GV-3D1-7950-RH

GeForce[™] 7950 GX2 Graphics Accelerator

User's Manual

Rev. 102 12MD-3D17950R-102R



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Notice

Please do not remove any labels on VGA card, this may void the warranty of this VGA card

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1. Introduction

1.1. Features

- Powered by NVIDIA[®] GeForce[™] 7950 GX2 Graphics Processing Unit (GPU)
- Supports the newest PCI Express x 16
- Integrated with 1GB DDRIII memory
- Supports DirectX 9.0c
- Supports NVIDIA[®] SLI[™] (Scalable Link Interface) technology ^(Note)
- Supports AV / S-Video and HDTV output
- Supports D-sub connector (by adapter)
- Supports 2 DVI-I connectors

1.2. Minimum system requirements

- IBM[®] or 100% PC compatible with Pentium[®] III 650MHz or AMD Athlon 650MHz class processor or higher
- One PCI Express x 16 slot
- Operating Systems Win[®] 2000 / Win[®] XP
- 64MB system memory
- 50MB of available disk space for full installation
- CD-ROM or DVD-ROM drive
- Minimum power supply 350W

(A power supply of 550 watt or above is recommended for an SLI system with the graphics cards.)

(Note): SLI technology requires a PCI Express motherboard with two x16 physical connectors. Graphics cards working in an SLI configuration must be with the same model name (i.e. GV-3D1-7950-RH) and from the same vendor (i.e. GIGABYTE TECHNOLOGY).



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Expansion cards contain very delicate Integrated Circuit (IC) chips. To protect them against damage from static electricity, you should follow some precautions whenever you work on your computer.

- 1. Turn off your computer and unplug power supply.
- Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case.
- 3. Place components on a grounded antistatic pad or on the bag that came with the components whenever the components are separated from the system.

The card contains sensitive electric components, which can be easily damaged by static electricity, so the card should be left in its original packing until it is installed.

Unpacking and installation should be done on a grounded anti-static mat. The operator should be wearing an anti-static wristband, grounded at the same point as the anti-static mat.

Inspect the card carton for obvious damage. Shipping and handling may cause damage to your card. Be sure there are no shipping and handling damages on the card before proceeding.

Set DO NOT APPLY POWER TO YOUR SYSTEM IF IT HAS BEEN DAMAGED ON THE CARD.

2.2. Hardware installation

Installing Your graphics card.

Now that you have prepared your computer, you are ready to install your graphics accelerator card.

To remove the existing graphics card:

- Power off the computer and monitor, then disconnect the display cable from the back of your computer.
- 2. Remove the computer cover. If necessary, consult your computer's manual for help in removing the cover.
- 3. Remove any existing graphics card from your computer.

Or, if your computer has any on-board graphics capability, you may need to disable it on the motherboard. For more information, please see your computer documentation.

To install your new graphics card:

 Locate two PCI Express x 16 slots. If necessary, remove the metal covers from the slots; then align your graphics card with the PCI Express x 16 slots, and press it in firmly until the card is fully seated.









* Please make sure that the gold edge connectors of the graphics card is securely inserted.

2. Replace the screw to fasten the card in place, and replace the computer cover.







After installing the GV-3D1-7950-RH to your computer, please remember to connect at lease one power cable on the graphics card to the power supply connector.

We suggest you to connect both of the two power cables on the graphics card to the power supply to achieve optimal graphics performance.

 Plug the display cable into your graphics card; then turn on the computer and monitor. To connect a flat panel directly to your graphics card, use the DVI-I connector. To connect a VGA monitor to the DVI-I connector, plug the DVI-I to D-sub adapter into the DVI-I connector, then plug the monitor cable into the adapter.



Connect a flat panel



To TV / VCR



Connect a VGA monitor via DVI-I to D-sub adapter

You are now ready to proceed with the installation of the graphics card driver. Please refer to next chapter for detailed instructions.

GIGABYTE Component Video Adapter for Nvidia Graphics Cards (HDTV Cable)



Connect to the TV-Out port on the graphics card.

(1) Connecting HDTV Connect your HDTV cables to the component video

adapter according to the corresponding color. (Y= Green, Pr= Red, Pb= Blue)



(2) Connecting S-Video If your TV has a S-Video connection, connect the S-

Video cable from your TV to the S-Video Out port on the adapter.



