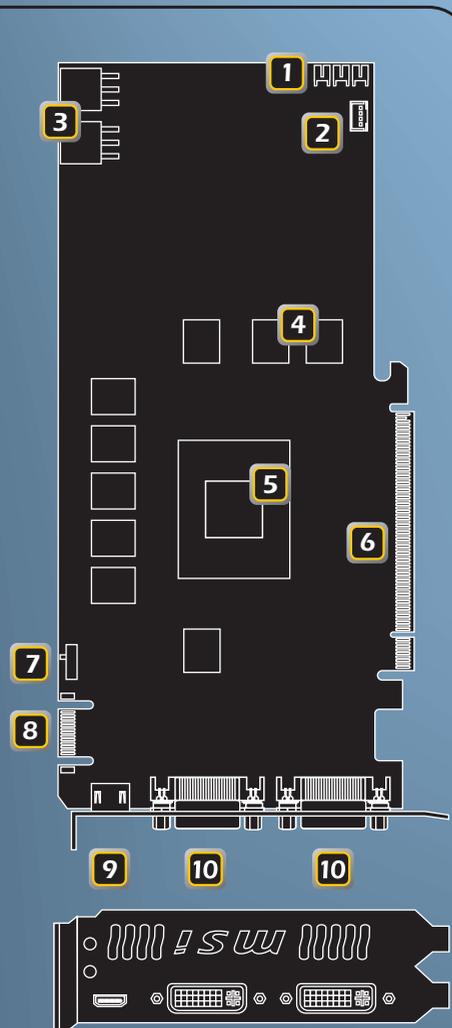


Overview



The VGA card shown here is for reference, and may vary from the actual card.

For further information, please visit msi website at www.msi.com

- 1 **V-Check Points**
- 2 **Fan Connector**
- 3 **Power Connector**
- 4 **1G GDDR5 memory or 2G GDDR5 memory**
- 5 **NVIDIA GeForce GTX 560 Ti**
- 6 **PCI Express Interface**
- 7 **Bios Switch**
- 8 **SLI Interface**
- 9 **Mini HDMI Port**
- 10 **Dual DVI-I Ports**
- HDMI supported
- HDCP supported
- Dual dual-link DVI output supported

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 dual-width x16 graphics slot
- > Two 6-pin PCI Express supplementary power connectors.
- > Minimum 600W or greater system power supply (with a minimum 12V current rating of 35A) is recommended.
- > CD-ROM / DVD-ROM for driver installation.
- > Visit MSI website for further information of operating system support.

Card Features For reference only

- > **Microsoft Windows 7 Support**
Windows 7 is a new generation operating system that will mark a dramatic improvement in the way the OS takes advantage of the graphics processing unit (GPU) to provide a more compelling user experience. By taking advantage of the GPU for both graphics and computing, Windows 7 will not only make today's PCs more visual and more interactive but also ensure that they have the speed and responsiveness customers want.
- > **NVIDIA® PhysX® - Technology**
Full support for NVIDIA PhysX technology, enabling a totally new class of physical gaming interaction for a more dynamic and realistic experience with GeForce.
- > **Microsoft® DirectX 11 Support**
DirectX 11 GPU with ShaderModel 5.0 support designed for ultra high performance in the new API's key graphics feature, GPU-accelerated tessellation.
- > **NVIDIA® CUDA™ Technology**
CUDA technology unlocks the power of the GPU's processing cores to accelerate the most demanding tasks - such as video transcoding - delivering up to 7x performance over traditional CPUs.
- > **NVIDIA® 3D Vision™ Surround Ready**
Expand your games across three displays in full stereoscopic 3D for the ultimate "inside the game" experience with the power of NVIDIA 3D Vision and SLI technologies. NVIDIA 3D Vision Surround also supports triple screen gaming with non-stereo displays. NVIDIA 3D Vision surround requires (1) specific drivers released by NVIDIA, (2) two or more graphic cards in NVIDIA SLI configuration, (3) 3D vision glasses, and (4) three identical displays in support of 3D version. See www.nvidia.com/surround for more information.
- > **NVIDIA SLI™ Technology**
Industry leading NVIDIA SLI technology offers amazing performance scaling by implementing AFR (Alternate frame Rendering) for the world's premier gaming solution under Windows 7 with solid, state-of-the-art drivers.

Getting Started

- > **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.
- > **OpenGL® 4.1 Optimization and Support**
Ensures top-notch compatibility and performance for OpenGL applications.
- > **DirectCompute and OpenCL Support**
Full support for DirectCompute and OpenCL.
- > **32x Anti-aliasing Technology**
Lightning fast, high-quality anti-aliasing at up to 32x sample rates obliterates jagged edges.
- > **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.

