

## MSI P4N Diamond/SLI-FI 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 stable, reliable, compatible platform support for 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**

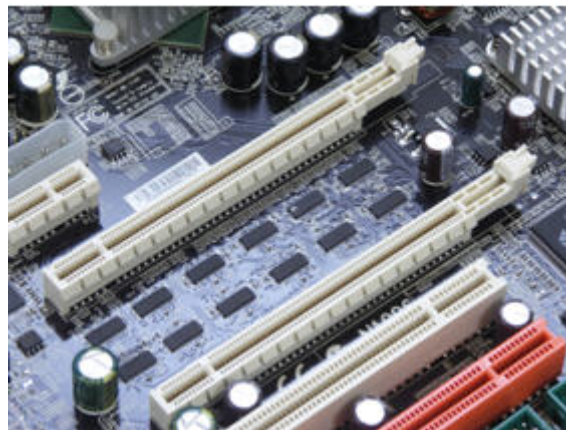
*A state-of-the-art DualDDR2 memory controller allows high bandwidth and low latency data access to the CPU and GPU. Ensures data and information are relayed through the system as quickly as possible for incredible performance.*

## Features

### NVIDIA SLI Technology

*Ultimate Gaming Performance with NVIDIA SLI Technology - NVIDIA SLI-Scalable Link Interface- takes advantage of the increased bandwidth of the PCI Express bus architecture and features intelligent hardware and software that allows two GPUs to efficiently work together to deliver earth-shattering, scalable performance. For some applications nearly 2X performance!*

*MSI paddle-less SLI switch Design (P4N Diamond only)*



MSI uses IC chips to do the SLI/Normal mode switch instead of the common paddle design on most SLI motherboards. Users can perform mode switching easily in the BIOS.

### Onboard Creative Sound Blaster Live 24-bit H/W audio controller CA0106 (P4N Diamond only)

- 24-bit/96KHz audio quality
- 100db SNR clarity
- Up to 7.1-channel surround sound, Dolby Digital ready
- Supports S/PDIF digital interface



## BIOS

Major options and adjustable range for overclocking:

Options	Values
CPU FSB Frequency	100 to 350MHz in 1MHz increments
Memory Frequency	400 to 900MHz in 1MHz increments
PCIe Frequency	100 to 148MHz in 1MHz increments

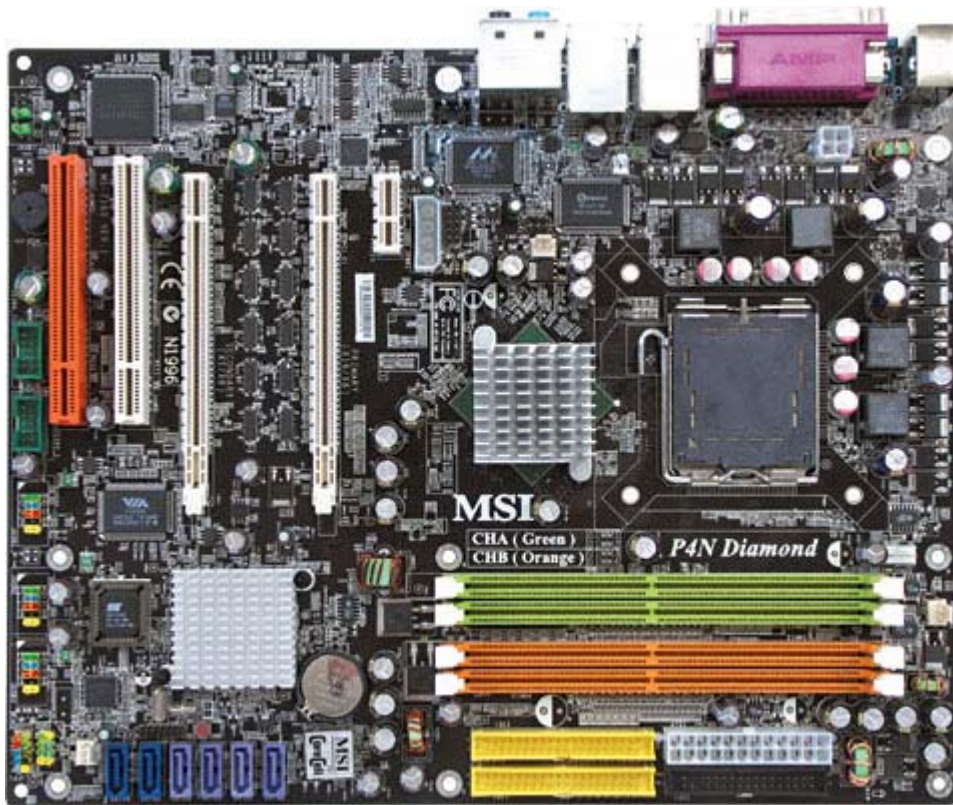
CPU Voltage	Increasing in 0.025V increments up to 0.4V above default
DRAM Voltage	1.80 to 2.40V in 0.05V increments
Northbridge Voltage	1.45 to 1.70V in 0.05V increments

A 100~350MHz FSB, i.e. 400~1400MHz with quad pump counted, may not seem very impressive nowadays, but it is in fact sufficient for Intel processors as the Prescott has a lowest multiplier value of x14.

