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Intel® Celeron® N4100 Processor

4M Cache, up to 2.40 GHz

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Essentials

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Product Collection	Intel® Celeron® Processor N Series
Code Name	Products formerly Gemini Lake
Vertical Segment	Mobile
Processor Number	N4100
Status	Launched
Launch Date ?	Q4'17
Lithography ?	14 nm

Performance

# of Cores ?	4
# of Threads ?	4
Processor Base Frequency ?	1.10 GHz
Burst Frequency ?	2.40 GHz
Cache ?	4 MB
TDP ?	6 W
Scenario Design Power (SDP) ?	4.8 W

Supplemental Information

Embedded Options Available ?	No
Product Brief	View now

Memory Specifications

Max Memory Size (dependent on memory type) ?	8 GB
Memory Types ?	DDR4/LPDDR4 upto 2400MT/s
Max # of Memory Channels ?	2
ECC Memory Supported ‡ ?	No

Processor Graphics

Processor Graphics ‡ ?	Intel® UHD Graphics 600

Graphics Base Frequency ?	200 MHz
Graphics Max Dynamic Frequency ?	700 MHz
Graphics Video Max Memory ?	8 GB
Graphics Output ?	eDP/DP/HDMI/MIPI-DSI
Execution Units ?	12
4K Support ?	Yes, at 60Hz
DirectX* Support ?	Yes
OpenGL* Support ?	Yes
# of Displays Supported ‡	3
Device ID	0x3185

Expansion Options

PCI Express Revision ?	2.0
PCI Express Configurations ‡ ?	1x4 + 1x2 or 4x1 or 2x1+1x2 + 1x2
Max # of PCI Express Lanes ?	6

I/O Specifications

# of USB Ports	8
USB Revision ?	2.0/3.0
Total # of SATA Ports ?	2
Integrated LAN ?	No
Integrated Wireless‡	Intel® Wireless-AC MAC
General Purpose IO	yes
UART	yes
Max # of SATA 6.0 Gb/s Ports	2

Package Specifications

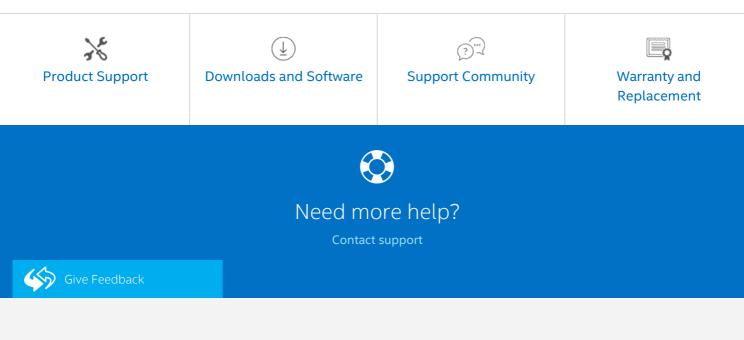|	
Sockets Supported ?	FCBGA1090
Max CPU Configuration	1
Thermal Solution Specification ?	105 deg C
T$_{JUNCTION}$?	105 deg C
Package Size	25mm x 24mm
Low Halogen Options Available	No

Advanced Technologies

Intel® Optane™ Memory Supported ‡ ?	No
Intel® Speed Shift Technology ?	No
Intel® Turbo Boost Max Technology 3.0 ‡ ?	No
Intel® Turbo Boost Technology ‡ ?	No
Intel® vPro™ Platform Eligibility ‡ ?	No

Intel® Hyper-Threading Technology ‡ ?	No
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® 64 ‡ ?	Yes
Instruction Set ?	64-bit
Idle States ?	Yes
Enhanced Intel SpeedStep® Technology ?	Yes
Thermal Monitoring Technologies ?	Yes
Intel® Identity Protection Technology ‡ ?	Yes
Intel® Smart Response Technology ?	No

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
Execute Disable Bit ‡ ?	Yes
Anti-Theft Technology ?	No
Intel® OS Guard	Yes

More support options for Intel® Celeron® N4100 Processor (4M Cache, up to 2.40 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.

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.

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

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.

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.

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.

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.

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