

## Intel Core i7-14700K processor 33 MB Smart Cache Box

Brand : Intel

Product family: Core

Product code:  
BX8071514700K

Product name : i7-14700K



Boxed Intel® Core™ i7 processor 14700K (33M Cache, up to 5.60 GHz) FC-LGA16A  
 Intel Core i7-14700K. Processor family: Intel® Core™ i7, 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. Intel® Turbo Boost Max Technology 3.0 frequency: 5.6 GHz



| Processor                                      |   | Features   |                               |
|--|---|--|-------------------------------|
| Processor manufacturer *                       | Intel   | Thermal Monitoring Technologies                            | ✓                             |
| Processor generation                           | Intel Core i7-14xxx   | Market segment   | Desktop                       |
| Processor model *                              | i7-14700K   | Use conditions   | Workstation, PC/Client/Tablet |
| Processor family *                             | Intel® Core™ i7   | Maximum number of PCI Express lanes                        | 20                            |
| Processor cores *                              | 20  | PCI Express slots version                                  | 4.0, 5.0                      |
| Processor socket *                             | LGA 1700  | PCI Express configurations                                 | 1x16+1x4, 2x8+1x4             |
| Processor threads                              | 28  | Supported instruction sets                                 | AVX 2.0, SSE4.1, SSE4.2       |
| Processor operating modes *                    | 64-bit  | Scalability  | 1S                            |
| Performance cores                              | 8   | CPU configuration (max)                                    | 1                             |
| Efficient cores                                | 12  | Embedded options available                                 | ✗                             |
| Processor boost frequency                      | 5.6 GHz   | Thermal solution specification                             | PCG 2020A                     |
| Performance-core boost frequency               | 5.5 GHz   | Direct Media Interface (DMI) Revision                      | 4.0                           |
| Performance-core base frequency                | 3.4 GHz   | Export Control Classification Number (ECCN)                | 5A992C                        |
| Efficient-core boost frequency                 | 4.3 GHz   | Commodity Classification Automated Tracking System (CCATS) | 740.17B1                      |
| Efficient-core base frequency                  | 2.5 GHz   |  |                               |
| Processor cache                                | 33 MB   | <b>Processor special features</b>                          |                               |
| Processor cache type                           | Smart Cache   | Intel® Hyper Threading Technology (Intel® HT Technology)   | ✓                             |
| Box *  | ✓   | Intel® Turbo Boost Technology                              | 2.0                           |
| Cooler included *                              | ✗   | Intel® Quick Sync Video Technology                         | ✓                             |
| Processor base power                           | 125 W   | Intel® Clear Video HD Technology (Intel® CVT HD)           | ✓                             |
| Maximum turbo power                            | 253 W   | Intel® AES New Instructions (Intel® AES-NI)                | ✓                             |
| Stepping                                       | B0  | Enhanced Intel SpeedStep Technology                        | ✓                             |
| Maximum number of DMI lanes                    | 8   | Intel® Speed Shift Technology                              | ✓                             |
| Memory bandwidth supported by processor (max)  | 89.6 GB/s   | Intel® Turbo Boost Max Technology 3.0 frequency            | 5.6 GHz                       |
| Processor codename                             | Raptor Lake   | Intel® Gaussian & Neural Accelerator (Intel® GNA) 3.0      | ✓                             |
| Processor ARK ID                               | 236783  | Intel® Control-flow Enforcement Technology (CET)           | ✓                             |
| <b>Memory</b>                                  |   | Intel® Thread Director                                     | ✓                             |
| Maximum internal memory supported by processor | 192 GB  | Intel VT-x with Extended Page Tables (EPT)                 | ✓                             |
| Memory types supported by processor            | DDR4-SDRAM, DDR5-SDRAM                                      | Intel® Secure Key  | ✓                             |
| Memory channels *                              | Dual-channel  | Intel® OS Guard  | ✓                             |
| ECC  | ✓   | Intel 64   | ✓                             |
| Non-ECC  | ✓   | Intel Virtualization Technology (VT-x)                     | ✓                             |
| Memory bandwidth (max)                         | 89.6 GB/s   |  |                               |
| <b>Graphics</b>                                |   |  |                               |
| On-board graphics card *                       | ✓   |  |                               |
| Discrete graphics card *                       | ✗   |  |                               |
| 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 |  |                               |

| Graphics  |                    | Processor special features                              |                             |
|---|--------------------|---|-----------------------------|
| On-board graphics card base frequency   | 300 MHz            | Intel Virtualization Technology for Directed I/O (VT-d) | ✓                           |
| On-board graphics card dynamic frequency (max)  | 1600 MHz           | Intel Turbo Boost Max Technology 3.0                    | ✓                           |
| 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)            | ✓                           |
| On-board graphics card OpenGL version   | 4.5                | Intel® Volume Management Device (VMD)                   | ✓                           |
| On-board graphics card maximum resolution (DisplayPort)                                 | 7680 x 4320 pixels | Mode-based Execute Control (MBE)                        | ✓                           |
| On-board graphics card maximum resolution (eDP - Integrated Flat Panel)                 | 5120 x 3200 pixels | Intel® Standard Manageability (ISM)                     | ✓                           |
| On-board graphics card maximum resolution (HDMI)  | 4096 x 2160 pixels | <b>Operational conditions</b>                           |                             |
| On-board graphics card refresh rate at maximum resolution (DisplayPort)                 | 60 Hz              | Tjunction   | 100 °C                      |
| On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel) | 120 Hz             | <b>Technical details</b>                                |                             |
| On-board graphics card refresh rate at maximum resolution (HDMI)                        | 60 Hz              | OpenCL version  | 3.0                         |
| On-board graphics card ID   | 0xA780             | Launch date   | Q4'23                       |
| Discrete graphics card model *  | Not available      | Status  | Launched                    |
| Number of execution units   | 32                 | <b>Logistics data</b>                                   |                             |
| Multi-Format Codec Engines  | 2                  | Harmonized System (HS) code                             | 8542310001                  |
| <b>Features</b>   |                    | <b>Weight &amp; dimensions</b>                          |                             |
| Execute Disable Bit   | ✓                  | Processor package size                                  | 45 x 37.5 mm                |
| Idle States   | ✓                  | <b>Other features</b>                                   |                             |
|   |                    | L2 cache  | 28672 KB                    |
|   |                    | Maximum internal memory                                 | 192 GB                      |
|   |                    | Graphics output   | eDP 1.4b, DP 1.4a, HDMI 2.1 |



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