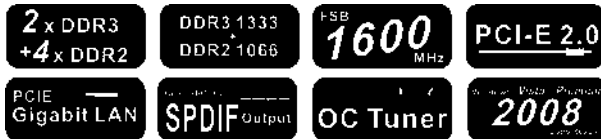
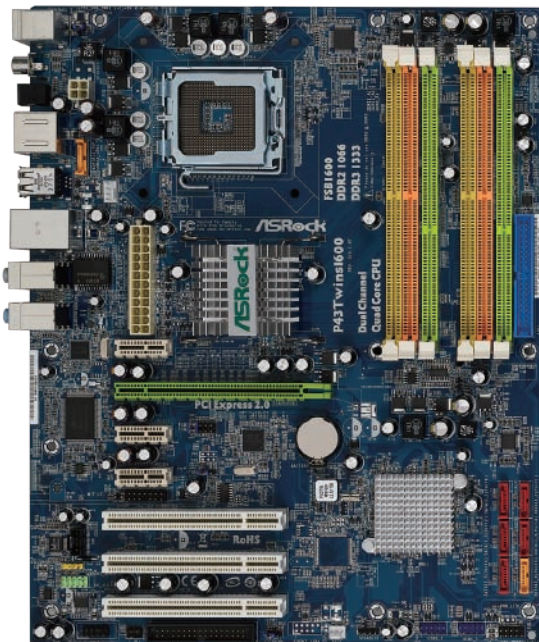


# P43Twins1600

Intel® P43 + ICH10 Chipsets

**ASRock®**  
www.asrock.com



## Product Brief <<<

- LGA 775 for Intel® Core™ 2 Extreme / Core™ 2 Quad / Core™ 2 Duo / Pentium® Dual Core / Celeron®, supporting **Penryn Quad Core Yorkfield and Dual Core Wolfdale** processors
- Supports **FSB1600/1333/1066/800** MHz CPUs
- Supports Dual Channel **DDR3 1333/1066** (2 x DIMM slots) with max. capacity up to 4GB and Dual Channel **DDR2 1066/800/667** (4 x DIMM slots) with max. capacity up to 8GB
- 1 x **PCI Express 2.0** x16 slot (green @ x16 mode)
- **6 x SATAII** 3.0 Gb/s connectors, support NCQ, AHCI and Hot Plug functions
- 1 x **eSATAII** 3.0 Gb/s connector
- **PCIe Gigabit LAN** 10/100/1000 Mb/s
- 1 x **WiFi/E** header
- 7.1 CH Windows® Vista™ Premium Level HD Audio (ALC888 Audio Codec)
- Supports **I. O. T.** (Intelligent Overclocking Technology) , **ASRock OC Tuner**
- **Windows® Vista™ Premium 2008 Logo Ready**

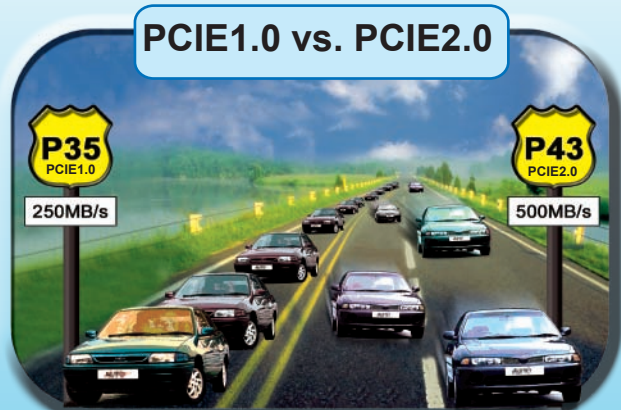
The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than original product specification is not guaranteed.

