




## Intel® Core™ i3-5010U Processor (3M Cache, 2.10 GHz)

### Specifications

#### - Essentials

Status	Launched
Launch Date	Q1'15
DMI2	5 GT/s
Processor Number	i3-5010U
Cache	3 MB
Instruction Set	64-bit
Instruction Set Extensions	SSE 4.1/4.2 AVX 2.0
Embedded Options Available	 Yes
Lithography	14 nm
Recommended Customer Price	TRAY: \$281.00
Datasheet	<a href="#">Link</a>
Conflict Free	Yes

#### - Performance








# of Cores	2
# of Threads	4
Processor Base Frequency	2.1 GHz
TDP	15 W
Configurable TDP-down Frequency	600 MHz
Configurable TDP-down	10 W

#### - Memory Specifications

Max Memory Size (dependent on memory type)	16 GB
Memory Types	DDR3L 1333/1600 LPDDR 1333 /1600
Max # of Memory Channels	2
Max Memory Bandwidth	25.6 GB/s

#### - Graphics Specifications

Processor Graphics ‡	Intel® HD Graphics 5500
Graphics Base Frequency	300 MHz
Graphics Max Dynamic Frequency	900 MHz
Graphics Video Max Memory	16 GB
Graphics Output	eDP/DP/HDMI
Max Resolution (HDMI 1.4)‡	2560x1600@60Hz

Max Resolution (DP)‡	3840x2160@60Hz
Max Resolution (VGA)‡	N/A
DirectX* Support	11.2
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
Intel® Clear Video Technology	Yes
Intel® Wireless Display	 Yes
Intel® Insider™	Yes
# of Displays Supported †	3
Device ID	0x1616
- Expansion Options	
PCI Express Revision	2.0
PCI Express Configurations †	4x1 2x4
Max # of PCI Express Lanes	12
- Package Specifications	
Max CPU Configuration	1
T <sub>JUNCTION</sub>	105°C
Package Size	40mm x 24mmx 1.3mm
Graphics and IMC Lithography	14nm
Sockets Supported	FCBGA1168
Low Halogen Options Available	See MDDS
- Advanced Technologies	
Intel® Turbo Boost Technology †	No
Intel® vPro Technology †	 No
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	No
Intel® 64 †	 Yes
Idle States	Yes
Enhanced Intel SpeedStep® Technology	 Yes
Thermal Monitoring Technologies	Yes

Intel® Fast Memory Access	Yes
Intel® Flex Memory Access	Yes
Intel® Identity Protection Technology †	Yes
Intel® Stable Image Platform Program (SIPP)	No
Intel® Small Business Advantage	Yes
Intel® Smart Response Technology	Yes
- Intel® Data Protection Technology	
Intel® AES New Instructions	Yes
Secure Key	Yes
- Intel® Platform Protection Technology	
Trusted Execution Technology †	No
Execute Disable Bit †	Yes
OS Guard	Yes

## Ordering and Spec Information

### Trade Compliance Information

ECCN	CCATS	US HTS
5A992CN3	G071701++	8542310000-HYBRD

### Ordering and Spec Information

Spec Code	Ordering Code	Step	RCP
Intel® Core™ i3-5010U Processor (3M Cache, 2.10 GHz) FC-BGA14F, Tray			
SR23Z	FH8065801620406	F0	\$281.00

## Download Drivers



### Intel® Security Unifier

Intel® Security Unifier utility enables users to scan their computing devices for the latest security software components available from Intel (1.0.0.658).

**Version:** 1.0.0.658 (Latest)

**Date:** 5/5/2016

**Operating Systems:** Windows 7\*, Windows 8\*, Windows 8.1\*, 2 more



### Intel® Beta Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

Intel® Beta Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40].

**Version:** Beta 15.40.23.4444 (Latest)

**Date:** 4/29/2016

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more



### Intel® Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

Version 15.40.22.4424 of the Intel® Graphics Driver for Windows® 10 and Windows 7\*/8.1\*.

**Version:** 15.40.22.4424 (Latest)

**Date:** 4/22/2016

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more

Intel® Management Engine (Intel® ME) software for systems based on 3rd generation Intel® Processors or above.



Intel® Management Engine (Intel® ME) software 11.0.2.1002 for systems based on 3rd generation Intel® Processors or above.

