

Server/Workstation Chipsets

	Intel® E7205 Chipset	Intel® 875P Chipset	Intel® 860 Chipset	Intel® E7505 Chipset	Intel® E7500 Chipset	Intel® E7501 Chipset	Intel® 460GX Chipset	Intel® E8870 Chipset
HOST	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
Target Segment	Entry-level Workstation, Performance PC, High-End Desktop	Entry-level Workstation, Performance PC, High-End Desktop	Workstation	Workstation	Server	Server	Server & Workstation	Server
Processor	Pentium® 4 processor	Pentium® 4 processor	Intel® Xeon™ processor for DP workstations	Intel® Xeon™ processor with 533 MHz System Bus and 512K L2 Cache	Intel® Xeon™ processor with 512KB L2 cache	Intel® Xeon™ processor with 533 MHz System Bus and 512K L2 Cache	Intel® Itanium® processor	Intel® Itanium® 2 processor
Number Processors	1	1	1-2	1-2	1-2	1-2	1-4	1-4
System Bus	533/400 MHz (data)	800/533/400 MHz (data)	400MHz (data)	400/533MHz (data)	400 MHz	400/533MHz (data)	266/133 MHz	400 MHz (data)
MEMORY CONTROLLER HUB	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
Type	E7205 MCH	82875P MCH	82860 MCH	E7505 MCH	E7500 MCH	E7501 MCH	82461GX, 82462GX	SNC
Package	1005 FC-BGA	1005 FC-BGA	1024 OLGA	1005 FC-BGA	1005 FC-BGA	1005 FC-BGA	567 OLGA	1357 OLGA-2B 12L
MEMORY	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
Memory Modules	4 DIMMs	4	4 RIMMs, up to 8 RIMMS with MRH-R	72-bit wide DDR SDRAM DIMM populated in pairs (single channel)	72-bit wide DDR SDRAM DIMM (single channel)	4 double-sided DIMMs	72-bit wide DDR SDRAM DIMM populated in quads	72-bit/64-bit wide DDR SDRAM DIMM populated in pairs Registered and Unbuffered Support
Memory Type	unbuffered only x72 or x64 DIMMs DDR - SDRAM	Dual-Channel DDR 400/333/266 SDRAM	PC800/600 RDRAM	DDR 200/266 - SDRAM (PC1600/2100 - 6 DIMM registered, 4 DIMM unbuffered)	DDR 200 - SDRAM (PC1600 - 8 DIMM registered)	DDR 200/266 - SDRAM (PC1600/2100 - 8 DIMM registered for dual channel - 4 DIMM registered for single channel)	PC100 SDRAM	DDR SDRAM
Max Memory	4 GB	4 GB	4 GB (w/ 2 repeaters)	16 GB	16 GB	16 GB	64 GB	128 GB (w/4 DDR Memory Hubs)
Number of Rows/Devices	1-4 physical rows, 2-4 DIMMs	up to 8 rows, up to 64 devices	32 RDRAM/channel	1-6 physical rows, 2-6 DIMMs	1-4 physical rows, 2-8 DIMMs	1-4 physical rows, 2-8 DIMMs (dual channel); 1-4 DIMMs (single channel)	32 DIMMs/memory card	32 DIMMs
Mbit Support	512/256/128 Mbit	512/256/128 Mbit	288/256 Mbit, 144/128 Mbit	1-Gb or 512/256/128 Mbit	512/256/128/64 Mbit	512/256/128 Mbit	256/128/64 Mbit	512/256/128 Mbit and 1 Gbit
ECC/Parity	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

