



Intel® Core™ i3-8130U Processor

4M Cache, up to 3.40 GHz

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Essentials

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Product Collection	8th Generation Intel® Core™ i3 Processors
Code Name	Products formerly Kaby Lake
Vertical Segment	Mobile
Processor Number	i3-8130U
Status	Launched
Launch Date	Q1'18
Lithography	14 nm
Recommended Customer Price	

Performance

# of Cores	2
# of Threads	4
Processor Base Frequency	2.20 GHz
Max Turbo Frequency	3.40 GHz
Cache	4 MB SmartCache
Bus Speed	4 GT/s OPI
TDP	15 W
Configurable TDP-down Frequency	800 MHz
Configurable TDP-down	10 W

Supplemental Information

Embedded Options Available	No
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type)	32 GB
Memory Types	DDR4-2400, LPDDR3-2133
Max # of Memory Channels	2
Max Memory Bandwidth	37.5 GB/s

ECC Memory Supported ‡ ? No

Processor Graphics

Processor Graphics ‡ ?	Intel® UHD Graphics 620
Graphics Base Frequency ?	300 MHz
Graphics Max Dynamic Frequency ?	1.00 GHz
Graphics Video Max Memory ?	32 GB
Graphics Output ?	eDP/DP/HDMI/DVI
4K Support ?	Yes, at 60Hz
Max Resolution (HDMI 1.4)‡ ?	4096x2304@24Hz
Max Resolution (DP)‡ ?	4096x2304@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡ ?	4096x2304@60Hz
DirectX* Support ?	12
OpenGL* Support ?	4.4
Intel® Quick Sync Video ?	Yes
Intel® Clear Video HD Technology ?	Yes
Intel® Clear Video Technology ?	Yes
# of Displays Supported ‡	3
Device ID	0x5917

Expansion Options

PCI Express Revision ?	3.0
PCI Express Configurations ‡ ?	1x4, 2x2, 1x2+2x1 and 4x1
Max # of PCI Express Lanes ?	12

Package Specifications

Sockets Supported ?	FCBGA1356
Max CPU Configuration	1
T _{JUNCTION} ?	100°C
Package Size	42mm X 24mm
Low Halogen Options Available	No

Advanced Technologies

Intel® Optane™ Memory Supported ‡ ?	Yes
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™ i3-8130U Processor (4M Cache, up to 3.40 GHz)



Product Support



Downloads and Software



Support Community



Warranty and
Replacement



Need more help?

Contact support



Give Feedback

contact system vendor for more information on specific products or systems.

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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.

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

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.

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.

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).



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