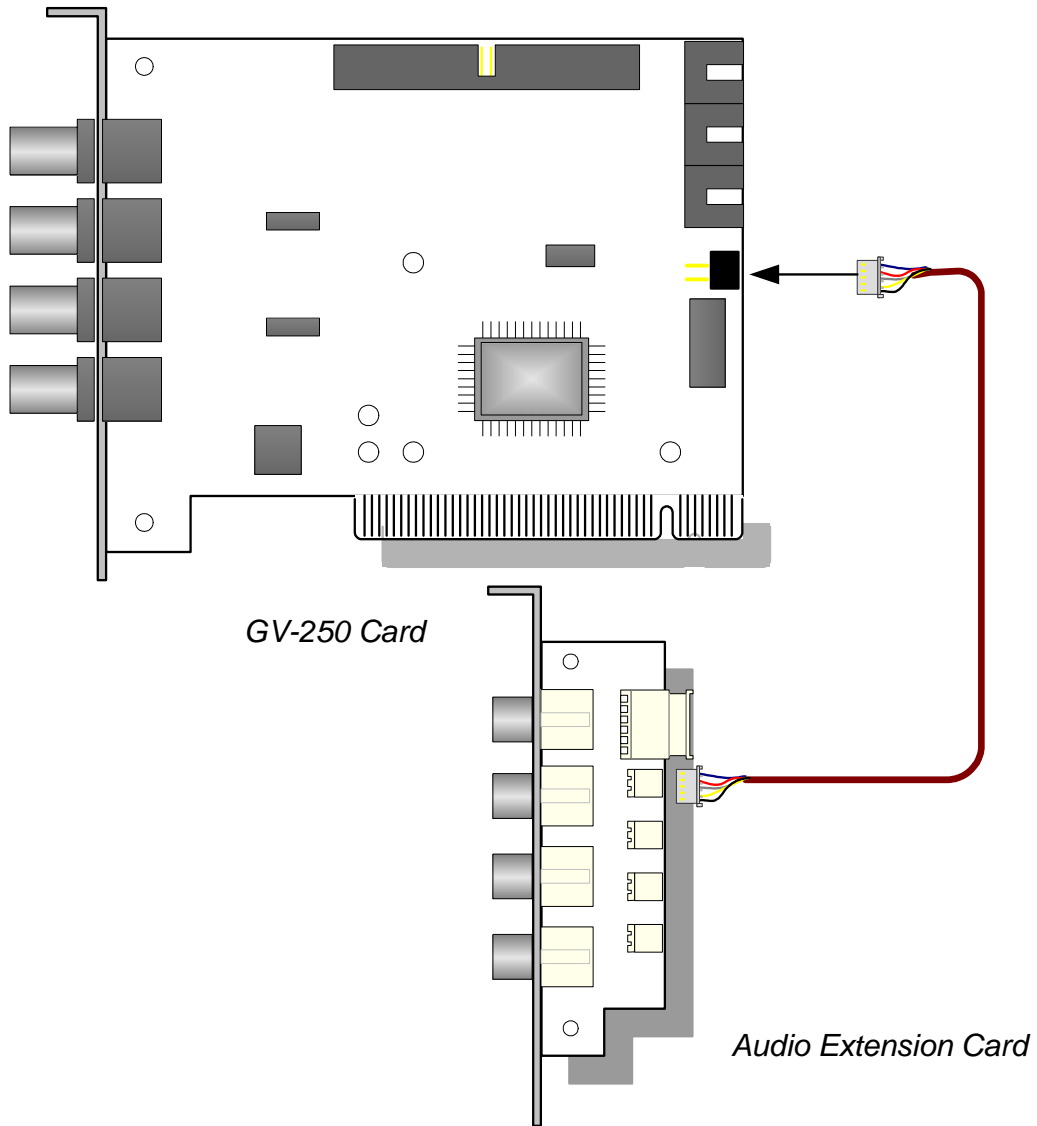


Figure 1-7 BNC-type GV-250 Card connections

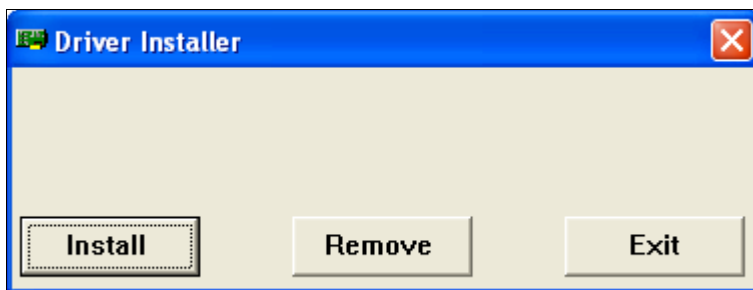
Specifications

GV-250		
Input Type		GV-250 BNC: BNC x 4
		GV-250 D-type: DB15 x 2
Video Input		1, 2, 4, 6, 8, 12, 16 Cams
Audio Input		1 Channel
Recording Rate	NTSC	15 fps
	PAL	12 fps
Display Rate	NTSC	15 fps
	PAL	12 fps
Video Resolution	NTSC	720 x 480, 720 x 480 De-interlace, 720 x 240, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240
	PAL	720 x 576, 720 x 576 De-interlace, 720 x 288, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240
Compression Format		Wavelet, MPEG-4, Geo MPEG4, Geo MPEG4 (ASP), Geo H.264
GV-DSP Card Support		Yes
GV-A16 Support		No
GV-NET/IO Card Support		No
Dimensions (W x H)	BNC	120 mm x 95 mm
	D-type	125 mm x 87 mm

1.5 Installing Drivers

After you install the GV-Video Capture Card on the computer, the Found New Hardware Wizard will automatically detect the device. Ignore the wizard and follow these steps to install drivers:

1. Insert the software CD. It will run automatically and pop up a window.
2. Select **Install or Remove GV-Series Driver**, and then click **Install or Remove GV-Series Cards Driver**. This displays this dialog box.



