

## Intel Core i5-14600K processor 24 MB Smart Cache

Brand: Intel Product family: Core Product code: CM8071504821015

Product name: i5-14600K

Intel® Core™ i5 processor 14600K (24M Cache, up to 5.30 GHz) FC-LGA16A, Tray
Intel Core i5-14600K. 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. On-board
graphics card model: Intel UHD Graphics 770, On-board graphics card outputs supported: Embedded
DisplayPort (eDP) 1.4b, DisplayPort 1.4a, HDMI 2.1, On-board graphics card base frequency: 300 MHz.
Market segment: Desktop, Use conditions: Workstation, PC/Client/Tablet, PCI Express slots version: 4.0,
5.0. Processor package size: 45 x 37.5 mm





Processor		Features	
Processor manufacturer *	Intel	Idle States	✓
Processor generation	Intel Core i5-14xxx	Thermal Monitoring Technologies	✓
Processor model *	i5-14600K	Market segment	Desktop
Processor family *	Intel® Core™ i5	Use conditions	Workstation, PC/Client/Tablet
Processor cores *	14	Maximum number of PCI Express	20
Processor socket *	LGA 1700	lanes	
Processor threads	20	PCI Express slots version	4.0, 5.0
Processor operating modes *	64-bit	PCI Express configurations	1x16+1x4, 2x8+1x4
Performance cores	6	Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
Efficient cores	8	Scalability	1S
Processor boost frequency	5.3 GHz	CPU configuration (max)	1
Performance-core boost frequency	5.3 GHz	Embedded options available	X
Performance-core base frequency	3.5 GHz	Thermal solution specification	PCG 2020A
Efficient-core boost frequency	4 GHz	Direct Media Interface (DMI) Revision	4.0
Efficient-core base frequency	2.6 GHz	Export Control Classification	
Processor cache	24 MB	Number (ECCN)	5A992C
Processor cache type	Smart Cache	Commodity Classification	
Box *	×	Automated Tracking System	740.17B1
Processor base power	125 W	(CCATS)	
Maximum turbo power	181 W	Processor special features	
Stepping	В0	Intel® Hyper Threading Technology	,
Maximum number of DMI lanes	8	(Intel® HT Technology)	*
Memory bandwidth supported by	89.6 GB/s	Intel® Turbo Boost Technology	2.0
processor (max)		Intel® Quick Sync Video Technology	1
Processor codename			
	Raptor Lake	Intel® Clear Video HD Technology	<b>√</b>
	Raptor Lake 236799	(Intel® CVT HD)	1
Processor ARK ID  Memory	•	(Intel® CVT HD) Intel® AES New Instructions (Intel®	<b>✓</b>
Processor ARK ID  Memory  Maximum internal memory	236799	(Intel® CVT HD) Intel® AES New Instructions (Intel® AES-NI)	1
Processor ARK ID  Memory  Maximum internal memory supported by processor	•	(Intel® CVT HD) Intel® AES New Instructions (Intel®	<ul><li>✓</li><li>✓</li><li>✓</li></ul>
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by	236799	(Intel® CVT HD) Intel® AES New Instructions (Intel® AES-NI) Enhanced Intel SpeedStep	4 4 4 4 4
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor	236799 192 GB DDR4-SDRAM, DDR5-SDRAM	(Intel® CVT HD) Intel® AES New Instructions (Intel® AES-NI) Enhanced Intel SpeedStep Technology Intel® Speed Shift Technology Intel® Gaussian & Neural	1 1 1
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *	236799 192 GB	(Intel® CVT HD) Intel® AES New Instructions (Intel® AES-NI) Enhanced Intel SpeedStep Technology Intel® Speed Shift Technology Intel® Gaussian & Neural Accelerator (Intel® GNA) 3.0	4 4 4 4 4 4 4
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *  ECC	236799  192 GB  DDR4-SDRAM, DDR5-SDRAM  Dual-channel	(Intel® CVT HD)  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	
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *  ECC  Memory bandwidth (max)	236799  192 GB  DDR4-SDRAM, DDR5-SDRAM  Dual-channel	(Intel® CVT HD) Intel® AES New Instructions (Intel® AES-NI) Enhanced Intel SpeedStep Technology Intel® Speed Shift Technology Intel® Gaussian & Neural Accelerator (Intel® GNA) 3.0	1 1 1 1
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *  ECC  Memory bandwidth (max)  Graphics	236799  192 GB  DDR4-SDRAM, DDR5-SDRAM  Dual-channel  89.6 GB/s	(Intel® CVT HD)  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	1 1 1 1
Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *  ECC  Memory bandwidth (max)  Graphics  On-board graphics card *	236799  192 GB  DDR4-SDRAM, DDR5-SDRAM  Dual-channel  89.6 GB/s	(Intel® CVT HD)  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)	1 1 1 1
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *  ECC  Memory bandwidth (max)  Graphics  On-board graphics card *  Discrete graphics card *	236799  192 GB  DDR4-SDRAM, DDR5-SDRAM  Dual-channel    89.6 GB/s	(Intel® CVT HD)  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	1 1 1 1
Processor ARK ID  Memory  Maximum internal memory supported by processor  Memory types supported by processor  Memory channels *  ECC  Memory bandwidth (max)  Graphics  On-board graphics card *	236799  192 GB  DDR4-SDRAM, DDR5-SDRAM  Dual-channel  89.6 GB/s	(Intel® CVT HD)  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)	1 1 1 1

Graphics		Processor special features	
On-board graphics card base frequency	300 MHz	Intel Virtualization Technology (VT-x)	✓
On-board graphics card dynamic frequency (max)	1550 MHz	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Number of displays supported (on- board graphics)	4	Intel® Boot Guard	✓
On-board graphics card DirectX version	12.0	Intel® Deep Learning Boost (Intel® DL Boost)	1
On-board graphics card OpenGL version	4.5	Intel® Volume Management Device (VMD)	<b>√</b>
On-board graphics card maximum resolution (DisplayPort)	7680 x 4320 pixels	Mode-based Execute Control (MBE) Intel® Standard Manageability (ISM)	•
On-board graphics card maximum		Operational conditions	
resolution (eDP - Integrated Flat Panel)	5120 x 3200 pixels	Tjunction	100 °C
On-board graphics card maximum	4096 x 2160 pixels	Technical details	
resolution (HDMI) On-board graphics card refresh rate		OpenCL version	3.0
at maximum resolution (DisplayPort)	60 Hz	Launch date Status	Q4'23 Launched
On-board graphics card refresh rate		Logistics data	
at maximum resolution (eDP - Integrated Flat Panel)	120 Hz	Harmonized System (HS) code	8542310001
On-board graphics card refresh rate at maximum resolution (HDMI)	60 Hz	Weight & dimensions	
On-board graphics card ID	0xA780	Processor package size	45 x 37.5 mm
Discrete graphics card model *	Not available	Other features	
Number of execution units	32	L2 cache	20480 KB
Multi-Format Codec Engines	2	Maximum internal memory	192 GB
Features		Graphics output	eDP 1.4b, DP 1.4a, HDMI 2.1
Execute Disable Bit	✓		



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