(3) Connecting AV Output If your TV has a Composite video connection, you can connect the RCA cable from your TV to the AV Out port on the adapter.



How NVIDIA[®] SLI[™] (Scalable Link Interface) technology works:

In an SLI configuration, two SLI-ready graphics cards of the same model and the same manufacturers are connected together via SLI bridge connector in a system that provides two x 16 PCI Express slots to scale graphics performance. The picture below shows that two graphics cards are linked in parallel in an SLI configuration.



3. Software Installation

In this manual, we assume that your CD-ROM Drive letter to be Drive D:

The installation of Windows[®] 2000 / Windows[®] XP drivers is very simple. When you insert the driver CD into your CD-ROM drive, you can see the AUTORUN window (if it does not show up, run "D:\setup.exe"). Then you can follow the guides to setup your graphics card driver. (Please follow the subsection 3.1.3 "Driver installation" to install the driver for your graphics accelerator.)

3.1. Windows® XP driver and utilities installation

3.1.1. Operating system requirement

- When loading the graphics card drivers for the system, please make sure your system has installed DirectX 9.0C or later version.
- If you install the graphics card drivers for the motherboard, which consist of SIS or VIA chipsets, please install the appropriate driver program for that motherboard. Or please contact your motherboard nearest dealer for motherboard driver.

3.1.2. DirectX installation

Install Microsoft DirectX to enable 3D hardware acceleration support for Windows[®] 2000 or Windows[®] XP to achieve better 3D performance.

Note: For software MPEG support in Windows[®] 2000 or Windows[®] XP, you must install DirectX first. Users who run Windows XP with Service Pack 2 or above do not need to install DirectX separately.



Step 1. When autorun window show up, click the **Install DirectX 9** item.



Step 2. Choose I accept the agreement and click the "Next" button.





- ng Microsoft(R) DirectX(R) ess sase wait while Setup completes the following actions. Installing Component Searching for updated DirectX Runtime Components and updating as necessary. This may take a few minutes... Copying files. dwipes.dl

Step 3. Click the "Next" button.



Installing the components.



Step 4. Click "Finish" to restart computer. Then the DirectX 9 installation is completed.

3.1.3. Driver installation

A. New hardware found

After the graphics card is inserted into your computer at the first time, the windows will automatically detect a new hardware in the system and pop out a "New Hardware Found" message. The following is the step-by-step installation guide.

Step 1: Found new hardware wizard: Video controller (VGA Compatible)



Step 2: Found new hardware wizard: Searching and installing

The wizard will search for the driver and install it automatically.

Found New Hardware Wizard	
Please wait while the wizard searches	Þ
🚱 Video Controller (VSA Compatible)	
3	
(Back Next) Cancel	



Step 3: Found new hardware wizard: Finish

Click the "Finish" button to finish the installation.



B. Driver installation (Autorun Window)

Insert the driver CD disk into your CD-ROM, and then you can see the AUTORUN window. If it does not show up, please run "D:\setup.exe".



Step 1. When autorun window show up, click **Display Driver** item.



Step 3. Click "Next" button.



Step 2. When autorun window show up, click **Install Display Driver** item.



Windows installings the components.



Step 4. Click "Finish" button to restart computer. Then the driver installation is completed.

After installation of the display drivers, you will find a NVIDIA icon **a** on the taskbar's status area. Click this icon to open the control panel.



Right click the icon.



You can adjust the properties of the graphics accelerator from here.

3.1.4. Display properties pages

To access Display Properties pages, right-click the GIGABYTE icon on the taskbar and select **Display Properties** or right-click on Desktop and then select **Properties**. The **Display Properties** dialog box shows the information of display adapter, color, the range of display area, and the refresh rate.

Settings (Resolutions and Color depth for Windows)

You may adjust the screen resolution and color quality settings in this dialog box.



GeForce 7950 GX2 properties

After pressing the "Advanced" button in **Settings**, you'll see the **Plug and Play Monitor and NVIDIA GeForce 7950 GX2 Properties** dialog box. Click the **GeForce 7950 GX2** tab. (You can also click the Nvidia icon on the taskbar and select **Nvidia Display** to access the GeForce 7950 GX2 properties page.)



 This page shows the Adapter, System and Driver version information.

You can select other properties from the pop-out menu.

Screen Adjustment Settings properties



Click the arrow icons on the desktop image to adjust the screen to the desired position.

