

Intel® Core™ i5-4570S Processor

6M Cache, up to 3.60 GHz

Specifications

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Essentials

Product Collection	4th Generation Intel® Core™ i5 Processors
Code Name	Products formerly Haswell
Vertical Segment	Desktop
Processor Number	i5-4570S
Status	Launched
Launch Date	Q2'13
Lithography	22 nm
Recommended Customer Price	\$192.00 - \$195.00
Use Conditions	Embedded Broad Market Commercial Temp, PC/Client/Tablet

Performance

# of Cores	4
# of Threads	4
Processor Base Frequency	2.90 GHz
Max Turbo Frequency	3.60 GHz
Cache	6 MB SmartCache
Bus Speed	5 GT/s DMI2
TDP	65 W

Supplemental Information

Embedded Options Available	Yes
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type)	32 GB
Memory Types	DDR3-1333/1600, DDR3L-1333/1600 @ 1.5V
Max # of Memory Channels	2
Max Memory Bandwidth	25.6 GB/s
ECC Memory Supported †	No

Processor Graphics

Processor Graphics ‡	Intel® HD Graphics 4600
Graphics Base Frequency	350 MHz
Graphics Max Dynamic Frequency	1.15 GHz
Graphics Video Max Memory	2 GB
Graphics Output	eDP/DP/HDMI/VGA
Max Resolution (HDMI 1.4)‡	4096x2304@24Hz
Max Resolution (DP)‡	3840x2160@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡	3840x2160@60Hz
Max Resolution (VGA)‡	1920x1200@60Hz
DirectX* Support	11.2/12
OpenGL* Support	4.3
Intel® Quick Sync Video	Yes
Intel® InTru™ 3D Technology	Yes
Intel® Flexible Display Interface (Intel® FDI)	Yes
Intel® Clear Video HD Technology	Yes
# of Displays Supported †	3
Device ID	0x412

Expansion Options

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

Package Specifications

Sockets Supported	FCI GA1150
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Max CPU Configuration	1
Thermal Solution Specification	PCG 2013C
T _{CASE}	71.35°C
Package Size	37.5mm x 37.5mm

Advanced Technologies

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	No
Intel® 64 ‡	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Intel® My WiFi Technology	Yes
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® OS Guard	Yes
Intel® Trusted Execution Technology ‡	Yes
Execute Disable Bit †	Yes
Anti-Theft Technology	Yes

Compatible Products

Product Images

Ordering and Compliance

Downloads and Software

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Refer to Datasheet for formal definitions of product properties and features.

"Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

‡ This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

See <http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading> for more information including details on which processors support Intel® HT Technology.

Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See www.intel.com/technology/turboboost/ for more information.

The Recommended Customer Price ("RCP") is pricing guidance for Intel products. Prices are for direct Intel customers, typically represent 1,000-unit purchase quantities, and are subject to change without notice. Taxes and shipping, etc. not included. Prices may vary for other package types and shipment quantities, and special promotional arrangements may apply. If sold in bulk, price represents individual unit. Listing of these RCP does not constitute a formal pricing offer from Intel. Please work with your appropriate Intel representative to obtain a formal price quotation.

System and Maximum TDP is based on worst case scenarios. Actual TDP may be lower if not all I/Os for chipsets are used.

For benchmarking data see <http://www.intel.com/performance>.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See <http://www.intel.com/content/www/us/en/processors/processor-numbers.html> for details.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.