



Intel Atom® Processor C2338

1M Cache, 1.70 GHz

Add to Compare

Specifications

Essentials

Performance

Supplemental Information

Memory Specifications

Expansion Options

I/O Specifications

Package Specifications

Advanced Technologies

Security & Reliability

Ordering and Compliance

Product Images

Downloads and Software

Essentials

Export specifications

Product Collection	Intel® Atom™ Processor C Series
Code Name	Products formerly Rangeley
Vertical Segment	Embedded
Processor Number	C2338
Status	Launched
Launch Date	Q3'13
Lithography	22 nm
Recommended Customer Price	
Use Conditions	Communications

Performance

# of Cores	2
# of Threads	2
Processor Base Frequency	1.70 GHz
Max Turbo Frequency	2.00 GHz
Cache	1 MB
TDP	7 W

Supplemental Information

Embedded Options Available	Yes
Product Brief	View now

Memory Specifications

Max Memory Size (dependent on memory type)	16 GB
Memory Types	DDR3/DDR3L 1333
Max # of Memory Channels	1
Physical Address Extensions	36-bit
ECC Memory Supported [†]	Yes

Expansion Options

PCI Express Revision	2
PCI Express Configurations [†]	x1,x2

Max # of PCI Express Lanes [?](#)

8

I/O Specifications

# of USB Ports	4
USB Revision ?	2
Total # of SATA Ports ?	6
Integrated LAN ?	4x1 or 4x2.5 GbE
UART	2 Interfaces
Max # of SATA 6.0 Gb/s Ports	2

Package Specifications

Sockets Supported ?	FCBGA1283
Package Size	34 mm x 28 mm

Advanced Technologies

Intel® Turbo Boost Technology [‡] ?	2.0
Intel® Hyper-Threading Technology [‡] ?	No
Intel® Virtualization Technology (VT-x) [‡] ?	Yes
Intel® VT-x with Extended Page Tables (EPT) [‡] ?	Yes
Intel® 64 [‡] ?	Yes
Instruction Set ?	64-bit
Integrated Intel® QuickAssist Technology ?	No

Security & Reliability

Intel® AES New Instructions ?	Yes
Execute Disable Bit [‡] ?	Yes

More support options for Intel Atom® Processor C2338 (1M Cache, 1.70 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.

The Recommended Customer Price ("RCP") is pricing guidance for Intel products. Prices are for direct Intel customers, typically represent 1,000-unit purchase quantities, 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. If sold in bulk, price represents individual unit. 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.

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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