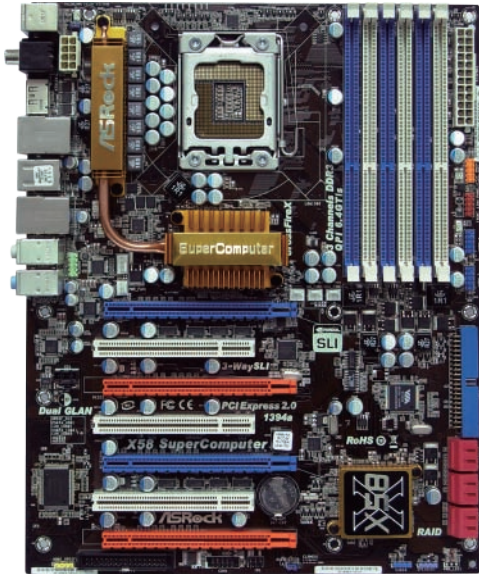


# X58 SuperComputer

Intel® X58 + ICH10R Chipsets

**ASRock®**  
www.asrock.com



**Supports NVIDIA® Tesla™ Personal Supercomputer**

3 Tesla + 1 Quadro GPUs with X58 SuperComputer = 250 workstations

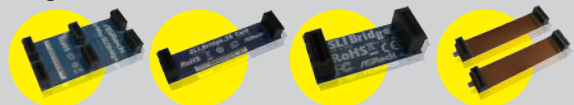


## Product Brief <<<<

- System Bus up to 6400 MT/s; Intel® QuickPath Interconnect
- Triple Channel DDR3 2000 (OC) with 6 DIMM slots
- 4 x PCI Express 2.0 x16 slots (Double-wide slot spacing between each PCI-E slot)
- Dual PCIe Gigabit LAN, support teaming function
- NVIDIA® Quad SLI™, 3-Way SLI™ and SLI™
- ATI™ CrossFireX™, up to Quad CrossFireX™
- 7.1 CH, ALC890 Audio Codec, DTS support
- ASRock Instant Boot

## Free Bundle

3-Way SLI Bridge Card    SLI\_Bridge\_3S Card    SLI Bridge    XFire\_Bridge\_3S Cards



The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

## Detail Specification <<<

<b>Platform</b>	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - All Solid Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
<b>CPU</b>	- Intel® Socket 1366 Core™ i7 Processor Extreme Edition / Core™ i7 Processor Supports Intel® Dynamic Speed Technology - System Bus up to 6400 MT/s; Intel® QuickPath Interconnect - Supports Hyper-Threading Technology - Supports Untied Overclocking Technology - Supports EM64T CPU
<b>Chipset</b>	- Northbridge: Intel® X58 - Southbridge: Intel® ICH10R
<b>Memory</b>	- Triple Channel DDR3 memory technology - 6 x DDR3 DIMM slots - Supports DDR3 2000(OC)/1866(OC)/1600(OC)/1333(OC)/1066 non-ECC, un-buffered memory - Supports DDR3 ECC, buffered memory with Intel® Workstation 1S Xeon® processors 3500 series - Max. capacity of system memory: 24GB - Supports Intel® Extreme Memory Profile (XMP)
<b>Expansion Slot</b>	- 4 x PCI Express 2.0 x16 slots (blue @ x8 / x16 mode, orange @ x8 / N/A mode) (Double-wide slot spacing between each PCI-E slot) - 3 x PCI slots - Supports ATI™ CrossFireX™, up to Quad CrossFireX™ - Supports NVIDIA® Quad SLI™, 3-Way SLI™ and SLI™ - Supports NVIDIA® Tesla Personal Supercomputer with three Tesla and one Quadro graphics cards
<b>Audio</b>	- 7.1 CH Windows® Vista™ Premium Level HD Audio with Content Protection - DAC with 110dB dynamic range (ALC890 Audio Codec) - DTS (Digital Theater Systems) support
<b>LAN</b>	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111DL - Supports Wake-On-LAN - Supports Dual LAN with Teaming function
<b>Rear Panel I/O</b>	I/O Panel - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x Coaxial SPDIF Out Port - 1 x Optical SPDIF Out Port - 7 x Ready-to-Use USB 2.0 Ports (1 USB 2.0 port shared with eSATAII port) - 2 x RJ-45 LAN Ports with LED (ACT/LINK LED and SPEED LED) - 1 x IEEE 1394 Port - HD Audio Jack: Side Speaker / Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
<b>Connector</b>	- 6 x SATAII 3.0 Gb/s connectors, support RAID (RAID 0, RAID 1, RAID 10, RAID 5 and Intel® Matrix Storage), NCQ, AHCI and Hot Plug functions * 2 SATAII 3.0 Gb/s connectors can be used as eSATAII connectors - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x IR header - 1 x COM port header - 1 x HDMI SPDIF header - 1 x IEEE 1394 header - CPU/Chassis/NB/Power FAN connector - 24 pin ATX power connector - 8 pin 12V power connector - CD in header - Front panel audio connector - 3 x USB 2.0 headers (support 5 USB 2.0 ports)
<b>BIOS Feature</b>	- 8Mb AMI BIOS - AMI Legal BIOS - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU, DRAM, NB, SB, VTT Voltage Multi-adjustment - Supports I. O. T. (Intelligent Overclocking Technology) - Supports Smart BIOS
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version)
<b>Unique Feature</b>	- ASRock OC Tuner - Intelligent Energy Saver - Instant Boot - Hybrid Booster: - CPU Frequency Steppless Control - ASRock U-COP - Boot Failure Guard (B.F.G.)
<b>Hardware Monitor</b>	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/NB/Power Fan Tachometer - Chassis Fan Tachometer - CPU Quiet Fan - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
<b>OS</b>	- Microsoft® Windows® XP / XP 64-bit / Vista™ / Vista™ 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL
<b>Accessories</b>	- 2 x ASRock XFire_Bridge_3S Cards - 1 x ASRock SLI Bridge - 1 x ASRock SLI_Bridge_3S Card - 1 x ASRock 3-Way SLI Bridge Card - Quick Installation Guide, Support CD, I/O Shield - Floppy/ATA 133 Cables - 6 x SATA Data Cables (Optional) - 2 x SATA 1 to 1 Power Cables (Optional)

