



Intel® Core™ m3-8100Y Processor

4M Cache, up to 3.40 GHz

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Essentials

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Product Collection	8th Generation Intel® Core™ m Processors
Code Name	Products formerly Amber Lake Y
Vertical Segment	Mobile
Processor Number	m3-8100Y
Off Roadmap	No
Status	Launched
Launch Date ?	Q3'18
Lithography ?	14 nm
Recommended Customer Price ?	

Performance





# of Cores ?	2
# of Threads ?	4
Processor Base Frequency ?	1.10 GHz
Max Turbo Frequency ?	3.40 GHz
Cache ?	4 MB Intel® Smart Cache
Bus Speed ?	4 GT/s
TDP ?	5 W
Configurable TDP-up Frequency ?	1.60 GHz
Configurable TDP-up ?	8 W
Configurable TDP-down Frequency ?	600 MHz
Configurable TDP-down ?	4.5 W

Supplemental Information















Embedded Options Available ?	No
Datasheet	View now

Memory Specifications




Max Memory Size (dependent on memory type) ?	16 GB
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Memory Types 	LPDDR3-1866, DDR3L-1600
Max # of Memory Channels 	2
Max Memory Bandwidth 	33.3 GB/s
ECC Memory Supported ‡ 	No



Processor Graphics

Processor Graphics ‡ 	Intel® UHD Graphics 615
Graphics Base Frequency 	300 MHz
Graphics Max Dynamic Frequency 	900 MHz
Graphics Video Max Memory 	16 GB
Graphics Output 	eDP/DP/HDMI/DVI
4K Support 	Yes, at 60Hz
Max Resolution (HDMI 1.4)‡ 	4096x2304@24Hz
Max Resolution (DP)‡ 	3840x2160@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡ 	3840x2160@60Hz
DirectX* Support 	12
OpenGL* Support 	4.5
Intel® Quick Sync Video 	Yes
Intel® Clear Video HD Technology 	Yes
Intel® Clear Video Technology 	Yes
# of Displays Supported ‡	3
Device ID	0x591C

Expansion Options

PCI Express Revision 	3.0
PCI Express Configurations ‡ 	1x4, 2x2, 1x2+2x1 and 4x1
Max # of PCI Express Lanes 	10

Package Specifications

Sockets Supported 	FCBGA1515
Max CPU Configuration	1
T _{JUNCTION} 	100°C
Package Size	20mm X 16.5mm

Advanced Technologies

Intel® Speed Shift Technology 	Yes
Intel® Turbo Boost Technology ‡ 	2.0
Intel® vPro™ Platform Eligibility ‡ 	No
Intel® Hyper-Threading Technology ‡ 	Yes

Intel® Virtualization Technology (VT-x) ‡ ?	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ‡ ?	Yes
Intel® VT-x with Extended Page Tables (EPT) ‡ ?	Yes
Intel® TSX-NI ?	No
Intel® 64 ‡ ?	Yes
Instruction Set ?	64-bit
Instruction Set Extensions ?	Intel® SSE4.1, Intel® SSE4.2, Intel® AVX2
Idle States ?	Yes
Enhanced Intel SpeedStep® Technology ?	Yes
Thermal Monitoring Technologies ?	Yes
Intel® Flex Memory Access ?	Yes
Intel® Identity Protection Technology ‡ ?	Yes
Intel® Stable Image Platform Program (SIPP) ?	No
Intel® Smart Response Technology ?	Yes
Intel® My WiFi Technology ?	Yes

Security & Reliability

Intel® AES New Instructions ?	Yes
Secure Key ?	Yes
Intel® Software Guard Extensions (Intel® SGX) ?	Yes with Intel® ME
Intel® Memory Protection Extensions (Intel® MPX) ?	Yes
Intel® Trusted Execution Technology ‡ ?	No
Execute Disable Bit ‡ ?	Yes
Intel® OS Guard	Yes

More support options for Intel® Core™ m3-8100Y Processor (4M Cache, up to 3.40 GHz)



Product Support



Downloads and Software



Support Community



Warranty and
Replacement



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Refer to Datasheet for formal definitions of product properties and features.

‡ 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.

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.

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

"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.

Intel® Smart Response Technology requires a select Intel® Core™ processor, an enabled chipset, Intel® Rapid Storage Technology software, and a properly configured hybrid drive (HDD + small SSD). Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

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.

Check <http://ipt.intel.com/> for systems that support Intel® Identity Protection Technology (Intel® IPT).

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

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.



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