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Intel® Core™ i7-4650U Processor

"rocessor Graphics ‡ ?

4M Cache, up to 3.30 GHz

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Intel® HD Graphics 5000

Specifications

Essentials

Performance

Supplemental Information

Memory Specifications

Processor Graphics

Expansion Options

I/O Specifications

Package Specifications

Advanced Technologies

Security & Reliability

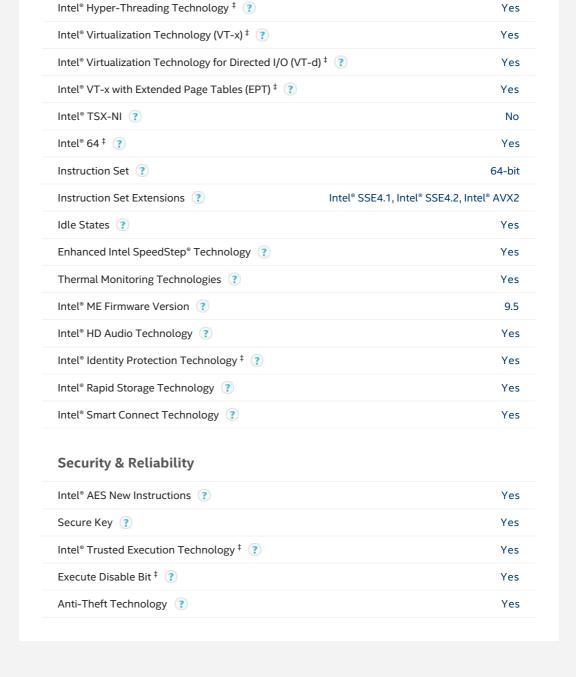
Ordering and Compliance

Product Images

Downloads and Software

Essentials	Export specification
Product Collection	4th Generation Intel® Core™ i7 Processors
Code Name	Products formerly Haswell
Vertical Segment	Mobile
Processor Number	i7-4650U
Status	Launched
Launch Date ?	Q3'13
Lithography ?	22 nm
Recommended Customer Price ?	
Use Conditions ?	Industrial Commercial Temp
Performance	
# of Cores ?	2
# of Threads ?	4
Processor Base Frequency 😨	1.70 GHz
Max Turbo Frequency 👔	3.30 GHz
Cache ?	4 MB SmartCache
Bus Speed 🕐	5 GT/s DMI2
TDP ?	15 W
Supplemental Information	
Embedded Options Available ?	Yes
Datasheet	View now
Memory Specifications	
Max Memory Size (dependent on memory type) 💿	16 GB
Memory Types ?	DDR3L 1333/1600, LPDDR3 1333/1600
Max # of Memory Channels ?	2
Max Memory Bandwidth 🕐	25.6 GB/s
ECC Memory Supported ‡ ?	No

Graphics Base Frequency ?	200 MHz
Graphics Max Dynamic Frequency 🔞	1.10 GH:
Graphics Video Max Memory 🕧	2 GE
Graphics Output ?	eDP/DP/HDMI/VGA
Max Resolution (HDMI 1.4)‡ 👔	3200x2000@60Hz
Max Resolution (DP)‡ 🕐	3200x2000@60H
Max Resolution (VGA)‡ 🔞	N/A
DirectX* Support 🔞	11.2/1
OpenGL* Support ?	4.
Intel® Quick Sync Video 💿	Ye
Intel® InTru™ 3D Technology 🕜	Ye
Intel® Flexible Display Interface (Intel® FDI)	Ye
Intel® Clear Video HD Technology 🕡	Ye
# of Displays Supported ‡	
Device ID	0xA2
Expansion Options	
PCI Support ?	N
PCI Express Revision ?	2.
PCI Express Configurations ‡ ?	4x1, 2x
Max # of PCI Express Lanes ?	
I/O Specifications # of LISB Ports	
# of USB Ports	
# of USB Ports USB Revision ?	3.
# of USB Ports USB Revision ? Total # of SATA Ports ?	3.
# of USB Ports USB Revision ? Total # of SATA Ports ? Integrated LAN ?	3. N
# of USB Ports USB Revision ? Total # of SATA Ports ? Integrated LAN ? Integrated IDE ?	3. N N
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# of USB Ports USB Revision ? Total # of SATA Ports ? Integrated LAN ? Integrated IDE ? General Purpose IO UART Max # of SATA 6.0 Gb/s Ports Package Specifications Sockets Supported ? Max CPU Configuration TJUNCTION ?	3. N N Ye Ye 40mm x 24mm x 1.5mm



More support options for Intel® Core™ i7-4650U Processor (4M Cache, up to 3.30 GHz)





Downloads and Software



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Warranty and Replacement



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the proper ECCN or HTS. Your company as an importer and/or exporter is responsible for determining the correct classification of your transaction.

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.

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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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