

Intel Core i7-10700KF processor 3.8 GHz 16 MB Smart Cache Box

Brand : Intel Product family: Core Product code:

BX8070110700KF

Product name: i7-10700KF

Intel Core i7-10700KF Processor (16MB Cache, up to 5.1 GHz)

Intel Core i7-10700KF. Processor family: Intel® Core™ i7, 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. Market segment: Desktop, PCI Express configurations: 1x16, 2x8, 1x8+2x4, Supported instruction sets: SSE4.1, SSE4.2, AVX 2.0. Intel® Turbo Boost Max Technology 3.0 frequency: 5.1 GHz, Intel® Turbo Boost Technology 2.0 frequency: 5 GHz. Package type: Retail box







Processor		Features	
Processor manufacturer *	Intel	Export Control Classification	5A992C
Processor generation	10th gen Intel® Core™ i7	Number (ECCN)	
Processor model *	i7-10700KF	Commodity Classification Automated Tracking System	G077159
Processor base frequency *	3.8 GHz	(CCATS)	607,133
Processor family *	Intel® Core™ i7	Processor special features	
Processor cores *	8	•	
Processor socket *	LGA 1200 (Socket H5)	Intel® Hyper Threading Technology (Intel® HT Technology)	1
Component for	PC	Intel® Identity Protection	
Processor lithography *	14 nm	Technology (Intel® IPT)	✓
Processor threads	16	Intel® Turbo Boost Technology	2.0
System bus rate	8 GT/s	Intel® AES New Instructions (Intel®	1
Processor operating modes *	64-bit	AES-NI)	
Processor boost frequency	5.1 GHz	Enhanced Intel SpeedStep Technology	✓
Processor cache	16 MB	Intel Trusted Execution Technology	×
Processor cache type	Smart Cache 125 W	Intel® Thermal Velocity Boost	×
Thermal Design Power (TDP) Box *	125 W	Intel® Turbo Boost Max Technology	
Configurable TDP-down frequency	3.5 GHz	3.0 frequency	5.1 GHz
Cooler included *	X X	Intel® Turbo Boost Technology 2.0 frequency	5 GHz
Configurable TDP-down	95 W	Intel® Transactional	
Generation	10th Generation	Synchronization Extensions	×
Memory bandwidth supported by processor (max)	45.8 GB/s	Intel VT-x with Extended Page Tables (EPT)	✓
Processor codename	Comet Lake	Intel® Secure Key	✓
Processor ARK ID	199325	Intel Stable Image Platform Program (SIPP)	×
Memory		Intel® OS Guard	✓
Maximum internal memory supported by processor	128 GB	Intel Software Guard Extensions (Intel SGX)	✓
Memory types supported by	DDR4-SDRAM	Intel 64	✓
processor Memory clock speeds supported by	2933 MHz	Intel Virtualization Technology (VT-x)	✓
processor Memory channels *	Dual-channel	Intel Virtualization Technology for	1
ECC	X	Directed I/O (VT-d)	•
Graphics		Intel Turbo Boost Max Technology 3.0	✓
On-board graphics card *	×	Intel® Optane™ Memory Ready	✓
Discrete graphics card *	×	Intel® Boot Guard	✓
On-board graphics card model *	Not available	Intel® vPro™ Platform Eligibility	×
Discrete graphics card model *	Not available	Operational conditions	
		Tjunction	100 °C

Features		Technical details	
Execute Disable Bit	✓	Target market	Gaming, Content Creation
Idle States	✓	Launch date	Q2'20
Thermal Monitoring Technologies	✓	Product type	Processor
Market segment	Desktop	Status	Launched
Maximum number of PCI Express lanes	16	Maximum memory	128 GB
		Supported memory types	DDR4-SDRAM
PCI Express slots version	3.0	Bus speed	8 GT/s
PCI Express configurations	1x16, 2x8, 1x8+2x4	Packaging data	
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0		
Scalability	15	Package type	Retail box
CPU configuration (max)	1	Weight & dimensions	
Embedded options available	×	Processor package size	37.5 x 37.5 mm
Thermal solution specification	PCG 2015D	Other features	
PCI Express CEM revision	3.0		
Harmonized System (HS) code	85423119	Maximum internal memory	128 GB













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