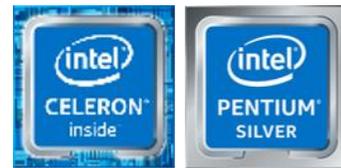# INTEL® PENTIUM® SILVER AND CELERON® PROCESSORS

Great value for better performance and exciting new user experiences to match your lifestyle and everyday computing

Now you can enjoy the great experiences you've wanted from your notebook, convertible, or desktop PC with the security and connectivity options you need for a protected, mobile lifestyle with the new Intel® Pentium® Silver and Celeron® processor family. Whether you're a Windows*, or Linux* user, the Intel® Pentium® Silver and Celeron® processor family delivers great balance of performance at entry price points with great battery life. The all new Intel® Pentium® Silver and Celeron® processor family includes 4K media support, integrated connectivity up to Gigabit Wi-Fi[3], and improvements in security in your choice of platform and OS at a price point for casual users who want rich experiences.

Enjoy better computing performance with faster data transfer

With up to 55% better Windows* application performance than a four year old system[1], the Intel® Pentium® Silver and Celeron® Processors give your platform the computing and visual power you've wanted. Now you can multitask those data intensive projects and still have power for your other activities. With Pentium® Silver and Celeron® processor platforms, you can enjoy:

- Fun and casual gaming* experience. Visit http://gameplay.intel.com for a list of enabled games.
- A new level of performance and great battery life for longer active use (~10 hours of active battery life[2]).
- New improved I/O and memory options for faster data transfer with DDR4 support
- Overall Pentium® Silver and Celeron® processors enable binge watching your movies all night long, chatting longer, and being more productive.

Exciting New Experiences

The Intel® Pentium® Silver and Celeron® Processors don't just offer great performance and battery life. It incorporates exciting new experiences from your device.

- Integrated connectivity with up to Gigabit Wi-Fi^3 for a great client Wi-Fi user experience
- Enjoy your 4K content on external 4K display or HDTVs
- You can enjoy your favorite movies and videos in UHD (Ultra High Definition) from premier channels like Netflix* and Sony*
- Capturing and uploading 1080p video for Google Hangouts*, Chrome* browser, MS Edge* browser and YouTube* is much easier with new VP9* and HEVC 10-bit built in CODECs
- Enjoy your TV on the go with PlayReady* 3

Security you can Trust**

People's online lives are more complicated than ever before, and consumers are demanding increasingly frictionless methods to safeguard identities and data. Our research shows that consumers want digital experiences that are more secure, and security has the potential to accelerate PC refresh. And now, we have an unprecedented security offering with the ability to sell more PCs. With the latest Intel® Pentium Silver® and Celeron® processors, Intel builds security** features directly into the silicon. We can offer a more secure** experience without sacrificing ease of use. Intel® Pentium Silver® and Celeron® processors now feature Secure-enabled** browsing and sharing with password managers.

A device that suits your lifestyle

Intel® Pentium® Silver and Celeron® processors power more devices, from notebooks to convertibles to desktops and mini PCs—Windows, and Linux—giving you flexibility to choose the best device for your needs, while knowing it will give you the performance, experiences, and security** you want.

You can now select the device that matches your lifestyle – on the go or on the desk – with a wide range of form factors and styles to choose from including new form factors for consumers and education with quiet, fanless designs, and lighter-weight materials and devices.

Intel® Pentium® Silver and Celeron® Mobile Processors Features at a Glance

FEATURE	INTEL® PENTIUM® SILVER N5000 PROCESSOR	INTEL® CELERON® N4100 PROCESSOR	INTEL® CELERON® N4000 PROCESSOR
Max Processor Frequency	Up to 2.7GHz	Up to 2.4GHz	Up to 2.6GHz
Number of Processors Core/Thread	4/4	4/4	2/2
Cache Size (MB)	4MB	4MB	4MB
Number of Memory Channels	2	2	2
Memory Type	DDR4-2400, LPDDR4-2400	DDR4-2400, LPDDR4-2400	DDR4-2400, LPDDR4-2400
Graphics Dynamic Frequency (GHz)	Up to 750MHz	Up to 700MHz	Up to 650MHz
Intel UHD Graphics	Intel® UHD Graphics 605	Intel® UHD Graphics 600	Intel® UHD Graphics 600