3. Click **Install** to install the drivers. When the installation is complete, this message will appear: *Install Successfully*.
4. Click **Exit** to close the dialog box.

Note: In Windows XP, the wizard will disappear after installation. In Windows 2000, close the wizard manually.

To verify the drivers are installed correctly, go to Device Manager and see if the following entries are listed.

Expand the **Sound, video and game controller** field, you can see:

Model	Entry
GV-250	GV250 Audio GV250 Video Capture
GV-600-4	GV600_4 or GV604(S) Video Capture # A GV600_4 or GV604(S) Audio # A
GV-600	GV600V2, GV600V3 or GV600(S) Audio # A GV600V2 ,GV600V3 or GV600(S) Video Capture # A
GV-650	GV650, GV650V3 or GV650(S) Audio # A - # B GV650, GV650V3 or GV650(S) Video Capture # A - # B
GV-800-4	GV800_4 or GV804(S) Video Capture # A - # D GV800_4 or GV804(S) Audio # A - # D
GV-800	GV800V2, GV800V3 or GV800(S) Audio # A - # D GV800V2, GV800V3 or GV800(S) Video Capture # A - # D

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

Model	Entry
GV-1120	GV1480 Series
GV-1240	GV1480 Series
GV-1480	GV1480 Series

1.6 Connecting Hardware Watchdog

To reboot the computer by the hardware watchdog on the GV-Video Capture Card, a connection needs to be made from the card to the motherboard.

