

Procesador Intel® Core™ i9-12900KF

Caché de 30 M, hasta 5,20 GHz

Esenciales	
Colección de productos	Procesadores Intel® Core™ i9 de 12.ª generación
Nombre clave	Productos anteriormente Alder Lake
Segmento vertical	Escritorio
Número de procesador	i9-12900KF
Estado	Lanzado
Fecha de lanzamiento	Q4'21
Litografía	Intel 7
Especificaciones de la CPU	
Núcleos totales	dieciséis
N.º de núcleos de rendimiento	8
# de núcleos eficientes	8
Subprocesos totales	24
Frecuencia turbo máxima	5 | 20 GHz
Tecnología Intel® Turbo Boost Max 3.0 Frecuencia ‡	5 | 20 GHz
Performance-core Max Turbo Frequency	5.10 GHz
Efficient-core Max Turbo Frequency	3.90 GHz
Performance-core Base Frequency	3.20 GHz
Efficient-core Base Frequency	2.40 GHz
Cache	30 MB Intel® Smart Cache
Total L2 Cache	14 MB
Processor Base Power	125 W
Maximum Turbo Power	241 W
Supplemental Information	
Embedded Options Available	No
Memory Specifications	
Max Memory Size (dependent on memory type)	128 GB
Memory Types	Up to DDR5 4800 MT/s Up to DDR4 3200 MT/s
Max # of Memory Channels	2
Max Memory Bandwidth	76.8 GB/s
Expansion Options	
Direct Media Interface (DMI) Revision	4
Max # of DMI Lanes	8



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Scalability	1S Only
PCI Express Revision	5.0 and 4.0
PCI Express Configurations ‡	Up to 1x16+4 | 2x8+4
Max # of PCI Express Lanes	20
Package Specifications	
Sockets Supported	FCLGA1700
Max CPU Configuration	1
Thermal Solution Specification	PCG 2020A
TJUNCTION	100°C
Package Size	45.0 mm x 37.5 mm
Advanced Technologies	
Intel® Gaussian & Neural Accelerator	3
Intel® Thread Director	Yes
Intel® Deep Learning Boost (Intel® DL Boost)	Yes
Intel® Optane™ Memory Supported ‡	Yes
Intel® Speed Shift Technology	Yes
Intel® Turbo Boost Max Technology 3.0 ‡	Yes
Intel® Turbo Boost Technology ‡	2
Intel® Hyper-Threading Technology ‡	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
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® SSE4.1 | Intel® SSE4.2 | Intel® AVX2
Idle States	Yes
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
Intel® Volume Management Device (VMD)	Yes
Security & Reliability	
Intel® AES New Instructions	Yes
Secure Key	Yes
Intel® OS Guard	Yes
Execute Disable Bit ‡	Yes



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Intel® Boot Guard	Yes
Mode-based Execute Control (MBE)	Yes
Intel® Control-Flow Enforcement Technology	Yes