Display Mode Timing Settings properties

ug and Play M	onitor and NV	IDIA GeForce 7	950 GX2 ?
General	Adapter	Monitor	Troubleshoot
Color Man	agemerk	💁 GeFi	orce 7950 GX2
Select the display formats and starn @ Auto-detect @ General Tim @ Discrete Mc @ Coordinatec	y mode timing for y dards below: IWindows determi ing Formula (GTF) nitor Timing (DMT Video Timing (CV	our display based of nes The proper more) T) Standard	EVIDIA.
Fixed aspec Enable goul	t ratio timing descan for lower o	esolution modes	cel Apply

- Click to select your display's timing mode: Auto-Detect is the "default" setting; it allows Windows to receive the proper timing information directly from the display itself. Note: Some older monitors may not support this feature.
 - General Timing Formula (GTF) is a standard used by most new displays.
 - Discrete Monitor Timing (DMT) is an older standard still in use on some displays. Enable this option if your display requires DMT.
 - Coordinated Video Timing Standard (CVT) became the VESA standard on March 2003. CVT supports higher resolutions better than other timing standards.
 - Fixed aspect ratio timing forces the displayed image to retain the aspect ratio of the mode rather than aspect ratio of the display.

Note: The driver may place black borders around the displayed image, as needed.

Performance and Quality Settings properties

lug and Play A	lonitor and NV	IDIA GeForce	7950 GX 2 ?
General	Adapter	Monitor	Troubleshoot
Color Mar	agement	💁 Gef	orce 7950 GX2
Application pro Application: Using global d	illes	Active profile:	WIDIA.
Global driver s	Add M ettings Basic settings	iohie	Hestore
Antieliasing s Antieliasing s Anisotropic fi Image setting Vertical surce	ettings Rering 35	Applica Applica Quality Applica	tion-controlled
Antialiasing set	tings: 2x -controlled	20 4	« 8./5
		OK Ca	ncel Apply

SLI multi-GPU



- The sliders lets to decide whether your application should use quality or high performance texture.
 - Application profiles: Select the application profile from the list of profiles.
 - Global driver settings: Select the Settings item and move the slider below to set the degree of antialiasing to used in Direct3D and OpenGL applications.
 - Antialiasing settings value: allows to set the degree of the Global Driver Settings.
 - To enable SLI mode, select the Enable SLI multi-GPU check box and click Apply after installation of two GV-3D1-7950-RH graphics cards on an SLI-capable motherboard. Then restart your system when prompted.



Only Windows XP operating system supports the SLI mode. Please do not enable SLI multi-GPU in Windows 2000.

Color Correction properties



The Color Correction Properties is used to compensate for variations in luminance between a source image and its output on a display device. Adjust the color correction settings to provide more accurate color reproduction of images (such as photographs) on your display device. Also, many 3Daccelerated games may appear too dark to play. Increasing the brightness and/or the gamma value equally across all channels makes these games appear brighter and more playable.

Video Overlay Settings properties



The Video Overlay Settings Properties can adjust Overlay zoom controls and Overlay color controls. There is only one video overlay, which is only available on the Primary display. The video overlay controls are automatically activated during playback of any video file type that supports overlay adjustments. The "Adjust Colors" button will access "Color Correction" properties page.

Tools properties

General	Adapter	Monitor	Troubleshoo
Color M.	anagement	<u>@</u> 0	eForce 7950 GX2
	1		WIDIA.
Shortcut tool Ene feel V	bling these options v ures. Enable taskbar joon Enable desktop cont	vill give you qui ext <u>m</u> enu	sk access to NVIDIA
Display optim Bur opti	ication I the Display Optimiz mal viewing and repr	ation Wizard to esentation of c	adjust your display(s) slors.
Display optim Bur opti	ication 1 the Display Optimiz mal viewing and repr	ation Wizard to esentation of c Display Op	adjust your display(s) alors. timization Wizard
Foubleshool	in the Display Optimiz mail viewing and reput ing xx have a TV conne- check box below. Force TV detection	ation Wizard to esentation of o <u>Display Op</u> cted and it is no	adjust your display(s) alors. timization Wizard t being detected, sele

- The NVIDIA settings taskbar utility lets you conveniently access various features and presets you've configured in the Display Properties directly from the Windows taskbar.
 - Shortcut tools
 The Desktop Manager provides enhanced nView multidisplay functionality and helps you organize your applications for use with multiple displays and desktops.
 - Display optimization Run the Display Optimization Wizard to adjust your display(s) for optimal viewing and representation of colors.
 - Troubleshooting This option can be used to force detection of an attached TV set which does not report its presence to the graphics card.

