

P5B Series Motherboards

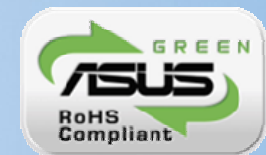
❑ *P5B Deluxe WiFi-AP Edition*

❑ *P5B*

Adjust speed as you wish!

● *AI NOS™* ● *AI Gear* ● *AI Nap*

- ❖ Intel® Socket LGA775 Platform
- ❖ Intel® Core™2 Processor Ready
- ❖ Intel® P965 chipset
- ❖ FSB 1066/800/533 MHz
- ❖ Dual Channel DDR2 800/667/533 MHz

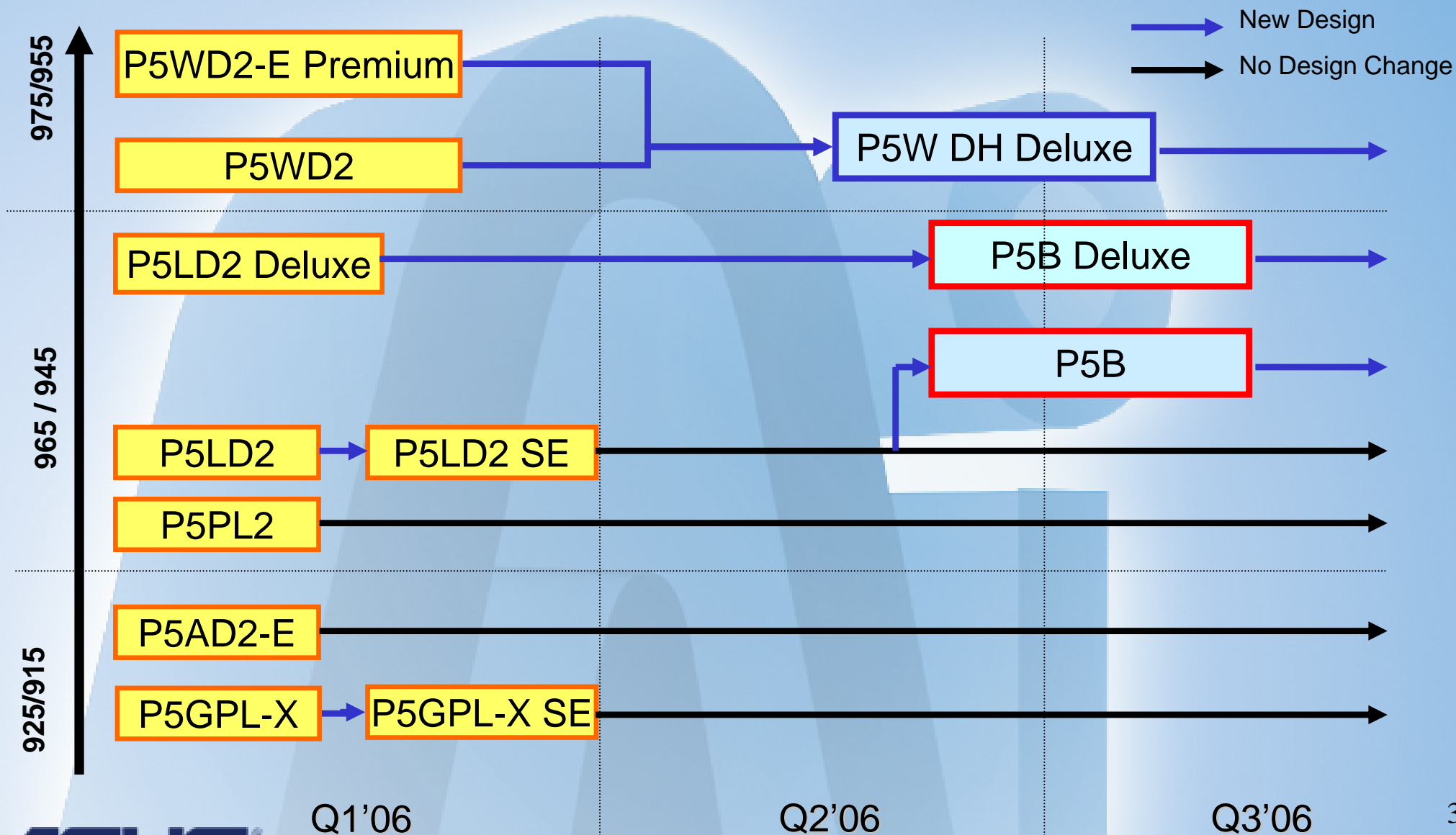


Overview

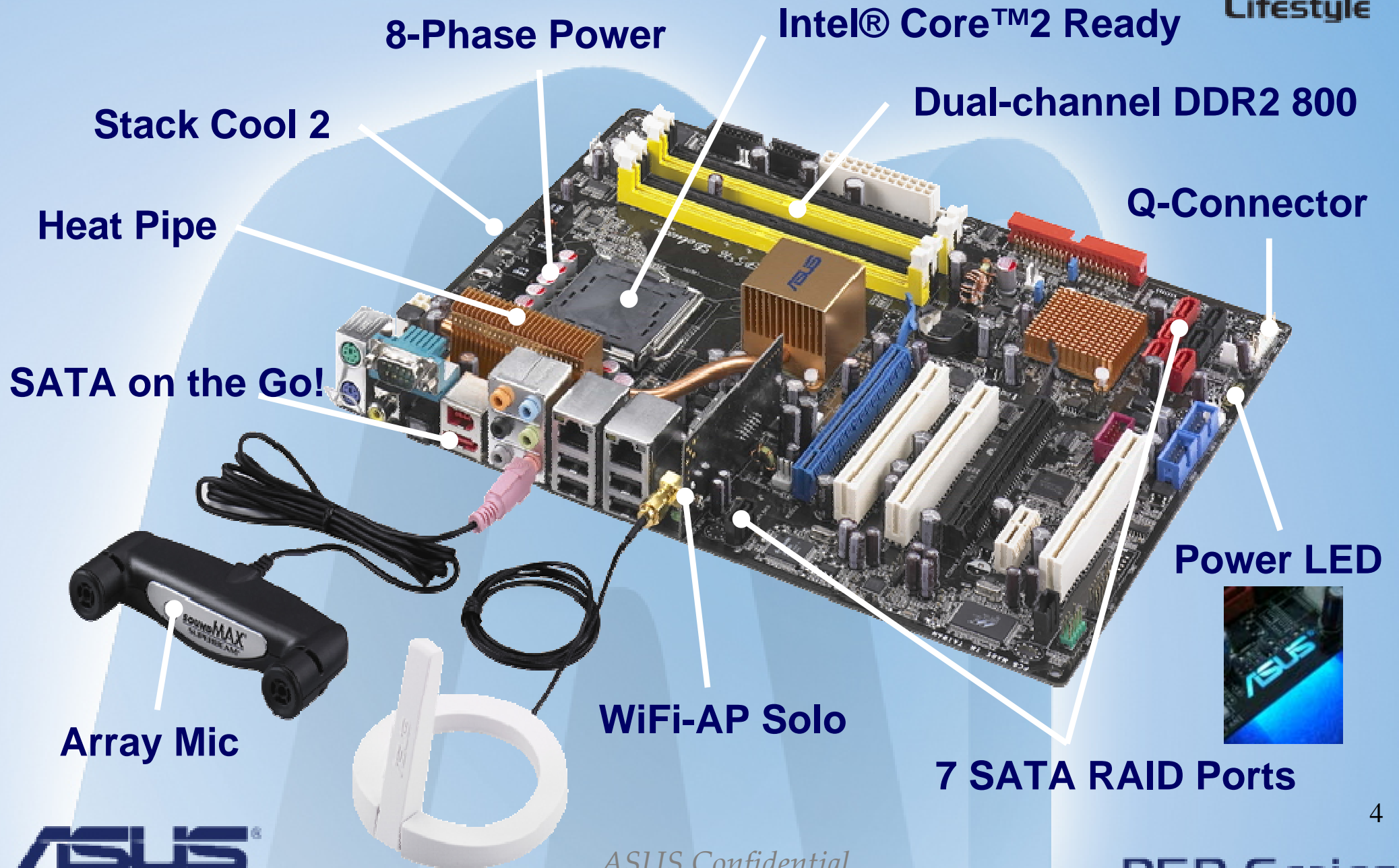


- ❖ **Product Position**
- ❖ **Product Overview**
- ❖ **Intel® Core™2 Processor Ready**
- ❖ **Intel® P965 Express Chipset**
- ❖ **Kingston® HyperX® PC2-8500 Ready**
- ❖ **AI Lifestyle Features**
- ❖ **Product Planning**
- ❖ **Product SPEC**

Intel Chipset Product Position



P5B Deluxe WiFi-AP Edition Overview



