Intel® Core™ i5-9600K Processor

9M Cache, up to 4.60 GHz

Essentials	
Product Collection	9th Generation Intel® Core™ i5 Processors
Code Name	Products formerly Coffee Lake
Vertical Segment	Desktop
Processor Number	i5-9600K
Status	Launched
Launch Date	Q4'18
Lithography	14 nm
Included Items	Please note: The boxed product does not include a fan or heat sink
Use Conditions	PC/Client/Tablet
Recommended Customer Price	$262.00 - $263.00
Performance	
# of Cores	6
# of Threads	6
Processor Base Frequency	3.70 GHz
Max Turbo Frequency	4.60 GHz
Cache	9 MB SmartCache
Bus Speed	8 GT/s DMI3
TDP	95 W
Supplemental Information	
Embedded Options Available	No
Description	View now
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 1.4)‡	4096x2304@24Hz

Max Resolution (DP)‡	4096x2304@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡	4096x2304@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	0x3E98
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	FCLGA1151
Max CPU Configuration	1
Thermal Solution Specification	PCG 2015D
TJUNCTION	100°C
Package Size	37.5mm x 37.5mm
Advanced Technologies	
Intel® Optane™ Memory Supported ‡	Yes
Intel® Turbo Boost Technology ‡	2.0
Intel® vPro™ Platform Eligibility ‡	Yes
Intel® Hyper-Threading Technology ‡	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
Intel® TSX-NI	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® Identity Protection Technology ‡	Yes
Intel® Stable Image Platform Program (SIPP)	Yes
Security & Reliability	
Intel® AES New Instructions	Yes
Secure Key	Yes

Intel® Software Guard Extensions (Intel® SGX)	Yes with Intel® ME
Intel® Memory Protection Extensions (Intel® MPX)	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes
Intel® Boot Guard	Yes