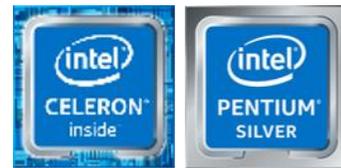


# INTEL® PENTIUM® SILVER AND CELERON® PROCESSORS

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<sup>3,4</sup>, 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 58% better Windows\* application performance than a four year old system<sup>1</sup>, 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 see the difference:

### Intel® Pentium® Silver vs. 4 year old entry System

- Work on spreadsheets, browse online, and edit photos up to 58% faster<sup>1</sup>
- Edit a photo album in half the time<sup>5</sup>
- Create a video slideshow from your favorite photo album in about half the time<sup>6</sup>
- Binge watch your favorite shows for up to 10 hrs<sup>2</sup> of HD local playback without having to recharge (35WHr battery)

## 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.

- Download an 8GB HD movie before leaving on an airplane in about 1 minute with Intel 9560 AC as opposed to 10 minutes with 802.11 BGN<sup>3,4</sup>
- Up to 2X faster download speed than a 2x2 802.11AC<sup>3,4</sup>
- Boost your display visibility outdoors in bright sunlight
- Enhanced Media capabilities for richer YouTube\*, Netflix\*, and Google\* Hangout experiences.

## 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. Browse online faster and safer\*\* with hardware-enabled hassle-free password auto entry.

## 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 PROCESSOR N5000	INTEL® CELERON® PROCESSOR N4100	INTEL® CELERON® PROCESSOR N4000
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 PROCESSOR J5005	INTEL® CELERON® PROCESSOR J4105	INTEL® CELERON® PROCESSOR J4005
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

### Legal Notices and Disclosures

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at intel.com

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/](http://www.intel.com/products/processor_number/)

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1. As measured by SYSmark\* 2014 SE on Intel® Pentium® Silver Processor N5000 vs. Intel® Pentium® Processor N3540 (58%) and Intel® Pentium® Silver Processor J5005 vs. Intel® Pentium® Processor J2900 (68%) - Intel® Pentium® Silver Processor N5000, PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows\* 10 RS2

2. As Measured by Windows 10\* 1080p 24fps Local Video Playback Component Average Power Disconnect all USB devices, connect to a local WiFi access point and set the screen brightness to 200 nits (disable DPST, set brightness to 200 nits on a white background and enable DPST). Wait for 10 mins for the OS to completely idle. Launch Tears of Steel (1080p H264 10Mbps 24fps) video using the Windows Movie & TV App. Measure and calculate average power for the duration of the video. Report 3 run median. Configuration; Intel® Pentium® Silver Processor N5000, PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows\* 10 RS2 Battery: 35Whr, 11.6", 1920x1080.

3. 802.11ac 2x2 160 MHz enables 1733 Mbps maximum theoretical data rates, 2x faster than standard 802.11ac 2x2 80 MHz (867 Mbps) and nearly 12x faster than baseline 1x1 BGN (150 Mbps) Wi-Fi as documented in IEEE 802.11 wireless standard specifications, and requires the use of similarly configured 802.11ac wireless network routers or better. To achieve Gigabit wireless speeds, the network requires a wireless router/access point that supports 160 MHz channels.

4. Estimates for Wi-Fi download times are calculations based upon real-world, single client, best-case throughput speed assumptions of approximately 70% of IEEE 802.11 specification theoretical maximum data rates to account for networking overhead. Actual performance may vary based on system design, network configuration, and wireless environment.

5. As measured by TouchXPRT\* 2016 (Beautify Photos Subtest) on Intel® Pentium® Silver Processor N5000 vs. Intel® Pentium® Processor N3540 Intel® Pentium® Silver Processor N5000, PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows\* 10 RS2

6. As measured by TouchXPRT\* 2016 (Create Slideshow from Photos Subtest) on Intel® Pentium® Silver Processor N5000 vs. Intel® Pentium® Processor N3540 Intel® Pentium® Silver Processor N5000, PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x2GB DDR4 2400, Storage: Intel SSD, OS: Windows\* 10 RS2

#### **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>

Benchmark results were obtained prior to implementation of recent software patches and firmware updates intended to address exploits referred to as "Spectre" and "Meltdown." Implementation of these updates may make these results inapplicable to your device or system.

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 Measured on:**

##### **Mobile**

Intel® Pentium® Silver Processor N5000, PL1=6W TDP, 4C/4T, up to 2.7GHz, Memory: 2x4GB DDR4 2400, Storage: Intel SSD 540, OS: Windows\* 10 RS2; Battery Size: 35Whr; Display: 11.6" 19x10

Intel® Pentium® Processor N3540, PL1=7.5W TDP, 4C/4T, up to 2.66GHz, Memory: 2x4GB DDR3L-1333, Storage: Intel SSD 540, OS: Windows\* 10 RS2

##### **Desktop**

Intel® Pentium® Silver Processor J5005, PL1=10W TDP, 4C/4T, up to 2.8GHz, Memory: 2x4GB DDR4 2400, Storage: Intel SSD 540, OS: Windows\* 10 RS2

Intel® Pentium® Processor J2900, PL1=10W TDP, 4C/4T, up to 2.67GHz, Memory: 2x4GB DDR3L-1333, Storage: Intel SSD 540, OS: Windows\* 10 RS2

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