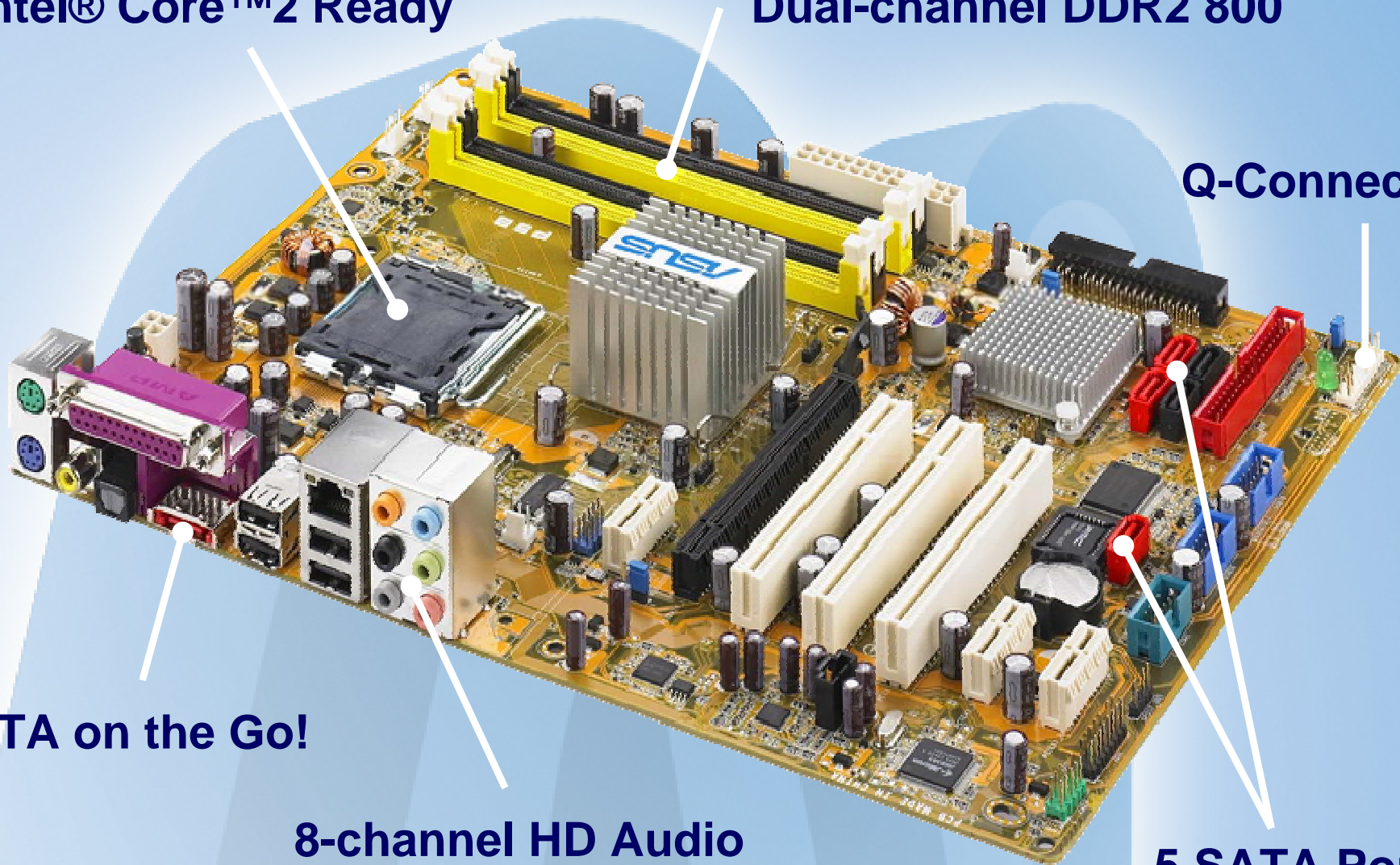
P5B Overview



Intel® Core™2 Ready

Dual-channel DDR2 800

Q-Connector



SATA on the Go!

8-channel HD Audio

5 SATA Ports

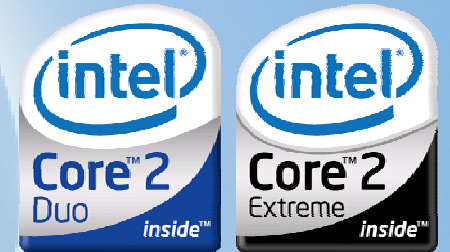
Intel® Core™2 Processor Ready



❖ Intel® Core™2 processor means the next generation to Intel® Core processor

❖ Intel® Core™2 family

- ◆ Intel Core™2 Duo for desktop = Conroe
- ◆ Intel Core™2 Extreme for desktop = Conroe Extreme Edition
- ◆ Intel Core™2 processors for mobile = Merome



❖ Conroe & Merome are based on the same Intel® Core™ microarchitecture

❖ Launch in 7/23

Intel® Core™2 Processor



❖ Benefits

- ◆ Higher performance
- ◆ Greater energy efficiency
- ◆ More responsive multitasking

