

Intel Core i7-12700F processor 25 MB Smart Cache

Brand : Intel

Product family: Core

Product code:
CM8071504555020

Product name : i7-12700F



Intel® Core™ i7-12700F Processor (25M Cache, up to 4.90 GHz) FC-LGA16A, Tray
 Intel Core i7-12700F. Processor family: Intel® Core™ i7, Processor socket: LGA 1700, Processor manufacturer: Intel. Memory channels: Dual-channel, Maximum internal memory supported by processor: 128 GB, Memory types supported by processor: DDR4-SDRAM, DDR5-SDRAM. Market segment: Desktop, Use conditions: PC/Client/Tablet, PCI Express slots version: 5.0, 4.0. Intel® Turbo Boost Max Technology 3.0 frequency: 4.9 GHz. Package type: Retail box



Processor		Features	
Processor manufacturer *	Intel	Direct Media Interface (DMI) Revision	4.0
Processor generation	12th gen Intel® Core™ i7	Export Control Classification Number (ECCN)	5A992CN3
Processor model *	i7-12700F	Commodity Classification Automated Tracking System (CCATS)	G167599
Processor family *	Intel® Core™ i7	Processor special features	
Processor cores *	12	Intel® Hyper Threading Technology (Intel® HT Technology)	✓
Processor socket *	LGA 1700	Intel® Turbo Boost Technology	2.0
Processor threads	20	Intel® AES New Instructions (Intel® AES-NI)	✓
Processor operating modes *	64-bit	Enhanced Intel SpeedStep Technology	✓
Performance cores	8	Intel® Speed Shift Technology	✓
Efficient cores	4	Intel® Turbo Boost Max Technology 3.0 frequency	4.9 GHz
Processor boost frequency	4.9 GHz	Intel® Gaussian & Neural Accelerator (Intel® GNA) 3.0	✓
Performance-core boost frequency	4.8 GHz	Intel® Control-flow Enforcement Technology (CET)	✓
Performance-core base frequency	2.1 GHz	Intel® Thread Director	✓
Efficient-core boost frequency	3.6 GHz	Intel VT-x with Extended Page Tables (EPT)	✓
Efficient-core base frequency	1.6 GHz	Intel® Secure Key	✓
Processor cache	25 MB	Intel® OS Guard	✓
Processor cache type	Smart Cache	Intel 64	✓
Box *	✗	Intel Virtualization Technology (VT-x)	✓
Processor base power	65 W	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Maximum turbo power	180 W	Intel Turbo Boost Max Technology 3.0	✓
Bus type	DMI4	Intel® Optane™ Memory Ready	✓
Maximum number of DMI lanes	8	Intel® Boot Guard	✓
Memory bandwidth supported by processor (max)	76.8 GB/s	Intel® Deep Learning Boost (Intel® DL Boost)	✓
Processor codename	Alder Lake	Intel® Volume Management Device (VMD)	✓
Processor ARK ID	134592	Mode-based Execute Control (MBE)	✓
Memory		Intel® Standard Manageability (ISM)	✓
Maximum internal memory supported by processor	128 GB	Operational conditions	
Memory types supported by processor	DDR4-SDRAM, DDR5-SDRAM	Tjunction	100 °C
Memory channels *	Dual-channel	Logistics data	
Memory bandwidth (max)	76.8 GB/s	Harmonized System (HS) code	85423119
Graphics			
On-board graphics card *	✗		
Discrete graphics card *	✗		
On-board graphics card model *	Not available		
Discrete graphics card model *	Not available		
Features			
Execute Disable Bit	✓		
Idle States	✓		
Thermal Monitoring Technologies	✓		
Market segment	Desktop		

Features		Packaging data	
Use conditions	PC/Client/Tablet	Package type	Retail box
Maximum number of PCI Express lanes	20	Technical details	
PCI Express slots version	5.0, 4.0	Target market	Gaming, Content Creation
PCI Express configurations	1x16+1x4, 2x8+1x4	Launch date	Q1'22
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0	Status	Launched
Scalability	1S	Weight & dimensions	
CPU configuration (max)	1	Processor package size	45 x 37.5 mm
Embedded options available	✗	Other features	
		Maximum internal memory	128 GB



8592978364892



0675901979139



675901979139

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.

Publication date: 17-MAR-2023. Prints or copies of Information are only valid on the printed Publication date