



# Intel® Xeon® W-2145 Processor

11M Cache, 3.70 GHz

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## Essentials

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Product Collection	Intel® Xeon® W Processor
Code Name	Products formerly Skylake
Vertical Segment	Server
Processor Number	W-2145
Status	Launched
Launch Date <a href="#">?</a>	Q3'17
Lithography <a href="#">?</a>	14 nm
Recommended Customer Price <a href="#">?</a>	

## Performance

# of Cores <a href="#">?</a>	8
# of Threads <a href="#">?</a>	16
Processor Base Frequency <a href="#">?</a>	3.70 GHz
Max Turbo Frequency <a href="#">?</a>	4.50 GHz
Cache <a href="#">?</a>	11 MB
Bus Speed <a href="#">?</a>	0 GT/s QPI
# of QPI Links <a href="#">?</a>	0
# of UPI Links <a href="#">?</a>	0
TDP <a href="#">?</a>	140 W

## Supplemental Information

Embedded Options Available <a href="#">?</a>	No
Datasheet	<a href="#">View now</a>
Additional Information URL	<a href="#">View now</a>

## Memory Specifications

Max Memory Size (dependent on memory type) <a href="#">?</a>	512 GB
Memory Types <a href="#">?</a>	DDR4 1600/1866/2133/2400/2666
Max # of Memory Channels <a href="#">?</a>	4

Max Memory Bandwidth <a href="#">?</a>	85.3 GB/s
Physical Address Extensions <a href="#">?</a>	46-bit
ECC Memory Supported ‡ <a href="#">?</a>	Yes

## Expansion Options

Scalability	1S Only
PCI Express Revision <a href="#">?</a>	3.0
PCI Express Configurations ‡ <a href="#">?</a>	x4, x8, x16
Max # of PCI Express Lanes <a href="#">?</a>	48








## Package Specifications

Sockets Supported <a href="#">?</a>	FCLGA2066
Max CPU Configuration	1
T <sub>CASE</sub> <a href="#">?</a>	70
Package Size	45mm x 52.5mm
Low Halogen Options Available	No

## Advanced Technologies

Intel® Optane™ Memory Supported ‡ <a href="#">?</a>	No
Intel® Speed Shift Technology <a href="#">?</a>	Yes
Intel® Turbo Boost Max Technology 3.0 ‡ <a href="#">?</a>	No
Intel® Turbo Boost Technology ‡ <a href="#">?</a>	2.0
Intel® vPro™ Platform Eligibility ‡ <a href="#">?</a>	Yes
Intel® Hyper-Threading Technology ‡ <a href="#">?</a>	Yes
Intel® Virtualization Technology (VT-x) ‡ <a href="#">?</a>	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡ <a href="#">?</a>	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡ <a href="#">?</a>	Yes
Intel® TSX-NI <a href="#">?</a>	Yes
Intel® 64 ‡ <a href="#">?</a>	Yes
Instruction Set <a href="#">?</a>	64-bit
Instruction Set Extensions <a href="#">?</a>	Intel® SSE4.2, Intel® AVX, Intel® AVX2, Intel® AVX-512
# of AVX-512 FMA Units <a href="#">?</a>	2
Idle States <a href="#">?</a>	Yes
Enhanced Intel SpeedStep® Technology <a href="#">?</a>	Yes
Intel® Demand Based Switching <a href="#">?</a>	Yes
Thermal Monitoring Technologies <a href="#">?</a>	Yes
Intel® Flex Memory Access <a href="#">?</a>	No
Intel® Identity Protection Technology ‡ <a href="#">?</a>	Yes
Intel® Volume Management Device (VMD) <a href="#">?</a>	Yes

## Security & Reliability

Intel® AES New Instructions 	Yes
Secure Key 	Yes
Intel® Software Guard Extensions (Intel® SGX) 	No
Intel® Memory Protection Extensions (Intel® MPX) 	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡ 	Yes
Execute Disable Bit ‡ 	Yes
Intel® Boot Guard 	Yes

## More support options for Intel® Xeon® W-2145 Processor (11M Cache, 3.70 GHz)



Product Support



Downloads and Software



Support Community



Warranty and Replacement



## Need more help?

Contact support



Give Feedback

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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/](http://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.

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).

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

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.



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