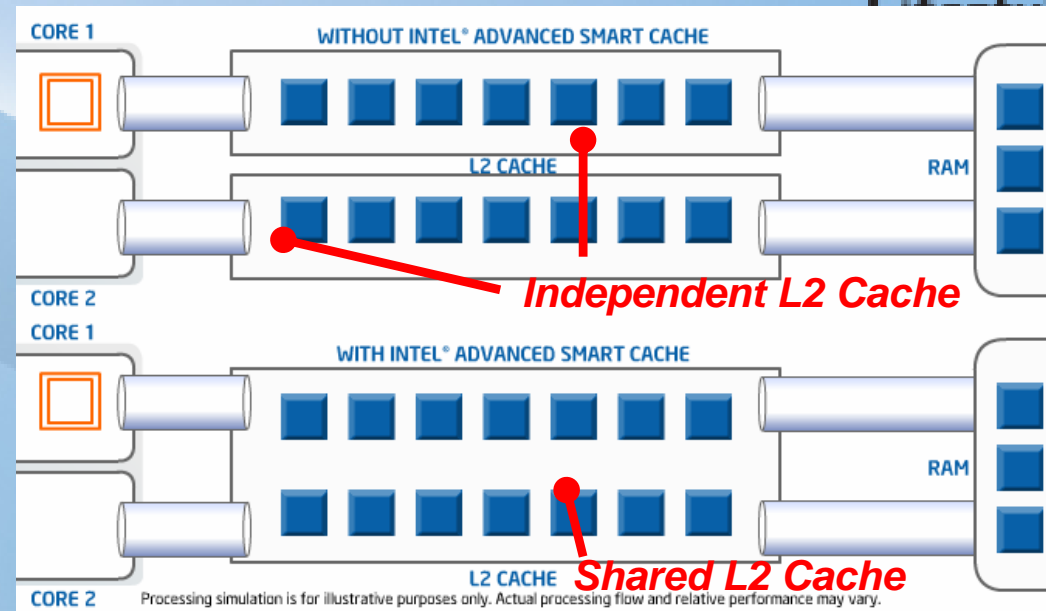
❖ Features

- ◆ Intel® Advanced Smart Cache
- ◆ Intel® Advanced Digital Media Boost
- ◆ Intel® Wide Dynamic Execution
- ◆ Intel® Smart Memory Access
- ◆ Intel® Intelligent Power Capability

<http://www.intel.com/technology/architecture/coremicro/demo/demo.htm>

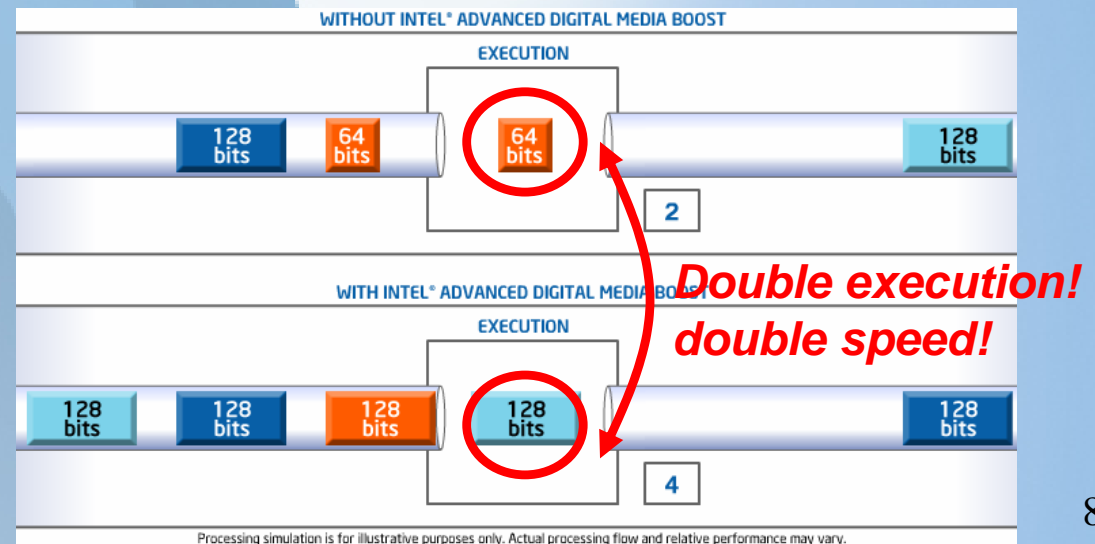
Intel® Advanced Smart Cache

- ❖ Dynamically utilize up to 100% of available L2 cache, while obtaining data from the cache at higher throughput rates.



Intel® Advanced Digital Media Boost

- ❖ Enables 128-bit instructions to be executed at one per clock cycle – effectively doubling the speed of execution



Intel® Core™2 Processor Product List



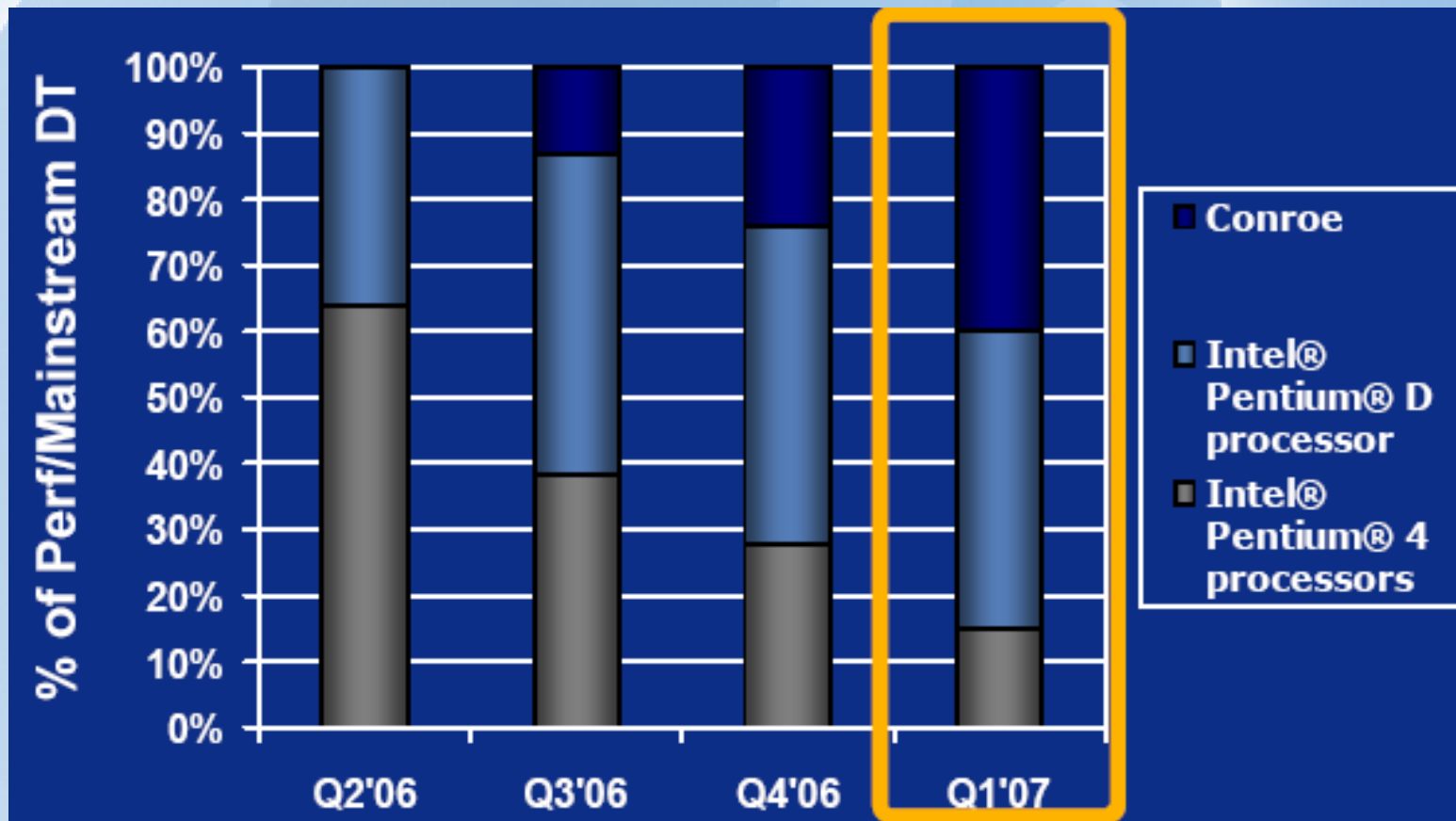
❖ Same price with similar segment of 900 series

