



MSI Geforce N9500GT GDDR3 PCI-Express Graphics Card User Guide

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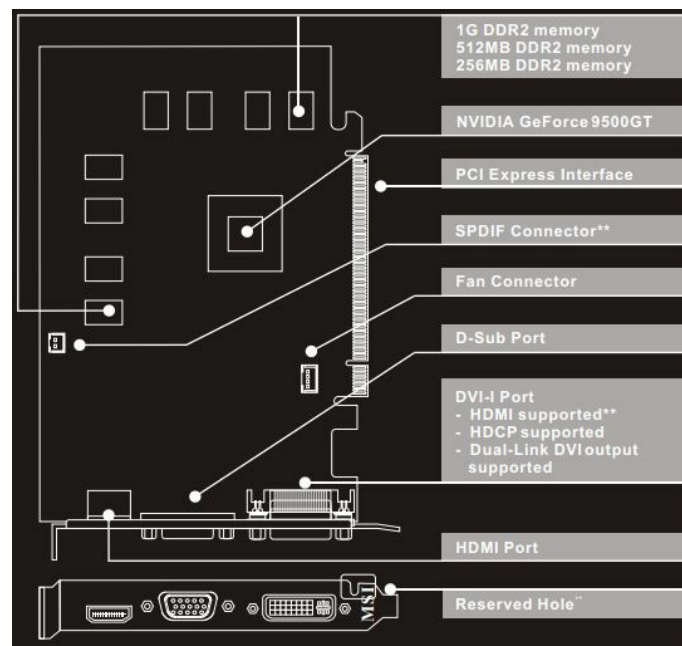
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MSI Geforce N9500GT GDDR3 PCI-Express Graphics Card



Overview



Getting Started

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
- A power supply of 350 (and up) watt is highly recommended for system stability
- CD-ROM / DVD-ROM for driver installation
- Visiting MSI website for further information of operating system support

Card Features

For reference only

- **Unified Shader Architecture**

Get the best geometry, vertex, and pixel shading performance at all times with a revolutionary, unified 3D shader architecture.

- **Microsoft DirectX 10 Shader Model 4 Support**

Ensures top-notch compatibility and performance for all DirectX10 applications, including Shader Model 4 titles.

- **Geometry Instancing 2.0**

Many games repeat 3D geometry (for example, trees or grass) hundreds to thousands of times. This GPU architecture allows a single model of the geometry to be uniquely animated an infinite number of ways, each being a unique “instance” of the original model. This translates into a massive performance benefit when playing games with complex scenes.

- **Displacement Mapping**

This GPU employs advanced techniques to simulate highly detailed visuals using low-polygon models, enabling a new level of realism in 3D games and applications. This allows many games and professional applications to use coarse, low-polygon models that look highly detailed with very little computational cost.

- **NVIDIA Lumenex™ Visual Quality Technology**

The industry's fastest anti-aliasing, NVIDIA Lumenex Visual Quality technology, delivers ultra-realistic visuals, with no jagged edges, at lightning-fast speeds. Visual quality is taken to new heights through a new rotated-grid sampling pattern.

- **OpenGL 2.1 Optimizations and Support**

Users are ensured of the best performance and application compatibility for all OpenGL applications.

- **PCI Express 2.0**

This GPU of products is capable of running at 5 Gbps PCI Express 2.0 speeds.

- **Dual-Link DVI Support**

Able to drive the industry's largest and highest resolution flat panel displays.

- **Flexible Memory Interface**

Support for memories up to a frame buffer size of 1 gigabyte.

- **Memory interface power management**

Glitch-free, no visual artifacts, dynamic memory termination, and voltage scaling.

- **Adaptive PCI Express Interface**

Get the optimal trade-off between performance and power with NVIDIA's flexible PCI Express link widths

support (x16, x8, x4, x2, and x1), low-swing voltage signaling, and NVIDIA's ASLM support. NVIDIA's ASLM (Active State Link Management) technology uses an efficient and dynamic scheme to switch between x1 and x16 PCI Express link widths, lowering power consumption for applications that do not require the full x16 PCI Express bandwidth. High-efficiency integrated programmable third generation Video Processor (VP2) NVIDIA's Video Processor provides an improved performance per watt and is designed to address the full needs of the HD-DVD and Blu-ray High Definition video standards.

