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Intel® Core™ i7-920 Processor

8M Cache, 2.66 GHz, 4.80 GT/s Intel® QPI

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Essentials

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Product Collection	Legacy Intel® Core™ Processors
Code Name	Products formerly Bloomfield
Vertical Segment	Desktop
Processor Number	i7-920
Status	Discontinued
Launch Date ?	Q4'08
Lithography ?	45 nm
Recommended Customer Price ?	

Performance

# of Cores ?	4
# of Threads ?	8
Processor Base Frequency ?	2.66 GHz
Max Turbo Frequency ?	2.93 GHz
Cache ?	8 MB SmartCache
Bus Speed ?	4.8 GT/s QPI
# of QPI Links ?	1
TDP ?	130 W
VID Voltage Range ?	0.800V-1.375V

Supplemental Information

Embedded Options Available ?	No
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type) ?	24 GB
Memory Types ?	DDR3 800/1066
Max # of Memory Channels ?	3
Max Memory Bandwidth ?	25.6 GB/s
Physical Address Extensions ?	36-bit
ECC Memory Supported ‡ ?	No

Package Specifications

Sockets Supported ?	FCLGA1366
Max CPU Configuration	1
T$_{CASE}$?	67.9°C
Package Size	42.5mm x 45.0mm
Processing Die Size	263 mm^2
# of Processing Die Transistors	731 million

Advanced Technologies

Intel® Turbo Boost Technology ‡ ?	1.0
Intel® Hyper-Threading Technology ‡ ?	Yes
Intel® Virtualization Technology (VT-x) ‡ ?	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡ ?	Yes
Intel® 64 ‡ ?	Yes
Instruction Set ?	64-bit
Instruction Set Extensions ?	Intel® SSE4.2
Idle States ?	Yes
Enhanced Intel SpeedStep® Technology ?	Yes
Intel® Demand Based Switching ?	No
Thermal Monitoring Technologies ?	No

Security & Reliability

Intel® AES New Instructions ?	No
Intel® Trusted Execution Technology ‡ ?	No
Execute Disable Bit ‡ ?	Yes

More support options for Intel® Core™ i7-920 Processor (8M Cache, 2.66 GHz, 4.80 GT/s Intel® QPI)

Product Support

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Warranty and Replacement

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product descriptions at any time, without notice. The information herein is provided "as-is" and Intel does not make any representations or warranties whatsoever regarding accuracy of the information, nor on the product features, availability, functionality, or compatibility of the products listed. Please contact system vendor for more information on specific products or systems.

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Refer to Datasheet for formal definitions of product properties and features.

"Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

‡ This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

See http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading for more information including details on which processors support Intel® HT Technology.

Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See www.intel.com/technology/turboboost/ for more information.

The Recommended Customer Price ("RCP") is pricing guidance for Intel products. Prices are for direct Intel customers, typically represent 1,000-unit purchase quantities, and are subject to change without notice. Taxes and shipping, etc. not included. Prices may vary for other package types and shipment quantities, and special promotional arrangements may apply. If sold in bulk, price represents individual unit. Listing of these RCP does not constitute a formal pricing offer from Intel. Please work with your appropriate Intel representative to obtain a formal price quotation.

System and Maximum TDP is based on worst case scenarios. Actual TDP may be lower if not all I/Os for chipsets are used.

For benchmarking data see http://www.intel.com/performance.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/content/www/us/en/processors/processor-numbers.html for details.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

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