

## Essentials

Product Collection	4th Gen Intel® Xeon® Scalable Processors
Code Name	Products formerly Sapphire Rapids
Vertical Segment	Server
Processor Number <a href="#">?</a>	6448Y
Lithography <a href="#">?</a>	Intel 7
Recommended Customer Price <a href="#">?</a>	\$3583.00

## CPU Specifications

Total Cores <a href="#">?</a>	32
Total Threads <a href="#">?</a>	64
Max Turbo Frequency <a href="#">?</a>	4.10 GHz
Processor Base Frequency <a href="#">?</a>	2.10 GHz
Cache <a href="#">?</a>	60 MB
Intel® UPI Speed	16 GT/s
Max # of UPI Links <a href="#">?</a>	3
TDP <a href="#">?</a>	225 W

Intel® Speed Select Technology - Performance Profile  
(Intel® SST-PP)

Config	Active Cores	Base Frequency	TDP	Description
6448Y(0)	32	2.1	225	
6448Y(1)	24	2.6	225	
6448Y(2)	16	2.9	205	

## Supplemental Information

Marketing Status	Launched
Launch Date <a href="#">?</a>	Q1'23
Servicing Status <a href="#">?</a>	Baseline Servicing
Embedded Options Available <a href="#">?</a>	Yes
Use Conditions <a href="#">?</a>	Server/Enterprise

## Memory Specifications

Max Memory Size (dependent on memory type) <a href="#">?</a>	4 TB
Memory Types <a href="#">?</a>	Up to DDR5 4800 MT/s 1DPC Up to DDR5 4400 MT/s 2DPC
Max # of Memory Channels <a href="#">?</a>	8
ECC Memory Supported <sup>†</sup> <a href="#">?</a>	Yes

## Expansion Options

Scalability	2S
PCI Express Revision <a href="#">?</a>	5
Max # of PCI Express Lanes <a href="#">?</a>	80

## Package Specifications

Sockets Supported <a href="#">?</a>	FCLGA4677
Package Carrier	E1B
DTS Max	92 °C
T <sub>CASE</sub> <a href="#">?</a>	79
Package Size	77.5mm x 56.5mm

## Intel® On Demand Available Upgrades

Activation Model Products	QAT	DLB	DSA	IAA	SGX512
Analytics Suite 1				1	
SGX512					512

## Advanced Technologies

Intel® On Demand Activation Model <a href="#">?</a>	Yes
Intel® Data Streaming Accelerator (DSA)	1 default devices
Intel® Advanced Matrix Extensions (AMX)	Yes
Intel® Speed Select Technology – Core Power <a href="#">?</a>	Yes
Intel® Speed Select Technology – Turbo Frequency <a href="#">?</a>	Yes
Intel® Deep Learning Boost (Intel® DL Boost) on CPU <a href="#">?</a>	Yes
Intel® Speed Select Technology - Performance Profile <a href="#">?</a>	Yes
Intel® Speed Select Technology - Base Frequency <a href="#">?</a>	Yes
High Priority Cores	12
High Priority Core Frequency	2.40 GHz
Low Priority Cores	20
Low Priority Core Frequency	2.00 GHz
Intel® Resource Director Technology (Intel® RDT) <a href="#">?</a>	Yes
Intel® Speed Shift Technology <a href="#">?</a>	Yes
Intel® Turbo Boost Technology <sup>†</sup> <a href="#">?</a>	2.0
Intel® Hyper-Threading Technology <sup>†</sup> <a href="#">?</a>	Yes
Intel® Transactional Synchronization Extensions <a href="#">?</a>	Yes
Intel® 64 <sup>†</sup> <a href="#">?</a>	Yes
Instruction Set Extensions <a href="#">?</a>	Intel® AMX, Intel® SSE4.2, Intel® AVX, Intel® AVX2, Intel® AVX-512
# of AVX-512 FMA Units <a href="#">?</a>	2

## Security &amp; Reliability

Intel® Software Guard Extensions (Intel® SGX) <a href="#">?</a>	Yes with Intel® SPS
Default Maximum Enclave Page Cache (EPC) Size for Intel® SGX	128 GB
Intel® Crypto Acceleration <a href="#">?</a>	Yes
Intel® QuickAssist Software Acceleration	Yes
Intel® Platform Firmware Resilience Support	Yes
Intel® Control-Flow Enforcement Technology <a href="#">?</a>	Yes
Intel® Total Memory Encryption <a href="#">?</a>	Yes
Intel® AES New Instructions <a href="#">?</a>	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology <sup>†</sup> <a href="#">?</a>	Yes
Execute Disable Bit <sup>†</sup> <a href="#">?</a>	Yes
Intel® Boot Guard <a href="#">?</a>	Yes
Intel® Run Sure Technology <a href="#">?</a>	Yes
Mode-based Execute Control (MBEC) <a href="#">?</a>	Yes
Intel® Virtualization Technology (VT-x) <sup>†</sup> <a href="#">?</a>	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) <sup>†</sup> <a href="#">?</a>	Yes
Intel® VT-x with Extended Page Tables (EPT) <sup>†</sup> <a href="#">?</a>	Yes