EXTERNAL GRAPHICS	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
Interface	AGP 8X/4X (0.8V) AGP 4X/2X/1X (1.5V)	AGP 8X (1.5V)	AGP 4X/2X (1.5V)	AGP 8X/4X (0.8V) or AGP4X/2X/1X (1.5V)	N/A	N/A	AGP 4X/2X	N/A
I/O CONTROLLER HUB	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
Type	ICH4 (82801DB)	ICH5 / ICH5R	ICH2	ICH4 (82801DB)	ICH3-S	ICH3-S	IFB	SIOH
ICH Package	421 BGA	460 MGBA	360 EBGA	421 BGA	421 BGA	421 BGA	324 BGA	1012 OLGA2b
PCI Support	PCI 2.2	PCI 2.3	PCI 2.2	Single 32-bit PCI segment. PCI 2.2 compliant.	Single 32-bit PCI segment. PCI 2.2 compliant.	Single 32-bit PCI segment. PCI 2.2 compliant.	PCI 2.2	Up to four 64-bit PCI/PCI-X controllers (P64H2) via HI 2.0 interface; maximum bandwidth greater than 1 GB/s per interface
PCI Masters	6	6	6	6	6	6	N/A	Each P64H2 contains two independent 64-bit channels, capable of 133MHz PCI-X
IDE	ATA/100 IAA ²	Ultra ATA/100	ATA/100 IAA ¹	ATA/100	ATA/100	ATA/100	ATA/33	ATA/100
Serial ATA	N/A	2 ports, ATA 150	N/A	N/A	N/A	N/A	N/A	N/A
USB Ports/Controllers	6 ports, USB 2.0	8 ports, USB 2.0	4 ports, USB 1.1	3 controllers: 6 ports, USB 1.1	3 controllers: 6 ports	3 controllers: 6 ports, USB 1.1	1 controller: 2 ports	3 UHCI controllers; 1 EHCI controller for USB2.0 support: 6 ports
LAN MAC	Yes	10/100 LAN MAC	Yes	Integrated 10/100	Integrated 10/100	Integrated 10/100	No	N/A
AC'97 Digital Circuits	Yes	AC'97 2.2 compliant	Audio/Modem	AC'97 2.2 compliant	AC'97 2.2 compliant	AC'97 2.2 compliant	Audio/Modem	AC'97 2.2 compliant
Manageability	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
I/O Management	SMBus / GPIO	SMBus 2.0 / GPIO	SMBus / GPIO	SMBus 2.0 Support/ GPIO	SMBus / GPIO	SMBus / GPIO	SMBus / GPIO	SMBus / GPIO
Workstation/Server I/O Expansion	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
PCI Controller Type	N/A	N/A	PCI/Hub Interface Bridge, 64/32 bit (P64H)	PCI/PCI-X 64-bit Hub 2.0 (P64H2)	PCI/PCI-X 64-bit Hub 2.0 (P64H2)	PCI/PCI-X 64-bit Hub 2.0 (P64H2)	PCI eXpander Bridge (PXB), Wide and fast PCI eXpander Bridge (WXB)	PCI/PCI-X 64-bit Hub 2.0 (P64H2)
Package		N/A	241 BGA	567 FC-BGA	567 FC-BGA	567 FC-BGA	540 PLGA, 567 OLGA1	567 FC-BGA
PCI Support	N/A	N/A	2-66MHz or 4-33	Up to three 64-bit	Up to three 64-bit	Up to three 64-bit	One PXB and up to	Up to four 64-bit

			MHz PCI slots	PCI/PCI-X Controller Hub 2.0 components, each with a maximum bandwidth greater than 1 GB/s.	PCI/PCI-X Controller Hub 2.0 each maximum bandwidth greater than 1 GB/s.	PCI/PCI-X Controller Hub 2.0 components, each with a maximum bandwidth greater than 1 GB/s.	three WXB's	PCI/PCI-X Controller Hub 2.0 each maximum bandwidth greater than 1 GB/s.
PCI Masters	N/A	N/A	Up to 6 PCI devices	Each P64H2 contains two independent 64-bit PCI/PCI-X interfaces. The PCI interface maximum bus speed is 66MHz. The PCI-X interface maximum bus speed is 133MHz.	Each P64H2 contains two independent 64-bit PCI/PCI-X interfaces. The PCI interface maximum bus speed is 66MHz. The PCI-X interface maximum bus speed is 133MHz.	Each P64H2 contains two independent 64-bit PCI/PCI-X interfaces. The PCI interface maximum bus speed is 66MHz. The PCI-X interface maximum bus speed is 133MHz.	The PXB supplies two 32-bit, 33MHz PCI interfaces. Each WXB supplies two 64-bit, 66MHz interfaces	Each P64H2 contains two independent 64-bit of maximum 133MHz PCI-X interface.
RASUM	N/A	N/A	N/A	Memory ECC, Intel® x4 Single Device Data Correction (Intel® x4 SDDC) **, Hub Interface ECC, Hardware Memory Scrubbing	Memory ECC, Intel® x4 Single Device Data Correction (Intel® x4 SDDC) **, Hub Interface ECC, Hardware Memory Scrubbing	Memory ECC, Intel® x4 Single Device Data Correction (Intel® x4 SDDC) **, Hub Interface ECC, Hardware Memory Scrubbing	N/A	Hot Plug Modules for processor and memory, ECC protection & correction, Memory Scrubbing, Memory Device Failure Recovery (MDFR), Multiple redundant I/O paths and Error Logging
Hyper-Threading Technology	E7205 Chipset	875P Chipset	860 Chipset	E7505 Chipset	E7500 Chipset	E7501 Chipset	460GX Chipset	E8870 Chipset
Hyper-Threading Technology Support	Yes	Yes	No	Yes	Yes	Yes	No	No

¹[Intel® Application Accelerator](#): Accelerate boot time and disk I/O. Performs best on Pentium® 4 processor platforms.

²DVO = Intel® Digital Video Output Interface enables connection to TV or flat-panel displays

** In a x4 DDR memory device, the Intel® x4 Single Device Data Correction (Intel® x4 SDDC), provides error detection and correction for 1,2, 3, or 4 data bits within that single device and provides error detection, up to 8 data bits within two devices.

The Intel® Xeon™ processor, Intel® Itanium® processor, Intel® Itanium® 2 processor, Intel® E7505 chipset, Intel® E7205 chipset, Intel® E7501 chipset and Intel® E7500 chipset, Intel® E8870 chipset, Intel® 460GX chipset and Intel® 860 chipset may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.