Brand	Processor Number	Suffix	Clock Speed (GHz)	Front Side Bus (MHz)	L2 Cache	Cores / Threads	Intel® Viiv™ Technology	Intel® vPro™ Technology	Intel Technologies					Socket	Processor Generation
									Intel® VT	HT Technology	Enhanced Intel SpeedStep® Technology	Intel® EM64T	Execute Disable Bit		
	X6800	—	2.93	1066	4MB	2 / 2	✓		✓		✓	✓	✓	LGA 775	Conroe
E6000 and E4000 Sequence															
	E6700	—	2.66	1066	4MB	2 / 2	✓	✓	✓		✓	✓	✓	LGA 775	Conroe
	E6600	—	2.40	1066	4MB	2 / 2	✓	✓	✓		✓	✓	✓		
	E6400	—	2.13	1066	2MB	2 / 2	✓	✓	✓		✓	✓	✓		
	E6300	—	1.86	1066	2MB	2 / 2	✓	✓	✓		✓	✓	✓		
	E4200	—	1.60	800	2MB	2 / 2	✓				✓	✓	✓		

	Proc No.	GHz	FSB	Cache	Pkg	May	4-Jun	23-Jul
C2D	E6700	2.67	1066	4M	LGA775			\$530
C2D	E6600	2.40	1066	4M	LGA775			\$316
C2D	E6400	2.13	1066	2M	LGA775			\$224
C2D	E6300	1.86	1066	2M	LGA775			\$183
PDP	960	3.6	800	2x2M	LGA775	\$530		\$316
PDP	950	3.4	800	2x2M	LGA775	\$316		\$224
PDP	945 (no VT)	3.4	800	2x2M	LGA775			\$163
PDP	940	3.2	800	2x2M	LGA775	\$241	\$224	\$183

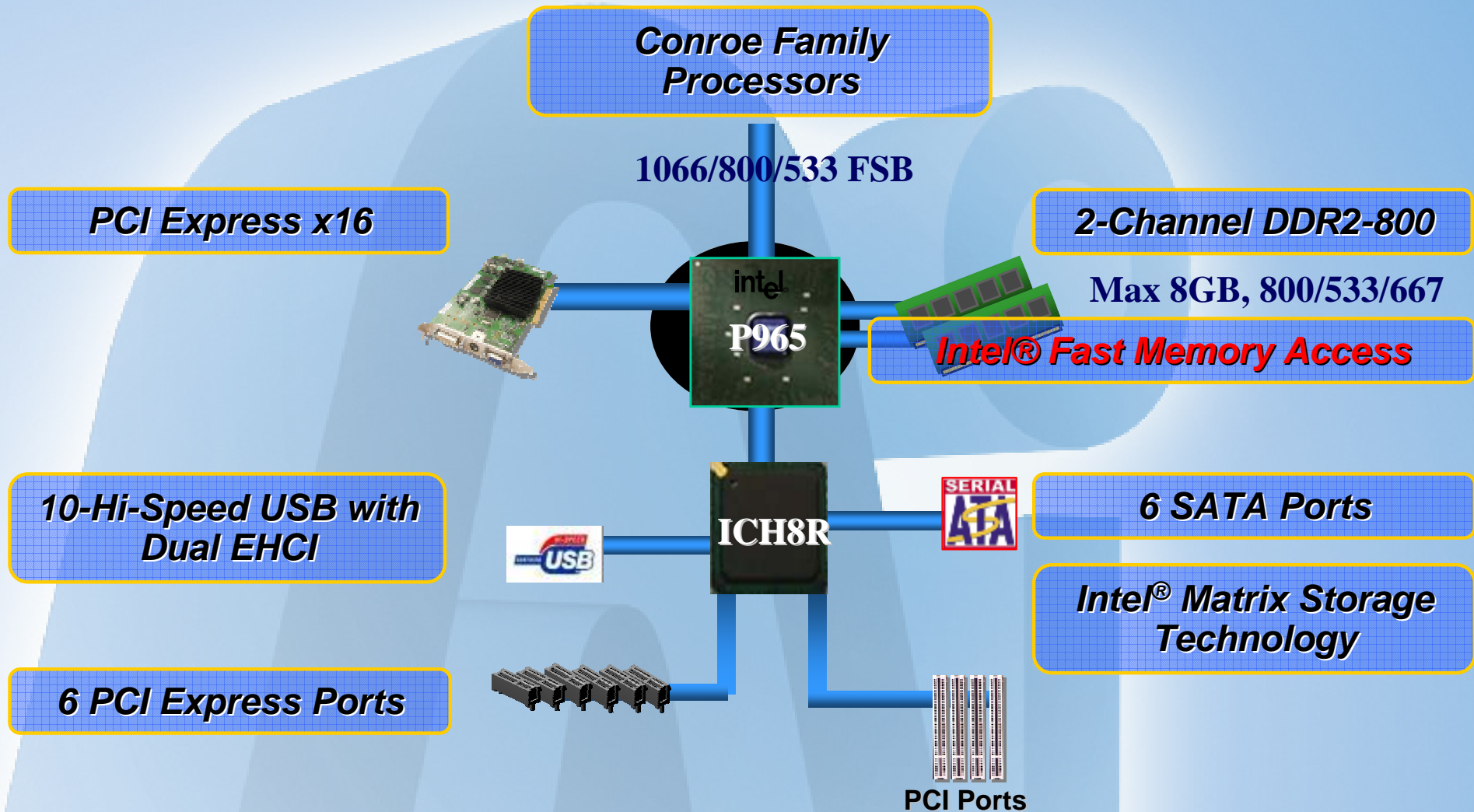
Intel® Target CPU Transition

- ❖ Intel® Core™2 launch schedule: 7/23
- ❖ Move to dual core processor aggressively