Cardices () Seges (date) Cardices () Seges (date) Cardices () Seges (date) O Cardices () Seges (date) O Point () Seges (date) O mentel (selace) () Seges (date)	General Adapter	Monitor	Troubleshoot
	Color Management	💁 GeFa	rce 7950 GX2
Cardicase D degree rotation O Partial D degree rotation O Partial D degree rotation O mentel androace D degree rotation			WVIDIA.
Eardscape (0 degree rotation) Pottati (90 degree rotation) Invented landscape (180 degree rotation) Invented landscape (180 degree rotation)	<u> </u>		¥
Portrait (90 degree rotation) Inverted landscape (180 degree rotation) Inverted landscape (180 degree rotation)	 Landscape (0 degree rotati 	onj	
 Invested landscape (180 degree rotation) Invested andscape (220 degree rotation) 	O Portrait (90 degree rotation)		
	 Inverted landscape (180 de Inverted contrait (270 decret) 	egree rotation) e rotation)	
			Defaults

- NV Rotate properties
- The NV Rotate Properties is used to rotate the screen. If your monitor is capable of operating in either Landscape or Portrait mode, you can adjust the screen by this properties.
 - Landscape (0 degree rotation)
 - Portrait (90 degree rotation)
 - Inverted landscape (180 degree rotation)
 - Inverted portrait (270 degree rotation)

Screen Resolutions & Refresh Rates properties



The Screen Resolutions & Refresh Rates Properties allows you to adjust the screen resolution, color quality and monitor settings (screen refresh rates). Or you can customize resolutions and refresh rates.

Menu Editing properties

Plug and Play A	lonitor and NV	IDIA GeForce	7950 GX2 ? 🔀	
General	Adapter	Monitor	Troubleshoot	
Color Mar	nagement	🕺 GeF	Force 7950 GX2	
2			WIDIA.	
i o begin menu i	earing, select the	LDable menu editi	ng check box.	
To remove infre- display menu to back to the NVI	quently used menu the list below. To re DIA menu, or click I	items, drag each it istore menu items, Restore Defaults	tem from the NVIDIA individually drag them	
To return to norr	nal navigation mode	e, clear the "Egabl	le menu editing'' check	
Enable menu	editing			
(No screens have been removed from the screen merval)				
		<u>R</u> estore	Defaults	
		DK Ca	ncel Apply	

The Menu Editing Properties can remove infrequently used screens by dragging them from the screen menu to the list below. Restore screens to the menu by dragging them individually, or click Restore Defaults.

To begin, select the **Enable menu editing** check box. To return to normal navigation mode, do not select the check box.

Control Panel User Interface properties



- Select the user interface you wish to use:
 - Classic NVIDIA Control Panel
 - New NVIDIA Control Panel

3.1.5. nView properties pages

nView is a set of desktop tools designed to help you be more productive when using your graphics card. With **nView** you can set up multiple desktops to work with your applications. Multiple desktops give you extra desktop areas on which to run your applications so you won't have to crowd several open application windows on one desktop.

Enable the nView Desktop Manager features:

Right-click on desktop and choose Properties>Settings>Advanced>GeForce 7950 GX2> Desktop Management



Click the "Enable" button to turn on all the nView Desktop Manager features.

Access nView properties page:

To access the **nView** properties page, you can click the NVIDIA icon an on the taskbar and select **nView Properties** under **nView Destop Manager** (Method A). Or right-click on Desktop, select Properties>Settings>Advanced>GeForce 7950 GX2. Double-click **Desktop Management** item on the pop-up menu (Method B).

Method A:

Method B:



Click the item to start nView Properties.

