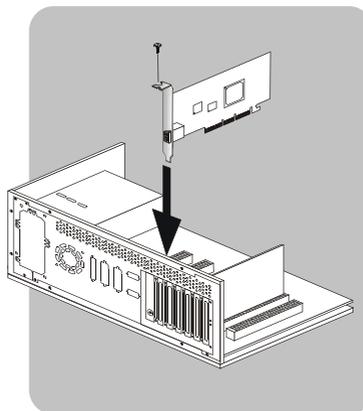


Hardware

Follow the steps below to install the VGA card:

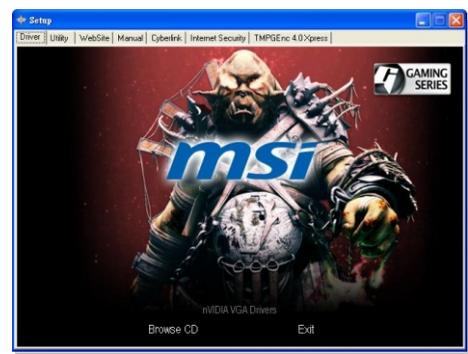
1. Remove the computer case.
2. Locate the expansion slot on your mainboard.
Warning: Inserting the VGA card into a wrong slot may damage your card (refer to your mainboard manual for more information).
3. Put the card directly over the expansion slot and press one end of the card into the slot first. Gently but firmly press the other end until the card is fully seated in the slot.
4. Secure the card with a bracket screw.
5. Install all other cards and devices and connect all the cables, and then install the case.
6. Connect the monitor. Now, you are ready to install the software on your computer.



Software

To install the driver of the VGA card to your computer, please follow the steps below:

1. Turn on the computer.
2. Insert the CD into the CD-ROM drive. The Autorun program will start the Setup program, and show the setup screen as follows:



Tip : If, on your computer, the Autorun program does not execute automatically, please 1) enable the CD-ROM drive Auto-detect function from Control Panel; or 2) find and run the setup.exe file manually from the CD.

3. Click **nVIDIA VGA Drivers**. Follow the on-screen instructions to complete the installation.
4. After finishing the installation, restart the computer as instructed.

Installing MSI Live Update

MSI Live Update offers you with brand-new update service experience, which can save your time while searching files. MSI Live Update is capable to automatically analyze and list drivers, BIOS, and utilities you need. With the easy-to-use updating approaches, you can increase the performance of your system easily and quickly. Follow the instructions below, with a few mouse clicks, you can acquire the related files for the system updating.

Installing from the Disk

1. Insert the supplied disk into the CD-ROM drive, and start the **Setup** program.
2. Click the **Utility** tab on the setup screen.
3. Click the **MSI Live Update**. Follow the on-screen instructions to complete the installation.

Installing from the MSI Web Site

1. Link to MSI's website at <http://www.msi.com.tw>
2. Find and click **Live Update Online** on the left side of the web page to enter MSI Download Center.
3. Click **Start to Check** to download the Live Update application.
4. Click **Install** the continue.
5. Follow the on-screen instructions to complete the installation.
6. Launch MSI Live Update and to enter the main page of this utility as shown here.



Using MSI Live VGA Driver Update

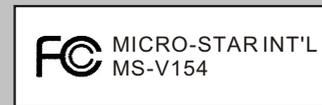
This service enables you to update the latest VGA driver for your VGA card.

1. To update the MSI Live VGA Driver, click Live VGA Driver item on the left column of the main page.
2. This utility will start checking your platform and the information on the VGA card, and display the information in a list.
3. Click the graph button on the bottom to connect MSI Live Update Series Server, and then the system will automatically connect the Internet and compare the version of the driver in the database.
4. It may take several minutes to detect the required drivers. Please wait while proceeding detection.
5. Click the **InstallShield Wizard** button on the right side of the table to download and update the driver. All actions will proceed automatically.
6. Follow the on-screen instructions to complete the updating procedure.
7. Note that to ensure the best SLI performance, please visit MSI website to update the latest driver.

