Intel® Xeon® Processor E5-2697 v2

30M Cache, 2.70 GHz

Specifications

Export specifications

Essentials

Product Collection	Intel® Xeon® Processor E5 v2 Family
Code Name	Products formerly Ivy Bridge EP
Vertical Segment	Server
Processor Number	E5-2697V2
Status	Launched
Launch Date	Q3'13
Lithography	22 nm
Recommended Customer Price	$2614.00 - $2618.00

Performance

# of Cores	12
# of Threads	24
Processor Base Frequency	2.70 GHz
Max Turbo Frequency	3.50 GHz
Cache	30 MB SmartCache

Bus Speed	8 GT/s QPI
# of QPI Links	
TDP	130 W
VID Voltage Range	0.65–1.30V

Supplemental Information

Embedded Options Available	No
Datasheet	View now
Additional Information URL	View now

Memory Specifications

Max Memory Size (dependent on memory type)	768 GB
Memory Types	DDR3 800/1066/1333/1600/1866
Max # of Memory Channels	4
Max Memory Bandwidth	59.7 GB/s
Physical Address Extensions	46-bit
ECC Memory Supported ‡	Yes

Expansion Options

Scalability	2S Only
PCI Express Revision	3.0
PCI Express Configurations ‡	x4, x8, x16
Max # of PCI Express Lanes	40

Package Specifications

Sockets Supported	FCLGA2011
Max CPU Configuration	
T_{CASE}	86°C
Package Size	52.5mm x 51mm
Low Halogen Options Available	No

Advanced Technologies

Intel® Turbo Boost Technology ‡	2.0
Intel® vPro™ Platform Eligibility ‡	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	No
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® AVX
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

Security & Reliability

Intel® AES New Instructions	Yes

Intel® AES New Instructions	Yes
Secure Key	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes

Ordering and Compliance

Compatible products

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

‡ 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.

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.

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

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

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.

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.

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.

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

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