Double-click Desktop Management to see more nView properties.

nView Desktop Management properties

🛎 nView Desktop Manager 📀 👔
User Interface Effects Zoom Hot Keys Mouse Tools
Desktop Management Profiles Windows Applications Desktops
12 Vîew"
riview Desktop Manager
To turn off all the riView Desktop Manager features, click Disable.
Disable
crit/iew Deskton Manager wizard
To easily set up commonly used Desktop Manager features, click Setup Wizard.
Setup Wizard
Diselectorette
To view or modify display properties not specific to Desktop Manager, click Properties or Display Wizard.
Properties Display Wigard
Abox
DK Cancel Apply

This tab contains information about the nView Desktop Manager. The setup wizard can also be accessed from this tab.

nView Profiles properties



 This tab contains a record all nView display settings for easy software setup.

nView Windows properties



This tab allows you to control window and dialog box placement when using multiple monitors.

nView Applications properties



This tab allows you to control nView settings depending different applications.

nView Desktops properties



■ This tab allows you to create up to 32 unique desktops.

nView User Interface properties



■ This tab allows for customization of the nView user interface.

nView Effects properties



This tab provides special windows effects that you can apply to your applications.

nView Zoom properties



 This tab provides dynamic zoom functionality on the desktop. Also enables full screen video playback via the video mirroring control button.

nView Hot Keys properties



 This tab lets you perform various actions with shortcut keys or key combinations.

nView Mouse properties



nView Tools properties

Desktop Manage	ment Pro	ile: V	Vindows 7	Applications	Desktop
User Interface	Effects	Zoom	Hot Kes	e Mous	e Took
	1			@ #V11	DIA.
NVKeyslone	Seystone dis	play com	schion		
Use the H	lot Key page	e gotion in e to set up	a NVKeysto	ne hot key.	u
Display calibrat	ion				
To use a calib click Calibratio	ation screen n Screen. Ti	n when au o exit the	to-adjusting screen, pres	your flat par s Esc or the	nel display. Spacebar.
To use a calib click Calibratio	alion screer n Screen. Ti	n when au o exit the	ito-adjusting screen, pres	your flat par s Esc or the Calibration S	nel display. Spacebar. Screen
To use a calib click Calibratio Windows utilitie	alion screer n Screen. Tr	n when au o exit the	to-adjusting screen, pres	your flat par s Esc or the Calibration S	iel display. Spacebar Screen
To use a calib click Calibratio Windows utilitie To move your Move to Displ	ation screen. Ti n Screen. Ti s Windows ic sy.	n when all o exit the	askbar to a s	pour flet par s Esc or the <u>Calibration</u> S pecific displ	nel display, Spacebar, Screen lay, click isplay

This tab can modify and extend mouse behavior with kinematic actions.

 This tab can improve nView functionality for mobile and desktop users.

3.2. Windows[®] 2000 driver installation

With Windows running on your computer, you need to install the graphics card driver to take advantage of the higher performance, resolutions, and special graphics features of the graphics card. To ensure you install the latest driver, insert the Installation CD that shipped with your graphics card.

To install the graphics card driver for Windows[®] 2000, please insert the Installation CD. Then the AUTORUN window will show up. Click **Install Display Driver** item, and follow the wizard to install the driver.

If Windows® does not show the CD automatically, please run following steps:

- 1. Click the Start button on the control bar.
- 2. Select Run.
- 3. Type the following: D:\SETUP.exe

(If D is not your CD-ROM drive, substitute D with the correct drive letter.)

- 4. Click "OK".
- 5. Click on "Install Display Drivers" to begin the Installation Wizard.
- 6. Click "Next".
- 7. Click "Yes" to the license agreement.
- 8. Follow the Wizard's on-screen instructions to complete the installation.



Please make sure the Windows[®] 2000 have installed Windows[®] 2000 Service Pack (or later) before installing the graphics accelerator driver.

4. Troubleshooting Tips

The following troubleshooting tips may help if you experience problems. Contact your dealer or GBT for more advanced troubleshooting information.

- Check that the card is seated properly in the PCI Express x 16 slot.
- Ensure that the display cable is securely fastened to the card's display connector.
- Make sure that the monitor and computer are plugged in and receiving power.
- If necessary, disable any built-in graphics capabilities on your motherboard. For more information, consult your computer's manual or manufacturer. (NOTE: Some manufacturers do not allow the built-in graphics to be disabled or
 - to become the secondary display.)
- Make sure you selected the appropriate display device and graphics card when you installed the graphics driver.
- Restart your computer. Press the F8 key on your keyboard after system starts up. When the Windows Advanced Options Menu appears, select Safe Mode and press Enter. After getting into Safe Mode, in Device Manager check whether the driver for the graphics card is correct.
- For more assistance, use the Troubleshooting Guide located in the Windows[®]
 Help or contact your computer manufacturer.



If necessary, adjust your monitor's setting by monitor's adjust panel to make the screen looks focused, crisp, and sharp. (Please refer to the monitor's manual.)

