



# Intel® Xeon® Gold 6140M Processor

24.75M Cache, 2.30 GHz

☐ Add to Compare

Specifications

Essentials

Performance

Supplemental Information

Memory Specifications

Expansion Options

Package Specifications

Advanced Technologies

Security & Reliability

Ordering and Compliance

Compatible products

Downloads and Software

Essentials

⬇️ [Export specifications](#)

Product Collection	Intel® Xeon® Scalable Processors
Code Name	Products formerly Skylake
Vertical Segment	Server
Processor Number	6140M
Status	Launched
Launch Date	Q3'17
Lithography	14 nm

Performance

# of Cores	18
# of Threads	36
Processor Base Frequency	2.30 GHz
Max Turbo Frequency	3.70 GHz
Cache	24.75 MB L3
# of UPI Links	3
TDP	140 W



Supplemental Information

Embedded Options Available	No
Datasheet	<a href="#">View now</a>
Product Brief	<a href="#">View now</a>



Memory Specifications

Max Memory Size (dependent on memory type)	1.46 TB
Memory Types	DDR4-2666
Maximum Memory Speed	2666 MHz
Max # of Memory Channels	6
ECC Memory Supported ‡	Yes
















Expansion Options

Scalability	S4S
PCI Express Revision 	3.0
Max # of PCI Express Lanes 	48






## Package Specifications

Sockets Supported 	FCLGA3647
T <sub>CASE</sub> 	91°C
Package Size	76.0mm x 56.5mm
Low Halogen Options Available	No

## Advanced Technologies

Intel® Optane™ Memory Supported ‡ 	No
Intel® Speed Shift Technology 	Yes
Intel® Turbo Boost Max Technology 3.0 ‡ 	No
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 	Yes
Intel® 64 ‡ 	Yes
Instruction Set Extensions  Intel® SSE4.2, Intel® AVX, Intel® AVX2, Intel® AVX-512	
# of AVX-512 FMA Units 	2
Enhanced Intel SpeedStep® Technology 	Yes
Intel® Volume Management Device (VMD) 	Yes

## Security & Reliability

Intel® AES New Instructions 	Yes
Intel® Trusted Execution Technology ‡ 	Yes
Execute Disable Bit ‡ 	Yes
Intel® Run Sure Technology 	Yes
Mode-based Execute Control (MBE) 	Yes

More support options for Intel® Xeon® Gold 6140M Processor (24.75M Cache, 2.30 GHz)



Product Support



Downloads and Software



Support Community



Warranty and  
Replacement



## Need more help?

Contact support



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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.

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.

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.

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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