Intel Core i7 i7-14700 / 2.1 GHz processor (BX8071514700)

Intel Core i7 i7-14700 - 2.1 GHz - 20-core - 28 threads - 33 MB cache - FCLGA1700 Socket - Box

These processors power high-end PCs with excellent CPU performance for discrete-level graphics, and AI acceleration.

Key Selling Points

Intel Wi-Fi 6 (Gig+)
Intelligent performance
Make your computer an entertainment center
Collaboration

Product Features

Intel Wi-Fi 6 (Gig+)
Intel Wi-Fi 6 (Gig+) enabled PCs and wireless networks deliver a generational advance in Wi-Fi performance, traffic management, improved latency, interference avoidance and enhanced security for best-in-class connectivity.

Intelligent performance
Optimize PC performance for the experience you've been waiting for with built-in AI instructions in Intel Core processors. Stream, browse, edit, video chat, or just take care of business at home. Whatever you're doing, rely on Intel Core processors for the performance you need.

Make your computer an entertainment center
Get an amazing entertainment hub - stream 4K UHD videos, power virtual reality, and play the most demanding games. With 4x more pixels on screen than traditional HD, you can enjoy sharp, lifelike visuals, complex shading, and fast frame rates - all with virtually no stuttering, buffering, or lags. And be ready for revolutionary immersive experiences yet to come.

Collaboration
Enhance your collaboration experience with support for AI features including neural noise cancellation and background blur. The Wi-Fi connectivity with Intel Wi-Fi 6 (Gig +) ensures a responsive and reliable connection for immersive connectivity.

Main specifications

Product Description	*Intel Core i7 i7-14700 / 2.1 GHz processor - Box*
Product Type	*Processor*
Processor Type	*Intel Core i7 i7-14700 (14th Gen)*
Number of Cores	*20-core / 28 threads*
Cache	*33 MB*
Integrated Graphics	*Intel UHD Graphics 770*
Compatible Processor Socket	*FCLGA1700 Socket*
Processor Qty	*1*
Clock Speed	*2.1 GHz (P-core) / 1.5 GHz (E-core)*
Max Turbo Speed	*5.4 GHz (P-core) / 4.2 GHz (E-core)*
Manufacturing Process	*10 nm*
Features	*Intel Gaussian and Neural Accelerator 3.0, Intel Thread Director, Intel Deep Learning Boost (DL Boost), Intel Speed Shift Technology, Intel Turbo Boost Max Technology 3.0, Intel Turbo Boost Technology 2.0, Hyper-Threading Technology, Intel 64 Technology, Instruction Set 64-bit, streaming SIMD extensions 4.1, streaming SIMD extensions 4.2, Intel Advanced Vector Extensions 2 (AVX2.0), Idle States, Enhanced SpeedStep technology, Thermal Monitoring Technologies, Intel Volume Management Device (VMD), Intel Standard Manageability (ISM), Intel Control-Flow Enforcement Technology, Intel AES New Instructions (AES-NI), Intel Secure Key, Intel OS Guard, Intel Trusted Execution Technology, Execute Disable Bit capability, Intel Boot Guard, Mode-based Execute Control (MBE), Intel Virtualization Technology, Intel Virtualization Technology for Directed I/O (VT-d), Intel VT-x with Extended Page Tables (EPT)*
Manufacturer Warranty	*3-year warranty*

Extended specification

General

Product Type	*Processor*

Manufacturer Warranty

Service & Support	*Limited warranty - 3 years*

Processor

Type / Form Factor	Intel Core i7 i7-14700 (14th Gen)
Number of Cores	20-core
Number of Threads	28 threads
Cache	33 MB
Cache Memory Details	Smart Cache - 33 MB ¦ L2 - 28 MB
Processor Qty	1
Clock Speed	2.1 GHz (P-core) / 1.5 GHz (E-core)
Max Turbo Speed	5.4 GHz (P-core) / 4.2 GHz (E-core)
Compatible Processor Socket	FCLGA1700 Socket
Manufacturing Process	10 nm
Thermal Design Power	219 W
Thermal Specification	100 °C
PCI Express Revision	4.0/5.0
PCI Express Configurations	1x16+4, 2x8+4
PCI Express Lanes Qty	20
Architecture Features	Intel Gaussian and Neural Accelerator 3.0, Intel Thread Director, Intel Deep Learning Boost (DL Boost), Intel Speed Shift Technology, Intel Turbo Boost Max Technology 3.0, Intel Turbo Boost Technology 2.0, Hyper-Threading Technology, Intel 64 Technology, Instruction Set 64-bit, streaming SIMD extensions 4.1, streaming SIMD extensions 4.2, Intel Advanced Vector Extensions 2 (AVX2.0), Idle States, Enhanced SpeedStep technology, Thermal Monitoring Technologies, Intel Volume Management Device (VMD), Intel Standard Manageability (ISM), Intel Control-Flow Enforcement Technology, Intel AES New Instructions (AES-NI), Intel Secure Key, Intel OS Guard, Intel Trusted Execution Technology, Execute Disable Bit capability, Intel Boot Guard, Mode-based Execute Control (MBE), Intel Virtualization Technology, Intel Virtualization Technology for Directed I/O (VT-d), Intel VT-x with Extended Page Tables (EPT)

Miscellaneous

Package Type	Intel Boxed

Integrated Graphics

Type	Intel UHD Graphics 770
Base Frequency	300 MHz
Max Dynamic Frequency	1.6 GHz
Max Supported Resolution	4096x2160@60Hz (HDMI), 7680x4320@60Hz (DP), 5120x3200@120Hz (eDP)
Features	Intel Quick Sync Video, Intel Clear Video HD Technology, Quad Display Capable

Product data is provided by CNET, we do not warrant the accuracy and completeness of the material contained in this data sheet