Intel® Pentium® Silver and Celeron® Desktop Processors Features at a Glance

FEATURE	INTEL® PENTIUM® SILVER J5005 PROCESSOR	INTEL® CELERON® J4105 PROCESSOR	INTEL® CELERON® J4005 PROCESSOR
Max Processor Frequency	Up to 2.8GHz	Up to 2.5GHz	Up to 2.7GHz
Number of Processors Core/Thread	4/4	4/4	2/2
Cache Size (MB)	4MB	4MB	4MB
Number of Memory Channels	2	2	2
Memory Type	DDR4-2400, LPDDR4-2400	DDR4-2400, LPDDR4-2400	DDR4-2400, LPDDR4-2400
Graphics Dynamic Frequency (GHz)	Up to 800MHz	Up to 750MHz	Up to 700MHz
Intel UHD Graphics	Intel® UHD Graphics 605	Intel® UHD Graphics 600	Intel® UHD Graphics 600

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Altering clock frequency or voltage may damage or reduce the useful life of the processor and other system components, and may reduce system stability and performance. Product warranties may not apply if the processor is operated beyond its specifications. Check with the manufacturers of system and components for additional details.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. Go to: http://www.intel.com/products/processor_number/

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1. As projected by SYSmark* 2014 v1.5 on Intel® Pentium® Silver N5000 Processor , PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows* 10 RS2 vs. Intel® Pentium® N3540 Processor , PL1=7.5W TDP, 4C/4T, up to 2.66GHz, Memory: 2x2GB DDR3L-1333, Storage: Intel SSD, OS: Windows* 10 RS2 (55% MOBILE) and Intel® Pentium® Silver J5005 Processor , PL1=10W TDP, 4C/4T, up to 2.8GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows* 10 RS2 vs. Intel® Pentium® J2900 Processor, PL1=10W TDP, 4C/4T, up to 2.67GHz, Memory: 2x2GB DDR3L-1333, Storage: Intel SSD, OS: Windows* 10 RS2 (60% DESKTOP)

2. As projected by 1080p Video Playback on Intel® Pentium® Silver N5000 Processor , PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows* 10 RS2 Battery: 35WHr, 12.5", 1920x1080

3. 802.11ac 160MHz provides 1.73Gbps maximum throughput, 2X faster than standard 802.11ac 2x2 80MHz (867Mbps) and nearly 12x faster than baseline 1x1 BGN (150Mbps) Wi-Fi used in today's PCs. To achieve Gigabit wireless speeds the network requires a wireless router/access point that supports 160MHz channel

Testing Information:

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information about performance and benchmark results, visit http://www.intel.com/benchmarks

Results have been estimated based on internal Intel analysis and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance.

Benchmark information

Compute Intensive Application Performance. SPEC* CPU2000/2006 is a benchmark from the SPEC consortium that measures device performance and throughput using compute intensive application subtests. SPECint*_base2000/2006 measures how fast a device completes a single integer compute task. SPECint*_rate_base2000/2006 measures throughput, or how many integer compute tasks a device can accomplish in a given amount of time. OS support: Desktop Windows*, UNIX*/Linux* and Mac* OS.

Configurations Estimated on:

Mobile
Intel® Pentium® Silver N5000 Processor , PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows* 10 RS2
Intel® Pentium® N3540 Processor, PL1=7.5W TDP, 4C/4T, up to 2.66GHz, Memory: 2x2GB DDR3L-1333, Storage: Intel SSD, OS: Windows* 10 RS2

Desktop
Intel® Pentium® Silver J5005 Processor, PL1=10W TDP, 4C/4T, up to 2.8GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows* 10 RS2
Intel® Pentium® J2900 Processor, PL1=10W TDP, 4C/4T, up to 2.67GHz, Memory: 2x2GB DDR3L-1333, Storage: Intel SSD, OS: Windows* 10 RS2

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