- **NVIDIA PureVideo HD Technology**

The combination of the new high-definition video processor and NVIDIA video decode software delivers unprecedented HD video (including the latest HD-DVD/Blu-ray formats), stunning picture clarity, smooth video, accurate color, and precise image scaling to turn your PC into a high-end home theater.

- **Hardware acceleration for industry-standard video codecs**

Play back SD/HD video in H.264/VC1/WMV/MPEG2 formats without skipping frames or losing video details at full 1080i/1080p resolution.

- **Digital Displays**

- Direct support of the Display Port is integrated into the GPU.
- TMDS and LVDS support is also integrated into the GPU.

- **High-quality 10-bit display pipeline**

Enjoy the outstanding display quality provided by NVIDIA's 10-bit per color display pipeline implementation.

- **NVIDIA nView Multi-Display Technology**

The NVIDIA nView hardware and software technology combination delivers maximum flexibility for multi-display options and provides unprecedented end-user control of the desktop experience.

- **Integrated HDMI Support**

- Hook up to the latest HDMI consumer devices using NVIDIA's HDMI integrated audio/video solution (support for HD-Audio and S/PDIF audio input with HDCP/ HDMI compliant output)
- Designed to meet the baseline requirements of version 1.3a of the HDMI Specification
- Video resolutions supported: 480p, 720p, 1080i and 1080p
- Audio frequencies supported: 32kHz, 44.1kHz, 48kHz, 92kHz, and 176kHz.
- Audio sampling sizes supported: 16-bit, 20-bit, and 24-bit.

- **Digital Content Protection**

Capable of playing HDCP-based content-protected data streams, when connected to a HDCP-compliant receiver or monitor.

- **128-Bit Studio-Precision Computation**

128-bit studio-precision computation through the entire pipeline prevents image defects due to low precision and ensures the best image quality for even demanding applications.

- **Integrated DisplayPort Support**

- Capable of interfacing with the next generation of Display Monitors using the DisplayPort interface.
- Support for all resolutions up to 2560×1600@60 Hertz.
- Support for 24 bpp and 30 bpp color depths
- Capable of supporting two independent DisplayPort Monitors simultaneously.

- **Integrated HDTV Encoder**

Provides world-class HDTV-out functionality up to and including 1920×1080i resolutions.

- **Dual 400 Mhz RAMDACs**

Blazing-fast RAMDACs support dual QXGA displays with ultra-high, ergonomic refresh rates up to 2048×1536

at 85Hz.

- **Support for audio input via SPDIF and HD-Audio**

Support for stereo as well as multi-channel LPCM audio streams (multi-channel is only supported via HD-Audio)

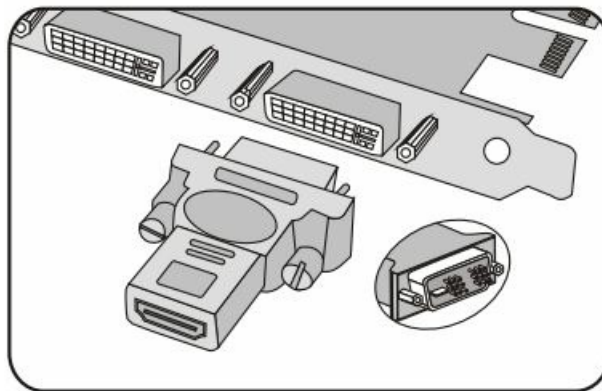
- **Support for Dolby Digital, Dolby Digital Plus*, DTS, WMAPro, MPEG*, and audio formats.**

* The GPU supports these formats but requires OS support to output audio in these formats.

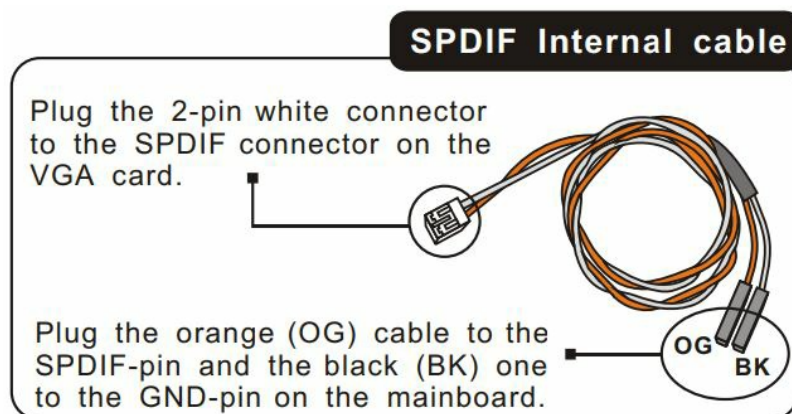
Enabling HDMI Output

Follow the steps below to enable the HDMI Output function:

1. Find the DVI-to-HDMI adapter that comes with the package, if provided. Consult your dealer to purchase the adapter if it is not provided.
2. Attach the DVI-to-HDMI adapter to the DVI connector
3. Ensure that the adapter is firmly installed.



