Intel Celeron N2807 vs Intel Celeron N5095

Comparison of the technical characteristics between the processors, with the Intel Celeron N2807 on one side and the Intel Celeron N5095 on the other side, also their respective performances with the benchmarks. The first is dedicated to the mini desktop sector, It has 2 cores, 2 threads, a maximum frequency of 2.2GHz. The second is used on the mini desktop segment, it has a total of 4 cores, 4 threads, its turbo frequency is set to 2.9 GHz. The following table also compares the lithography, the number of transistors (if indicated), the amount of cache memory, the maximum RAM memory capacity, the type of memory accepted, the release date, the maximum number of PCIe lanes, the values obtained in Geekbench and Cinebench.

Specification comparison:

Processor	Intel Celeron N2807	Intel Celeron N5095
Market (main)	Mini desktop	Mini desktop
ISA	x86-64 (64 bit)	x86-64 (64 bit)
Microarchitecture	Silvermont	Tremont
Core name	Bay Trail-M	Jasper Lake
Family	Celeron N2000	Celeron 5000
Part number(s), S-Spec	FH8065301730502, SR1W5	DC8069704609810, SRKGX
Release date	Q1 2014	Q1 2021
Lithography	22 nm	10 nm
Cores	2	4
Threads	2	4
Base frequency	1.58 GHz	2.0 GHz
Turbo frequency	2.16 GHz	2.9 GHz
High performance cores	-	4 Cores 4 Threads @ 2.0 / 2.9 GHz
Cache memory	1 MB	4 MB
Max memory capacity	4 GB	16 GB
Memory types	DDR3L 1333	DDR4/LPDDR4x 2933
Max # of memory channels	1	2
Max PCIe lanes	4	8
TDP	4 W	15 W
GPU integrated graphics	Intel HD Graphics (Bay Trail)	Intel UHD Graphics (Jasper Lake 16EU)
GPU execution units	4	16
GPU shading units	32	128

Socket	BGA1170	BGA1338
Maximum temperature	105°C	105°C
AI accelerator	-	Gaussian & Neural Accelerator
Crypto engine	Secure Key	AES New Instructions
Security	Execute Disable Bit	OS Guard, Boot Guard, Mode-based Execute Control
Max display resolution	-	4096 x 2160@60Hz (HDMI), 4096 x 2160@60Hz (DP) 4096 x 2160@60Hz (eDP)
CPU-Z single thread	71	241
CPU-Z multi thread	142	1,036
Cinebench R15 single thread	34	102
Cinebench R15 multi-thread	63	349
Cinebench R20 single thread	60	227
Cinebench R20 multi-thread	111	842
PassMark single thread	536	1,548
PassMark CPU Mark	438	4,233
(Windows) Geekbench 4 single core	1,005	2,941
(Windows) Geekbench 4 multi-core	1,560	7,820
(Windows) Geekbench 5 single core	188	632
(Windows) Geekbench 5 multi-core	312	2,013
(SGEMM) GFLOPS Performance	10.8 GFLOPS	59.2 GFLOPS
(Multi-core / watt performance) Performance / watt ratio	363 pts / W	521 pts / W
Amazon	amazon	amazon
eBay	ebay	ebay

We can better compare what are the technical differences between the two processors.

Performance comparison with the benchmarks:

Performance comparison between the two processors, for this we consider the results generated on benchmark software such as Geekbench.

CPU-Z - Multi-Thread & Single Thread Score

Intel Celeron N5095 #ad — 1,036 / 241
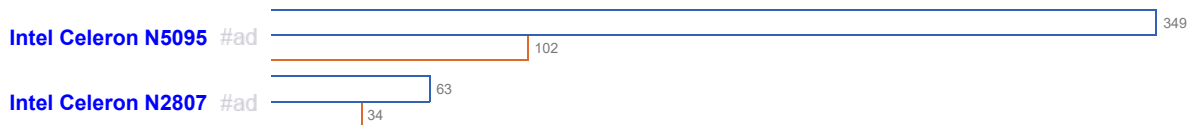
Intel Celeron N2807 #ad — 142 / 71

In single core, the difference is 239%. In multi-core, the difference in terms of gap is 630%.

Note: Commissions may be earned from the links above. These scores are only an average of the performances got with these processors, you may get different results.

CPU-Z is a system information software that provides the name of the processor, its model number, the codename, the cache levels, the package, the process. It can also gives data about the mainboard, the memory. It makes real time measurement, with finally a benchmark for the single thread, as well as for the multi thread.

