



Intel® Xeon® Gold 6438N Processor

60M Cache, 2.00 GHz

MPN: [PK8071305122101S RMH1](#)

[Ordering and spec information](#)

Intel® Xeon® Gold 6438N Processor (60M Cache, 2.00 GHz) FC-LGA16A, Tray

Spec Code	SRMH1
Ordering Code	PK8071305122101
Shipping Media	TRAY ?
Stepping	S3

ARK Intel® Product Specification Comparison	
01/30/2023 03:32:01 PM	
	Intel® Xeon® Gold 6438N Processor
Essentials	
Product Collection	4th Generation Intel® Xeon® Scalable Processors
Vertical Segment	Server
Processor Number	6438N
Marketing Status	Launched
Launch Date	Q1'23
Lithography	Intel 7
Use Conditions	Server/Enterprise
Recommended Customer Price	\$3,351.00
CPU Specifications	
Total Cores	32
Total Threads	64
Max Turbo Frequency	3.60 GHz
Processor Base Frequency	2.00 GHz

Cache	60 MB
Intel® UPI Speed	16 GT/s
Max # of UPI Links	3
TDP	205 W
Intel® Speed Select Technology - Performance Profile (Intel® SST-PP)	
Intel® Speed Select Technology	See the specifications
Supplemental Information	
Embedded Options Available	Yes
Memory Specifications	
Max Memory Size (dependent on memory type)	6 TB
Memory Types	DDR5-4800
Maximum Memory Speed	4800 MHz
Max # of Memory Channels	8
Intel® Optane™ Persistent Memory Supported	Yes
ECC Memory Supported 	Yes
Expansion Options	
Scalability	2S
PCI Express Revision	5
Max # of PCI Express Lanes	80
Package Specifications	
Sockets Supported	FCLGA4677
Package Carrier	E1B
DTS Max	96 °C
TCASE	85
Package Size	77.5mm x 56.5mm
Intel® On Demand Available Upgrades	
Intel® On Demand Available Upgrades	See the specifications

Advanced Technologies	
Intel® On Demand Feature Activation	Yes
Intel® Speed Select Technology – Core Power	Yes
Intel® Speed Select Technology – Turbo Frequency	Yes
Intel® Deep Learning Boost (Intel® DL Boost)	Yes
Intel® Speed Select Technology - Performance Profile	Yes
Intel® Speed Select Technology - Base Frequency	Yes
High Priority Cores	12
High Priority Core Frequency	2.20 GHz
Low Priority Cores	20
Low Priority Core Frequency	1.80 GHz
Intel® Resource Director Technology (Intel® RDT)	Yes
Intel® Speed Shift Technology	Yes
Intel® Turbo Boost Technology ⚡	2
Intel® Hyper-Threading Technology ⚡	Yes
Intel® Transactional Synchronization Extensions	Yes
Intel® 64 ⚡	Yes
Instruction Set Extensions	Intel® AMX Intel® SSE4.2 Intel® AVX Intel® AVX2 Intel® AVX-512
# of AVX-512 FMA Units	2
Security & Reliability	
Intel® Crypto Acceleration	Yes
Intel® Platform Firmware Resilience Support	Yes
Intel® QuickAssist Software Acceleration	Yes
Intel® Control-Flow Enforcement Technology	Yes
Intel® Total Memory Encryption	Yes
Intel® AES New Instructions	Yes

Intel® Software Guard Extensions (Intel® SGX)	Yes with Intel® SPS
Maximum Enclave Page Cache (EPC) Size for Intel® SGX	128 GB
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ⓘ	Yes
Execute Disable Bit ⓘ	Yes
Intel® Boot Guard	Yes
Intel® Run Sure Technology	Yes
Mode-based Execute Control (MBEC)	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