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Intel® Xeon® Processor E5-2609
(10M Cache, 2.40 GHz, 6.40 GT/s Intel® QPI)

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SPECIFICATIONS

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PCN/MDDS Information

SR0LA
919251: PCN | MDDS
919829: PCN | MDDS

SPECIFICATIONS

Essentials

Status	Launched
Launch Date	Q1'12
Processor Number	E5-2609
# of Cores	4
# of Threads	4
Clock Speed	2.4 GHz
Cache	10 MB
Intel® QPI Speed	6.4 GT/s
# of QPI Links	2
Instruction Set	64-bit
Instruction Set Extensions	AVX
Embedded Options Available	No
Lithography	32 nm
Scalability	2S Only
Max TDP	80 W
VID Voltage Range	0.60V-1.35V
Recommended Customer Price	

Memory Specifications

Max Memory Size (dependent on memory type)	384 GB
Memory Types	DDR3-800/1066
# of Memory Channels	4
Max Memory Bandwidth	34.1 GB/s
ECC Memory Supported ‡	Yes

Expansion Options

PCI Express Revision	3.0
Max # of PCI Express Lanes	40

Package Specifications

Max CPU Configuration	2
T_{CASE}	70.0°C
Package Size	52.5mm x 45.0mm
Sockets Supported	FCLGA2011, FCLGA2011
Low Halogen Options Available	See MDDS

Advanced Technologies

Intel® Turbo Boost Technology ‡	No
Intel® vPro Technology ‡	Yes

Intel® Hyper-Threading Technology ‡		No
Intel® Virtualization Technology (VT-x) ‡		Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡		Yes
Intel® VT-x with Extended Page Tables (EPT) ‡		Yes
Intel® 64 ‡		Yes
Idle States		Yes
Enhanced Intel SpeedStep® Technology		Yes
Intel® Demand Based Switching		Yes
Thermal Monitoring Technologies		Yes
Intel® Flex Memory Access		No
Intel® Identity Protection Technology ‡		No

Intel® Platform Protection Technology

Trusted Execution Technology ‡		Yes
Execute Disable Bit ‡		Yes

Intel® Data Protection Technology

AES New Instructions		Yes

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

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.

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

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

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‡ 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.

Low Halogen: Applies only to brominated and chlorinated flame retardants (BFRs/CFRs) and PVC in the final product. Intel components as well as purchased components on the finished assembly meet JS-709 requirements, and the PCB / substrate meet IEC 61249-2-21 requirements. The replacement of halogenated flame retardants and/or PVC may not be better for the environment.

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.

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.

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

Check http://ipt.intel.com/ for systems that support Intel® Identity Protection Technology (Intel® IPT).

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.

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