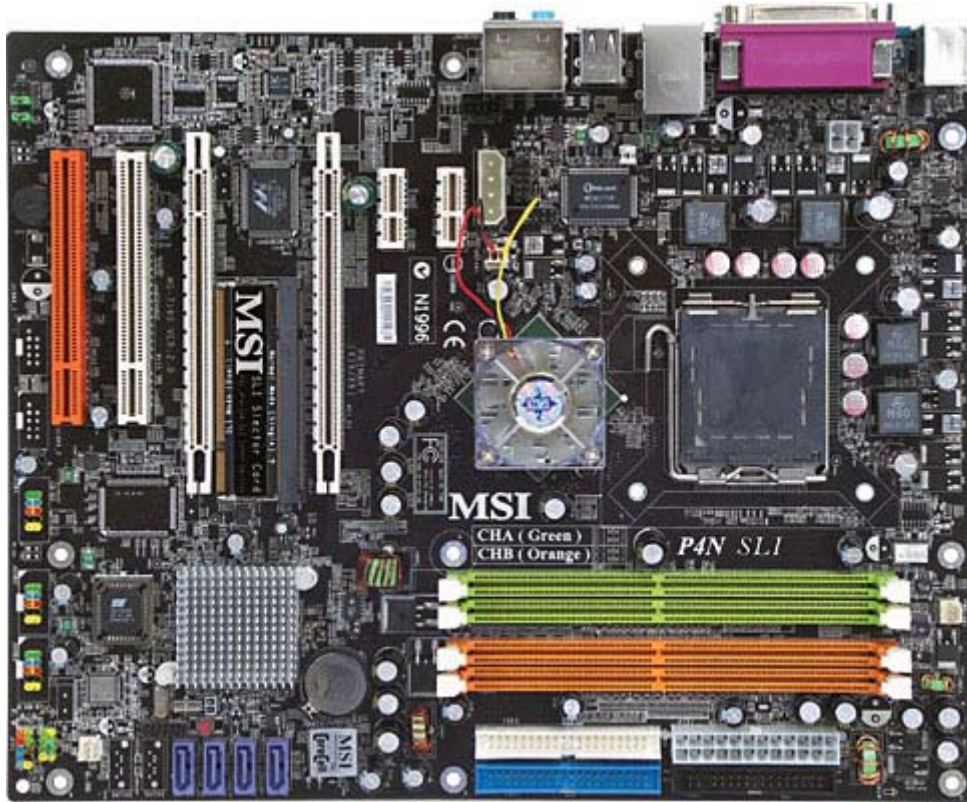
#### P4N Diamond & P4N SLI-FI Comparison

Model	P4N Diamond	P4N SLI-FI
<b>CPU</b>	LGA775 Intel Pentium 4/Pentium D/Pentium Extreme Edition (800/1066 FSB)	
<b>CPU Power Module</b>	4 phase, <b>4 MOSFETs per phase</b>	4 phase, 3 MOSFETs per phase
<b>Memory</b>	Dual channel memory architecture 4 x 240-pin DIMM sockets support max. 4GB DDR2 667/533 non-ECC memory	
<b>Expansion Slots</b>	2 x PCI Express x16 - SLI mode: x8, x8 - Normal Mode: x16, x1 - <b>MSI paddle-less SLI switch Design</b> 1 x PCI Express x1 3 x PCI	2 x PCI Express x16 - SLI mode: x8, x8 - Normal Mode: x16, x1 1 x PCI Express x1 3 x PCI
<b>Storage/RAID</b>	UltraATA 133x2 SATA 3Gb/s x4 (RAID 0/1/0+1/5) <b>SATAII x2 (Silicon Image 3132, RAID 0/1)</b>	UltraATA 133x2 SATA 3Gb/s x4 (RAID 0/1/0+1/5)
<b>LAN</b>	Supports dual LAN jacks - 1st LAN supports 10/100/1000 Fast Ethernet by Marvell 88E1111 PHY - <b>2nd PCI Express LAN supports 10/100/1000 Fast Ethernet by Marvell 88E8053</b>	Supports 10/100/1000 Fast Ethernet by nForce4 SLI Intel Edition MCP04 south bridge with Marvell 88E1111 PHY
<b>Audio</b>	<b>Creative sound Blaster Live 24-bit H/W audio controller CA0106</b>	Realtek ALC850 8-channel CODEC
<b>USB</b>	USB2.0 x10 (4 on the rear I/O panel)	
IEEE1394	VIA 6306 controller - Supports up to 3 x 1394 ports	

- Transfer rate is up to 400Mbps



MSI P4N Diamond



MSI P4N SLI-FI