



Intel® Xeon® Gold 6254 Processor

24.75M Cache, 3.10 GHz

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Essentials

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Product Collection	2nd Generation Intel® Xeon® Scalable Processors
Code Name	Products formerly Cascade Lake
Vertical Segment	Server
Processor Number	6254
Off Roadmap	No
Status	Launched
Launch Date	Q2'19
Lithography	14 nm
Recommended Customer Price	

Performance

# of Cores	18
# of Threads	36
Processor Base Frequency	3.10 GHz
Max Turbo Frequency	4.00 GHz
Cache	24.75 MB
# of UPI Links	3
TDP	200 W



Supplemental Information

Embedded Options Available	No
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Memory Specifications

Max Memory Size (dependent on memory type)	1 TB
Memory Types	DDR4-2933
Maximum Memory Speed	2933 MHz
Max # of Memory Channels	6
ECC Memory Supported ‡	Yes
Intel® Optane™ DC Persistent Memory Supported	Yes



















Expansion Options

Scalability	4S
PCI Express Revision 	3.0
Max # of PCI Express Lanes 	48






Package Specifications

Sockets Supported 	FCLGA3647
T _{CASE} 	82°C
Package Size	76.0mm x 56.5mm

Advanced Technologies

Intel® Deep Learning Boost (Intel® DL Boost) 	Yes
Intel® Speed Select Technology - Performance Profile 	No
Intel® Speed Select Technology - Base Frequency 	No
Intel® Resource Director Technology (Intel® RDT) 	Yes
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 6254 Processor (24.75M Cache, 3.10 GHz)



Product Support



Downloads and Software



Support Community



Warranty and
Replacement



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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.

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.

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

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.

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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