Changing the game in computing innovation, productivity, and security

The Intel vPro® platform with 10th Gen Intel® Core™ vPro® processor is built for business—delivering uncompromised productivity, hardware-based security features, and a foundation for computing innovation. With significant performance gains on compute-intensive applications and multi-tasking, users have the power they need on applications they use. New 10th Gen Intel Core vPro processors come with integrated Wi-Fi 6, the best Wi-Fi technology for video conferencing. IT can count on the built-in, hardware-based security features of Intel® Hardware Shield for increased platform protection with minimal impact to user productivity. Intel® Active Management Technology helps minimize disruptions and service calls, increasing employee satisfaction and productivity, whether employees are at home or in the office.

**ADVANCED CAPABILITIES TO ENABLE IT**  
Reshape the computing experience for the modern workplace – whether at home or in the office

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**10th Gen Intel® Core™ vPro® processors**

**U-Series:** Mainstream commercial mobile PC platform

- Latest in mobility, connectivity, and style
- Built-in, hardware-based security features
- Advanced wireless connectivity
- Long mobile battery life
- Project Athena innovation program-based designs
- Business productivity applications and workloads
- Data visualization
- Collaboration
- Manage large data sets

**H-Series:** Mobile workstations and commercial performance notebooks

- Premium mobile performance
- Built-in, hardware-based security features
- Advanced wireless connectivity
- Business productivity applications and workloads
- 3D modeling
- Product design
- Media editing
- Data visualization
- Manipulation of high-density files
- Compute-intensive business applications

**S-Series:** Commercial desktop PC platform

- Elite desktop performance
- Built-in, hardware-based security features
- Advanced wireless connectivity
- Business productivity applications and workloads
- 3D modeling
- Product design
- Media editing
- Data visualization
- Manipulation of high-density files
- Compute-intensive business applications

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**BUSINESS-CLASS ACCELERATION**

<table>
<thead>
<tr>
<th>10th Gen Intel® Core™ vPro® processors (U-Series)</th>
<th>10th Gen Intel® Core™ vPro® processors (H-Series)</th>
<th>10th Gen Intel® Core™ vPro® processors (S-Series)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 40% better overall application performance vs. a three-year-old laptop¹</td>
<td>Up to 36% better overall application performance vs. a three-year-old laptop²</td>
<td>Up to 46% better overall application performance vs. a three-year-old laptop³</td>
</tr>
<tr>
<td>Up to 36% better office productivity vs. a three-year-old laptop⁴</td>
<td>Up to 36% faster office multitasking vs. a three-year-old laptop⁵</td>
<td>Up to 30% faster analyzing and visualizing data vs. a 5-year-old desktop⁶</td>
</tr>
</tbody>
</table>

10th Gen Intel® Core™ vPro® platforms are built for business, and are now available with integrated Wi-Fi 6 connectivity, which is the best Wi-Fi technology for video conferencing.
### 10th Gen Intel® Core™ vPro® Processors

#### Platform
- Mainstream commercial mobile PC platform
- Mobile workstations and commercial performance notebooks
- Desktop platform

#### Form factors
- Thin and light notebooks, detachable and convertible systems
- High-end mobile systems
- Small form factor desktops, traditional towers, and modern all-in-one touchscreen systems

#### Processor cores
- Intel® Core™ vPro® i5 processor: 4 cores, 8 threads, and 8 MB cache
- Intel® Core™ vPro® i7 processor: 6 cores, 12 threads, and 12 MB cache
- Intel® Core™ vPro® i9 processor: 10 cores, 16 threads, and 16 MB cache
- Intel® Xeon® processor: 8 cores, 16 threads, and 16 MB cache

#### Graphics
- Gen 9 Intel® UHD Graphics
- Gen 9 Intel® UHD Graphics
- Gen 9 Intel® UHD Graphics

#### Memory controller
- Two-channel DDR4 memory controller
- Two-channel DDR4 memory controller
- Two-channel DDR4 memory controller