5. Appendix

5.1. How to Reflash the BIOS

- 1. Extract the downloaded Zip file to your hard disk(s) or floppy disk. This procedure assumes drive A.
- 2. Restart the computer in MS-DOS mode. (For Windows 2000/XP, you need a startup disk to restart the computer in MS-DOS mode.)
- 3. Change the command prompt to A:\>.
- 4. To back up the current BIOS, at the A:\> prompt, type [BIOS flash utility name] -s [BIOS file name] (example: gvf11 -s nx66t128d.f1) and press Enter.
- 5. To flash BIOS, at the A:\> prompt, type [BIOS flash utility name] -p [BIOS file name] (example: gvf11 -p nx66t128d.f2) and press Enter.
- 6. Wait until it's done, then restart your computer.

5.2. Resolutions and Color Depth Table (In Windows® XP)

	231 0100		opia, eta idal a moat	
Display	Refresh	Color Depth (bpp)		
Screen	Rate	8bpp(256 color)	16bpp(65K color)	32bpp(16.7M)
Resolution	(Hz)	Standard mode	High mode	True mode
320 x 200	60~75	\checkmark	\checkmark	\checkmark
320 x 240	60~75	\checkmark	\checkmark	\checkmark
400 x 300	60~75	\checkmark	\checkmark	\checkmark
480 x 360	60~75	\checkmark	\checkmark	\checkmark
512 x 384	60~75	\checkmark	\checkmark	\checkmark
640 x 400 (16:	10) 60~75	\checkmark	\checkmark	\checkmark
640 x 480	60~240	\checkmark	\checkmark	\checkmark
720 x 480	60	\checkmark	\checkmark	\checkmark
720 x 576	50~60	\checkmark	\checkmark	\checkmark
800 x 600	60~240	\checkmark	\checkmark	\checkmark
848 x 480	60~240	\checkmark	\checkmark	\checkmark
960 x 600 (16:	10) 60~240	\checkmark	\checkmark	\checkmark
1024 x 768	60~200	\checkmark	\checkmark	\checkmark
	240	\checkmark	\checkmark	Х
1088 x 612 (16	: 9) 60~200	\checkmark	\checkmark	\checkmark
	240	\checkmark	\checkmark	Х
1152 x 864	60~170	\checkmark	\checkmark	\checkmark
	200	\checkmark	\checkmark	Х
1280 x 720 (16	:9) 60~150	\checkmark	\checkmark	\checkmark
	170	\checkmark	\checkmark	Х
1280 x 768	60~150	\checkmark	\checkmark	√
	170	\checkmark	\checkmark	x
1280 x 960	60~150	✓	✓	
1200 X 500	170	✓	√	X
1280 x 1024	60~150	•		<u>^</u>
120U X 1024	170	v	v	v
1000 700	170	v	v	<u>^</u>
1360 x /68	60~150	V	V	√
	170	✓	✓	X
1600 x 900 (16	: 9) 60~120	\checkmark	\checkmark	\checkmark
	140~150	✓	✓	Х
1600 x 1024	60~100	\checkmark	\checkmark	\checkmark
	120	\checkmark	\checkmark	Х

GeForce 7950 GX2 Single Display Standard Modes

To be continued...

Display	Refresh	Color Depth (bpp)		
Screen	Rate	8bpp(256 color)	16bpp (65K color)	32bpp (16.7M)
Resolution	(Hz)	Standard mode	High mode	True mode
1600 x 1200	60~100	\checkmark	\checkmark	\checkmark
	120	\checkmark	\checkmark	Х
1920 x 1080 (16:9)	30~85	\checkmark	\checkmark	\checkmark
	100	\checkmark	\checkmark	Х
1920 x 1200 (16:10)) 60~85	\checkmark	\checkmark	\checkmark
	100	\checkmark	\checkmark	Х
1920 x 1440	60~85	\checkmark	\checkmark	\checkmark
2048 x 1536	60~85	\checkmark	\checkmark	\checkmark

* This table is for reference only. The actual resolutions supported depend on the monitor you use.