HAWK Features

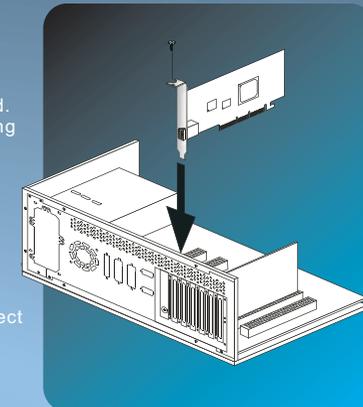
- > **Triple Over Voltage (by Afterburner)**
N560GTX-Ti Hawk supports voltage adjustment of GPU, Memory, and PLL by MSI exclusive Afterburner. With more options to adjust, the maximum performance of GTX 560 Ti HAWK can be unleashed.
- > **8+2 Phase PWM Design**
N560GTX-Ti Hawk uses 8+2 Phase PWM design which increases the maximum current value up to 160A. With extra 80A current output, the overclock power capability of N560GTX-Ti Hawk will be greatly improved!
- > **P/S Switch**
Dual fan speed profiles: Performance and silence (Performance Mode provides the best cooling effect and Silent Mode balances noise and GPU temperature.)
- > **Military Class II Components**
MSI graphics cards adopt the high quality components that meet the Military Class standard, ensuring the best stability, longest life span, and no buzz noise under full load.
- > **V-Check Points**
V-Check point is the overclocker's favorite. Use MultiMeter to read the exact GPU, Memory and VDDCI voltage value from the V-Check Points directly.
- > **Propeller Blade**
Featuring the unique structure, Propeller Blade can not only enlarge the angle of airflow, but also generate 20% more airflow for the best cooling effect.
- > **High-Density Heatsink**
Ultra high-density aluminum heatsink has large area for heat dissipation. Heat of GPU will be dissipated to each fin equally.
- > **Nickel-plated Copper base**
Large copper based coated with nickel provides the fastest heat dissipation and the bigger contact area with GPU.
- > **Multiple Heatpipes**
Multiple Heatpipes can transfer heat much faster to the fins under the dual PWM fans, and the fans dissipate heat directly from the fins.
- > **Direct Contact Design**
Copper base, heatsink and heatpipe are all connected together and directly contacted, creating the shortest path to dissipate the heat of GPU and to improve cooling efficiency.

Quick Installation

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 the Driver tag, and follow the on-screen instructions to complete the installation.
4. After finishing the installation, restart the computer as instructed.



To operate the overclocking function, it is required to install the Hawk Afterburner application in advance.

To install the Hawk Afterburner application, please click the Utility tag, and follow the on-screen instructions to complete the installation.

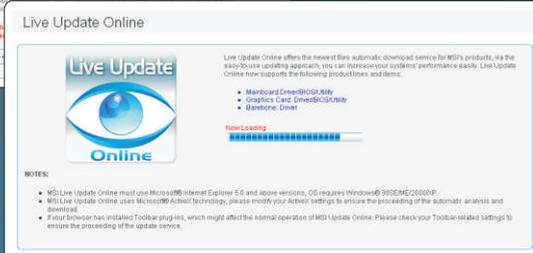
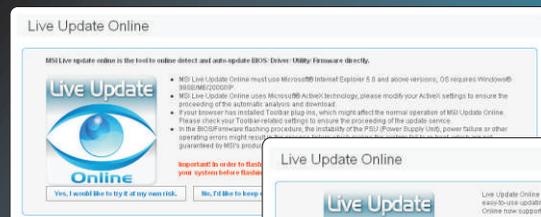
The Afterburner function includes:

- 1) GPU overclocking
- 2) Memory overclocking
- 3) GPU, Memory, and PLL Overvoltage
- 4) Fan Speed Control(%)

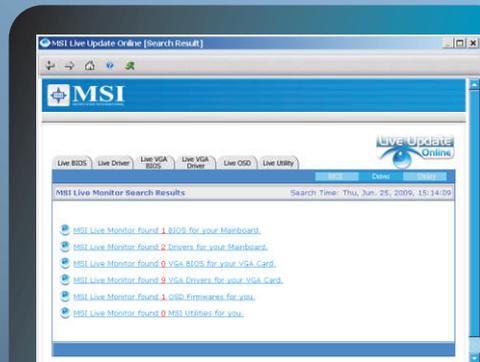
MSI Features

Using MSI Live Update Online

1. Link to MSI's website at <http://www.msi.com>
2. Find **Live Update Online** under the selection of **Downloads** on the web page.
3. Select **CLICK HERE** to continue.
4. Select **Yes, I would like to try it at my own risk to continue.**
5. Follow the on-screen instructions to complete the utility downloading and installing procedures.



6. Enter the page of **MSI Live Update Online [Search Results]**
7. Select the tag of **Live VGA Driver** to download and update the latest VGA driver, if available.
8. Select the tag of **Live VGA BIOS** to download and update the latest VGA BIOS, if available.



msi™ *innovation with style*



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



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



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.



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Windows is a registered trademark of Microsoft Corporation.

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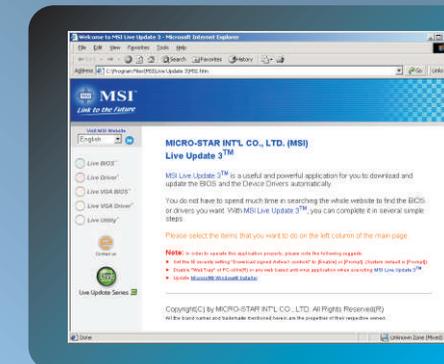
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April 2011

MSI Features

Installing MSI Live Update

MSI Live Update offers you with brand-new update service experience, which can significantly 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.

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.
4. Launch MSI Live Update utility to proceed the updating function.



Using Live VGA Driver Update

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

1. Click the selection of **Live VGA Driver™**.
2. Click the green button on the left lower side of the main page to connect to the MSI Live Update Series Server.
3. The utility will automatically detect and download the latest driver, if available.
4. Follow the on-screen instructions to complete the updating procedure.

Using MSI Live VGA BIOS Update

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

1. Click the selection of **Live VGABIOS™**.
2. Follow the on-screen instructions to continue the procedures.
3. Click the green button on the left lower side of the main page to connect to the MSI Live Update Series Server.
4. The utility will automatically detect and download the latest BIOS, if available.
5. Follow the on-screen instructions to complete the updating procedure.