Intel® Core™ i5-10600K Processor

ark.intel.com/content/www/us/en/ark/products/199311/intel-core-i510600k-processor-12m-cache-up-to-4-80-ghz.html

12M Cache, up to 4.80 GHz



Essentials

- Product Collection 10th Generation Intel® Core™ i5 Processors
- Processor Number i5-10600K

CPU Specifications

- Total Cores 6
- Total Threads 12
- Max Turbo Frequency 4.80 GHz
- Intel® Turbo Boost Technology 2.0 Frequency‡ 4.80 GHz
- Processor Base Frequency 4.10 GHz
- Cache 12 MB Intel® Smart Cache
- Bus Speed 8 GT/s
- TDP 125 W
- Configurable TDP-down Base Frequency 3.80 GHz
- Configurable TDP-down 95 W

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 1.20 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 0x9BC5

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

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® Eligibility ‡ Intel vPro® Platform
- 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