#### Platform controller
- Integrated PCH
- Intel® 400 Series Platform Hub (PCH)
- Intel® 400 Series Platform Hub (PCH)

#### Connectivity
- Integrated Intel® Wi-Fi 6 AX200
- Integrated Intel® Wi-Fi 6 AX200
- Integrated Intel® Wi-Fi 6 AX200
- Integrated Intel® Wi-Fi 6 802.11ax wireless

#### Power
- Built-in thermal management features
- 45-watt thermal design power (TDP)
- TDP options of 35, 65, and 125 watts

#### Cabling
- Thunderbolt 3 technology: Single-cable docking solutions to integrate the mobile PC into a peripheral-rich, stationary computing environment
- Thunderbolt 3 technology: Single-cable docking solutions to connect notebooks to peripheral-rich, stationary computing environments
- Thunderbolt 3 technology: Single-cable docking solutions to connect notebooks to peripheral-rich, stationary computing environments

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**Learn more at intel.com/vpro.**

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**NEW** Expanded below-the-OS protection and advanced threat detection features with Intel® Hardware Shield.

**NEW** Intel® SIPP now offers even broader Windows® 10 Enterprise version support (versions 1809 to 20H2) for smoother transitions to the latest hardware platform.

**NEW** Integrated Wi-Fi 6 (Gig+) provides up to 3X faster speeds, scalable and reliable networks, and more stable connections, even in dense environments.

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**INNOVATIVE TECHNOLOGIES TO BENEFIT IT**

- **Performance**
  - Intel® Wi-Fi 6 (Gig+)
  - Intel® Optane™ memory

- **Security**
  - Intel® Hardware Shield

- **Manageability**
  - Intel® Active Management Technology (Intel® AMT)
  - Intel® Endpoint Management Assistant (Intel® EMA)

- **Stability**
  - Intel® Stable IT Platform Program (Intel® SIPP)

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**FIND THE RIGHT PROCESSOR FOR CUSTOMER REQUIREMENTS**

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<td>Desktop platform</td>
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<tr>
<td>Processor cores</td>
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<td>Intel® Core™ vPro® i5 processor: 4 cores, 8 threads, and 8 MB cache</td>
<td>Intel® Core vPro i5 processor: 6 single-threaded cores and 9 MB cache</td>
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<tr>
<td>Platform controller</td>
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<td>Integrated Intel® Wireless-AC Hub (PCH)</td>
<td>Intel® 400 Series Platform Hub (PCH)</td>
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<td>Integrated Intel® Wireless-AC Hub (PCH)</td>
<td>Integrated Intel® 802.11ax wireless</td>
</tr>
<tr>
<td>Power</td>
<td>45-watt thermal design power (TDP)</td>
<td>Intel® Thermal Velocity Boost (Intel® TVB) (increases clock frequency under specific operating conditions)</td>
<td>TDP options of 35, 65, and 125 watts</td>
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1. Best Wi-Fi disclaimer: As measured by OTA (Over the Air) Wi-Fi 6 (802.11ax) vs. Wi-Fi 5 (802.11ac) NB client Skype video conferencing test data, obtained in standard corporate IT 20 MHz and 40 MHz network deployment scenarios.

2. Wi-Fi networks consist of 8 NB clients with 7 clients generating 10-20 Mbps Wi-Fi traffic (using iChariot traffic simulator) while 1 client conducts a 5 min Skype video conference session with a 9th client connected via 10/100/1000 Ethernet to a local server. Skype data obtained via Skype reporting application.

