ARK | Compare Intel® Products

	Intel® Core™ i5-10500H 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	Mobile
Processor Number	i5-10500H
Status	Launched
Launch Date	Q4'20
Lithography	14 nm
Use Conditions	PC/Client/Tablet
CPU Specifications	
Total Cores	6
Total Threads	12
Max Turbo Frequency	4.50 GHz
Processor Base Frequency	2.50 GHz
Cache	12 MB Intel® Smart Cache
Bus Speed	8 GT/s
TDP	45 W
Configurable TDP-down	35 W
Supplemental Information	
Embedded Options Available	No
Datasheet	View now
Memory Specifications	
Max Memory Size (dependent on memory type)	128 GB
Memory Types	DDR4-2933
Max # of Memory Channels	2
Max Memory Bandwidth	45.8 GB/s
ECC Memory Supported ‡	No
Processor Graphics	
Processor Graphics ‡	Intel® UHD Graphics for 10th Gen Intel® Processors
Graphics Base Frequency	350 MHz
Graphics Max Dynamic Frequency	1.05 GHz
Graphics Output	eDP/DP/HDMI/DVI
4K Support	Yes | at 60Hz
Max Resolution (HDMI)‡	4096 x 2304@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
# of Displays Supported ‡	3
Device ID	0x9BC4
Expansion Options	
PCI Express Revision	3
PCI Express Configurations ‡	Up to 1x16 | 2x8 | 1x8+2x4
Max # of PCI Express Lanes	16
Package Specifications	
Sockets Supported	FCBGA1440
Max CPU Configuration	1
TJUNCTION	100°C

Package Size	42mm x 28mm
Advanced Technologies	
Intel® Optane™ Memory Supported ‡	Yes
Intel® Speed Shift Technology	Yes
Intel® Thermal Velocity Boost	No
Intel® Turbo Boost Max Technology 3.0 ‡	Yes
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® Flex Memory Access	Yes
Intel® Identity Protection Technology ‡	Yes
Security & Reliability	
Intel vPro® Platform Eligibility ‡	No
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 ‡	No
Execute Disable Bit ‡	Yes
Intel® Boot Guard	Yes
Intel® Stable IT Platform Program (SIPP)	No
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