

Intel Core i9-11900K processor 3.5 GHz 16 MB Smart Cache

Brand : Intel

Product family: Core

Product code:
CM8070804400161

Product name : i9-11900K



Intel Core i9-11900K Processor (16MB Cache, up to 5.3 GHz)

Intel Core i9-11900K. Processor family: Intel® Core™ i9, Processor socket: LGA 1200 (Socket H5), Processor lithography: 14 nm. Memory channels: Dual-channel, Maximum internal memory supported by processor: 128 GB, Memory types supported by processor: DDR4-SDRAM. On-board graphics card model: Intel UHD Graphics 750, Maximum on-board graphics card memory: 64 GB, On-board graphics card base frequency: 350 MHz. Market segment: Desktop, Use conditions: PC/Client/Tablet, PCI Express configurations: 1x16+1x4, 2x8+1x4, 1x8+3x4. Intel® Turbo Boost Max Technology 3.0 frequency: 5.2 GHz, Intel® Turbo Boost Technology 2.0 frequency: 5.1 GHz, Intel® Thermal Velocity Boost Temperature: 70 °C

Processor		Features	
Processor manufacturer *	Intel	PCI Express configurations	1x16+1x4, 2x8+1x4, 1x8+3x4
Processor generation	11th gen Intel® Core™ i9	Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0, AVX-512
Processor model *	i9-11900K	Scalability	1S
Processor base frequency *	3.5 GHz	CPU configuration (max)	1
Processor family *	Intel® Core™ i9	Embedded options available	✗
Processor cores *	8	Export Control Classification Number (ECCN)	5A992CN3
Processor socket *	LGA 1200 (Socket H5)	Commodity Classification Automated Tracking System (CCATS)	G167599
Component for	PC	Processor special features	
Processor lithography *	14 nm	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor threads	16	Intel® Identity Protection Technology (Intel® IPT)	✓
System bus rate	8 GT/s	Intel® Turbo Boost Technology	2.0
Processor operating modes *	64-bit	Intel® Quick Sync Video Technology	✓
Processor boost frequency	5.3 GHz	Intel® InTru™ 3D Technology	✓
Processor cache	16 MB	Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Processor cache type	Smart Cache	Intel® AES New Instructions (Intel® AES-NI)	✓
Thermal Design Power (TDP)	125 W	Enhanced Intel SpeedStep Technology	✓
Box *	✗	Intel Trusted Execution Technology	✓
Configurable TDP-down frequency	3 GHz	Intel® Thermal Velocity Boost	✓
Cooler included *	✗	Intel® Turbo Boost Max Technology 3.0 frequency	5.2 GHz
Configurable TDP-down	95 W	Intel® Turbo Boost Technology 2.0 frequency	5.1 GHz
Memory bandwidth supported by processor (max)	50 GB/s	Intel® Gaussian & Neural Accelerator (Intel® GNA) 2.0	✓
Processor ARK ID	212325	Intel® Thermal Velocity Boost Temperature	70 °C
Memory		Intel® Thermal Velocity Boost Frequency	5.3 GHz
Maximum internal memory supported by processor	128 GB	Intel VT-x with Extended Page Tables (EPT)	✓
Memory types supported by processor	DDR4-SDRAM	Intel® Secure Key	✓
Memory clock speeds supported by processor	3200 MHz	Intel Stable Image Platform Program (SIPP)	✓
Memory channels *	Dual-channel	Intel® OS Guard	✓
ECC	✗	Intel Clear Video Technology	✓
Memory bandwidth (max)	50 GB/s	Intel Software Guard Extensions (Intel SGX)	✗
Graphics			
On-board graphics card *	✓		
Discrete graphics card *	✗		
On-board graphics card model *	Intel UHD Graphics 750		
Maximum on-board graphics card memory	64 GB		
On-board graphics card base frequency	350 MHz		

Graphics		Processor special features	
On-board graphics card dynamic frequency (max)	1300 MHz	Intel 64	✓
Number of displays supported (on-board graphics)	3	Intel Virtualization Technology (VT-x)	✓
On-board graphics card 4K support	✓	Intel Virtualization Technology for Directed I/O (VT-d)	✓
On-board graphics card OpenGL version	4.5	Intel Turbo Boost Max Technology 3.0	✓
On-board graphics card maximum resolution (DisplayPort)	5120 x 3200 pixels	Intel® Optane™ Memory Ready	✓
On-board graphics card maximum resolution (eDP - Integrated Flat Panel)	5120 x 3200 pixels	Intel® Boot Guard	✓
On-board graphics card maximum resolution (HDMI)	4096 x 2160 pixels	Intel® Deep Learning Boost (Intel® DL Boost)	✓
On-board graphics card refresh rate at maximum resolution (DisplayPort)	60 Hz	Intel® vPro™ Platform Eligibility	✓
On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)	60 Hz		
On-board graphics card refresh rate at maximum resolution (HDMI)	60 Hz		
On-board graphics card ID	0x4C8A		
Discrete graphics card model *	Not available		
Number of execution units	32		
Features		Operational conditions	
Execute Disable Bit	✓	Tjunction	100 °C
Idle States	✓		
Thermal Monitoring Technologies	✓		
Market segment	Desktop	Technical details	
Use conditions	PC/Client/Tablet	Target market	Gaming, Content Creation
Maximum number of PCI Express lanes	20	Launch date	Q1'21
PCI Express slots version	4.0	Status	Launched
		Supported memory types	DDR4-SDRAM
		Logistics data	
		Harmonized System (HS) code	85423119
		Packaging data	
		Package type	Tray
		Weight & dimensions	
		Processor package size	37.5 x 37.5 mm
		Other features	
		Maximum internal memory	128 GB



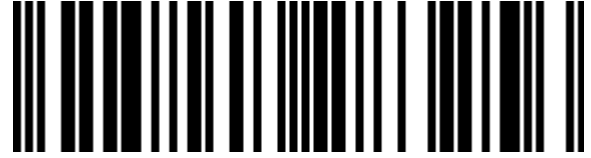
8592978311476



0021020372830



021020372830



5415247283256

Disclaimer. The information published here (the "Information") is based on sources that can be considered reliable, typically the manufacturer, but this Information is provided "AS IS" and without guarantee of correctness or completeness. The Information is only indicative and can be changed at any time without notification. No rights can be based on the Information. Suppliers or aggregators of this Information do not accept any liability with regard to the content of (web)pages and other documents, including its Information. The publisher of the Information can not be held liable for the content of 3rd party websites that are linking this Information or are linked to from this Information. You as the User of the Information are solely responsible for the choice and usage of this Information. You are not entitled to transfer, copy or otherwise multiply or distribute the Information. You are obliged to follow the directions of the copyright owner(s) with regard to the use of the Information. Exclusively Dutch law is applicable. With regard to price and stock data on the site, the publisher followed a number of starting points, which are not necessarily relevant for your private or business circumstances. Therefore, the price and stock data are only indicative and are subject to changes. You are personally responsible for the way you use and apply this information. As a user of the Information or sites or documents in which this Information is included, you will adhere to standard fair use including avoidance of spamming, ripping, intellectual-property violations, privacy violations, and any other illegal activity.