



Lenovo Intel Xeon Platinum 8470N processor 1,7 GHz 97,5 MB

Brand : Lenovo

Product code: 4XG7A82870

Product name : Intel Xeon Platinum 8470N

ThinkSystem SR650 V3 Intel Xeon Platinum 8470N 52C 300W 1.7GHz Processor Option Kit w/o Fan

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ThinkSystem servers incorporate Intel Xeon Scalable Family processors to enable critical business workloads and applications. The Intel scalable design provides significant improvement in performance, advanced reliability, scalability and hardware-enhanced security. Enhancements include higher per-core performance, greater memory bandwidth, expanded I/O, and improved security. This page allows you compare the features of the processors.



Processor		Processor special features	
Processor manufacturer *	Intel	Intel® Transactional Synchronization Extensions	✓
Processor generation	Intel Xeon Scalable 4th Gen	Intel® Total Memory Encryption	✓
Processor model *	8470N	Intel® Control-flow Enforcement Technology (CET)	✓
Processor base frequency *	1,7 GHz	Intel® Crypto Acceleration	✓
Processor family *	Intel® Xeon® Platinum	Intel® Platform Firmware Resilience Support	✓
Processor cores *	52	Maximum Enclave Size Support for Intel® SGX	128 GB
Processor socket *	LGA 4677 (Socket E)	Intel VT-x with Extended Page Tables (EPT)	✓
Processor series	Intel Xeon Platinum 8000 Series	Intel® OS Guard	✓
Processor threads	104	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	3,6 GHz	Intel Virtualization Technology for Directed I/O (VT-d)	✓
High priority cores	16	AVX-512 Fused Multiply-Add (FMA) units	2
High priority core frequency	1,8 GHz	Intel® Boot Guard	✓
Low priority cores	36	Intel® Deep Learning Boost (Intel® DL Boost) on CPU	✓
Low priority core frequency	1,3 GHz	Intel® Speed Select technology - Performance Profile (Intel® SST-PP)	✓
Processor cache	97,5 MB	Intel® Resource Director Technology (Intel® RDT)	✓
Thermal Design Power (TDP)	300 W	Intel® Run Sure Technology	✓
Cooler included *	✗	Mode-based Execute Control (MBE)	✓
Stepping	E5	Intel® Optane™ DC Persistent Memory Supported	✓
Processor codename	Sapphire Rapids	Intel® Speed Select Technology - Base Frequency (Intel® SST-BF)	✓
Processor ARK ID	231748	Intel® QuickAssist Software Acceleration	✓
Memory		Intel® On Demand Feature Activation	✓
Maximum internal memory supported by processor	6 TB	Intel® QuickAssist Technology (QAT)	4 default devices
Memory types supported by processor	DDR4-SDRAM	Intel® Dynamic Load Balancer (DLB)	4 default devices
Memory channels *	Octa-channel		
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		Processor special features	
Maximum number of PCI Express lanes	80	Intel® Data Streaming Accelerator (DSA)	4 default devices
PCI Express slots version	5.0	Intel® Advanced Matrix Extensions (AMX)	✓
Supported instruction sets	AMX, SSE4.2, AVX, AVX 2.0, AVX-512	Operational conditions	
Scalability	2S	Tcase	76 °C
Embedded options available	✓	DTS Max	92 °C
Export Control Classification Number (ECCN)	5A992C	Technical details	
Commodity Classification Automated Tracking System (CCATS)	G180729	Launch date	Q1'23
Processor special features		Status	Launched
Intel® Hyper Threading Technology (Intel® HT Technology)	✓	Memory speed (max)	4800 MHz
Intel® Turbo Boost Technology	2.0	Number of UPI links	3
Intel® AES New Instructions (Intel® AES-NI)	✓	Package carrier	E1A
Intel Trusted Execution Technology	✓	Logistics data	
Intel® Speed Shift Technology	✓	Harmonized System (HS) code	8542310001
		Other features	
		Maximum internal memory	4 TB

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