

## Intel Xeon Silver 4316 processor 2.3 GHz 30 MB

**Brand :** Intel

**Product family:** Xeon

**Product code:**  
CD8068904656601

**Product name :** Silver 4316

Intel® Xeon® Silver 4316 Processor (30M Cache, 2.30 GHz)

Intel Xeon Silver 4316. Processor family: Intel Xeon Silver, Processor socket: LGA 4189, Processor lithography: 10 nm. Memory channels: Octa-channel, Maximum internal memory supported by processor: 6.14 TB, Memory types supported by processor: DDR4-SDRAM. Market segment: Server, Supported instruction sets: SSE4.2, AVX, AVX 2.0, AVX-512, Scalability: 2S. Maximum Enclave Size Support for Intel® SGX: 8 GB. Package type: Retail box



Processor		Processor special features	
Processor manufacturer *	Intel	Intel® AES New Instructions (Intel® AES-NI)	✓
Processor generation	3rd Generation Intel® Xeon® Scalable	Intel Trusted Execution Technology	✓
Processor model *	4316	Intel® Speed Shift Technology	✓
Processor base frequency *	2.3 GHz	Intel® Transactional Synchronization Extensions	✓
Processor family *	Intel Xeon Silver	Intel® Total Memory Encryption	✓
Processor cores *	20	Intel® Crypto Acceleration	✓
Processor socket *	LGA 4189	Intel® Platform Firmware Resilience Support	✓
Component for	Server/workstation	Maximum Enclave Size Support for Intel® SGX	8 GB
Processor lithography *	10 nm	Intel VT-x with Extended Page Tables (EPT)	✓
Processor threads	40	Intel Software Guard Extensions (Intel SGX)	✓
System bus rate	10.4 GT/s	Intel 64	✓
Processor operating modes *	64-bit	Intel Virtualization Technology (VT-x)	✓
Processor boost frequency	3.4 GHz	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Processor cache	30 MB	AVX-512 Fused Multiply-Add (FMA) units	2
Thermal Design Power (TDP)	150 W	Intel® Deep Learning Boost (Intel® DL Boost)	✓
Box *	✗	Intel® Resource Director Technology (Intel® RDT)	✓
Cooler included *	✗	Intel® Volume Management Device (VMD)	✓
Processor codename	Ice Lake	Mode-based Execute Control (MBE)	✓
Processor ARK ID	215270	Intel® Optane™ DC Persistent Memory Supported	✗
Memory		Operational conditions	
Maximum internal memory supported by processor	6.14 TB	Tcase	84 °C
Memory types supported by processor	DDR4-SDRAM	Technical details	
Memory clock speeds supported by processor	2667 MHz	Target market	Cloud Computing
Memory channels *	Octa-channel	Launch date	Q2'21
ECC	✓	Status	Launched
Graphics		Supported memory types	DDR4-SDRAM
On-board graphics card *	✗	Memory speed (max)	2667 MHz
Discrete graphics card *	✗	Number of UPI links	2
On-board graphics card model *	Not available	Servicing status	Baseline Servicing
Discrete graphics card model *	Not available		
Features			
Execute Disable Bit	✓		
Market segment	Server		
Maximum number of PCI Express lanes	64		
PCI Express slots version	4.0		

Features		Logistics data	
Supported instruction sets	SSE4.2, AVX, AVX 2.0, AVX-512	Harmonized System (HS) code	85423119
Scalability	2S	Packaging data	
Embedded options available	✓	Package type	Retail box
Export Control Classification Number (ECCN)	5A992CN3	Weight & dimensions	
Commodity Classification Automated Tracking System (CCATS)	G178966	Processor package size	77.5 x 56.5 mm
Processor special features		Other features	
Intel® Hyper Threading Technology (Intel® HT Technology)	✓	Maximum internal memory	6 TB
Intel® Turbo Boost Technology	2.0		

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