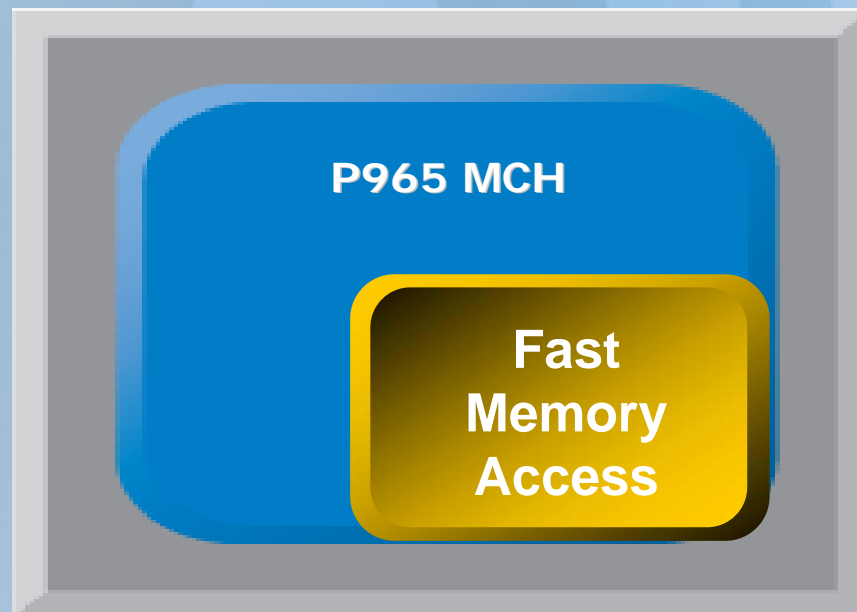
Intel® P965 Express Chipset



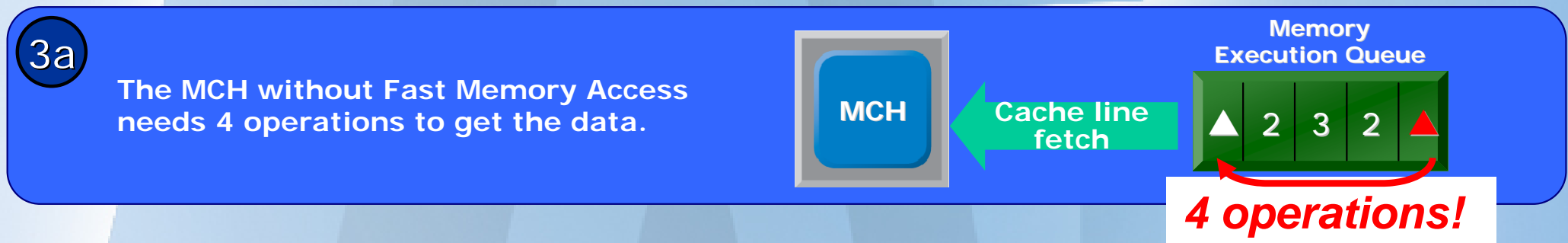
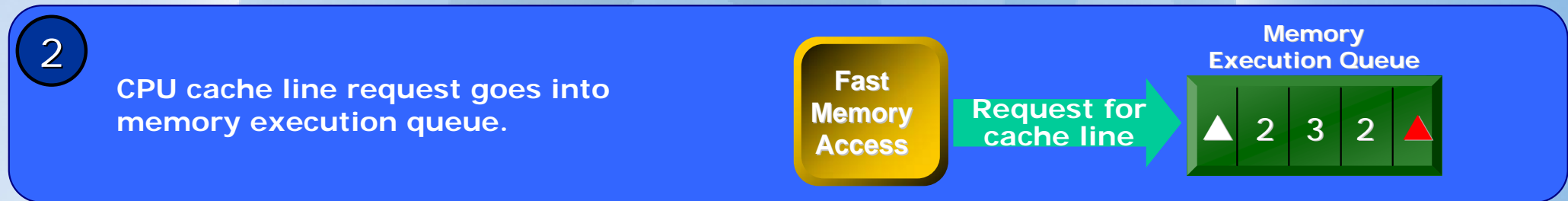
Intel® Fast Memory Access



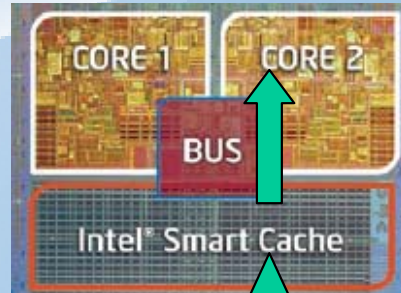
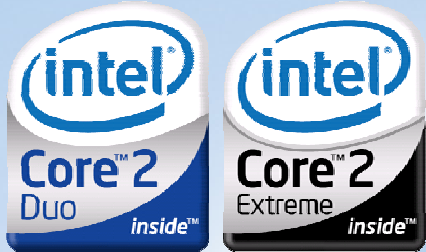
- ❖ Optimizes the use of available memory bandwidth and reduces the latency of the memory accesses



Intel® Fast Memory Access out of order execution



Power Companion: Intel® Core™2 Processor + Intel® P965 Chipset



128 bit execution doubles the speed of execution
- Intel® Advanced Digital Media Boost

Full utilize the CPU cache
- Intel® Advanced Smart Cache

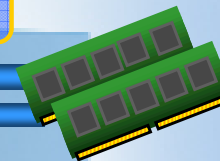
1066 FSB

PCI Express x16



P965
FMA

2-Channel DDR2-800



Twice memory size than Intel 945P
- Max 8GB

12.8 GB/s bandwidth
- Dual DDR2 800

Reduces the latency of the memory accesses
- Intel® Fast memory Access

Kingston® HyperX® PC2-8500 Ready



- ❖ The Kingston HyperX PC2-8500 runs at **1066 MHz** frequency that delivers outstanding performance.
- ❖ The P5B Deluxe and PC2-8500 HyperX memory are **optimized for each other** to reach maximum performance.
- ❖ Local joint promotion events are welcome.



❖ *The Kingston DIMM modules are not included in ASUS motherboard package.*

AI Lifestyle Features



Adjust speed as you wish!

- AI NOS
- AI Gear
- AI Nap

Quiet Thermal Solutions

- 8 Phase Power
- Heat Pipe
- Stack Cool 2

Crystal Sound

- Array Mic
- Noise Filter

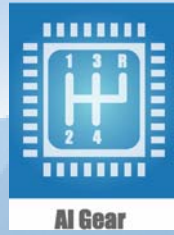
EZ DIY

- Q-Connector
- O.C. Profile
- CrashFree BIOS 3
- EZ Flash 2
- Power LED

Adjust speed as you wish!