## Detail Specification <<<

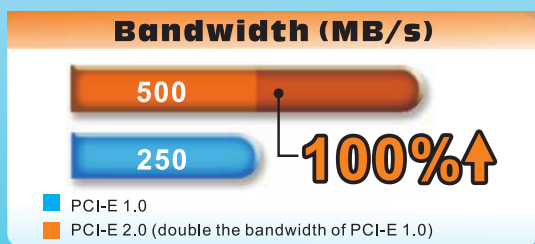
<b>Platform</b>	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm
<b>CPU</b>	- LGA 775 for Intel® Core™ 2 Extreme / Core™ 2 Quad / Core™ 2 Duo / Pentium® Dual Core / Celeron®, supporting Penryn Quad Core Yorkfield and Dual Core Wolfdale processors - Supports FSB1600/1333/1066/800 MHz - Supports Hyper-Threading Technology - Supports Untied Overclocking Technology - Supports EM64T CPU
<b>Chipset</b>	- Northbridge: Intel® P43 - Southbridge: Intel® ICH10
<b>Memory</b>	- Dual Channel DDR3/DDR2 memory technology - 2 x DDR3 DIMM slots - Supports DDR3 1333/1066 non-ECC, un-buffered memory - Max. capacity: 4GB - 4 x DDR2 DIMM slots - Supports DDR2 1066/800/667 non-ECC, un-buffered memory - Max. capacity: 8GB
<b>Expansion Slot</b>	- 1 x PCI Express 2.0 x16 slot (green @ x16 mode) - 3 x PCI Express x1 slots - 3 x PCI slots
<b>Audio</b>	- 7.1 CH Windows® Vista™ Premium Level HD Audio (ALC888 Audio Codec)
<b>LAN</b>	- PCIe x1 Gigabit LAN 10/100/1000 Mb/s - Realtek RTL8111B/RTL8111C - Supports Wake-On-LAN
<b>Rear Panel I/O</b>	ASRock SPDIF I/O - 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x Coaxial SPDIF Out Port - 1 x Optical SPDIF Out Port - 6 x Ready-to-Use USB 2.0 Ports - 1 x eSATAII Port - 1 x RJ-45 LAN 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 NCQ, AHCI and Hot Plug functions - 1 x eSATAII 3.0 Gb/s connector (shared with 1 SATAII port) - 1 x ATA133 IDE connector (supports 2 x IDE devices) - 1 x Floppy connector - 1 x DeskExpress Hot Plug Detection header - 1 x COM port header - 1 x HDMI_SPDIF header - CPU/Chassis FAN connector - 24 pin ATX power connector - 4 pin 12V power connector - CD in header - Front panel audio connector - 2 x USB 2.0 headers (support 4 USB 2.0 ports) - 1 x WiFi/E header
<b>BIOS Feature</b>	- 4Mb 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)
<b>Support CD</b>	- Drivers, Utilities, AntiVirus Software (Trial Version)
<b>Unique Feature</b>	- ASRock OC Tuner - Hybrid Booster: - CPU Frequency Stepless Control - ASRock U-COP - Boot Failure Guard (B.F.G.)
<b>Hardware Monitor</b>	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU Fan Tachometer - Chassis Fan Tachometer - CPU Quiet Fan - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
<b>OS</b>	- Microsoft® Windows® 2000 / XP / XP 64-bit / Vista™ / Vista™ 64-bit compliant
<b>Certifications</b>	- FCC, CE, WHQL
<b>Accessories</b>	- Quick Installation Guide, Support CD, I/O Shield - Floppy/ATA 133 Cables - 2 x SATA Data Cables (Optional) - 1 x SATA 1 to 1 Power Cable (Optional) - 1 x HDMI_SPDIF Cable (Optional)

## PCI-E 2.0 Revolution

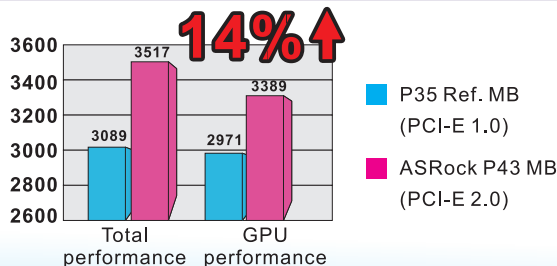
# Only PCI-E 2.0 MB can fully deliver PCI-E 2.0 VGA card Performance!



PCI-E 1.0 vs. PCI-E 2.0



### 3DMark Vantage (Extreme)



	P35 (PCI-E 1.0)	P43 (PCI-E 2.0)	Performance Improved
Total performance Score (Extreme)	X3089	X3517	14%
GPU performance Score (Extreme)	2971	3389	14%

Test Configurations :  
 CPU: Intel QX9650 3.0GHz FSB1333 CPU  
 VGA: SPARKLE GF9800GX2/1024MB PCI-E Gen2 VGA card  
 Memory: 2 x 1GB DDR3 1333; Resolution: 1920x1200

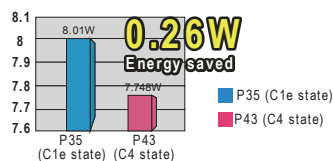
## Full Time Energy Saving

### Energy Saving Comparison (P43 vs. P35)

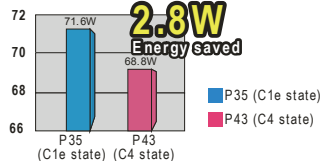
#### During Operation Mode:

When CPU is at idle mode, P43 MB can enter deeper sleep mode (C4 state) than P35 (can only enter C1e state) and save more energy

##### CPU power consumption



##### System power consumption

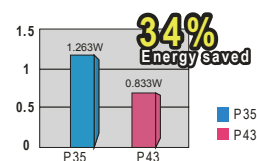


	P35 (C1e state)	P43 (C4 state)	Energy saved
CPU power consumption	8.01W	7.748W	0.26W
System power consumption	71.6W	68.8W	2.8W

#### During Off Mode:

Even when system is off, ASRock P43 MB can save more energy than P35 Ref. MB because of the lower power consumption of +5VSB

##### +5VSB power consumption



	P35	P43	Energy saved
+5VSB power consumption	1.263W	0.833W	34%

## P43 Series Motherboard

P43R1600Twins-WiFi

P43R1600Twins-110dB

P43R1600Twins

P43D1600Twins-1394

P43D1600Twins

P43Twins 1600