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Intel® Xeon® Processor E5-2650
(20M Cache, 2.00 GHz, 8.00 GT/s Intel® QPI)

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SPECIFICATIONS

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SPECIFICATIONS

Essentials

Status	Launched
Launch Date	Q1'12
Processor Number	E5-2650
# of Cores	8
# of Threads	16
Clock Speed	2 GHz
Max Turbo Frequency	2.8 GHz
Cache	20 MB
Intel® QPI Speed	8 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	95 W
VID Voltage Range	0.60V-1.35V
Recommended Customer Price	BOX : $1112.00 TRAY: $1107.00

Memory Specifications

Max Memory Size (dependent on memory type)	384 GB
Memory Types	DDR3-800/1066/1333/1600
# of Memory Channels	4
Max Memory Bandwidth	51.2 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$_{CASE}$	77.4°C
Package Size	52.5mm x 45.0mm
Sockets Supported	FCLGA2011
Low Halogen Options Available	See MDDS

Advanced Technologies

Intel® Turbo Boost Technology ‡	2.0
Intel® vPro Technology ‡	Yes
Intel® Hyper-Threading Technology ‡	Yes
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® Data Protection Technology

AES New Instructions	Yes

RELATED PRODUCTS

- Intel® Xeon® Processor E5 Family
- Intel® Xeon® Processor E5-2600 Product Family
- Products formerly Sandy Bridge-EP

QUICK LINKS

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PCN/MDDS Information

SR0KQ
919090: PCN | MDDS
919841: PCN | MDDS
SR0H4
917891: PCN | MDDS

Intel® Platform Protection Technology		
Trusted Execution Technology ‡	🔍	Yes
Execute Disable Bit ‡		Yes

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