3. 8 NB Wi-Fi network client specifications: Dell XPS 13 (10th Gen), Killer AX1650, Driver 2.19.0.0.9; OS: Win 10 19H1 64-bit, 9th NB Callie (wired) = Dell G7 15 7588, Killer E2400, Driver: 9.00.4.2, OS: Win 10 19H1 64-bit; Enterprise APs (AC) Wi-Fi 5: Cisco 3800, FW: 8.10.128.91; (AX) Wi-Fi 6: Cisco 9130, FW: 8.10.128.91

4. Wi-Fi 6 performance benefits require use of similarly configured Wi-Fi 6 networking infrastructure (routers & APs) based on the IEEE 802.11ax wireless standard specification.

Test data represents best case results through a controlled local network to show relative Wi-Fi 6 vs. Wi-Fi 5 technology differences. Actual real-world corporate results may vary and are expected to be higher due to: 1) greater number of diverse clients, 2) higher network traffic levels, and 3) greater physical distance from Skype server.

5. Theoretical performance compared to standard 802.11ac. Nearly 3x Faster: 802.11ax 2x2 160 MHz enables 2402 Mbps maximum theoretical data rates, ~3x (2.8X) faster than standard 802.11ac 2x2 80 MHz (867 Mbps) as documented in IEEE 802.11 wireless standard specifications, and requires the use of similarly configured 802.11ax wireless network routers. For more information about the data presented, visit www.intel.com/wifi6disclaimers.

6. As measured by SYSMark 2018 Overall Score on pre-production 10th Gen Intel® Core™ i7-10810U vs. 8/15/19 testing of 7th Gen Intel® Core™ i7-7600U

7. As measured by SYSMark 2018 Productivity Subtest Score on pre-production 10th Gen Intel® Core™ i7-10810U vs. 8/15/19 testing of 7th Gen Intel® Core™ i7-7600U

8. As measured by SYSMark 2018 Overall Score on pre-production 10th Gen Intel® Core™ i7-10875H vs. 7th Gen Intel® Core™ i7-7920HQ.

9. As measured by Office 365 Multi-threaded Workload on pre-production 10th Gen Intel® Core™ i7-10875H vs. 7th Gen Intel® Core™ i7-7920HQ.

10. As measured by SYSMark 2018 Overall Score on pre-production 10th Gen Intel® Core™ i7-10700 vs. 6th Gen Intel® Core™ i7-6700.

11. As measured by MS PowerBl Workload on pre-production 10th Gen Intel® Core™ i7-10700 vs. 6th Gen Intel® Core™ i7-6700.

12. Includes the effect of Intel Thermal Velocity Boost, a feature that opportunistically and automatically increases clock frequency above single-core and multi-core Intel Turbo Boost Technology frequencies based on how much the processor is operating below its maximum temperature and whether turbo power budget is available. The frequency gain and duration is dependent on the workload, capabilities of the processor and the processor cooling solution.

U-Series claims measured on platforms with:


S-Series claims measured on platforms with:

- Processor: Intel® Core™ i7-10700 processor (CML-S) PL1=65W TDP, 8C16T Turbo up to 4.8GHz, Memory: 2x16GB DDR4-2666 2Rx8, Storage: Intel® 760p M.2 PCIe NVMe SSD, Display Resolution: 1920x1080, OS: Windows 10 Pro 1909 V720 19H2(RS6). Power policy set to AC/Balanced mode for all benchmarks except SYSMark 2018 which is measured in AC/BAPCo mode for Performance. Power policy set to DC/Balanced mode for power. All benchmarks run in Admin mode & Tamper Protection Disabled / Defender Disabled, Graphics driver: 26.20.100.7985, Bios version: KBLSEZ1.R00.X120.P04.1802121043, Temperature: Tc=70c for all performance measurements. Tc=50c for MobileMark 2018.

S-Notes & Disclaimers

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 visit www.intel.com/benchmarks

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See backup for configuration details. No product or component can be absolutely secure.

The costs and results may vary. Intel contributes to the development of benchmarks by participating in, sponsoring, and/or providing technical support to various benchmarking groups, including the BenchmarkXPRT Development Community administered by Principled Technologies.

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