



Intel® Core™ i5-6500 Processor

6M Cache, up to 3.60 GHz

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Product Collection

6th Generation Intel® Core™ i5 Processors

Code Name

Products formerly Skylake

Vertical Segment

Desktop

Processor Number

i5-6500

Status

Launched

Launch Date ?

Q3'15

Lithography ?

14 nm

Included Items

Thermal Solution - E97379

Recommended Customer Price ?

\$192.00 - \$202.00

Performance

of Cores ?

4

of Threads ?

4

Processor Base Frequency ?

3.20 GHz

Max Turbo Frequency ?

3.60 GHz

Cache ?

6 MB SmartCache

Bus Speed ?

8 GT/s DMI3

TDP ?

65 W

Supplemental Information

Embedded Options Available ?

Yes

Datasheet

View now

Memory Specifications

Max Memory Size (dependent on memory type) ?

64 GB

Memory Types ?

DDR4-1866/2133, DDR3L-1333/1600 @ 1.35V

Max # of Memory Channels ?

2

Max Memory Bandwidth ?

34.1 GB/s

ECC Memory Supported † ?

No

Processor Graphics

Processor Graphics ‡ ?	Intel® HD Graphics 530
Graphics Base Frequency ?	350 MHz
Graphics Max Dynamic Frequency ?	1.05 GHz
Graphics Video Max Memory ?	64 GB
Graphics Output ?	eDP/DP/HDMI/DVI
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
Max Resolution (VGA)‡ ?	N/A
DirectX* Support ?	12
OpenGL* Support ?	4.4
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	0x1912
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 2015C (65W)
T _{CASE} ?	71°C
Package Size	37.5mm x 37.5mm
Low Halogen Options Available	See MDDS
Advanced Technologies	
Intel® Optane™ Memory Supported ‡ ?	No
Intel® Turbo Boost Technology ‡ ?	2.0
Intel® vPro™ Technology ‡ ?	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
Intel® Memory Protection Extensions (Intel® MPX) ?	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡ ?	Yes
Execute Disable Bit ‡ ?	Yes
Intel® Boot Guard ?	Yes

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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.

“Conflict free” and “conflict-free” means “DRC conflict free”, which is defined by the U.S. Securities and Exchange Commission rules to mean products that do not contain conflict minerals (tin, tantalum, tungsten and/or gold) that directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo (DRC) or adjoining countries. Intel also uses the term "conflict-free" in a broader sense to refer to suppliers, supply chains, smelters and refiners whose sources of conflict minerals do not finance conflict in the DRC or adjoining countries. Intel processors manufactured before January 1, 2013 are not confirmed conflict free. The conflict free designation refers only to product manufactured after that date. For Intel Boxed Processors, the conflict free designation refers to the processor only, not to any additional included accessories, such as heatsinks/coolers.

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.

Ordering and spec information

Boxed Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz) FC-LGA14C

Spec Code	SR2LG
Ordering Code	BX80662156500
Step	R0
RCF	\$202.00

Boxed Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz) FC-LGA14C, for China

Spec Code	SR2LG
Ordering Code	BXC80662156500
Step	R0

Intel® Core™ i5-6500 Processor (6M Cache, up to 3.60 GHz) FC-LGA14C, Tray

Spec Code	SR2LG
Ordering Code	CM8066201320404
Step	R0
RCF	\$192.00

Trade compliance information

ECCN	5A992C
CCATS	G07715B
US HTS	8542310001

PCN/MDDS Information

SR2LG

947206	PCN MDDS
947562	PCN MDDS
947569	PCN MDDS

Declaration of Conformity

- [BX80662156500](#)
- [BXC80662156500](#)