Intel® Xeon® Processor E5-2660 v4 (35M Cache, 2.00 GHz)

Specifications

Essentials

Status	Launched
Launch Date	Q1'16
Processor Number	E5-2660V4
Cache	35 MB
Intel® QPI Speed	9.6 GT/s
# of QPI Links	2
Instruction Set	64-bit
Instruction Set Extensions	AVX 2.0
Embedded Options Available	No
Lithography	14 nm
Scalability	2S
Recommended Customer Price	
Conflict Free	Yes
Datasheet	Link

Performance

# of Cores	14
# of Threads	28
Processor Base Frequency	2 GHz
Max Turbo Frequency	3.2 GHz
TDP	105 W

Memory Specifications

Memory Types	DDR4 1600/1866/2133/2400
Max # of Memory Channels	4
Max Memory Bandwidth	76.8 GB/s
Physical Address Extensions	46-bit
ECC Memory Supported ‡	Yes

Graphics Specifications

Processor Graphics ‡	None

Expansion Options

PCI Express Revision	3.0

PCI Express Configurations ‡	x4, x8, x16
Max # of PCI Express Lanes	40

- Package Specifications

Max CPU Configuration	2
T_{CASE}	79°C
Package Size	52.5mm x 45mm
Sockets Supported	FCLGA2011-3
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® TSX-NI	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

Intel® AES New Instructions	Yes
Secure Key	Yes

- Intel® Platform Protection Technology

OS Guard	Yes
Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes

Compatible Products

- System

Compare	Product Name	Status	Chassis Form Factor	Board Form Factor	Socket
Compare All +					

	Intel® Server System R1208WT2GSR	Launched	1U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R1208WTTGSR	Launched	1U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R1304WT2GSR	Launched	1U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R1304WTTGSR	Launched	1U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R2208WTTYSR	Launched	2U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R2208WT2YSR	Launched	2U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R2208WTTYC1R	Launched	2U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R2308WTTYSR	Launched	2U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R2312WTTYSR	Launched	2U Rack	Custom 16.7" x 17"	Socket R3
	Intel® Server System R2224WTTYSR	Launched	2U Rack	Custom 16.7" x 17"	Socket R3

- Server/Workstation Board

Compare Compare All +	Product Name	Status	Board Form Factor	Chassis Form Factor	Socket	Embedded Options Available	TDP
	Intel® Server Board S2600CW2R	Launched	SSI EEB 12" x 13"	Rack or Pedestal	Socket R3	No	145 W
	Intel® Server Board S2600CW2SR	Launched	SSI EEB 12" x 13"	Rack or Pedestal	Socket R3	No	145 W
	Intel® Server Board S2600CWTR	Launched	SSI EEB 12" x 13"	Rack or Pedestal	Socket R3	No	145 W
	Intel® Server Board S2600CWTSR	Launched	SSI EEB 12" x 13"	Rack or Pedestal	Socket R3	No	145 W
	Intel® Server Board S2600KPR	Launched	Custom 6.4" x 17.7"	Rack	Socket R3	No	160 W
	Intel® Server Board S2600KPFR	Launched	Custom 6.4" x 17.7"	Rack	Socket R3	No	160 W
	Intel® Server Board S2600KPTR	Launched	Custom 6.4" x 17.7"	Rack	Socket R3	No	160 W
	Intel® Server Board S2600TPR	Launched	Custom 6.8" x 18.9"	Rack	Socket R3	No	160 W
	Intel® Server Board S2600TPFR	Launched	Custom 6.8" x 18.9"	Rack	Socket R3	No	160 W
	Intel® Server Board S2600WTTR	Launched	Custom 16.7" x 17"	Rack	Socket R3	No	145 W
	Intel® Server Board S2600WT2R	Launched	Custom 16.7" x 17"	Rack	Socket R3	No	145 W
	Intel® Server Board S2600WTTS1R	Launched	Custom 16.7" x 17"	Rack	Socket R3	No	145 W
	Intel® Compute Module HNS2600KPFR	Launched	Custom 6.4" x 17.7"	Rack	Socket R3	No	145 W
	Intel® Compute Module HNS2600KPR	Launched	Custom 6.4" x 17.7"	Rack	Socket R3	No	145 W
	Intel® Compute Module HNS2600TP24R	Launched	Custom 6.8" x 18.9"	Rack	Socket R3	No	145 W
	Intel® Compute Module HNS2600TPFR	Launched	Custom 6.8" x	Rack	Socket	No	145

			18.9"		R3		W
	Intel® Compute Module HNS2600TPR	Launched	Custom 6.8" x 18.9"	Rack	Socket R3	No	145 W
	Intel® Compute Module HNS2600TP24SR	Launched	Custom 6.8" x 18.9"	Rack	Socket R3	No	145 W

Ordering and Spec Information

Trade Compliance Information

ECCN	CCATS	US HTS
5A992C	G077159	8542310000

Ordering and Spec Information

Spec Code	Ordering Code	Step	RCP
Intel® Xeon® Processor E5-2660 v4 (35M Cache, 2.00 GHz) FC-LGA14A, Tray			
SR2N4	CM8066002031201	M0	

Download Drivers

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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.

“Conflict free” and “conflict-free” means “DRC conflict free”, which is defined by the U.S. Securities and Exchange Commission rules to mean products that do not contain conflict minerals (tin, tantalum, tungsten and/or gold) that directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo (DRC) or adjoining countries. Intel also uses the term "conflict-free" in a broader sense to refer to suppliers, supply chains, smelters and refiners whose sources of conflict minerals do not finance conflict in the DRC or adjoining countries. Intel processors manufactured before January 1, 2013 are not confirmed conflict free. The conflict free designation refers only to product manufactured after that date. For Intel Boxed Processors, the conflict free designation refers to the processor only, not to any additional included accessories, such as heatsinks/coolers.

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.

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

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.

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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