Using MSI Live VGA BIOS Update

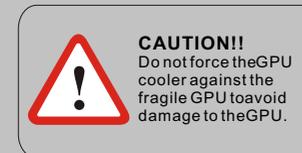
This service enables you to update the latest VGA BIOS for your VGA card.

1. To update your VGA BIOS, click Live VGA BIOS item on the left column of the main page.
2. If your VGA card does not support the Live VGA BIOS function, you will receive a warning message on the screen.
3. If your VGA card do support the Live VGA BIOS function, please pay attention to the message shown on the screen telling you that in what circumstance flashing BIOS may fail to reboot.
4. Click Yes if you would like to try it at your own risk or No to return to the main page with everything unchanged.
5. If you click Yes to continue, it will check the information and BIOS version of your VGA card, and list them in a table.
6. Click the graph button at the bottom to connect the MSI Live Update 3 Server.
7. The MSI Live VGA BIOS will automatically connect the Internet and search the supported BIOS in the database of MSI.
8. If it has found one (or several) supported BIOS for your VGA card, click the InstallShield Wizard button on the right side of the table to have the new BIOS downloaded and updated automatically.
9. Follow the on-screen instructions to complete the updating procedure.



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 Pentium® is a registered trademark of Intel® Corporation.
 Windows® is a registered trademark of Microsoft® Corporation.



