INTEL Intel Core i5 11600KF

DESCRIPTION

Intel® Optane Memory Supported

Intel® Optane memory is a revolutionary new class of non-volatile memory that sits in between system memory and storage to accelerate system performance and responsiveness. When combined with the Intel® Rapid Storage Technology Driver, it seamlessly manages multiple tiers of storage while presenting one virtual drive to the OS, ensuring that data frequently used resides on the fastest tier of storage. Intel® Optane memory requires specific hardware and software configuration.

Intel® Turbo Boost Technology

Intel® Turbo Boost Technology dynamically increases the processor's frequency as needed by taking advantage of thermal and power headroom to give you a burst of speed when you need it, and increased energy efficiency when you dont.

Intel® Hyper-Threading Technology

Intel® Hyper-Threading Technology (Intel® HT Technology) delivers two processing threads per physical core. Highly threaded applications can get more work done in parallel, completing tasks sooner.

Intel® Virtualization Technology (VT-x)

Intel® Virtualization Technology (VT-x) allows one hardware platform to function as multiple virtual platforms. It offers improved manageability by limiting downtime and maintaining productivity by isolating computing activities into separate partitions.

Intel® Virtualization Technology for Directed I/O (VT-d)

Intel® Virtualization Technology for Directed I/O (VT-d) continues from the existing support for IA-32 (VT-x) and Itanium® processor (VT-i) virtualization adding new support for I/O-device virtualization. Intel VT-d can help end users improve security and reliability of the systems and also improve performance of I/O devices in virtualized environments.

Intel® VT-x with Extended Page Tables (EPT)

Intel® VT-x with Extended Page Tables (EPT), also known as Second Level Address Translation (SLAT), provides acceleration for

memory intensive virtualized applications. Extended Page Tables in Intel® Virtualization Technology platforms reduces the memory and power overhead costs and increases battery life through hardware optimization of page table management.

Intel® 64

Intel® 64 architecture delivers 64-bit computing on server, workstation, desktop and mobile platforms when combined with supporting software.[1] Intel 64 architecture improves performance by allowing systems to address more than 4 GB of both virtual and physical memory.

Instruction Set

An instruction set refers to the basic set of commands and instructions that a microprocessor understands and can carry out. The value shown represents which Intels instruction set this processor is compatible with.

Instruction Set Extensions

Instruction Set Extensions are additional instructions which can increase performance when the same operations are performed on multiple data objects. These can include SSE (Streaming SIMD Extensions) and AVX (Advanced Vector Extensions).

Idle States

Idle States (C-states) are used to save power when the processor is idle. C0 is the operational state, meaning that the CPU is doing useful work. C1 is the first idle state, C2 the second, and so on, where more power saving actions are taken for numerically higher C-states.

Enhanced Intel SpeedStep® Technology

Enhanced Intel SpeedStep® Technology is an advanced means of enabling high performance while meeting the power-conservation needs of mobile systems. Conventional Intel SpeedStep® Technology switches both voltage and frequency in tandem between high and low levels in response to processor load. Enhanced Intel SpeedStep® Technology builds upon that architecture using design strategies such as Separation between Voltage and Frequency Changes, and Clock Partitioning and Recovery.

Thermal Monitoring Technologies

Thermal Monitoring Technologies protect the processor package and the system from thermal failure through several thermal management features. An on-die Digital Thermal Sensor (DTS) detects the core's temperature, and the thermal management features reduce package power consumption and thereby temperature when required in order to remain within normal operating limits.

Intel® Identity Protection Technology

Intel® Identity Protection Technology is a built-in security token technology that helps provide a simple, tamper-resistant method for protecting access to your online customer and business data from threats and fraud. Intel® IPT provides a hardware-based proof of a unique users PC to websites, financial institutions, and network services; providing verification that it is not malware attempting to login. Intel® IPT can be a key component in two-factor authentication solutions to protect your information at websites and business log-

TECHNICAL CHARACTERISTICS

Brand : INTEL
Part number : BX8070110600KF
Caractéristiques spéciales du processeur :
Intel® Thermal Velocity Boost : N
Intel® Turbo Boost Technology 2:0 frequency : 4.8 GHz

Intel® Transactional Synchronization Extensions : N
Mémoire :
ECC : N
Intel® Boot Guard : Y
Intel® Optane Memory Ready : Y
Intel® vPro Platform Eligibility : N
Conditions environnementales :
Tjunction : 100 °C
Box : Y
Bus speed : 8 GT/s
Commodity Classification Automated Tracking System (CCATS) : G077159
Component for : PC
Configurable TDP-down : 95 W
Configurable TDP-down frequency : 3.8 GHz
Cooler included : N
CPU configuration (max) : 1
Discrete graphics card : N
Discrete graphics card model : Not available
Embedded options available : N
Enhanced Intel SpeedStep Technology : Y
Execute Disable Bit : Y
Export Control Classification Number (ECCN) : 5A992C
Generation : 10th Generation
Harmonized System (HS) code : 85423119
Idle States : Y
Intel 64 : Y
Intel Software Guard Extensions (Intel SGX) : Y
Intel Stable Image Platform Program (SIPP) : N
Intel Trusted Execution Technology : N
Intel Turbo Boost Max Technology 3:0 : N
Intel Virtualization Technology (VT-x) : Y
Intel Virtualization Technology for Directed I/O (VT-d) : Y
Intel VT-x with Extended Page Tables (EPT) : Y
Intel® AES New Instructions (Intel® AES-NI) : Y
Intel® Hyper Threading Technology (Intel® HT Technology) : Y
Intel® Identity Protection Technology (Intel® IPT) : Y
Intel® OS Guard : Y
Intel® Secure Key : Y
Intel® Turbo Boost Technology : 2.0
Launch date : Q2'20
Market segment : Desktop
Maximum internal memory : 128 GB
Maximum internal memory supported by processor : 128 GB
Maximum memory : 128 GB
Maximum number of PCI Express lanes : 16
Memory bandwidth supported by processor (max) : 41.6 GB/s
Memory channels : Dual-channel
Memory clock speeds supported by processor : 2666 MHz
Memory types supported by processor : DDR4-SDRAM
On-board graphics card : N
On-board graphics card model : Not available
Package type : Retail box
PCI Express CEM revision : 3.0

PCI Express configurations : 1x16, 2x8, 1x8+2x4
PCI Express slots version : 3.0
Processor ARK ID : 199315
Processor base frequency : 4.1 GHz
Processor boost frequency : 4.8 GHz
Processor cache : 12 MB
Processor cache type : Smart Cache
Processor codename : Comet Lake
Processor cores : 6
Processor family : Intel® Core i5
Processor generation : 10th gen Intel® Core i5
Processor lithography : 14 nm
Processor manufacturer : Intel
Processor model : i5-10600KF
Processor operating modes : 64-bit
Processor package size : 37.5 x 37.5 mm
Processor socket : LGA 1200 (Socket H5)
Processor threads : 12
Product type : Processor
Scalability : 1S
Status : Launched
Supported instruction sets : SSE4.1, SSE4.2, AVX 2.0
Supported memory types : DDR4-SDRAM
System bus rate : 8 GT/s
Target market : Gaming
Thermal Design Power (TDP) : 125 W
Thermal Monitoring Technologies : Y
Thermal solution specification : PCG 2015D