5.3. NVIDIA GeForce 7950 GX2 - Motherboard Compatibility List

The following motherboards have been tested and passed NVIDIA's compatibility testing requirements with the GeForce 7950 GX2 graphics card. $^{(Note)}$

Manufacturer	Model	Chipset	System BIOS
ABIT	AA8-DuraMAX	Intel 925X	2.4
ABIT	AW8	Intel 955X	1.4
ABIT	AN8 SLI	NVIDIA nForce4 SLI	1.9
ABIT	KN8 SLI	NVIDIA nForce4 SLI	17
ABIT	KN9 SLI	NVIDIA nForce 570	10
Albatron	K8SLI	NVIDIA nForce4 SLI	R1.12
ASUS	A8N32-SLI Deluxe	NVIDIA nForce4 SLI	1205
ASUS	A8N5X	NVIDIA nForce4	0902
ASUS	A8N-E	NVIDIA nForce4 Ultra	1013
ASUS	A8N-SLI Deluxe	NVIDIA nForce4 SLI	1016
ASUS	A8N-SLI Premium	NVIDIA nForce4 SLI	1011.006
ASUS	A8R32-MVP Deluxe	ATI CrossFire Xpress 3200	0404
ASUS	A8V-E Deluxe	VIA K8T890/VT8237R	1005
ASUS	M2N32-SLI DELUXE	NVIDIA nForce 590	0404
ASUS	M2N-SLI DELUXE	NVIDIA nForce 570	112
ASUS	P5LD2	Intel 945P	1103
ASUS	P5LD2-VM	Intel 945G	0508
ASUS	P5ND2-SLI	NVIDIA nForce4 SLI	0304
Biostar	i945 G-M7	Intel 945G	24F
DFI	Infinity NF4 SLI	NVIDIA nForce4 SLI	2006/04/10
ECS	945P-A	Intel 945P	2.58 10/18/05
ECS	KN1 SLI Lite	NVIDIA nForce4 Ultra	1.1d
ECS	nForce4-A939	NVIDIA nForce4	1.1g
EVGA	123-K8-NF47-AX	NVIDIA nForce4 SLI	04/11/2006-NF-
			CK804-
			6A61FJ1AC-00
Foxconn	NF4SLI7AA-8EKRS2	NVIDIA nForce4 SLI Intel Ed.	537F1P34
Foxconn	C51XEM2AA-8EKRS2H	NVIDIA nForce 590	612W1P19
Gigabyte	GA-8I945P-G	Intel 945P	F5
Gigabyte	GA-81945P PRO	Intel 945P	F5
Gigabyte	GA-8N-SLI-Quad Royal	NVIDIA nForce4 SLI Intel Ed.	F5
Gigabyte	GA-K8N Pro-SLI	NVIDIA nForce4 SLI	F4
Gigabyte	GA-K8N-SLI	NVIDIA nForce4 SLI	F9

Manufacturer	Model	Chipset	System BIOS
Gigabyte	GA-K8N51GMF	NVIDIA nForce 410/GeForce 6100	F7
Gigabyte	GA-K8N51PVM9-RH	NVIDIA nForce 430/GeForce 6150	F1
Gigabyte	GA-K8NE	NVIDIA nForce4	FB
Gigabyte	GA-K8NF-9	NVIDIA nForce4	F10
Gigabyte	GA-K8N-SLI	NVIDIA nForce4 SLI	F9
Gigabyte	GA-K8NXP-9	NVIDIA nForce4 Ultra	F9
Gigabyte	GA-K8NXP-SLI	NVIDIA nForce4 SLI	F11
Intel	D955XBK	Intel 955X	2036
Intel	D975XBX	Intel 975X	1073
Intel	SE7525GP2	Intel E7525	P08
iWill	DK8EW 59102	NVIDIA nForce4 Pro 2200	V130
Jetway	939GT4-SLI-G	NVIDIA nForce4 SLI	6/24/2006
MSI	K8N Diamond Plus	NVIDIA nForce4 SLI	1.2
MSI	K8N Neo3	NVIDIA nForce4	1.5
MSI	K8N Neo4 Platinum v1	NVIDIA nForce4 Ultra	1.D
MSI	K9N-SLI Platinum	NVIDIA nForce 570	1.1
MSI	P4N Diamond	NVIDIA nForce4 SLI Intel Edition	1.4
MSI	945P NEO2-F	Intel 945P	A7176IMS v3.2
			12/12/05
Supermicro	X6DA8	Intel E7525	1.0B
Tyan	S2895 D/T	NVIDIA nForce 2200/2050	2895_103k

(Note) For more compatible motherboards, refer to the following website: http://www.nvidia.com/gx2