MICRO-STAR INT'L CO., LTD.
 TEL. 886-2-32345599
<http://www.msi.com.tw>

Quick User's Guide

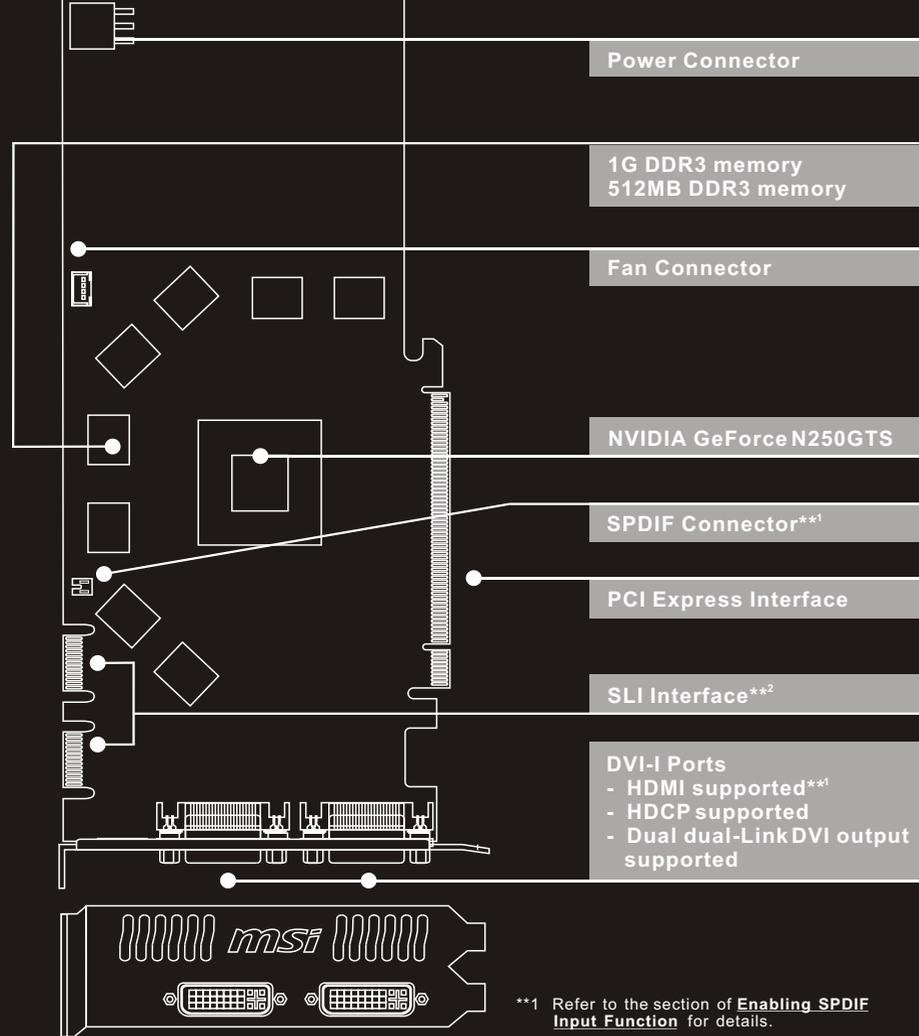


N250GTS series

G52-V1542X3
 February 2009



Note: The VGA card shown here may vary from the actual card.
For further information, please visit MSI website at www.msi.com.tw



1 Refer to the section of **Enabling SPDIF Input Function for details.

**2 To ensure the best SLI performance, please visit MSI website to update the latest driver.

Unpacking

Please check out the following items to make sure that you get the complete product:

- VGA card
- Disk: Drivers, documentation, and applications
- ★ Consult your dealer immediately if anything is missing or damaged.

System Requirements

To install the VGA card, your computer system needs to meet the following requirements:

- PCI Express® or PCI Express 2.0® - compliant motherboard with one x16 graphics slot
- One 6-pin supplementary PCI Express power connector
- Minimum 450W or greater system power supply (with a minimum 12V current rating of 24A)
- CD-ROM / DVD-ROM for driver installation
- Visiting MSI website for further information of operating systems support

Card Features For reference only

- **NVIDIA® PhysX™ Technology**
GeForce GPU support for NVIDIA PhysX technology, enabling a totally new class of physical gaming interaction for a more dynamic and realistic experience with GeForce.
- **NVIDIA CUDA™ Technology**
CUDA technology unlocks the power of the GPU's processor cores to accelerate the most demanding system tasks- such as video transcoding delivering incredible performance improvements over traditional CPUs.
- **3-way NVIDIA SLI™ Technology**
Industry leading 3-way NVIDIA SLI technology offers amazing performance scaling by implementing AFR (Alternate frame Rendering) under Windows Vista with solid, state-of-the-art drivers.
- **NVIDIA® unified architecture**
Fully unified shader core dynamically allocates processing power to geometry, vertex, physics, or pixel shading operations, delivering up to 2x the gaming performance of prior generation GPUs.
- **PCI Express 2.0 Support**
Designed for the new PCI Express 2.0 bus architecture offering the highest data transfer speeds for the most bandwidth-hungry games and 3D applications, while maintaining backwards compatibility with existing PCI Express motherboards for the broadest support.
- **Noise Reduction**
Improves movie image quality by removing unwanted artifacts.
- **16x Anti-aliasing Technology**
Lightning fast, high-quality anti-aliasing at up to 16x sample rates obliterates jagged edges.

