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Name	Intel® Xeon® Processor LV 5148 (4M Cache, 2.33 GHz, 1333 MHz FSB)	Intel® Xeon® Processor L5410 (12M Cache, 2.33 GHz, 1333 MHz FSB)	Intel® Xeon® Processor L5420 (12M Cache, 2.50 GHz, 1333 MHz FSB)	Intel® Xeon® Processor L5430 (12M Cache, 2.66 GHz, 1333 MHz FSB)	Intel® Xeon® Processor X5550 (8M Cache, 2.66 GHz, 6.40 GT/s Intel® QPI)	Intel® Core™ i7-960 Processor (8M Cache, 3.20 GHz, 4.80 GT/s Intel® QPI)
Code Name	Woodcrest	Harpertown	Harpertown	Harpertown	Nehalem-EP	Bloomfield
Status	Launched	Launched	Launched	Launched	Launched	Launched
Launch Date	Q2'06	Q1'08	Q1'08	Q3'08	Q1'09	Q4'09
Processor Number	5148	L5410	L5420	L5430	X5550	i7-960
# of Cores	2	4	4	4	4	4
# of Threads	2	4	4	4	8	8
Clock Speed	2.33 GHz	2.33 GHz	2.5 GHz	2.66 GHz	2.66 GHz	3.2 GHz
Max Turbo Frequency					3.06 GHz	3.46 GHz
Cache	4 MB L2 Cache	12 MB L2 Cache	12 MB L2 Cache	12 MB L2 Cache	8 MB Intel® Smart Cache	8 MB Intel® Smart Cache
Bus/Core Ratio	7	7	7.5	8		24
Bus Type	FSB	FSB	FSB	FSB	QPI	QPI
System Bus	1333 MHz	1333 MHz	1333 MHz	1333 MHz	6.4 GT/s	4.8 GT/s
# of QPI Links					2	1
FSB Parity	Yes	Yes	Yes	Yes		
Instruction Set	64-bit	64-bit	64-bit	64-bit	64-bit	64-bit
Instruction Set Extensions						SSE4.2
Embedded Options Available	Yes	Yes	No	No	No	No
Lithography	65 nm	45 nm	45 nm	45 nm	45 nm	45 nm
Max TDP	40 W	50 W	50 W	50 W	95 W	130 W
VID Voltage Range	1.150V-1.250V	0.850V-1.3500V	0.850V-1.3500V	0.850V-1.3500V	0.750V -1.350V	0.800V-1.375V
Tray 1ku Budgetary Price	\$519.00	\$320.00	\$380.00	\$562.00	\$958.00	\$562.00
Memory Specifications						
Max Memory Size (dependent on memory type)					144 GB	24 GB
Memory Types					DDR3-800/1066/1333	DDR3-800/1066
# of Memory Channels					3	3
Max Memory Bandwidth					32 GB/s	25.6 GB/s
Physical Address Extensions	32-bit				40-bit	36-bit
ECC Memory Supported	No				Yes	No
Graphics Specifications						
Integrated Graphics						No
Package Specifications						
Max CPU Configuration					2	1

T _{CASE}	58°C	57°C	57°C	57°C	75°C	67.9°C
Package Size	37.5mm x 37.5mm	37.5mm x 37.5mm	37.5mm x 37.5mm	37.5mm x 37.5mm	42.5mm x 45mm	42.5mm x 45.0mm
Lithography	65 nm	45 nm	45 nm	45 nm	45 nm	45 nm
Processing Die Size	143 mm ²	214 mm ²	214 mm ²	214 mm ²	263 mm ²	263 mm ²
# of Processing Die Transistors	291 million	820 million	820 million	820 million	731 million	731 million
Sockets Supported	LGA771	LGA771	LGA771	LGA771	FCLGA1366	FCLGA1366
Advanced Technologies						
Intel® Turbo Boost Technology	No	No	No	No	Yes	Yes
Intel® Hyper-Threading Technology	No	No	No	No	Yes	Yes
Intel® Virtualization Technology (VT-x)	Yes	Yes	Yes	Yes	Yes	Yes
Intel® Trusted Execution Technology	No	No	No	No	No	No
AES New Instructions						No
Intel® 64	Yes	Yes	Yes	Yes	Yes	Yes
Idle States	Yes	Yes	Yes	Yes	Yes	Yes
Enhanced Intel SpeedStep® Technology	Yes	Yes	Yes	Yes	Yes	Yes
Intel® Demand Based Switching	No	Yes	Yes	Yes	Yes	No
Thermal Monitoring Technologies	Yes		Yes	Yes		No
Execute Disable Bit	Yes	Yes	Yes	Yes	Yes	Yes