Support Home > Product Specifications > Processors

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Intel[®] Core[™] i3-4100E Processor

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3M Cache, 2.40 GHz

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 specification
Product Collection	4th Generation Intel® Core™ i3 Processors
Code Name	Products formerly Haswell
Vertical Segment	Embedded
Processor Number	i3-4100E
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 ?	2.40 GHz
Cache ?	3 MB SmartCache
Bus Speed ?	5 GT/s DMI2
TDP ?	37 W
Supplemental Information	
Embedded Options Available ?	Yes
Datasheet	View now
Product Brief	View now
Additional Information URL	View now
Memory Specifications	
Max Memory Size (dependent on memory type)	16 GB
Memory Types ?	DDR3L 1333/1600
Max # of Memory Channels ?	2
Max Memory Bandwidth ?	25.6 GB/s
ECC Memory Supported ‡ ②	Yes

Processor Graphics [‡] ?	Intel® HD Graphics 46
Graphics Base Frequency ?	400 M
Graphics Max Dynamic Frequency 🔞	900 M
Graphics Output 🕐	eDP/DP/HDMI/V
Intel® Quick Sync Video 👔	١
Intel® InTru™ 3D Technology 🕐	Υ
Intel® Flexible Display Interface (Intel® FDI) 🔞	١
Intel® Clear Video HD Technology 🔞	`
# of Displays Supported [‡]	
Expansion Options	
Scalability	15 0
PCI Express Revision ?	
PCI Express Configurations ‡ 👔	Up to 1x16, 2x8, 1x8 2
Max # of PCI Express Lanes ?	
Package Specifications	
Sockets Supported 🕐	FCBGA13
Max CPU Configuration	
	10
TJUNCTION ? Package Size	100 37.5mm x 32mm x 1.6r
Package Size	
Package Size Advanced Technologies	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology ‡ ②	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ②	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ② Intel® Hyper-Threading Technology ‡ ③	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ② Intel® Hyper-Threading Technology ‡ ② Intel® Virtualization Technology (VT-x) ‡ ②	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ② Intel® Hyper-Threading Technology ‡ ③ Intel® Virtualization Technology (VT-x) ‡ ② Intel® Virtualization Technology for Directed I/O (VT-d) ‡	37.5mm x 32mm x 1.6r
Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ② Intel® Hyper-Threading Technology ‡ ③ Intel® Virtualization Technology (VT-x) ‡ ③ Intel® Virtualization Technology for Directed I/O (VT-d) ‡ Intel® VT-x with Extended Page Tables (EPT) ‡ ②	37.5mm x 32mm x 1.6r
Advanced Technologies Intel® Turbo Boost Technology † ② Intel® vPro™ Platform Eligibility † ② Intel® Hyper-Threading Technology † ② Intel® Virtualization Technology (VT-x) † ② Intel® Virtualization Technology for Directed I/O (VT-d) † Intel® VT-x with Extended Page Tables (EPT) † ② Intel® TSX-NI ②	37.5mm x 32mm x 1.6r
Advanced Technologies Intel® Turbo Boost Technology ‡ ? Intel® vPro™ Platform Eligibility ‡ ? Intel® Hyper-Threading Technology ‡ ? Intel® Virtualization Technology (VT-x) ‡ ? Intel® Virtualization Technology for Directed I/O (VT-d) ‡ Intel® VT-x with Extended Page Tables (EPT) ‡ ? Intel® TSX-NI ? Intel® 64 ‡ ?	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology † ② Intel® vPro™ Platform Eligibility † ② Intel® Hyper-Threading Technology † ③ Intel® Virtualization Technology (VT-x) † ③ Intel® Virtualization Technology for Directed I/O (VT-d) † Intel® VT-x with Extended Page Tables (EPT) † ② Intel® TSX-NI ③ Intel® 64 † ③ Instruction Set ③	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology † ② Intel® vPro™ Platform Eligibility † ③ Intel® Hyper-Threading Technology † ② Intel® Virtualization Technology (VT-x) † ② Intel® Virtualization Technology for Directed I/O (VT-d) † Intel® VT-x with Extended Page Tables (EPT) † ② Intel® TSX-NI ② Intel® 64 † ② Instruction Set ② Instruction Set Extensions ③	37.5mm x 32mm x 1.6r
Package Size Advanced Technologies Intel® Turbo Boost Technology † ② Intel® vPro™ Platform Eligibility † ③ Intel® Hyper-Threading Technology † ② Intel® Virtualization Technology (VT-x) † ② Intel® Virtualization Technology for Directed I/O (VT-d) † Intel® VT-x with Extended Page Tables (EPT) † ② Intel® TSX-NI ② Intel® 64 † ② Instruction Set ② Instruction Set Extensions ③	37.5mm x 32mm x 1.6r
Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ② Intel® Hyper-Threading Technology ‡ ② Intel® Virtualization Technology (VT-x) ‡ ② Intel® Virtualization Technology for Directed I/O (VT-d) ‡ Intel® VT-x with Extended Page Tables (EPT) ‡ ② Intel® TSX-NI ② Intel® 64 ‡ ② Instruction Set ② Instruction Set Extensions ③ Idle States ② Enhanced Intel SpeedStep® Technology ②	37.5mm x 32mm x 1.6r
Advanced Technologies Intel® Turbo Boost Technology † ② Intel® vPro™ Platform Eligibility † ② Intel® Hyper-Threading Technology † ② Intel® Virtualization Technology (VT-x) † ② Intel® Virtualization Technology for Directed I/O (VT-d) † Intel® VT-x with Extended Page Tables (EPT) † ② Intel® TSX-NI ② Intel® 64 † ② Instruction Set ② Instruction Set Extensions ③ Idle States ② Enhanced Intel SpeedStep® Technology ② Thermal Monitoring Technologies ②	37.5mm x 32mm x 1.6r
Advanced Technologies Intel® Turbo Boost Technology ‡ ② Intel® vPro™ Platform Eligibility ‡ ② Intel® Hyper-Threading Technology ‡ ② Intel® Virtualization Technology (VT-x) ‡ ② Intel® Virtualization Technology for Directed I/O (VT-d) ‡ Intel® VT-x with Extended Page Tables (EPT) ‡ ② Intel® TSX-NI ② Intel® 64 ‡ ② Instruction Set ② Instruction Set Extensions ③ Idle States ② Enhanced Intel SpeedStep® Technology ②	37.5mm x 32mm x 1.6r
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More support options for Intel[®] Core[™] i3-4100E Processor (3M Cache, 2.40 GHz)





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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.

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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