



# Intel® Core™ i3-2330E Processor

(3M Cache, 2.20 GHz)

[Add to Compare](#)**SPECIFICATIONS**

- Essentials
- Memory Specifications
- Graphics Specifications
- Expansion Options
- Package Specifications
- Advanced Technologies
- Intel® Data Protection Technology
- Intel® Platform Protection Technology

**COMPATIBLE PRODUCTS****PRODUCT IMAGES****ORDERING / SSPECS / STEPPINGS****SPECIFICATIONS****Essentials**

Status	Launched
Launch Date	Q2'11
Processor Number	i3-2330E
# of Cores	2
# of Threads	4
Clock Speed	2.2 GHz
Intel® Smart Cache	3 MB
DMI	5 GT/s
Instruction Set	64-bit
Instruction Set Extensions	A/V
Embedded Options Available	Yes
Lithography	32 nm
Max TDP	35 W
Recommended Customer Price	TRAY: \$225.00

**Memory Specifications**

Max Memory Size (dependent on memory type)	16 GB
Memory Types	DDR3-1066/1333
# of Memory Channels	2
Max Memory Bandwidth	21.3 GB/s
ECC Memory Supported ‡	No

**Graphics Specifications**

Processor Graphics ‡	Intel® HD Graphics 3000
Graphics Base Frequency	650 MHz
Graphics Max Dynamic Frequency	1.05 GHz
Graphics Output	eDP/DP/HDMI/SDVO/CRT
Intel® Quick Sync Video	Yes
Intel® InTru™ 3D Technology	Yes
Intel® Wireless Display	Yes
Intel® Flexible Display Interface (Intel® FDI)	Yes
Intel® Clear Video HD Technology	Yes
# of Displays Supported ‡	2

**Expansion Options**

PCI Express Revision	2.0
PCI Express Configurations ‡	1x16 1x4, 2x8 1x4, 1x8 3x4
Max # of PCI Express Lanes	16

**Package Specifications**

T <sub>JUNCTION</sub>	100 C
Package Size	37.5mm x 37.5mm (rPGA988)
Graphics and IMC Lithography	32 nm
Sockets Supported	FCPGA988
Low Halogen Options Available	See MDDs

**Advanced Technologies**

Intel® Turbo Boost Technology‡	No
Intel® vPro Technology‡	Yes
Intel® Hyper-Threading Technology‡	Yes
Intel® Virtualization Technology (VT-x)‡	Yes
Intel® Virtualization Technology for Directed I/O (VT-d)‡	No
Intel® VT-x with Extended Page Tables (EPT)‡	Yes
Intel® 64‡	Yes
Intel® My WiFi Technology	Yes

**RELATED PRODUCTS**

- 2nd Generation Intel® Core™ i3 Processors
- Intel® Core™ i3-2300 Mobile Processor Series
- Products formerly Sandy Bridge



- Visit the Embedded Design Center >

**QUICK LINKS**

- Download Datasheet
- Search Distributors
- Software Downloads
- Support Overview
- Search all of intel.com

**PCN/MDDs Information**

**SR02V**  
910245: [PCN](#) | [MDDs](#)

4G WiMAX Wireless Technology	<input checked="" type="checkbox"/> Yes
Idle States	<input checked="" type="checkbox"/> Yes
Enhanced Intel SpeedStep® Technology	<input checked="" type="checkbox"/> Yes
Intel® Demand Based Switching	<input checked="" type="checkbox"/> No
Thermal Monitoring Technologies	<input checked="" type="checkbox"/> Yes
Intel® Fast Memory Access	<input checked="" type="checkbox"/> Yes
Intel® Flex Memory Access	<input checked="" type="checkbox"/> Yes
Intel® Identity Protection Technology‡	<input checked="" type="checkbox"/> Yes

Intel® Data Protection Technology	
AES New Instructions	<input checked="" type="checkbox"/> No

Intel® Platform Protection Technology	
Trusted Execution Technology‡	<input checked="" type="checkbox"/> No
Execute Disable Bit ‡	<input checked="" type="checkbox"/> Yes
Anti-Theft Technology	<input checked="" type="checkbox"/> Yes

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.

"Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

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.

For benchmarking data see <http://www.intel.com/performance>.

System and Maximum TDP is based on worst case scenarios. Actual TDP may be lower if not all I/Os for chipsets are used.

The Recommended Customer Price ("RCP") is pricing guidance for Intel products. Prices are for direct Intel customers 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. 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.

‡ 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.

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.

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/turbo/boost/](http://www.intel.com/technology/turbo/boost/) for more information.

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.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

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.

 Send us your feedback!

