intel

Intel Core i7-10700F processor 2.9 GHz 16 MB Smart Cache Box

Brand : Intel   **Product family:** Core   **Product code:** BX8070110700F

Product name : i7-10700F

Intel Core i7-10700F Processor (16MB Cache, up to 4.8 GHz)
Intel Core i7-10700F. 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: 4.8 GHz, Intel® Turbo Boost Technology 2.0 frequency: 4.7
GHz. Package type: Retail box
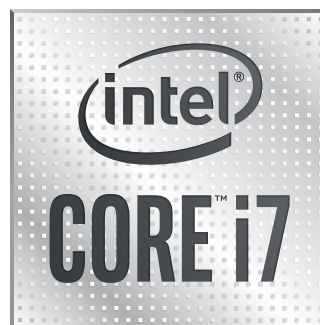
Processor		**Processor special features**	
Processor manufacturer *	Intel	Intel® Hyper Threading Technology (Intel® HT Technology)	✔
Processor generation	10th gen Intel® Core™ i7	Intel® Identity Protection Technology (Intel® IPT)	✔
Processor model *	i7-10700F		
Processor base frequency *	2.9 GHz	Intel® Turbo Boost Technology	2.0
Processor family *	Intel® Core™ i7	Intel® AES New Instructions (Intel® AES-NI)	✔
Processor cores *	8		
Processor socket *	LGA 1200 (Socket H5)	Enhanced Intel SpeedStep Technology	✔
Component for	PC		
Processor lithography *	14 nm	Intel Trusted Execution Technology	✖
Processor threads	16	Intel® Thermal Velocity Boost	✖
System bus rate	8 GT/s	Intel® Turbo Boost Max Technology 3.0 frequency	4.8 GHz
Processor operating modes *	64-bit		
Processor boost frequency	4.8 GHz	Intel® Turbo Boost Technology 2.0 frequency	4.7 GHz
Processor cache	16 MB		
Processor cache type	Smart Cache	Intel® Transactional Synchronization Extensions	✖
Thermal Design Power (TDP)	65 W		
Box *	✔	Intel VT-x with Extended Page Tables (EPT)	✔
Cooler included *	✔	Intel® Secure Key	✔
Generation	10th Generation	Intel Stable Image Platform Program (SIPP)	✖
Memory bandwidth supported by processor (max)	45.8 GB/s	Intel® OS Guard	✔
Processor codename	Comet Lake	Intel Software Guard Extensions (Intel SGX)	✔
Processor ARK ID	199318		
Memory		Intel 64	✔
		Intel Virtualization Technology (VT-x)	✔
Maximum internal memory supported by processor	128 GB	Intel Virtualization Technology for Directed I/O (VT-d)	✔
Memory types supported by processor	DDR4-SDRAM	Intel Turbo Boost Max Technology 3.0	✔
Memory clock speeds supported by processor	2933 MHz	Intel® Optane™ Memory Ready	✔
Memory channels *	Dual-channel	Intel® Boot Guard	✔
ECC	✖	Intel® vPro™ Platform Eligibility	✖
Graphics		**Operational conditions**	
On-board graphics card *	✖	Tjunction	100 °C
Discrete graphics card *	✖	**Technical details**	
On-board graphics card model *	Not available	Target market	Gaming, Content Creation
Discrete graphics card model *	Not available	Launch date	Q2'20
Features		Product type	Processor
Execute Disable Bit	✔	Status	Launched

Features

Idle States	✔
Thermal Monitoring Technologies	✔
Market segment	Desktop
Maximum number of PCI Express lanes	16
PCI Express slots version	3.0
PCI Express configurations	1x16, 2x8, 1x8+2x4
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0
Scalability	1S
CPU configuration (max)	1
Embedded options available	✘
Thermal solution specification	PCG 2015C
PCI Express CEM revision	3.0
Export Control Classification Number (ECCN)	5A992C
Commodity Classification Automated Tracking System (CCATS)	G077159

Technical details

Maximum memory	128 GB
Supported memory types	DDR4-SDRAM
Bus speed	8 GT/s

Logistics data

Harmonized System (HS) code	85423119

Packaging data

Package type	Retail box

Weight & dimensions

Processor package size	37.5 x 37.5 mm

Other features

Maximum internal memory	128 GB

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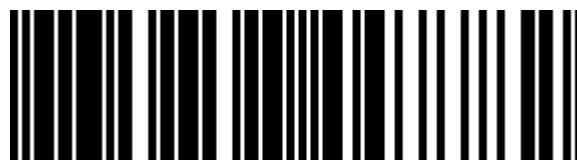
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