**Version:** 11.0.2.1002 (Latest)

**Date:** 3/29/2016

**Operating Systems:** Windows Vista\*, Windows Vista Beta 1\*, Windows Vista Business, 32-bit\*, 37 more



#### Intel® Beta Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

Intel® Beta Graphics Driver for Windows® 7/8.1/10\* [15.40]

**Version:** Beta 15.40.20.4404 (Previously Released)

**Date:** 3/11/2016

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more



#### Intel® Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

OS support varies by platform with these drivers. Read driver ReadMe's to see if your product+OS combo is supported with this driver.

**Version:** 15.40.18.4380 (Previously Released)

**Date:** 3/8/2016

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more



#### Intel® Beta Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

This download installs the Intel® beta graphics driver version 15.40.18.4380 for Windows\* 7, Windows 8.1, and Windows® 10.

**Version:** Beta 15.40.18.4380 (Previously Released)

**Date:** 2/5/2016

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 2 more



#### Intel® Graphics Driver for Windows 7\*/8.1\* [15.36]

This download installs the Intel® Graphics Driver version 15.36.28.4332 for Windows\* 7 and Windows 8.1 supporting 4th and 5th Generation Intel® Core™ Processors.

**Version:** 15.36.28.4332 (Previously Released)

**Date:** 12/11/2015

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, Windows 8.1, 64-bit\*



#### Intel® Beta Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

This is a BETA Graphics Driver (versions 15.40.12.64.4326 and 15.40.12.4326) for Windows\*.

**Version:** Beta 15.40.12.4326 (Previously Released)

**Date:** 11/20/2015

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more



#### Intel® Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

These downloads are used to install the Intel® Graphics Driver package version 15.40.10.4300, which supports Windows\* 7, Windows 8.1, and Windows® 10, 32- and 64-bit.

**Version:** 15.40.10.4300 (Previously Released)

**Date:** 10/26/2015

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more



#### Intel® Graphics Driver for Windows 7\*/8.1\* [15.36]

Windows 7\* & 8.1\* - 15.36.26.4294 (10.18.14.4294) 4th Gen (HSW) & 5th Gen (BDW). See ReleaseNotes for details on system requirements support.

**Version:** 15.36.26.4294 (Previously Released)

**Date:** 10/9/2015

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, Windows 8.1, 64-bit\*



#### Intel® Graphics Driver for Windows® 10 and Windows 7\*/8.1\* [15.40]

This driver for Windows\* (version 15.40.7.4279) adds support for the 6th Generation Intel® Core family of processors with Intel® HD Graphics 500.

**Version:** 15.40.7.4279 (Previously Released)

**Date:** 9/1/2015

**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 32-bit\*, 3 more



#### Intel® Iris™, Iris™ Pro, and HD Graphics Production Driver for Windows® 10 64-bit

This download installs the Intel® Iris™ graphics, Iris™ Pro graphics, and Intel® HD Graphics production driver version 15.40.4.64.4256 for Windows® 10, 64-bit, adding new Windows 10 features.

**Version:** 15.40.4.64.4256 (Previously Released)

**Date:** 8/5/2015

**Operating Systems:** Windows® 10, 64-bit

All information provided is subject to change at any time, without notice. Intel may make changes to manufacturing life cycle, specifications, and product descriptions at any time, without notice. The information herein is provided "as-is" and Intel does not make any representations or warranties whatsoever regarding accuracy of the information, nor on the product features, availability,

functionality, or compatibility of the products listed. Please contact system vendor for more information on specific products or systems.

"Intel classifications" consist of Export Control Classification Numbers (ECCN) and Harmonized Tariff Schedule (HTS) numbers. Any use made of Intel classifications are without recourse to Intel and shall not be construed as a representation or warranty regarding the proper ECCN or HTS. Your company may be the exporter of record, and as such, your company is responsible for determining the correct classification of any item at the time of export.

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/](http://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.

Low Halogen: Applies only to brominated and chlorinated flame retardants (BFRs/CFRs) and PVC in the final product. Intel components as well as purchased components on the finished assembly meet JS-709 requirements, and the PCB / substrate meet IEC 61249-2-21 requirements. The replacement of halogenated flame retardants and/or PVC may not be better for the environment.

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.

[Send us your feedback!](#)

---