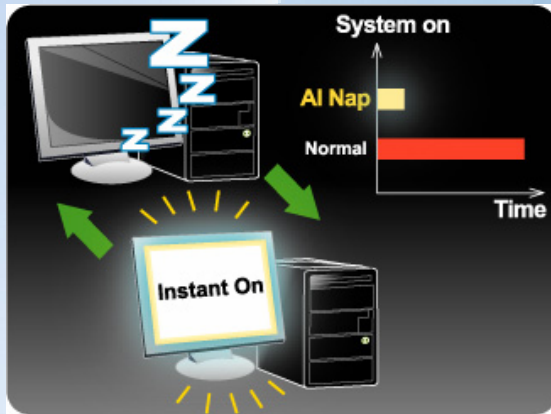
AI Nap



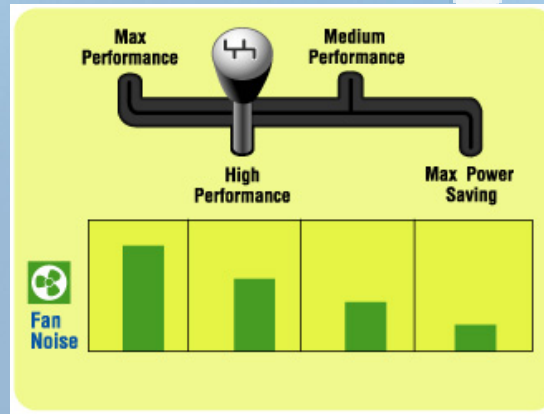
AI Gear



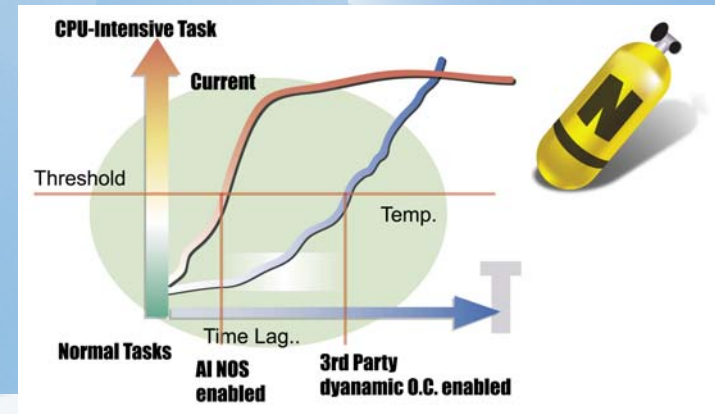
AI NOS



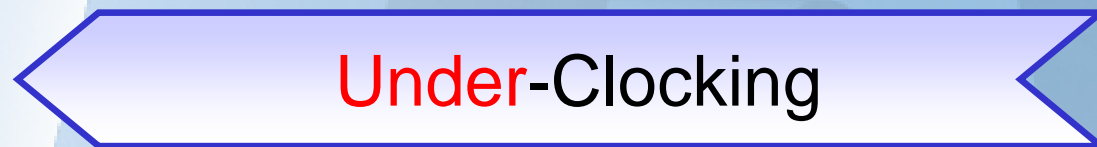
Minimum noise!



Balance performance & quietness

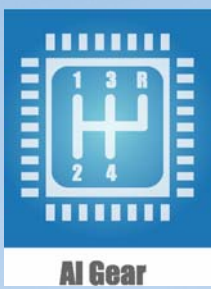


Boost performance!



Quietness

Performance

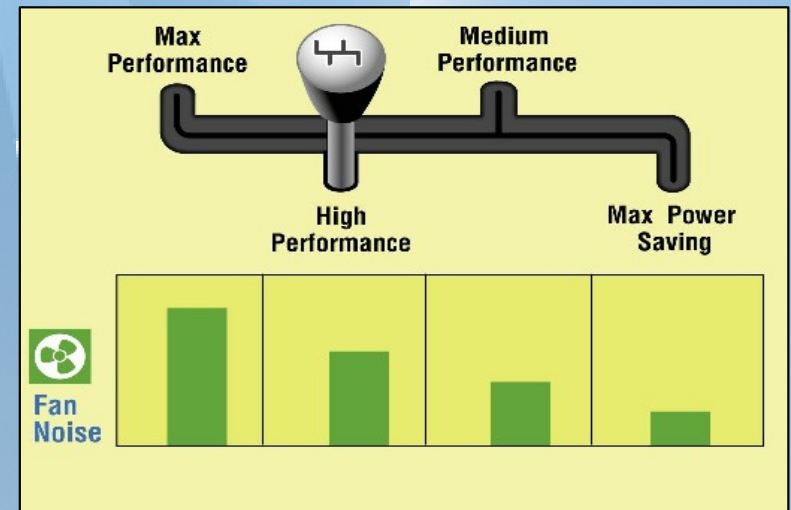


ASUS AI Gear



ASUS AI Gear allows users to choose from profiles to adjust CPU frequency and voltage.

- ❖ **Balance both system **Performance** and **Quietness****
 - ◆ Max Performance
 - ◆ High Performance
 - ◆ Medium Performance
 - ◆ Max Power Saving
- ❖ **Real time adjustment in OS**





ASUS AI Nap



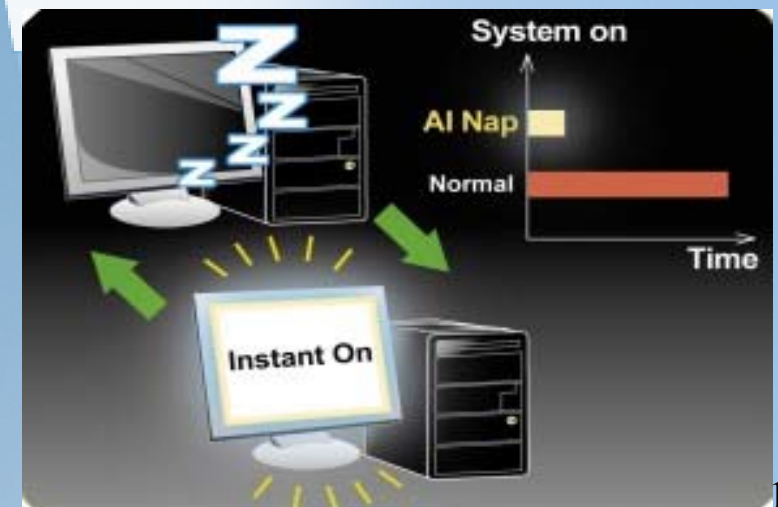
Users can instantly snooze PC without terminating the tasks. System will continue operating at minimum power and noise.