4. 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 SPDIF-pin and the black one to the GND-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 the wrong installation may cause damage to the VGA card.



Quick Installation

Hardware

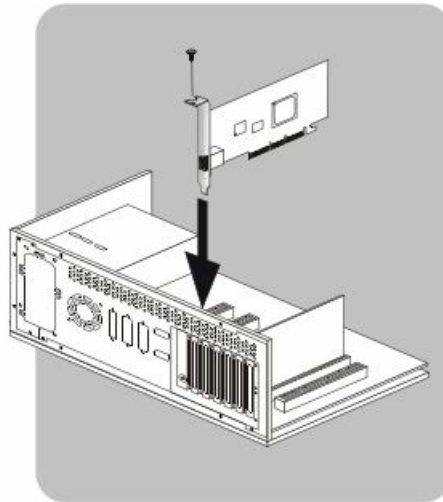
Follow the steps to install the VGA card:

1. Remove the computer case.

2. Locate the expansion slot on your mainboard.

Warning: Inserting the VGA card into the wrong slot may damage your card (refer to your mainboard manual for more Information).

3. Put the card directly over the 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.

MSI Features

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 the 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 to 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 with 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 the 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 the 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 does support the Live VGA BIOS function, please pay attention to the message shown on the screen telling you 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 to 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

Trademarks

All trademarks used in this manual are the sole property of their respective owners. VGA is a trademark of International Business Machines Corporation. Pentium is a registered trademark of Intel Corporation. Windows is a registered trademark of Microsoft Corporation.

CAUTION!! Do not force the GPU cooler against the fragile GPU to avoid damage to the GPU.

WARNING!! DO NOT touch the cooling system since it may produce a certain heat while processing tasks.

Disposal

Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such

products at the end of their useful life.

Contact

- **TEL.** 886-2-32345599
- **FAX.** 886-2-32345488
- **Website:** <http://www.msi.com.tw>

FAQ's

What is the MSI GeForce N9500GT GDDR3 PCI-Express Graphics Card?

The MSI GeForce N9500GT is a graphics card designed to enhance the visual performance of your computer by providing dedicated graphics processing capabilities.

What type of memory does the graphics card use?

The MSI GeForce N9500GT features GDDR3 memory, which offers faster data transfer rates compared to standard DDR2 memory.

What is the interface of the graphics card?

The graphics card utilizes the PCI-Express interface, which allows for high-speed data communication between the card and the motherboard.

What is the primary purpose of a dedicated graphics card like the N9500GT?

Dedicated graphics cards are designed to handle complex visual tasks, including gaming, video playback, graphic design, and more, offloading the workload from the CPU.

What is the resolution and display support of the N9500GT?

The graphics card is capable of supporting various display resolutions and multiple monitors, providing immersive visual experiences.

Does the N9500GT support hardware acceleration for video playback?

Yes, the graphics card supports hardware acceleration for smoother and higher-quality video playback.

Is the N9500GT suitable for gaming purposes?

While the N9500GT is capable of gaming, it's best suited for casual or older games. For modern and demanding games, you may need a more powerful graphics card.

What DirectX version is supported by the N9500GT?

The graphics card supports DirectX 10, which enables advanced graphics and visual effects in compatible applications and games.

Does the N9500GT require an additional power connection?

Depending on the model, the N9500GT may or may not require an additional power connection from the power supply unit.

Does the N9500GT support multi-monitor setups?

Yes, the graphics card typically supports multi-monitor setups, allowing you to extend your desktop across multiple displays.

Is the N9500GT compatible with modern operating systems?

The compatibility of the graphics card with modern operating systems may vary. Check the manufacturer's website for driver support.

What is the warranty for the N9500GT graphics card?

The warranty period for the graphics card depends on the manufacturer and region. It's advisable to refer to the product documentation or manufacturer's website for warranty details.

References: [MSI Geforce N9500GT GDDR3 PCI-Express Graphics Card – Device.report](#)