Cinebench R15 - Multi-Thread & Single Thread Score

Intel Celeron N5095 #ad — 349 / 102
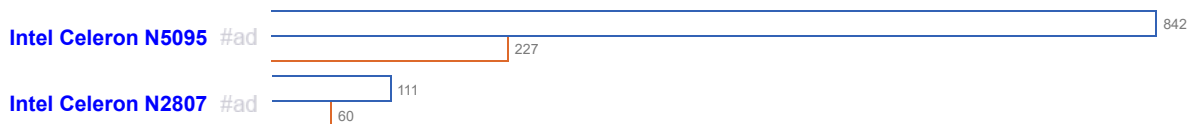
Intel Celeron N2807 #ad — 63 / 34

In single core, the difference is 200%. In multi-core, the difference in terms of gap is 454%.

Note: Commissions may be earned from the links above. These scores are only an average of the performances got with these processors, you may get different results.

Cinebench R15 evaluates the performance of CPU calculations by restoring a photorealistic 3D scene. The scene has 2,000 objects, 300,000 polygons, uses sharp and fuzzy reflections, bright areas, shadows, procedural shaders, antialiasing, and so on. The faster the rendering of the scene is created, the more powerful the PC is, with a high number of points.

Cinebench R20 - Multi-Thread & Single Thread Score

Intel Celeron N5095 #ad — 842 / 227

Intel Celeron N2807 #ad — 111 / 60

In single core, the difference is 278%. In multi-core, the difference in terms of gap is 659%.

Note: Commissions may be earned from the links above. These scores are only an average of the performances got with these processors, you may get different results.

PassMark - CPU Mark & single thread

Intel Celeron N5095 #ad
4,233
1,548

Intel Celeron N2807 #ad
438
536

In single core, the difference is 189%. In multi-core, the difference in terms of gap is 866%.

PassMark is a benchmarking software that performs several performance tests including prime numbers, integers, floating point, compression, physics, extended instructions, encoding, sorting. The higher the score is, the higher is the device capacity.

With Windows:

Geekbench 4 - Multi-core & Single Core Score - Windows

Intel Celeron N5095 #ad
7,820
2,941

Intel Celeron N2807 #ad
1,560
1,005
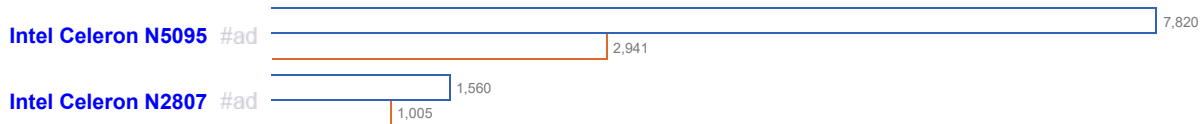
In single core, the difference is 193%. In multi-core, the difference in terms of gap is 401%.

With Linux:

Geekbench 4 - Multi-core & Single Core Score - Linux

Intel Celeron N5095 #ad
8,210
2,858

Intel Celeron N2807 #ad
1,175
906

In single core, the difference is 215%. In multi-core, the difference in terms of gap is 599%.

Geekbench 4 is a complete benchmark platform with several types of tests, including data compression, images, AES encryption, SQL encoding, HTML, PDF file rendering, matrix computation, Fast Fourier Transform, 3D object simulation, photo editing, memory testing. This allows us to better visualize the respective power of these devices. For each result, we took an average of 250 values on the famous benchmark software.
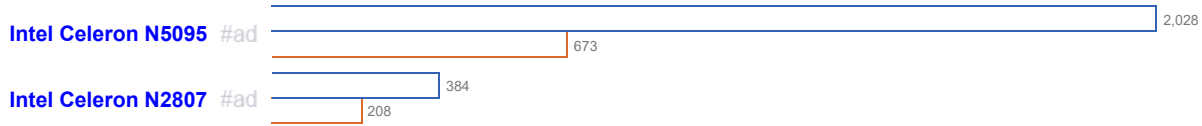
With Windows:

In single core, the difference is 236%. In multi-core, the difference in terms of gap is 545%.

With Linux:

Geekbench 5 - Multi-core & Single Core Score - Linux

Intel Celeron N5095 #ad — 2,028 / 673

Intel Celeron N2807 #ad — 384 / 208

In single core, the difference is 224%. In multi-core, the difference in terms of gap is 428%.

With Android:

Geekbench 5 - Multi-core & Single Core Score - Android

Intel Celeron N5095 #ad — 1,652 / 547

Intel Celeron N2807 #ad — 351 / 185

In single core, the difference is 196%. In multi-core, the difference in terms of gap is 371%.

Note: Commissions may be earned from the links above. These scores are only an average of the performances got with these processors, you may get different results.

Geekbench 5 is a software for measuring the performance of a computer system, for fixed devices, mobile devices, servers. This platform makes it possible to better compare the power of the CPU, the computing power and to compare it with similar or totally different systems. Geekbench 5 includes new workloads that represent work tasks and applications that we can find in reality.

Equivalence:

Intel Celeron N2807 AMD Equivalent

Intel Celeron N5095 AMD Equivalent

See also:

Intel Celeron N2808

Intel Celeron N5095A