



HP Intel Xeon Gold 6542Y processor 2.9 GHz 60 MB

Brand : HP

Product code: 9Z6X2AV

Product name : Intel Xeon Gold 6542Y

Intel Xeon Gold 6542Y Processor 60M Cache, 2.90 GHz

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HP Intel Xeon Gold 6542Y. Processor family: Intel® Xeon® Gold, Processor socket: LGA 4677 (Socket E), Processor lithography: 7 nm. Memory channels: Octa-channel, Maximum internal memory supported by processor: 4 TB, Memory types supported by processor: DDR5-SDRAM. Market segment: Server, Use conditions: Server/Enterprise, Supported instruction sets: AMX, AVX, AVX 2.0, AVX-512, SSE4.2



Processor		Processor special features	
Processor manufacturer *	Intel	Intel® Transactional Synchronization Extensions	✓
Processor generation	Intel Xeon Scalable 5th Gen	Intel® Total Memory Encryption	✓
Processor model *	6542Y	Intel® Control-flow Enforcement Technology (CET)	✓
Processor base frequency *	2.9 GHz	Intel® Platform Firmware Resilience Support	✓
Processor family *	Intel® Xeon® Gold	Intel® Trust Domain Extensions (Intel® TDX)	✓
Processor cores *	24	Intel VT-x with Extended Page Tables (EPT)	✓
Processor socket *	LGA 4677 (Socket E)	Intel® OS Guard	✓
Processor lithography *	7 nm	Intel Software Guard Extensions (Intel SGX)	✓
Processor series	Intel Xeon Gold 6000 Series	Intel 64	✓
Processor threads	48	Intel Virtualization Technology (VT-x)	✓
Intel® UPI Speed	20 GT/s	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Processor operating modes *	64-bit	AVX-512 Fused Multiply-Add (FMA) units	2
Processor boost frequency	4.1 GHz	Intel® Boot Guard	✓
High priority cores	8	Intel® Deep Learning Boost (Intel® DL Boost) on CPU	✓
High priority core frequency	3.1 GHz	Intel® Resource Director Technology (Intel® RDT)	✓
Low priority cores	16	Intel® Volume Management Device (VMD)	✓
Low priority core frequency	2.7 GHz	Intel® Run Sure Technology	✓
Processor cache	60 MB	Mode-based Execute Control (MBE)	✓
Thermal Design Power (TDP)	250 W	Intel® Speed Select Technology - Base Frequency (Intel® SST-BF)	✓
Memory		Intel® Total Memory Encryption - Multi Key	✓
Maximum internal memory supported by processor	4 TB	Intel® QuickAssist Software Acceleration	✓
Memory types supported by processor	DDR5-SDRAM	Intel® Data Streaming Accelerator (DSA)	1
Memory clock speeds supported by processor	5200 MHz	Intel® Advanced Matrix Extensions (AMX)	✓
Memory channels *	Octa-channel	Intel® Speed Select Technology - Core Power	✓
ECC	✓	Intel® Speed Select Technology - Turbo Frequency	✓
Non-ECC	✗		
Graphics			
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		

Features		Operational conditions	
Maximum number of PCI Express lanes	80	Tcase	83 °C
PCI Express slots version	5.0	DTS Max	101 °C
Supported instruction sets	AMX, AVX, AVX 2.0, AVX-512, SSE4.2	Technical details	
Scalability	2S	Launch date	Q4'23
Embedded options available	✓	Number of UPI links	3
Processor special features		Package carrier	E1B
Intel® Hyper Threading Technology (Intel® HT Technology)	✓	Servicing status	Baseline Servicing
Intel® AES New Instructions (Intel® AES-NI)	✓		
Intel Trusted Execution Technology	✓		
Intel® Speed Shift Technology	✓		

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