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Intel® Atom™ Processor E3845 (2M Cache, 1.91 GHz)

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SPECIFICATIONS

Essentials

Status	Launched
Launch Date	Q4'13
Processor Number	E3845
# of Cores	4
# of Threads	4
Clock Speed	1.91 GHz
Cache	2 MB
Instruction Set	64-bit
Embedded Options Available	Yes
Lithography	22 nm
Max TDP	10 W
Recommended Customer Price	

Memory Specifications

Max Memory Size (dependent on memory type)	8 GB
Memory Types	DDR3L-1333
# of Memory Channels	2
ECC Memory Supported ‡	Yes

Graphics Specifications

Processor Graphics ‡	Intel® HD Graphics
Graphics Base Frequency	542 MHz
Graphics Burst Frequency	792 MHz
# of Displays Supported ‡	2

Expansion Options

PCI Express Revision	2.0
PCI Express Configurations ‡	x4, x2, x1
Max # of PCI Express Lanes	4

I/O Specifications

USB Revision	2.0, 3.0
Total # of SATA Ports	2
Integrated LAN	No
Integrated IDE	No
UART	Yes

Package Specifications

T _{JUNCTION}	-40°C to 110°C
Package Size	25mm x 27mm
Sockets Supported	FCBGA1170

RELATED PRODUCTS

- Intel® Atom™ Processor
- Intel® Atom™ Processor E3800 Series
- Products formerly Bay Trail



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PCN/MDDS Information

SR1RE
932052: PCN | MDDS

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Low Halogen Options Available	See MDDS
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Advanced Technologies

Intel® vPro Technology‡	No
Intel® Hyper-Threading Technology‡	No
Intel® Virtualization Technology (VT-x) ‡	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡	No
Intel® 64 ‡	Yes
Intel® HD Audio Technology	Yes

Intel® Data Protection Technology

AES New Instructions	Yes
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Intel® Platform Protection Technology

Trusted Execution Technology‡	No
Execute Disable Bit‡	Yes

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"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.

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.

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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