Intel Core i5-13400F processor 20 MB Smart Cache
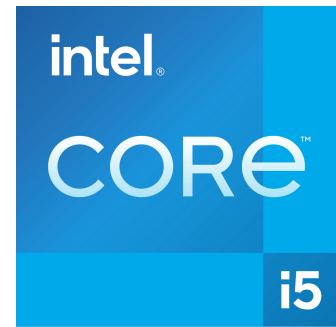
Brand : Intel

Product family: Core

Product code:
CM8071505093005

Product name : i5-13400F

Intel® Core™ i5-13400F Processor (20M Cache, up to 4.60 GHz) FC-LGA16A, Tray
Intel Core i5-13400F. Processor family: Intel® Core™ i5, 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. Processor package size: 45 x 37.5 mm. L2 cache: 9728 KB, Maximum internal memory: 192 GB

Processor

Processor manufacturer *	Intel
Processor generation	13th gen Intel® Core™ i5
Processor model *	i5-13400F
Processor family *	Intel® Core™ i5
Processor cores *	10
Processor socket *	LGA 1700
Processor threads	16
Processor operating modes *	64-bit
Performance cores	6
Efficient cores	4
Processor boost frequency	4.6 GHz
Performance-core boost frequency	4.6 GHz
Performance-core base frequency	2.5 GHz
Efficient-core boost frequency	3.3 GHz
Efficient-core base frequency	1.8 GHz
Processor cache	20 MB
Processor cache type	Smart Cache
Box *	✗
Processor base power	65 W
Maximum turbo power	148 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	230501

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

Embedded options available	✗
Direct Media Interface (DMI) Revision	4.0
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

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
PCI Express configurations	1x16+1x4, 2x8+1x4
Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0
Scalability	1S
CPU configuration (max)	1

Logistics data

Harmonized System (HS) code	8542310001

Technical details

Target market	Gaming
Launch date	Q1'23
Status	Launched

Weight & dimensions

Processor package size	45 x 37.5 mm

Other features

L2 cache	9728 KB
Maximum internal memory	192 GB

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