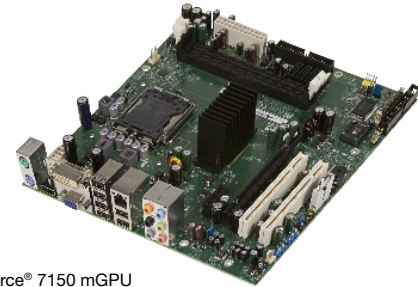# NVIDIA-based Motherboard Family for Intel



NVIDIA nForce® 790i
Ultra SLI® MCP



NVIDIA GeForce® 7150 mGPU

## Why NVIDIA nForce MCPs?

### NVIDIA® SLI® Technology

- The combination of NVIDIA nForce® MCPs and GeForce® GPUs deliver the ultimate PC gaming experience

- Revolutionary platform innovation that allows users to intelligently scale graphics performance by combining multiple NVIDIA graphics solutions

- SLI-certified components deliver unmatched performance and compatibility with NVIDIA nForce based motherboards

### Advanced Networking

- Native Gigabit Ethernet solution with low CPU utilization

- NVIDIA DualNet® technology includes teaming and TCP/IP acceleration for greater bandwidth and better system performance

- Prioritize important network traffic with NVIDIA FirstPacket™ technology

### Performance

- ESA-certified components and applications bring you unprecedented control to monitor and tune your PC performance

- NVIDIA Control Panel utility gives you access to BIOS level settings directly from Microsoft Windows to quickly optimize PC performance

- SLI-Ready memory with EPP increases the bandwidth of memory buses with select third party components with one click implementation

### Storage

- Confidently store and protect priceless digital media files with NVIDIA MediaShield™ technology

- Support for multiple SATA 3Gb/s drives

- Reliable, accessible, scalable, and easy to manage storage

## Why NVIDIA GeForce Motherboard GPUs?

### GeForce® Experience More Affordable than Ever

- Best-in-class performance on today's media rich applications

- Experience cutting-edge effects with support for Microsoft DirectX® 9.0

- Ready for Microsoft® Windows Vista™ Premium experience

### Digital Connectivity

- Exceptional visual quality with integrated HDMI or DVI display output

- Improved productivity with the ability to drive two displays with NVIDIA nView™ technology

### Award-Winning Core Logic

- Uncompromised features and system performance with support for DDR2-800 memory

- Support for the complete range of Intel CPUs including full 1333Mhz FSB and 45nm support

- Confidently store and protect priceless digital assets with NVIDIA MediaShield™ technology

### Flexible Platform for Mainstream PCs

- Easily upgraded to discrete GeForce GPUs

- Perfect for building a wide variety of systems including media PCs, home PCs, and business PCs

