

Intel Xeon Gold 5420+ processor 2 GHz 52.5 MB

Brand : Intel

Product family: Xeon

Product code:
PK8071305120600

Product name : Gold 5420+

PK8071305120600

Intel Xeon Gold 5420+. Processor family: Intel® Xeon® Gold, Processor socket: LGA 4677 (Socket E), Processor manufacturer: Intel. Memory channels: Octa-channel, Maximum internal memory supported by processor: 6 TB, Memory types supported by processor: DDR5-SDRAM. Market segment: Server, Use conditions: Server/Enterprise, Supported instruction sets: AMX, SSE4.2, AVX, AVX 2.0, AVX-512. Maximum Enclave Size Support for Intel® SGX: 128 GB, Intel® QuickAssist Technology (QAT): 1 default devices, Intel® Dynamic Load Balancer (DLB): 1 default devices. Processor package size: 77.5 x 56.5 mm



Processor		Processor special features	
Processor manufacturer *	Intel	Intel® Total Memory Encryption	✓
Processor generation	Intel Xeon Scalable 4th Gen	Intel® Control-flow Enforcement Technology (CET)	✓
Processor model *	5420+	Intel® Crypto Acceleration	✓
Processor base frequency *	2 GHz	Intel® Platform Firmware Resilience Support	✓
Processor family *	Intel® Xeon® Gold	Maximum Enclave Size Support for Intel® SGX	128 GB
Processor cores *	28	Intel VT-x with Extended Page Tables (EPT)	✓
Processor socket *	LGA 4677 (Socket E)	Intel® OS Guard	✓
Processor threads	56	Intel Software Guard Extensions (Intel SGX)	✓
System bus rate	16 GT/s	Intel 64	✓
Processor operating modes *	64-bit	Intel Virtualization Technology (VT-x)	✓
Processor boost frequency	4.1 GHz	Intel Virtualization Technology for Directed I/O (VT-d)	✓
High priority cores	8	AVX-512 Fused Multiply-Add (FMA) units	2
High priority core frequency	2.2 GHz	Intel® Boot Guard	✓
Low priority cores	20	Intel® Deep Learning Boost (Intel® DL Boost)	✓
Processor cache	52.5 MB	Intel® Resource Director Technology (Intel® RDT)	✓
Thermal Design Power (TDP)	205 W	Intel® Run Sure Technology	✓
Box *	✗	Mode-based Execute Control (MBE)	✓
Stepping	S3	Intel® Optane™ DC Persistent Memory Supported	✓
Processor codename	Sapphire Rapids	Intel® Speed Select Technology - Base Frequency (Intel® SST-BF)	✓
Processor ARK ID	232381	Intel® QuickAssist Software Acceleration	✓
Memory		Intel® On Demand Feature Activation	✓
Maximum internal memory supported by processor	6 TB	Intel® QuickAssist Technology (QAT)	1 default devices
Memory types supported by processor	DDR5-SDRAM	Intel® Dynamic Load Balancer (DLB)	1 default devices
Memory channels *	Octa-channel	Intel® Data Streaming Accelerator (DSA)	1 default devices
ECC	✓	Intel® In-memory Analytics Accelerator (IAA)	1 default devices
Graphics		Intel® Advanced Matrix Extensions (AMX)	✓
On-board graphics card *	✗		
Discrete graphics card *	✗		
On-board graphics card model *	Not available		
Discrete graphics card model *	Not available		
Features			
Execute Disable Bit	✓		
Market segment	Server		
Use conditions	Server/Enterprise		
Maximum number of PCI Express lanes	80		
PCI Express slots version	5.0		

Features		Operational conditions	
Supported instruction sets	AMX, SSE4.2, AVX, AVX 2.0, AVX-512	Tcase	84 °C
Scalability	2S	DTS Max	97 °C
Embedded options available	✓	Technical details	
Export Control Classification Number (ECCN)	5A992C	Launch date	Q1'23
Commodity Classification		Status	Launched
Automated Tracking System (CCATS)	G180729	Memory speed (max)	4400 MHz
Processor special features		Number of UPI links	3
Intel® Hyper Threading Technology (Intel® HT Technology)	✓	Package carrier	E1B
Intel® Turbo Boost Technology	2.0	Logistics data	
Intel® AES New Instructions (Intel® AES-NI)	✓	Harmonized System (HS) code	8542310001
Intel Trusted Execution Technology	✓	Weight & dimensions	
Intel® Speed Shift Technology	✓	Processor package size	77.5 x 56.5 mm
Intel® Transactional Synchronization Extensions	✓	Other features	
		Maximum internal memory	4 TB



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