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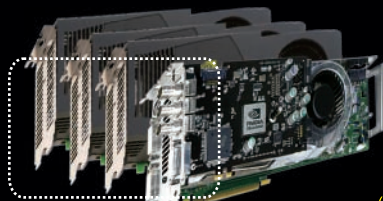
**ASRock®**  
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Limited Edition  
**X58 SuperComputer**  
**X58**

## X58 SuperComputer!

4 double-wide spacing PCIE x 16 Gen2 slots  
Perfect for double side VGA cards

3 Tesla + 1 Quadro GPUs

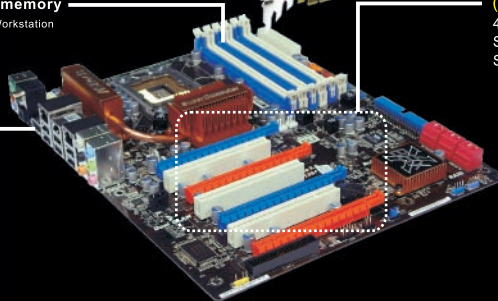


Triple Channel DDR3 2000 (OC) memory  
(Supports ECC, buffered memory with Intel® Workstation 1S Xeon® processors 3500 series)

(4 Double-Wide spacing PCIE x16 Gen2 slots)

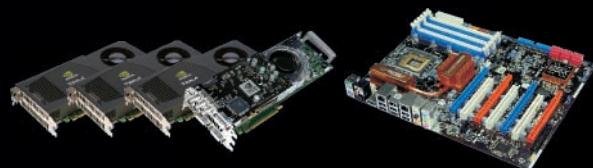
4 x PCI Express 2.0 x16 slots  
Supports NVIDIA® Quad SLI™, 3-Way SLI™ and SLI™  
Supports ATI™ CrossFireX™, up to Quad CrossFireX™

Power eSATA/USB connector



## Best Choice for personal Supercomputer!

Supports NVIDIA® Tesla™ Personal Supercomputer



250 workstations =

3 Tesla + 1 Quadro GPUs  
with X58 SuperComputer

**250x**  
Faster

**More**  
Affordable

**Save**  
Space

**Low**  
Power  
consumption

### Exclusive Design

#### Traditional design

eSATA II



eSATA part for eSATA HD

- Needs additional power source
- Only 1 interface



#### New design

Power eSATA/USB connector



Powered eSATA connection For eSATA/USB portable hard disk

- No need additional power source
- Dual eSATA/USB interfaces



*Better!*

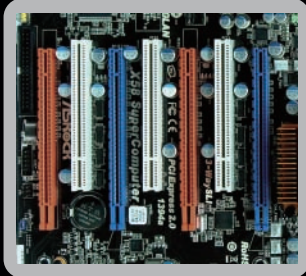
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## The excellent placement designed for NVIDIA SLI Family