# Quick Guide to NVIDIA-based Motherboards for Intel

| | PRODUCT | IDEAL FOR | Form Factor | NVIDIA SLI Technology | PCI Express x16 slots | PCI Express 2.0 | DirectX Support | Display Outputs | Processor Supported | Socket Supported | FSB Speed | ESA-Certified | NVIDIA Control Panel | NVIDIA System Monitor | DDR Support | SLI-Ready Memory | SATA/PATA Drive Support | NVIDIA MediaShield RAID | Microsoft Windows Vista Capable | Audio Specification | Gigabit Ethernet Connections | NVIDIA FirstPacket technology |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NVIDIA nForce MCPs | nForce 790i Ultra SLI | **Enthusiast** Overclocker, Extreme Gamer, Power User, Multimedia Enthusiast | ATX | 3-way SLI (3x16) | 3 | ✓ | | | Core 2 Family (including full 45nm support) | LGA775 | 1600 MHz | ✓ | ✓ | ✓ | Dual DDR3 1333 | Dual DDR3 2000 | 6/2 | 0, 1, 0+1, 5 | ✓ | HDA | 2 | ✓ |
| | nForce 790i SLI | | ATX | 3-way SLI (3x16) | 3 | ✓ | | | Core 2 Family (including full 45nm support) | LGA775 | 1600 MHz | ✓ | ✓ | ✓ | Dual DDR3 1333 | Dual DDR3 1333 | 6/2 | 0, 1, 0+1, 5 | ✓ | HDA | 2 | ✓ |
| | nForce 780i SLI | | ATX | 3-way SLI (3x16) | 3 | ✓ | | | Core 2 Family (including full 45nm support) | LGA775 | 1333 MHz | ✓ | ✓ | ✓ | Dual DDR2 800 | Dual DDR2 1200 | 6/2 | 0, 1, 0+1, 5 | ✓ | HDA | 2 | ✓ |
| | nForce 680i SLI | | ATX | 3-way SLI (2x16) | 3 | | | | Core 2 Family | LGA775 | 1333 MHz | ✓ | ✓ | ✓ | Dual DDR2 800 | Dual DDR2 1200 | 6/2 | 0, 1, 0+1, 5 | ✓ | HDA | 2 | ✓ |
| | nForce 750i SLI | **Performance** Gamer, Multimedia User | ATX | 2-way SLI (2x8) | 2 | ✓ | | | Core 2 Family (including full 45nm support) | LGA775 | 1333 MHz | | ✓ | ✓ | Dual DDR2 800 | | 4/4 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | ✓ |
| | nForce 650i SLI | | ATX | 2-way SLI (2x8) | 2 | | | | Core 2 Family | LGA775 | 1333 MHz | | ✓ | ✓ | Dual DDR2 800 | | 4/4 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | ✓ |
| | nForce 650i Ultra | | ATX | | 1 | | | | Core 2 Family | LGA775 | 1333 MHz | | | | Dual DDR2 800 | | 4/4 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | ✓ |
| | nForce 630i | **Mainstream** Business User, Casual Gamer, Home PC User | ATX | | 1 | | | | Core 2 Family (including full 45 nm support) Pentium Family | LGA775 | 1333 MHz | | | | DDR2 800 | | 4/2 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | |
| NVIDIA GeForce mGPUs | GeForce 7150 nForce 630i | **Mainstream** Business User, Home PC User | uATX | | 1 | | 9 | HDMI DVI VGA | Core 2 Family (including full 45nm support) Pentium Family Celeron Family | LGA775 | 1333 MHz | | | | DDR2 800 | | 4/2 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | |
| | GeForce 7100 nForce 630i | | uATX | | 1 | | 9 | HDMI DVI VGA | Core 2 Family (including full 45 nm support) Pentium Family Celeron Family | LGA775 | 1333 MHz | | | | DDR2 800 | | 4/2 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | |
| | GeForce 7050 nForce 630i | | uATX | | 1 | | 9 | DVI VGA | Core 2 Family (including full 45 nm support) Pentium Family Celeron Family | LGA775 | 1333 MHz | | | | DDR2 667 | | 4/2 | 0, 1, 0+1, 5 | ✓ | HDA | 1 | |
| | GeForce 7050 nForce 610i | **Mainstream** Business User, Value PC Buyer | uATX | | 1 | | 9 | VGA | Core 2 Family (including full 45 nm support) Pentium Family Celeron Family | LGA775 | 1333 MHz | | | | DDR2 667 | | 4/2 | 0, 1 | ✓ | HDA | 1* | |

