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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

| 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

| Graphics Specifications | |
|---------------------------|--------------------|
| Processor Graphics ± | Intel® HD Graphics |
| Graphics Base Frequency | 542 MHz |
| Graphics Burst Frequency | 792 MHz |
| # of Displays Supported ± | 2 |

Expansion Options

| Expansion Options | |
|------------------------------|------------|
| PCI Express Revision | 2.0 |
| PCI Express Configurations ± | x4, x2, x1 |
| Max # of PCI Express Lanes | 4 |

I/O Specifications

| I/O Specifications | |
|-----------------------|----------|
| USB Revision | 2.0, 3.0 |
| Total # of SATA Ports | 2 |
| Integrated LAN | No |
| Integrated IDE | No |
| UART | Yes |

Package Specifications

| Package Specifications | |
|------------------------|----------------|
| T _{JUNCTION} | -40°C to 110°C |
| Package Size | 25mm x27mm |
| Sockets Supported | FCBGA1170 |

| | |
|-------------------------------|----------|
| Low Halogen Options Available | See MDDs |
|-------------------------------|----------|

Advanced Technologies

| | |
|---|---|
| Intel® vPro Technology‡ | <input checked="" type="checkbox"/> No |
| Intel® Hyper-Threading Technology‡ | <input checked="" type="checkbox"/> No |
| Intel® Virtualization Technology (VT-x)‡ | <input checked="" type="checkbox"/> Yes |
| Intel® Virtualization Technology for Directed I/O (VT-d)‡ | <input checked="" type="checkbox"/> No |
| Intel® 64‡ | <input checked="" type="checkbox"/> Yes |
| Intel® HD Audio Technology | <input checked="" type="checkbox"/> Yes |

Intel® Data Protection Technology

| | |
|----------------------|---|
| AES New Instructions | <input checked="" type="checkbox"/> Yes |
|----------------------|---|

Intel® Platform Protection Technology

| | |
|-------------------------------|---|
| Trusted Execution Technology‡ | <input checked="" type="checkbox"/> No |
| Execute Disable Bit‡ | <input checked="" type="checkbox"/> 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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