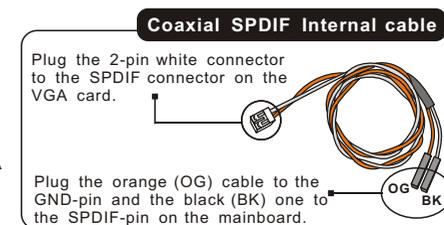
- **GigaThread™ Technology**
Massively multi-threaded architecture supports thousands of independent, simultaneous threads, providing extreme processing efficiency in advanced, next generation shader programs.
- **NVIDIA® GeForce® Unified Driver Architecture (UDA)**
Delivers a proven record of compatibility, reliability, and stability with the widest range of games and applications. NVIDIA® GeForce® provides the best out-of-box experience for every user and delivers continuous performance and feature updates over the life of NVIDIA® GeForce® GPUs.
- **OpenGL® 2.1 Optimization and Support**
Ensures top-notch compatibility and performance for OpenGL applications.
- **Dual 400MHz RAMDACs**
Blazing-fast RAMDACs support dual QXGA displays with ultra-high, ergonomic refresh rates up to 2048x1536@85Hz.
- **Dual-link DVI Support**
Able to drive the industry's largest and highest resolution flat-panel displays up to 2560x1600 and with support for High-bandwidth Digital Content Protection (HDCP).
- **NVIDIA® PureVideo™ HD Technology**
The combination of high-definition video decode acceleration and post-processing that delivers unprecedented picture clarity, smooth video, accurate color, and precise image scaling for movies and video.
- **Discrete, Programmable Video Processor**
NVIDIA PureVideo is a discrete programmable processing core in NVIDIA GPUs that provides superb picture quality and ultra-smooth movies with 100% offload of H.264 video decoding from the CPU and significantly reduced power consumption.
- **Dynamic Contrast Enhancement & Color Stretch**
Provides post-processing and optimization of High Definition movies on a scene by scene basis for spectacular picture clarity.
- **Dual-Link HDCP Capable**
Designed to meet the output protection management (HDCP) and security specifications of the Blu-ray Disc and HD DVD formats, allowing the playback of encrypted movie content on PCs when connected to HDCP-compliant displays.
- **Advanced Spatial-Temporal De-Interlacing**
Sharpens HD and standard definition interlaced content on progressive displays, delivering a crisp, clear picture that rivals high-end home-theater systems.
- **Hardware Decode Acceleration**
Provides ultra-smooth playback of H.264, VC-1, WMV and MPEG-2 HD and SD movies.
- **High-Quality Scaling**
Enlarges lower resolution movies and videos to HDTV resolutions, while maintaining a clear, clean image. Also provides downscaling of videos, including high-definition, while preserving image detail, lity and floating point accuracy at ultra-fast frame rates.
- **NVIDIA® Quantum Effects™ Technology**
Advanced shader processors architected for physics computation enable a new level of physics effects to be simulated and rendered on the GPU all while freeing the CPU to run the game engine and artificial intelligence (AI).

- **Bad Edit Correction**
When videos are edited, the edits can disrupt the normal 3:2 or 2:2 pulldown cadence. PureVideo uses advanced processing techniques to detect poor edits, recover the original content, and display perfect picture detail frame after frame for smooth, natural looking video.
- **NVIDIA® Lumenex™ Engine**
Delivers stunning image quality and floating point accuracy at ultra-fast frame rates.
- **Inverse Telecine (3:2 & 2:2 Pulldown Correction)**
Recovers original film images from films converted-to-video (DVDs, 1080i HD content), providing more accurate movie playback and superior picture quality.
- **Edge Enhancement**
Sharpens movie images by providing higher contrast around lines and objects.
- **Dual-stream Hardware Acceleration**
Supports picture-in-picture content for the ultimate interactive Blu-ray and HD DVD movie experience
- **Full Microsoft® DirectX® 10 Support**
DirectX 10 GPU with full Shader Model 4.0 support delivers unparalleled levels of graphics realism and film-quality effects.
- **128-bit floating point High Dynamic-Range (HDR) Lighting**
Twice the precision of prior generations for incredibly realistic lighting effects now with support for anti-aliasing.

Enabling SPDIF Input Function Optional

Each of the following connection allows users to enable the SPDIF Input function easily and quickly:

1. Use the compliant SPDIF Internal cable to connect both the SPDIF connectors on the VGA card and your mainboard. Make sure to (1) plug the orange cable to the GND-pin and the black one to the SPDIF-pin on the mainboard; and (2) plug the other end (2-pin white connector) of the cable to the SPDIF connector on the VGA card. Note that wrong installation may cause the damage to the VGA card.



2. Or, use the compliant SPDIF External cable to connect the SPDIF connector on the VGA card and the SPDIF-out connector on the back panel of the mainboard. Make sure to plug the 2-pin connector of the cable to the SPDIF connector on the VGA card, and the other end to the SPDIF-out connector on the back panel of the mainboard.

