

Intel® Xeon® Gold 5220R Processor

35.75M Cache, 2.20 GHz

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Essentials

Export specifications

Product Collection	2nd Generation Intel® Xeon® Scalable Processors
Code Name	Products formerly Cascade Lake
Vertical Segment	Server
Processor Number	5220R
Status	Launched
Launch Date	Q1'20
Lithography	14 nm
Recommended Customer Price	$1664.00 - $1670.00

CPU Specifications

Total Cores	24
Total Threads	48
Max Turbo Frequency	4.00 GHz
Processor Base Frequency	2.20 GHz
Cache	35.75 MB
# of UPI Links	2
TDP	150 W

Supplemental Information

Embedded Options Available	No
Product Brief	View now

Memory Specifications

Max Memory Size (dependent on memory type)	1 TB
Memory Types	DDR4-2667
Maximum Memory Speed	2667 MHz
Max # of Memory Channels	6
ECC Memory Supported ‡	Yes
Intel® Optane™ Persistent Memory Supported	Yes

Expansion Options

Scalability	2S
PCI Express Revision	3.0
Max # of PCI Express Lanes	48

Package Specifications

Sockets Supported	FCLGA3647
T_{CASE}	86°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® Transactional Synchronization Extensions	Yes
Intel® 64 ‡	Yes
Instruction Set Extensions	Intel® SSE4.2, Intel® AVX, Intel® AVX2, Intel® AVX-512
# of AVX-512 FMA Units	1
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 (MBEC)	Yes

Advanced Technologies
Security & Reliability
Ordering and Compliance
Product Images
Compatible Products

More support options for Intel® Xeon® Gold 5220R Processor (35.75M Cache, 2.20 GHz)

Product Support
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Warranty and Replacement

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

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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.

“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.

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 and applicability of this technology.

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

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

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Ordering and Compliance

Ordering and spec information

Trade compliance information

PCN/MDDS Information

Product Images

Ordering and spec information

Intel® Xeon® Gold 5220R Processor (35.75M Cache, 2.20 GHz) FC-LGA14B, Tray

Spec Code	SRGZP
Ordering Code	CD8069504451301
Shipping Media	TRAY
Stepping	B1
Recommended Customer Price	$1664.00

Boxed Intel® Xeon® Gold 5220R Processor (35.75M Cache, 2.20 GHz) FC-LGA14B

Spec Code	SRGZP
Ordering Code	BX806955220R
Shipping Media	BOX
Stepping	B1
Recommended Customer Price	$1670.00

Trade compliance information

ECCN	5A992C
CCATS	G077159
US HTS	8542310001

PCN/MDDS Information

SRGZP

999PT3	PCN | MDDS
999VM1	PCN | MDDS

Specifications

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