❖ AI Nap enabled:

- ◆ Minimum power and fan noise
- ◆ It keeps downloading files or running applications in quietest state while you're sleeping

❖ System wake up

- ◆ Simply click keyboard or mouse, you can swiftly wake up the system in few seconds



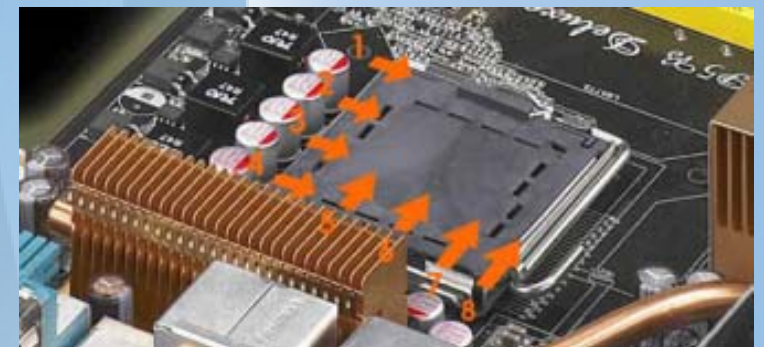


ASUS Quiet Thermal Solution – 8 Phase Power Design



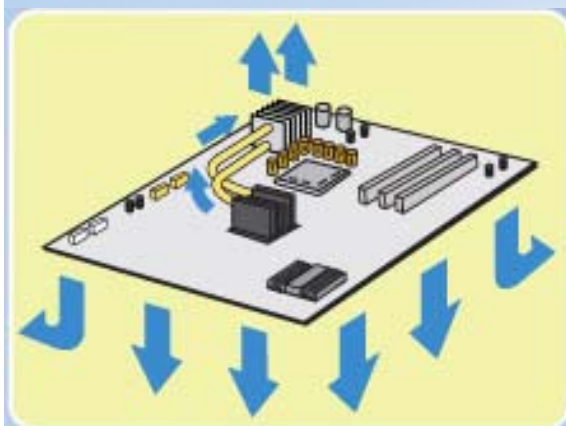
- ❖ **Cooler and quieter system**
 - ◆ Operates at 15°C (59°F) lower than conventional solutions, which means lower fan speed and quiet
- ❖ **Longer component lifespan**
 - ◆ Reduces input ripple current and output ripple voltage, keeping the CPU and power modules from the risk of high power stress.
- ❖ **Reliability under heavy-loading and overclocking**
 - ◆ Quick transient response to stabilize output current and voltage when heavy-loading and overclocking

Work efficiently and quietly with Stack Cool 2, Heat Pipe and 8 Phase Power design.





ASUS Quiet Thermal Solution – Stack Cool 2 & Heat Pipe



❖ Stack Cool 2

Most efficient cooling system = Safer Overclocking
Zero Noise = Quiet operation
No moving parts = No fan failure trouble

❖ Heat Pipe

- ◆ The heat sink and heat pipe cover critical power components and chipsets to dissipate heat away from motherboard.





ASUS Crystal Sound - Array Mic



- ❖ **Receives only the sound coming from the reception cone**
- ❖ **Ignore environment noise and eliminates interferences**
- ❖ **Advanced de-reverberation techniques can also reduce echo and minimize its effect**



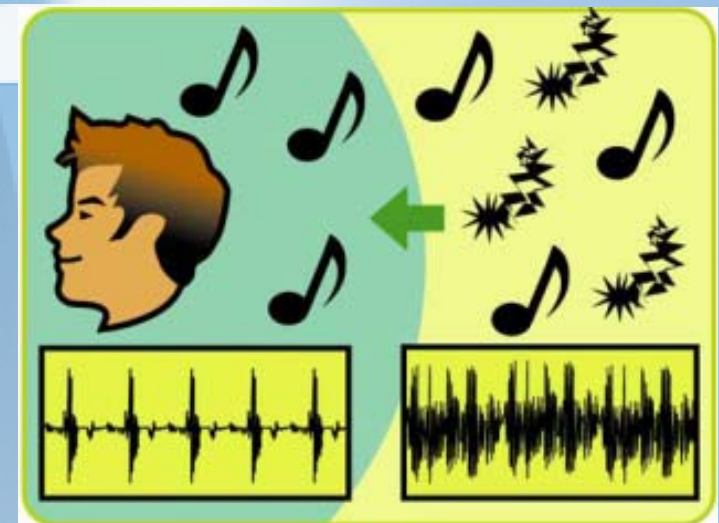


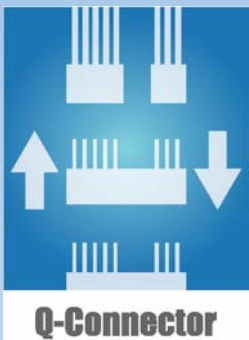
ASUS Crystal Sound - Noise Filter



Eliminate background noise while recording

- ❖ Detect repetitive and stationary noises then eliminates it in the incoming audio stream while recording.
- ❖ Enhance the quality of speech-centric application like MSN, online game, and video conference



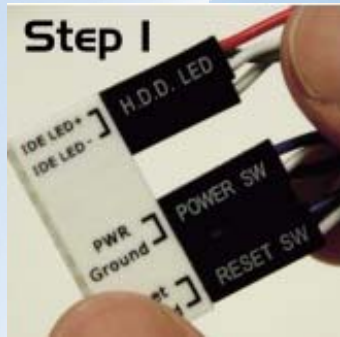


ASUS EZ DIY

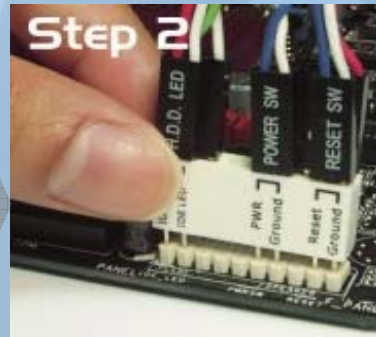


❖ Q-Connector

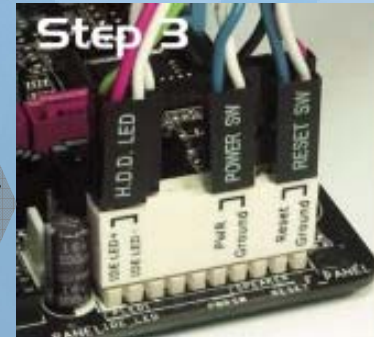
- ◆ Allows you to connect or disconnect chassis front panel, USB, and 1394 cables in easy steps with adapters



Connect chassis cables to the adaptor



Plug the adaptor to MB headers easily



Finished!



3IN1 Q-Connector Kit

❖ ASUS Power LED

- ◆ Remind you to unplug the power cable before changing any device.

