intel

Intel Core i5-14600KF processor 24 MB Smart Cache Box
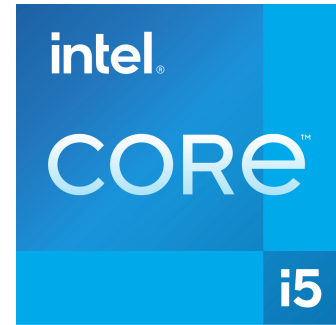
Brand : Intel

Product family: Core

Product code:
BX8071514600KF

Product name : i5-14600KF

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CORe
i5

Boxed Intel® Core™ i5 processor 14600KF (24M Cache, up to 5.30 GHz) FC-LGA16A
Intel Core i5-14600KF. 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: 4.0, 5.0. Processor
package size: 45 x 37.5 mm. L2 cache: 20480 KB, Maximum internal memory: 192 GB

Processor

Processor manufacturer *	Intel
Processor generation	Intel Core i5-14xxx
Processor model *	i5-14600KF
Processor family *	Intel® Core™ i5
Processor cores *	14
Processor socket *	LGA 1700
Processor threads	20
Processor operating modes *	64-bit
Performance cores	6
Efficient cores	8
Processor boost frequency	5.3 GHz
Performance-core boost frequency	5.3 GHz
Performance-core base frequency	3.5 GHz
Efficient-core boost frequency	4 GHz
Efficient-core base frequency	2.6 GHz
Processor cache	24 MB
Processor cache type	Smart Cache
Box *	✔
Cooler included *	✘
Processor base power	125 W
Maximum turbo power	181 W
Stepping	B0
Maximum number of DMI lanes	8
Memory bandwidth supported by processor (max)	89.6 GB/s
Processor codename	Raptor Lake
Processor ARK ID	236778

Memory

Maximum internal memory supported by processor	192 GB
Memory types supported by processor	DDR4-SDRAM, DDR5-SDRAM
Memory channels *	Dual-channel
Non-ECC	✔
Memory bandwidth (max)	89.6 GB/s

Graphics

On-board graphics card *	✘
Discrete graphics card *	✘
On-board graphics card model *	Not available
Discrete graphics card model *	Not available

Features

Scalability	1S
CPU configuration (max)	1
Embedded options available	✘
Thermal solution specification	PCG 2020A
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® Boot Guard	✔
Intel® Deep Learning Boost (Intel® DL Boost)	✔
Intel® Volume Management Device (VMD)	✔
Mode-based Execute Control (MBE)	✔
Intel® Standard Manageability (ISM)	✔

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	4.0, 5.0
PCI Express configurations	1x16+1x4, 2x8+1x4
Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2

Operational conditions

Tjunction	100 °C

Logistics data

Harmonized System (HS) code	8542310001

Technical details

Launch date	Q4'23
Status	Launched

Weight & dimensions

Processor package size	45 x 37.5 mm

Other features

L2 cache	20480 KB
Maximum internal memory	192 GB

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