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Name	Intel® Core™ i7-620UE Processor (4M Cache, 1.06 GHz)	Intel® Core™ i7-620LE Processor (4M Cache, 2.00 GHz)	Intel® Core™ i7-610E Processor (4M Cache, 2.53 GHz)
Status	Launched	Launched	Launched
Launch Date	Q1'10	Q1'10	Q1'10
Processor Number	i7-620UE	i7-620LE	i7-610E
# of Cores	2	2	2
# of Threads	4	4	4
Processor Base Frequency	1.06 GHz	2 GHz	2.53 GHz
Max Turbo Frequency	2.13 MHz	2.8 MHz	3.2 GHz
Cache	4 MB Intel® Smart Cache	4 MB Intel® Smart Cache	4 MB Intel® Smart Cache
Bus/Core Ratio	8	15	20
Bus Type	DMI	DMI	DMI
System Bus	3.2 GT/s	4.8 GT/s	4.8 GT/s
Instruction Set	64-bit	64-bit	64-bit
Instruction Set Extensions	SSE 4.1, SSE4.2	SSE4.1, SSE4.2	SSE4.1, SSE4.2
Embedded	Yes	Yes	Yes
Supplemental SKU	No	No	No
Processing Die Lithography	32 nm	32 nm	32 nm
Max TDP	18 W	25 W	35 W
Memory Specifications			
Max Memory Size (dependent on memory type)	8 GB	8 GB	7 GB
Memory Types	DDR3-800	DDR3-800/1066	DDR3-800/1066
# of Memory Channels	2	2	2
Max Memory Bandwidth	12.8 GB/s	17.1 GB/s	17.1 GB/s
Physical Address Extensions	36-bit	36-bit	36-bit
ECC Memory Supported	Yes	Yes	Yes
Graphics Specifications			
Integrated Graphics	Yes	Yes	Yes
Intel® HD Graphics	Yes	Yes	Yes
Intel® HD Graphics with Dynamic Frequency	Yes	Yes	Yes
Graphics Base Frequency	166 MHz	266 MHz	500 MHz
Graphics Max Dynamic Frequency	500 MHz	566 MHz	766 MHz
Intel® Flexible Display Interface (Intel® FDI)	Yes	Yes	Yes

Intel® Clear Video Technology	Yes	Yes	Yes
Intel® Clear Video HD Technology	Yes	Yes	Yes
Dual Display Capable	Yes	Yes	Yes
Macrovision* License Required	No	No	No
Expansion Options			
PCI Express Revision	2.0	2.0	2.0
PCI Express Configurations	1x16, 2x8	1X16, 2X8	1x16, 2x8
# of PCI Express Ports	1	1	
Package Specifications			
Max CPU Configuration	1	1	1
T _{JUNCTION}	105°C	105°C	105C
Package Size	BGA 34mmx28mm	BGA 34mmX28mm	BGA 34mm x 28mm
Processing Die Lithography	32 nm	32 nm	32 nm
Processing Die Size	81 mm ²	81 mm ²	81 mm ²
# of Processing Die Transistors	382 million	382 million	382 million
Graphics and IMC Lithography	45 nm	45 nm	45 nm
Graphics and IMC Die Size	114 mm ²	114 mm ²	114 mm ²
# of Graphics and IMC Die Transistors	177 million	177 million	177 million
Halogen Free Options Available	Yes	Yes	Yes
Advanced Technologies			
Intel® Turbo Boost Technology	Yes	Yes	Yes
Intel® Hyper-Threading Technology	Yes	Yes	Yes
Intel® Virtualization Technology (VT-x)	Yes	Yes	Yes
Intel® Virtualization Technology for Directed I/O (VT-d)	Yes	Yes	Yes
Intel® Trusted Execution Technology	Yes	Yes	Yes
AES New Instructions	Yes	Yes	Yes
Intel® 64	Yes	Yes	Yes
Idle States	Yes	Yes	Yes
Enhanced Intel® Speedstep Technology	Yes	Yes	Yes
Thermal Monitoring Technologies	Yes	Yes	Yes
Intel® Fast Memory Access	Yes	Yes	Yes
Intel® Flex Memory Access	Yes	Yes	Yes
Execute Disable Bit	Yes	Yes	Yes