Intel® Xeon® Gold 6154 Processor

24.75M Cache, 3.00 GHz

Specifications

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Essentials

Product Collection	Intel® Xeon® Scalable Processors
Code Name	Products formerly Skylake
Vertical Segment	Server
Processor Number	6154
Status	Launched
Launch Date	Q3'17
Lithography	14 nm
Recommended Customer Price	$3543.00

Performance

# of Cores	18
# of Threads	36
Processor Base Frequency	3.00 GHz
Max Turbo Frequency	3.70 GHz
Cache	24.75 MB L3
# of UPI Links	3
TDP	200 W

Supplemental Information

Embedded Options Available	No
Datasheet	View now

Product Brief	View now

Memory Specifications

Max Memory Size (dependent on memory type)	768 GB
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_{CASE}	82°C
Package Size	76.0mm x 56.5mm

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

Compatible Products

Product Images

Ordering and Compliance

Downloads and Software

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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.

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.

The Recommended Customer Price ("RCP") is pricing guidance for Intel products. Prices are for direct Intel customers, typically
represent 1,000-unit purchase quantities, and are subject to change without notice. Taxes and shipping, etc. not included. Prices may
vary for other package types and shipment quantities, and special promotional arrangements may apply. If sold in bulk, price
represents individual unit. Listing of these RCP does not constitute a formal pricing offer from Intel. Please work with your
appropriate Intel representative to obtain a formal price quotation.

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

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.