\* 10/100 ethernet

# Features and Benefits for NVIDIA-based Motherboards for Intel

| | Features | Benefits |
|---|---|---|
| **Graphics** | NVIDIA® SLI® Technology | NVIDIA SLI technology is a revolutionary platform innovation that allows users to intelligently scale graphics performance by combining multiple NVIDIA graphics solutions in a single system with an NVIDIA nForce® SLI MCP |
| | PCI Express® x16 slots | Up to three full-bandwidth, 16-lane PCI Express slots ensure maximum performance for add in graphics cards. Offers twice the PCI Express bandwidth of x8 solutions |
| | PCI Express 2.0 | Offers a future-proofing bridge to tomorrow's most bandwidth-hungry games and 3D applications by maximizing 5 GT/s of bandwidth (twice that of first generation PCI Express) and is fully backwards compatible with existing PCI Express products |
| | Microsoft® DirectX® 9.0 Shader Model 3.0 Support | Ensures top-notch compatibility and performance for all Microsoft® DirectX® 9.0 applications, including Shader Model 3.0 titles |
| | Display Outputs | HDMI with HDCP - On board HDMI connector 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.<br>DVI with HDCP - Able to drive any single-link digital flat-panel display |
| **CPU** | Processor Supported | For a complete list of CPUs supported visit, visit http://www.nvidia.com/content/nforce700i/nForce_Intel_CPU_List.pdf |
| | Front Side Bus (FSB) | The front side bus on select NVIDIA based motherboards are specified up to 1600MHz to support existing and future FSB speeds. Through overclocking, however, NVIDIA based motherboards can deliver speeds beyond specification |
| **Performance Tuning Tools and Software** | ESA Certified | ESA-certified components and applications provide real-time and complete PC performance management, bringing you unprecedented control to manage and tune thermal, electrical, acoustic and operating characteristics to maximize your PC's performance. |
| | NVIDIA Control Panel Utility | Access, monitor, and dynamically adjust crucial system components including CPU temperatures, voltages, bus speeds, and CPU core speed in real time with clear, user-friendly control panel |
| | NVIDIA System Monitor | NVIDIA System Monitor allows you to seamlessly monitor PC characteristics in an intuitive and customizable 3D environment |
| **Memory** | NVIDIA DualDDR2 or DualDDR3 Architecture | Dual 64-bit memory controllers with a 128-bit interface to experience the highest level of system performance and run the most demanding applications |
| | NVIDIA SLI-Ready Memory with EPP | SLI-Ready memory with EPP increases the bandwidth of memory buses with select third party components with one click implementation |
| **Storage** | NVIDIA® MediaShield™ Storage Technology | Suite of features that safeguards your most important digital media assets, including:<br>• Multiple Disk Setup: Simple point and click wizard-based interface for RAID 0, 1, 0+1, or 5 across SATA devices<br>• DiskAlert System: identifies the specific disk in the event of a failure<br>• RAID Morphing: ability to change from one supported RAID configuration to another<br>• Bootable RAID Array: supports the use of multi-disk configurations for loading the operating system at power-up |
| | SATA 3Gb/sec. with NCQ | Blazingly fast disk performance with the latest SATA 3Gb/s. hard disk drives with full support for native and tagged command queuing and hot plug |
| | Ultra ATA-133 | Dual-channel ATA interface capable of a maximum data transfer rate of 133 Mbps per channel |
| **OS Support** | Microsoft® Windows® Vista™ Capable | • NVIDIA nForce MCPs are ready for Microsoft Windows Vista Premium when coupled with an NVIDIA GeForce GPU and 512MB of system memory<br>• NVIDIA GeForce mGPUs are ready for Microsoft Windows Vista Premium when coupled with 1GB of system memory |
| **Audio** | High Definition Audio (HDA) | Features 32-bit, 192kHz quality for eight channels |
| **Networking** | NVIDIA Native Gigabit Ethernet | The industry's fastest Gigabit Ethernet performance eliminates network bottlenecks and improves overall system efficiency and performance |
| | NVIDIA FirstPacket™ Technology | Assures your game data, VoIP conversations, and large file transfers are delivered according to your set preferences. Lowers your ping time for improved online gaming |

\* Features vary by product and motherboard design. Please confirm actual specs with your motherboard manufacturer

For more information on NVIDIA based Motherboards, visit www.nvidia.com/motherboards