Search specifications

Intel® Core™ i5-7300U Processor

3M Cache, up to 3.50 GHz

Add to Compare

Specifications

- **Essentials**
- Performance
- Supplemental Information
- Memory Specifications
- Processor Graphics
- Expansion Options
- Package Specifications
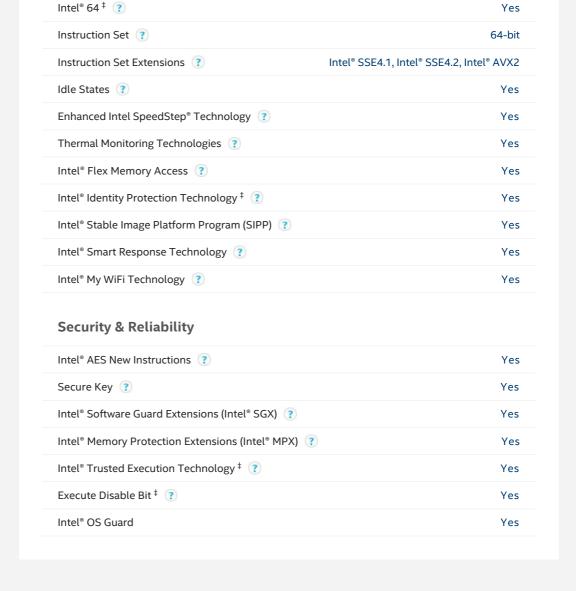- Advanced Technologies
- Security & Reliability

Ordering and Compliance

Product Images

Downloads and Software

Essentials   ⬇ Export specifications

Product Collection	7th Generation Intel® Core™ i5 Processors
Code Name	Products formerly Kaby Lake
Vertical Segment	Mobile
Processor Number	i5-7300U
Status	Launched
Launch Date ?	Q1'17
Lithography ?	14 nm
Recommended Customer Price ?	
Use Conditions ?	Industrial Commercial Temp

Performance

# of Cores ?	2
# of Threads ?	4
Processor Base Frequency ?	2.60 GHz
Max Turbo Frequency ?	3.50 GHz
Cache ?	3 MB SmartCache
Bus Speed ?	4 GT/s OPI
TDP ?	15 W
Configurable TDP-up Frequency ?	2.70 GHz
Configurable TDP-up ?	25 W
Configurable TDP-down Frequency ?	800 MHz
Configurable TDP-down ?	7.5 W

Supplemental Information

Embedded Options Available ?	Yes
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type) ?	32 GB
Memory Types ?	DDR4-2133, LPDDR3-1866, DDR3L-1600
Max # of Memory Channels ?	2
Max Memory Bandwidth ?	34.1 GB/s

ECC Memory Supported ‡ ?	No

Processor Graphics

Processor Graphics ‡ ?	Intel® HD Graphics 620
Graphics Base Frequency ?	300 MHz
Graphics Max Dynamic Frequency ?	1.10 GHz
Graphics Video Max Memory ?	32 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
DirectX* Support ?	12
OpenGL* Support ?	4.5
Intel® Quick Sync Video ?	Yes
Intel® Clear Video HD Technology ?	Yes
Intel® Clear Video Technology ?	Yes
# of Displays Supported ‡	3
Device ID	0x5916

Expansion Options

PCI Express Revision ?	3.0
PCI Express Configurations ‡ ?	1x4, 2x2, 1x2+2x1 and 4x1
Max # of PCI Express Lanes ?	12

Package Specifications

Sockets Supported ?	FCBGA1356
Max CPU Configuration	1
T$_{JUNCTION}$?	100°C
Package Size	42mm X 24mm

Advanced Technologies

Intel® Optane™ Memory Supported ‡ ?	Yes
Intel® Speed Shift Technology ?	Yes
Intel® Turbo Boost Technology ‡ ?	2.0
Intel® vPro™ Platform Eligibility ‡ ?	Yes
Intel® Hyper-Threading Technology ‡ ?	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
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® Flex Memory Access	Yes
Intel® Identity Protection Technology ‡	Yes
Intel® Stable Image Platform Program (SIPP)	Yes
Intel® Smart Response Technology	Yes
Intel® My WiFi Technology	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® Trusted Execution Technology ‡	Yes
Execute Disable Bit ‡	Yes
Intel® OS Guard	Yes

More support options for Intel® Core™ i5-7300U Processor (3M Cache, up to 3.50 GHz)

Product Support

Downloads and Software

Support Community

Warranty and Replacement

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‡ 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.

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