**ASRock X58 SuperComputer**  
4 PCI-E double-wide spacing slots



**ASRock Wins!**

Flexible & zero-barrier placement of PCI-E slots

3 Tesla + 1 Quadro cards



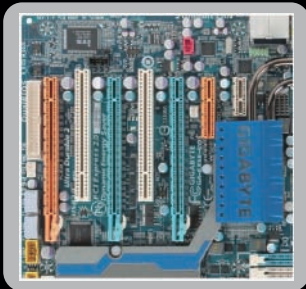
3-way SLI



SLI



**GA brand X58 MB**  
3 PCI-E slots only, single spacing slots



The last PCI-E is wasted



Fail to install the last VGA card



Front panel connector & VGA card can't co-exists



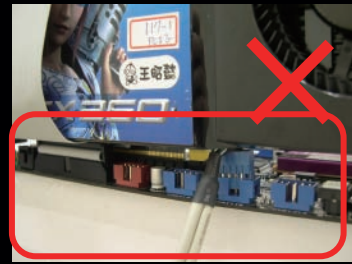
**A brand X58 MB**  
3 PCI-E slots only, single spacing slots



Double-space VGA cards occupied the last PCIE slot



Can't connect USB connectors and floppy connectors



# X58 SuperComputer

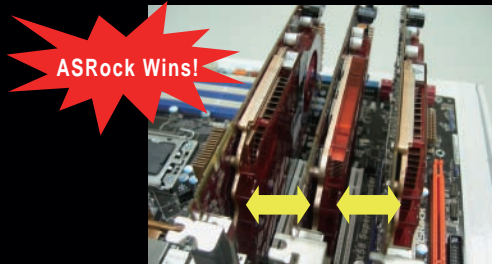
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## The excellent placement designed for ATI CrossFireX™ Family

ASRock X58 SuperComputer Excellent heat  
dissipating design

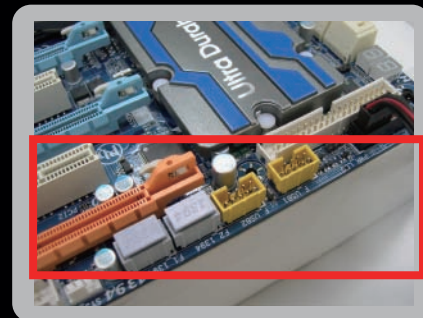
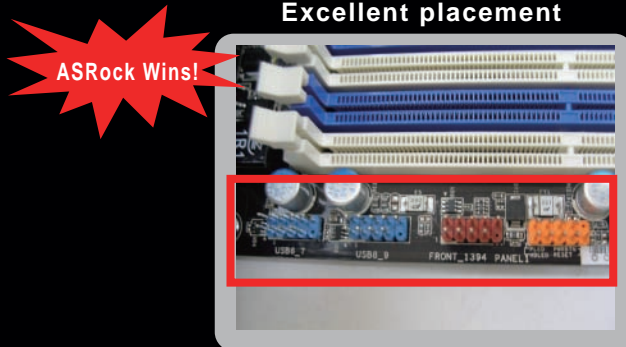
A brand X58 MB Bad  
heat dissipating for VGA  
cards



## The excellent placement for Components

Excellent placement

Bad placement



### Accessories

For the flexible combination of NVIDIA/ATI VGA cards, ASRock X58 SuperComputer is shipped with 4 kinds of bridge cards for all of them.

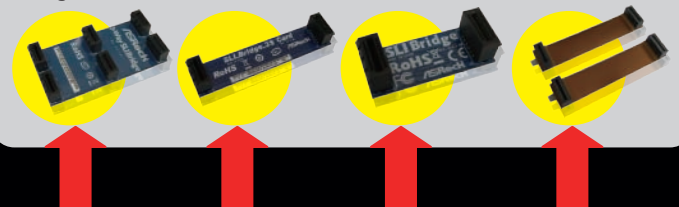
### Free Bundle

3-Way SLI  
Bridge Card

SLI\_Bridge\_3S  
Card

SLI Bridge

XFire\_Bridge\_3S  
Cards



For 3-Way SLI  
VGA cards

For SLI VGA  
cards

For SLI  
VGA cards +  
1 physics card

For CrossFireX  
VGA cards