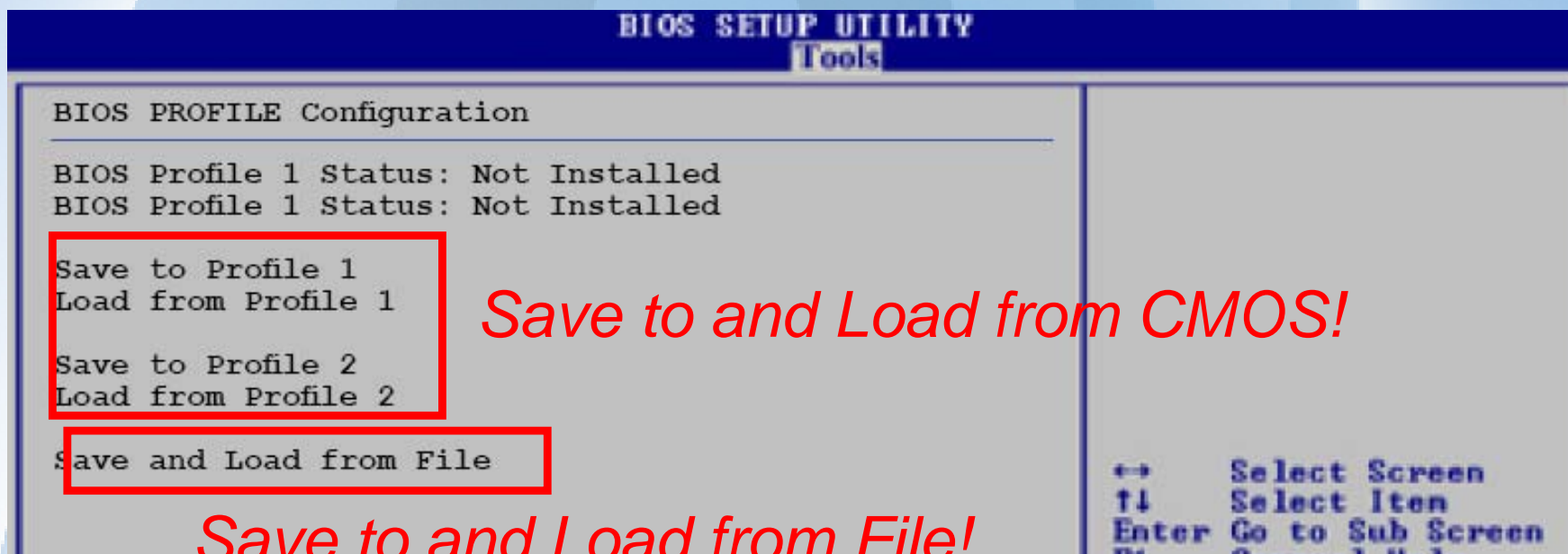




ASUS EZ DIY – O.C. Profile



- ❖ Conveniently store or load multiple BIOS settings
- ❖ Freely share and distribute favorite overclocking settings



ASUS EZ DIY



❖ CrashFree BIOS 3

- Simply restore corrupted BIOS data from USB flash disk



	CrashFree BIOS	CrashFree BIOS 2	CrashFree BIOS 3
Floppy	V	V	V
CD-ROM		V	V
USB Flash			V

❖ EZ Flash 2

- Simply update BIOS from a USB flash disk before entering the OS



	EZ Flash	EZ Flash 2
Floppy	V	V
CD-ROM	V	
USB Flash		V

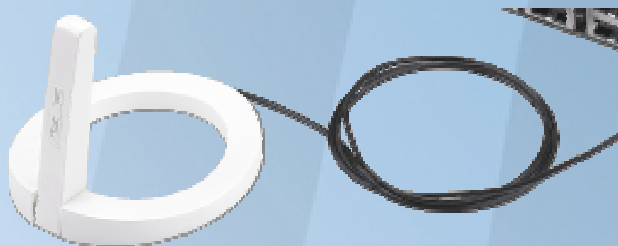


WiFi-AP Solo

ASUS WiFi-AP Solo



- ❖ Onboard wireless and AP functions saves cost to buy extra wireless AP
- ❖ Provide complete wireless functions in either software AP or wireless client mode.
- ❖ 54 Mbps IEEE 802.11g and backwards compatible with 11 Mbps IEEE 802.11b
- ❖ Easily sync up with Centrino notebooks and other wireless devices



P5B Series Product Planning

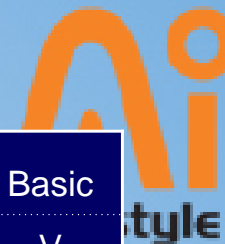
❖ Available models

- ◆ P5B Deluxe WiFi-AP Edition & P5B

❖ Timeframe

- ◆ Intel P965 launch date: **June 5**
- ◆ P5B Deluxe/WiFi-AP media review samples
 - Released by **June 9**
- ◆ P5B Deluxe/WiFi-AP & P5B MP schedule
 - Sample Request: **06/14/2006**
 - 1st MP Allocation: **06/21/2006**
- ◆ Marketing material
 - Poster
 - 50PCS/PACK; P/N: 15-271154200
 - Brochure
 - 350 PCS/PACK; P/N: 15-271154100

P5B Series SPEC



		Deluxe WiFi-AP	Basic
CPU	LGA775 socket for Intel® Core™2 Extreme / Core™2 Duo / Pentium® Extreme / Pentium® D / Pentium® 4 / Celeron® D	V	V
Chipset	Intel® P965/ ICH8R	V	
	Intel® P965/ ICH8		V
System Bus	1066/800/533 MHz	V	V
Memory	4 x DIMM, max. 8GB, Dual channel DDR2 800/667/533 MHz, non-ECC, un-buffered memory	V	V
Expansion Slots	2 x PCI-E x16 (one @ x16 mode, the other @x2 or x4 mode)	V	
	1 x PCI-E x16		V
	1 x PCI-E x1 (x1 or disabled mode)	V	
	3 x PCI-E x1		V
	3 x PCI 2.2	V	V
Storage	Southbridge		
	- # x SATA 3.0 Gb/s ports	6	4
	- Intel Matrix Storage Technology supports RAID 0, 1, 5 and 10.	V	
	JMicron® JMB363 PATA and SATA controller		
	- 1 x UltraDMA 133/100/66 for up to 2 PATA devices	V	V
	- 1 x Internal SATA 3.0 Gb/s port	V	V
	- 1 x External SATA 3.0 Gb/s port (SATA On-the-Go)	V	V
	- Support SATA RAID 0, 1 and JBOD	V	V
Audio	ADI® 8-channel High Definition Audio CODEC	1988B	1988A
LAN	Marvell® PCI-E and PCI Dual Gigabit LAN and WiFi-AP	V	
	Realtek® PCI-E Gigabit LAN		V
IEEE1394	TI® 1394a controller supports 2 x IEEE 1394a ports	V	

AI Lifestyle Features Comparison



	Deluxe WiFi-AP	Basic
Adjust Speed as you wish!		
- AI NOS	✓	✓
- AI Gear	✓	✓
- AI Nap	✓	✓
Quiet Thermal Solutions		
- 8 Phase Power Design	✓	
- Fanless Design: Stack Cool 2	✓	
- Fanless Design: Heat-pipe solution	✓	
Crystal Sound		
- Array Mic	✓	
- Noise Filter	✓	✓
EZ DIY		
- Q-Connector	✓	✓
- O.C. Profile	✓	✓
- CrashFree BIOS 3	✓	✓
- EZ Flash 2	✓	✓
- Power LED	✓	
WiFi @Home		
- WiFi-AP Solo	✓	

~~ Thank you ~~