1. Using the supplied jumper wire, connect the reset jumper pins on the card and on the motherboard.

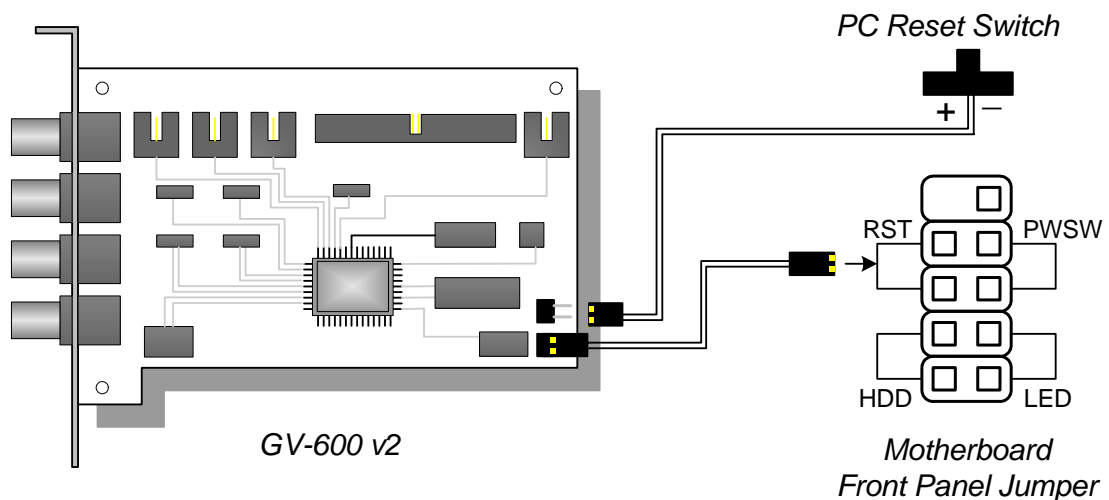


Figure 1-8 Watchdog connections

2. If the computer has a reset switch, the switch's jumper wire should already be connected to the motherboard's reset jumper pins. Remove the switch wire from the motherboard and connect it to the reset jumper pins on the card.

1.7 Comparison Chart

		GV-250	GV-600	GV-650
Input Type		BNC / D-Type	BNC / D-Type	BNC / D-Type
Video Input		1, 2, 4, 6, 8, 12, 16	4, 6, 8, 10, 12, 14, 16	4, 8, 12, 16
Total Recording Rate	NTSC	15 fps	30 fps	60 fps
	PAL	12 fps	25 fps	50 fps
Display Rate	NTSC	15 fps	30 fps	60 fps
	PAL	12 fps	25 fps	50 fps
Video Codec		Wavelet, MPEG-4, Geo MPEG4, Geo MPEG4 (ASP), Geo H.264		
Video Resolution	NTSC	720 x 480, 720 x 480 De-interlace, 720 x 240, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240		
	PAL	720 x 576, 720 x 576 De-interlace, 720 x 288, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240		
Audio Input		1	1	2
Audio Codec		ADPCM 8KHz 4 bit Mono		
GV-DSP Support		○	○	○
GV-A16 Support		✗	○	○
GV-Hybrid DVR Card Support		✗	○	○
GV-NET/IO Card Support		✗	○	○
GV-I/O 12-In Card Support		✗	○	○
GV-I/O 12-Out Card Support		✗	○	○
GV-I/O Support		○	○	○
Hardware Watchdog		✗	○	○
Minimum System Requirements				
OS		Windows 2000 / Windows XP / Windows Server 2003		
Direct X		9.0 or above		
CPU		Pentium 4 - 2.0 GHz		
RAM		256MB DDR SDRAM		
HDD		80 GB		
VGA		NVIDIA GeForce 2 MX200 32MB		
Note:				
1. Currently GV-series video capture cards are not compatible with VIA-series chipset motherboards.				
2. For recording resolution of 640 x 480 or above, Pentium 4 processor with Hyper Threading is required.				

GV-800	GV-1120	GV-1240	GV-1480
BNC / D-Type	D-Type	D-Type	D-Type
4, 8, 12, 16	8, 12, 16	8, 16	16
120 fps	120 fps	240 fps	480 fps
100 fps	100 fps	200 fps	400 fps
120 fps	480 fps	480 fps	480 fps
100 fps	400 fps	400 fps	400 fps
Wavelet, MPEG-4, Geo MPEG4, Geo MPEG4 (ASP), Geo H.264			
720 x 480, 720 x 480 De-interlace, 720 x 240, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240			
720 x 576, 720 x 576 De-interlace, 720 x 288, 640 x 480, 640 x 480 De-interlace, 640 x 240, 320 x 240			
4	8, 12, 16	8, 16	16
ADPCM 8Khz 4 bit Mono			
○	✗	✗	✗
○	✗	✗	✗
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
○	○	○	○
Minimum System Requirements			
Windows 2000 / Windows XP / Windows Server 2003			
9.0 or above			
Pentium 4 - 2.0 GHz	Pentium 4 - 2.4C GHz	Pentium 4 - 2.6C GHz	Pentium 4 - 2.8C GHz
256MB DDR SDRAM	2 x 256MB Dual DDR400 SDRAM		
80 GB		120 GB	250 GB
NVIDIA GeForce 2 MX200 32MB	ATI Radeon 9550 or above (Recommended)		

