

UPE | Compare Intel® Products

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,Intel® Core™ i5-10500 Processor (12M Cache- up to 4.50 GHz)

Essentials

Product Collection,10th Generation Intel® Core™ i5 Processors

Code Name,Products formerly Comet Lake

Vertical Segment,Desktop

Processor Number,i5-10500

Status,Launched

Launch Date,Q2'20

Lithography,14 nm

Recommended Customer Price,\$192.00 - \$202.00

Use Conditions,PC/Client/Tablet

CPU Specifications

Total Cores,6

Total Threads,12

Max Turbo Frequency,4.50 GHz

Intel® Turbo Boost Technology 2.0 Frequency‡,4.50 GHz

Processor Base Frequency,3.10 GHz

Cache,12 MB Intel® Smart Cache

Bus Speed,8 GT/s

TDP,65 W

Supplemental Information

Embedded Options Available,No

Datasheet,View now

Memory Specifications

Max Memory Size (dependent on memory type),128 GB

Memory Types,DDR4-2666

Max # of Memory Channels,2

Max Memory Bandwidth,41.6 GB/s

ECC Memory Supported ‡,No

Processor Graphics

Processor Graphics ‡,Intel® UHD Graphics 630

Graphics Base Frequency,350 MHz

Graphics Max Dynamic Frequency,1.15 GHz

Graphics Video Max Memory,64 GB

4K Support,Yes | at 60Hz

Max Resolution (HDMI)‡,4096 x 2160@30Hz

Max Resolution (DP)‡,4096 x 2304@60Hz

Max Resolution (eDP - Integrated Flat Panel)‡,4096 x 2304@60Hz

DirectX* Support,12

OpenGL* Support,4.5

Intel® Quick Sync Video,Yes

Intel® InTru™ 3D Technology,Yes

Intel® Clear Video HD Technology,Yes

Intel® Clear Video Technology, Yes
of Displays Supported ‡, 3
Device ID, 0x9BC8

Expansion Options
Scalability, 1S Only
PCI Express Revision, 3.0
PCI Express Configurations ‡, Up to 1x16 | 2x8 | 1x8+2x4
Max # of PCI Express Lanes, 16

Package Specifications
Sockets Supported, FCLGA1200
Max CPU Configuration, 1
Thermal Solution Specification, PCG 2015C
T_{JUNCTION}, 100°C
Package Size, 37.5mm x 37.5mm

Advanced Technologies
Intel® Optane™ Memory Supported ‡, Yes
Intel® Thermal Velocity Boost, No
Intel® Turbo Boost Max Technology 3.0 ‡, No
Intel® Turbo Boost Technology ‡, 2.0
Intel® Hyper-Threading Technology ‡, Yes
Intel® Transactional Synchronization Extensions, No
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® Identity Protection Technology ‡, Yes

Security & Reliability
Intel vPro® Platform Eligibility ‡, Yes
Intel® AES New Instructions, Yes
Secure Key, Yes
Intel® Software Guard Extensions (Intel® SGX), Yes with Intel® ME
Intel® OS Guard, Yes
Intel® Trusted Execution Technology ‡, Yes
Execute Disable Bit ‡, Yes
Intel® Boot Guard, Yes
Intel® Stable IT Platform Program (SIPP), 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