


## Intel® Core™ i3-6100U Processor (3M Cache, 2.30 GHz)

### Specifications


#### - Essentials

|                            |   |
|----------------------------|---|
| Status                     | Launched  |
| Launch Date                | Q3'15   |
| Processor Number           | i3-6100U  |
| Intel® Smart Cache         | 3 MB  |
| Instruction Set            | 64-bit  |
| Instruction Set Extensions | SSE4.1/4.2, AVX 2.0   |
| Embedded Options Available |  Yes |
| Lithography                | 14 nm   |
| Recommended Customer Price | TRAY: \$281.00  |
| Conflict Free              | Yes   |
| Datasheet                  | <a href="#">Link</a>  |
| Product Brief              | <a href="#">Link</a>  |

#### - Performance

|                                 |         |
|---------------------------------|---------|
| # of Cores                      | 2       |
| # of Threads                    | 4       |
| Processor Base Frequency        | 2.3 GHz |
| TDP                             | 15 W    |
| Configurable TDP-down Frequency | 800 MHz |
| Configurable TDP-down           | 7.5 W   |

#### - Memory Specifications

|  |  |
|--|--|
| Max Memory Size (dependent on memory type) | 32 GB  |
| Memory Types                               | DDR4-1866/2133, LPDDR3-1600/1866   |
| Max # of Memory Channels                   | 2  |
| Max Memory Bandwidth                       | 34.1 GB/s  |
| ECC Memory Supported †                     |  No |

#### - Graphics Specifications

|                                |                        |
|--------------------------------|------------------------|
| Processor Graphics †           | Intel® HD Graphics 520 |
| Graphics Base Frequency        | 300 MHz                |
| Graphics Max Dynamic Frequency | 1 GHz                  |
| Graphics Video Max Memory      | 32 GB                  |
| Graphics Output                | eDP/DP/HDMI/DVI        |

|  |   |
|--|---|
| 4K Support   | Yes, at 60Hz  |
| Max Resolution (Intel® WiDi)‡                              | 1080p   |
| 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® Insider™  | Yes   |
| Intel® Wireless Display                                    |  Yes   |
| Intel® Clear Video HD Technology                           | Yes   |
| Intel® Clear Video Technology                              | Yes   |
| # of Displays Supported ‡                                  | 3   |
| Device ID  | 0x1916  |
| - Expansion Options  |   |
| PCI Express Revision                                       | 3.0   |
| PCI Express Configurations ‡                               | 1x4, 2x2, 1x2+2x1 and 4x1   |
| Max # of PCI Express Lanes                                 | 12  |
| - Package Specifications                                   |   |
| Max CPU Configuration                                      | 1   |
| T <sub>JUNCTION</sub>                                      | 100°C   |
| Package Size   | 42mm X 24mm   |
| Graphics and IMC Lithography                               | 14 nm   |
| Sockets Supported  | FCBGA1356   |
| 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 |
| Intel® My WiFi Technology                                  | Yes   |

|  |     |
|--|-----|
| 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)      | No  |
| Intel® Small Business Advantage                  | Yes |
| Intel® Smart Response Technology                 | Yes |
| - Intel® Data Protection Technology              |     |
| Intel® AES New Instructions                      | Yes |
| Secure Key                                       | Yes |
| Intel® Software Guard Extensions (Intel® SGX)    | Yes |
| Intel® Memory Protection Extensions (Intel® MPX) | Yes |
| - Intel® Platform Protection Technology          |     |
| OS Guard   | Yes |
| Trusted Execution Technology †                   | No  |
| Execute Disable Bit †                            | Yes |

## Ordering and Spec Information

### Trade Compliance Information

| ECCN     | CCATS   | US HTS     |
|----------|---------|------------|
| 5A992CN3 | G147881 | 8542310000 |

### Ordering and Spec Information

| Spec Code  | Ordering Code   | Step | RCP      |
|--|-----------------|------|----------|
| Intel® Core™ i3-6100U Processor (3M Cache, 2.30 GHz) FC-BGA14C, Tray |                 |      |          |
| SR2EU  | FJ8066201931104 | D1   | \$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® Graphics Driver for Windows® 7/8.1/10\* [15.40 6th Gen]**

This package installs the Intel® graphics driver versions 15.40.14.64.4352 and 15.40.14.32.4352 on Windows\* for 6th generation platforms.

**Version:** 15.40.14.4352 (Latest)**Date:** 12/23/2015**Operating Systems:** Windows 7, 32-bit\*, Windows 7, 64-bit\*, Windows 8.1, 64-bit\*, Windows® 10, 64-bit**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® 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® 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

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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/](http://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.

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.

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