

UPE | Compare Intel® Products
Intel® Core™ i3 processor 14100F (12M Cache- up to 4.70 GHz)

Essentials

Product Collection	Intel® Core™ i3 Processors (14th gen)
Code Name	Products formerly Raptor Lake
Vertical Segment	Desktop
Processor Number	i3-14100F
Lithography	Intel 7
Use Conditions	PC/Client/Tablet

CPU Specifications

Total Cores		4
# of Performance-cores		4
# of Efficient-cores		0
Total Threads		8
Max Turbo Frequency	4.7 GHz	
Performance-core Max Turbo Frequency	4.7 GHz	
Performance-core Base Frequency	3.5 GHz	
Cache	12 MB Intel® Smart Cache	
Total L2 Cache	5 MB	
Processor Base Power	58 W	
Maximum Turbo Power	110 W	

Supplemental Information

Marketing Status	Launched
Launch Date	Q1'24
Embedded Options Available	No

Memory Specifications

Max Memory Size (dependent on memory type)	192 GB	
Memory Types	Up to DDR5 4800 MT/s Up to DDR4 3200 MT/s	
Max # of Memory Channels		2
Max Memory Bandwidth	76.8 GB/s	

Expansion Options

Direct Media Interface (DMI) Revision		4
Max # of DMI Lanes		8
Scalability	1S Only	
PCI Express Revision	5.0 and 4.0	
PCI Express Configurations ‡	Up to 1x16+4 2x8+4	
Max # of PCI Express Lanes		20

Package Specifications

Sockets Supported	FCLGA1700	
Max CPU Configuration		1
Thermal Solution Specification	PCG 2020C	
TJUNCTION	100°C	
Package Size	45.0 mm x 37.5 mm	

Advanced Technologies		
Intel® Gaussian & Neural Accelerator		3
Intel® Deep Learning Boost (Intel® DL Boost) on CPU	Yes	
Intel® Speed Shift Technology	Yes	
Intel® Turbo Boost Technology ‡		2
Intel® Hyper-Threading Technology ‡	Yes	
Intel® 64 ‡	Yes	
Instruction Set	64-bit	
Instruction Set Extensions	Intel® SSE4.1 Intel® SSE4.2 Intel® AVX2	
Idle States	Yes	
Enhanced Intel SpeedStep® Technology	Yes	
Thermal Monitoring Technologies	Yes	
Intel® Volume Management Device (VMD)	Yes	

Security & Reliability		
Intel® Standard Manageability (ISM) ‡	Yes	
Intel® Control-Flow Enforcement Technology	Yes	
Intel® AES New Instructions	Yes	
Secure Key	Yes	
Intel® OS Guard	Yes	
Execute Disable Bit ‡	Yes	
Intel® Boot Guard	Yes	
Mode-based Execute Control (MBEC)	Yes	
Intel® Virtualization Technology (VT-x) ‡	Yes	
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	Yes	
Intel® VT-x with Extended Page Tables (EPT) ‡	Yes	