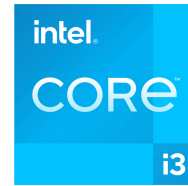# Intel Core i3-13100F processor 12 MB Smart Cache

Brand : Intel

Product family: Core

Product code: CM8071505092203

Product name : i3-13100F

Intel® Core™ i3-13100F Processor (12M Cache, up to 4.50 GHz) FC-LGA16A, Tray Intel Core i3-13100F. Processor family: Intel® Core™ i3, Processor socket: LGA 1700, Processor manufacturer: Intel. Memory channels: Dual-channel, Maximum internal memory supported by processor: 192 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. Package type: Retail box. Processor package size: 45 x 37.5 mm

Processor

Processor manufacturer *	Intel
Processor generation	Intel Core i3-13xxx
Processor model *	i3-13100F
Processor family *	Intel® Core™ i3
Processor cores *	4
Processor socket *	LGA 1700
Processor threads	8
Processor operating modes *	64-bit
Performance cores	4
Processor boost frequency	4.5 GHz
Performance-core boost frequency	4.5 GHz
Performance-core base frequency	3.4 GHz
Processor cache	12 MB
Processor cache type	Smart Cache
Box *	✖
Processor base power	58 W
Maximum turbo power	89 W
Bus type	DMI4
Maximum number of DMI lanes	8
Memory bandwidth supported by processor (max)	76.8 GB/s
Processor codename	Raptor Lake
Processor ARK ID	230576

Memory

Maximum internal memory supported by processor	192 GB
Memory types supported by processor	DDR4-SDRAM, DDR5-SDRAM
Memory channels *	Dual-channel
Memory bandwidth (max)	76.8 GB/s

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
Use conditions	PC/Client/Tablet
Maximum number of PCI Express lanes	20
PCI Express slots version	5.0, 4.0

Features

Export Control Classification Number (ECCN)	5A992C
Commodity Classification Automated Tracking System (CCATS)	740.17B1

Processor special features

Intel® Hyper Threading Technology (Intel® HT Technology)	✔
Intel® Turbo Boost Technology	2.0
Intel® AES New Instructions (Intel® AES-NI)	✔
Enhanced Intel SpeedStep Technology	✔
Intel® Speed Shift Technology	✔
Intel® Gaussian & Neural Accelerator (Intel® GNA) 3.0	✔
Intel® Control-flow Enforcement Technology (CET)	✔
Intel® Thread Director	✖
Intel VT-x with Extended Page Tables (EPT)	✔
Intel® Secure Key	✔
Intel® OS Guard	✔
Intel 64	✔
Intel Virtualization Technology (VT-x)	✔
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Intel Turbo Boost Max Technology 3.0	✖
Intel® Boot Guard	✔
Intel® Deep Learning Boost (Intel® DL Boost)	✔
Intel® Volume Management Device (VMD)	✔
Mode-based Execute Control (MBE)	✔
Intel® Standard Manageability (ISM)	✔

Operational conditions

Tjunction	100 °C

Logistics data

Harmonized System (HS) code	8542310001

Packaging data

Package type	Retail box

Technical details

Launch date	Q1'23

Features

PCI Express configurations	1x16+1x4, 2x8+1x4
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0
Scalability	1S
CPU configuration (max)	1
Embedded options available	✖
Direct Media Interface (DMI) Revision	4.0

Technical details

Status	Launched

Weight & dimensions

Processor package size	45 x 37.5 mm

Other features

L2 cache	5120 KB
Maximum internal memory	192 GB

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