# Gigabyte GA-8N-SLI Pro/Royal Motherboard

Notice: Due to NVIDIA's chipset limitations, Intel Pentium D 820 CPU's dual core mode is not supported on this motherboard and will only work in single core mode.

# **Chipset Intro**

### NVIDIA nForce4 SLI Intel Edition - The ultimate enthusiast platform

High performance NVIDIA nForce 4 SLI MCPs deliver comprehensive features for advanced PC security, reliable PC storage, SLI technology, PCI Express bus architecture and DualDDR2 memory technology. NVIDIA nForce4 MCPs offer Intel enthusiasts with stable, reliable, compatible platform support for the ultimate PC performance.



## **NVIDIA SLI Support for extreme performance**

Supports two NVIDIA SLI-ready graphics cards for scalable performance. NVIDIA nForce4 SLI MCPs include dedicated SLI hardware to maximize gaming performance.

#### NVIDIA MediaShield - Advanced storage with RAID technology

Unique support for four SATA 3Gb/s and four ATA-133 drives. RAID 5, 0, RAID 1, and RAID 0+1 support, enabling fast disk data transfers. Allows RAID arrays across both SATA and PATA hard drives and provides advanced features like the NVIDIA disk alert system that immediately alerts you if a drive fails, and dedicated spare disks that will automatically rebuild if a failed hard drive is detected.

#### **NVIDIA ActiveArmor - Unmatched security**

Dedicated hardware-based ActiveArmor Secure Networking Engine and ActiveArmor Firewall protect your PC from hackers and spyware the minute it is turned on and filters out any unauthorized or suspicious traffic. NVIDIA ActiveArmor Firewall secures your PC against a wide range of attacks including IP-spoofing and ARP cache poisoning. Additionally, ActiveArmor Secure Networking Engine performs network and security processing in the MCP, leaving the CPU free for gameplay.

## **DualDDR2 Memory Architecture**

A state-of-the-art DualDDR2 memory controller allows high bandwidth and low latency data access to the CPU and GPU. Ensures data and information are relayed through the system as quickly as possible for incredible performance.

#### **Features**



#### **NVIDIA SLI Multi-GPU support**

NVIDIA nForce4 SLI offer blistering graphics performance with the ability to bridge two NVIDIA SLI-ready PCI Express™ graphics cards! The SLI design takes advantage of the increased bandwidth of the PCI Express™ bus architecture, features hardware and software innovations within NVIDIA GPU (graphics processing unit) and the NVIDIA nForce4 chipset. Together, the NVIDIA SLI technologies work seamlessly to allow two graphics cards to

operate in parallel and share the work and deliver heart-pounding PC performance. NVIDIA SLI is the best solution for driving Multi GPU system performance to experience earth-shattering game play.

# GIGABYTE Patented Technology Universal-Plus Dual Power System (U-Plus D.P.S.) GA-8N-SLI Royal only

U-Plus D.P.S. is a revolutionary eight-phase power circuit designed to withstand varying electrical current levels, ensuring future processor upgrades.





#### **IEEE 1394b Firewire Interface**

Connect your digital audio/video appliances such as digital video camcorders, storage peripherals, MP3 players and more. With new IEEE 1394b interface that features data transferring speed of up to 800Mbps, 2x faster than previous IEEE 1394a interface.

#### **GIGABYTE Patent DualBIOS**

DualBIOS prevents BIOS from virus attacks or firmware damage and provides a double security to the system that assures the PC stability.



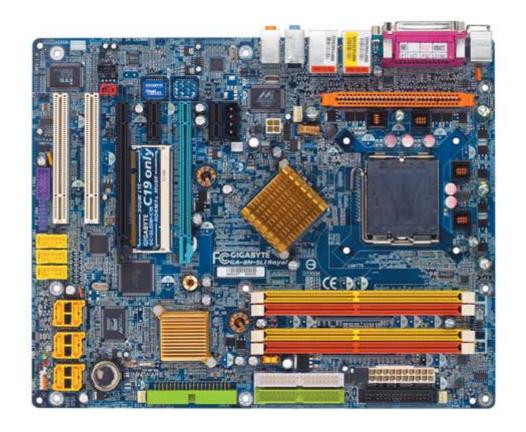
#### **BIOS**

Major options and adjustable range for overclocking:

Options	Values	
CPU FSB Frequency	400 to 2000MHz in 1MHz increments	
Memory Frequency	400 to 1200MHz in 1MHz increments	
CPU Voltage	0.8375 to 1.60V in 0.0125V increments	
DRAM Voltage	Normal to +0.7V in 0.1V increments	
Northbridge/PCIe Voltage	+0.1V, +0.2V, +0.3V	
Southbridge/SATAII Voltage	+0.1V, +0.2V, +0.3V	
FSB Voltage	+0.1V, +0.2V, +0.3V	

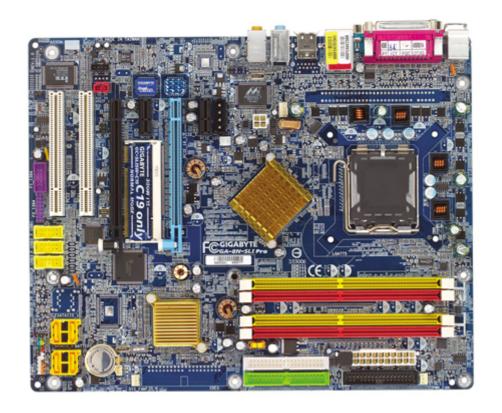
# GA-8N-SLI Royal & GA-8N-SLI Pro Comparison

Model	Gigabyte GA-8N-SLI Royal	Gigabyte GA-8N-SLI Pro	
CPU	LGA775 Intel Pentium 4/Pentium D/P	entium Extreme Edition (800/1066	
	FSB)		
CPU Power	- 4 phase onboard, 3 MOSFETs	4 phase, 3 MOSFETs per phase	
Module	per phase		
	- U-Plus D.P.S. eight-phase		
	power circuit		
Memory	- Dual channel memory architectu	ıre	
	- 4 x 240-pin DIMM sockets support max. 8GB DDR2 667/533		
	non-ECC memory		
Expansion Slots	2 x PCI Express x16		
	- SLI mode: x8, x8		
	- Default (Single VGA) mode: x16, x1		
	2 x PCI Express x1		
	2 x PCI		
Storage/RAID	- UltraATA 133x2	- UltraATA 133x2	
	- SATA 3Gb/s x4 ( RAID	- SATA 3Gb/s x4 ( RAID	
	0/1/0+1/5)	0/1/0+1/5)	
	- SATAII x2 & UltraATA 133x1		
	( Promise PDC20779		
	storage controller, RAID 0/1)		
LAN	- 1st LAN supports 10/100/1000	Supports 10/100/1000 Fast	
	Fast Ethernet by Marvell	Ethernet by nForce4 SLI Intel	
	88E1111 PHY	Edition MCP04 south bridge with	
	- 2nd PCI Express LAN	Marvell 88E1111 PHY	
	supports 10/100/1000 Fast		
A ! -	Ethernet by Marvell 88E8053		
Audio	Realtek ALC850 8-channel CODEC		
USB	USB2.0 x10 (4 on the rear I/O panel)		
IEEE1394	T.I. IEEE1394b controller:		
	- 2 x IEEE 1394b onboard connectors (support 3 ports)		
	<ul> <li>Features data transferring speed of up to 800Mbps</li> </ul>		





Gigabyte GA-8N-SLI Royal





Gigabyte GA-8N-SLI Pro