# HP ProBook 450 G7 Notebook PC



### Business class power, affordably priced

Full-featured, thin, and light, the reliable HP ProBook 450 offers essential commercial features at an affordable price to every business. Automatic security solutions, powerful performance, and long battery life help keep your business productive.



HP recommends Windows 10 Pro.

#### Ready to meet the demands of your day

• Equipped with the latest 10th Gen quad-core Intel® Core™ processor<sup>2,3</sup>, long battery life, and speedy connectivity, the multi-tasking HP ProBook 450 laptop is ready to get you through your deadline-driven workday.

#### Multi-layered security protection

• Your growing business requires the protection of a PC with commercialgrade security features. The HP ProBook 450 is enhanced with security and privacy from the BIOS up.

#### Proven reliability

- The ultraslim HP ProBook 450 opens 180° and passed 19 MIL-STD 810G tests<sup>4</sup>. It features a durable and stylish aluminum cover that holds the near borderless display and a CNC keyboard deck.
- Firmware attacks can completely devastate your PC. Stay protected with HP's self-healing BIOS HP Sure Start Gen5 automatically recovers the BIOS from malware, rootkits or corruption.<sup>5</sup>
- Malware is evolving rapidly, and traditional antivirus can't always recognize new attacks. Protect your PC against never-before-seen attacks with HP Sure Sense, which uses deep learning AI to provide exceptional protection against advanced malware.<sup>6</sup>
- Get peace-of-mind with a built-in HP Privacy Camera that blocks the lens of your camera.<sup>7</sup>
- Instantly block prying eyes by making your screen appear dark and unreadable from the side with optional HP Sure View Gen3.<sup>8</sup>
- Help protect your PC from websites and attachments with malware, ransomware or viruses with hardware-enforced security from HP Sure Click.<sup>9</sup>
- Fortify your security with multiple factors of authentication and policies hardened at the silicon level.<sup>10</sup>
- Simplify securing your PC. HP Client Security Manager Gen5 offers a single interface to set up and manage your PC's powerful security features.<sup>11</sup>
- Cover more ground and improve connectivity while on Wi-Fi® with HP Extended Range Wireless LAN that allows greater distance from transmission point and fast data throughput at shorter ranges.<sup>12</sup>
- Help speed up demanding business applications with an 10th Gen quad-core Intel<sup>®</sup> Core<sup>™</sup> processor.<sup>3,4</sup>

# HP ProBook 450 G7 Notebook PC Specifications Table







Available Operating Systems	Windows 10 Pro 64 <sup>1</sup> Windows 10 Pro 64 (National Academic only) <sup>2</sup> Windows 10 Home 64 – HP recommends Windows 10 Pro. <sup>1</sup> Windows 10 Home Single Language 64 <sup>1</sup> Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement) <sup>1</sup> FreeDOS
Processor family <sup>7</sup>	10th Generation Intel® Core™ i7 processor (i7-10510U); 10th Generation Intel® Core™ i5 processor (i5-10210U); 10th Generation Intel® Core™ i3 processor (i3-10110U)
Available Processors <sup>3,4,5,6,7</sup>	Intel® Core™ i7-10510U processor with Intel® UHD Graphics 620 (1.8 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores) Intel® Core™ i5-10210U processor with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores) Intel® Core™ i3-10110U processor with Intel® UHD Graphics 620 (2.1 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 4 MB L3 cache, 2 cores)
Display size (diagonal)	15.6"14,15,16,17
Maximum memory	32 GB DDR4-2400 SDRAM <sup>8</sup> Both slots are accessible/upgradeable by IT or self-maintainers only. Supports dual channel memory.
Memory slots	2 SODIMM
Internal storage	up to 512 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 32 GB Intel® Optane™ memory H10 <sup>9,36,37</sup> 256 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 16 GB Intel® Optane™ memory H10 <sup>9,36,37</sup> 256 GB up to 512 GB PCIe® M.2 Value SSD <sup>9</sup> 512 GB PCIe® NVMe™ Value M.2 SSD <sup>9</sup> 128 GB M.2 SATA-3 SSD TLC <sup>9</sup> 1 TB 5400 rpm SATA <sup>9</sup> 500 GB 7200 rpm SATA <sup>9</sup>
Display <sup>14,15,16,17</sup>	15.6" diagonal FHD IPS eDP + PSR anti-glare flat with HP Sure View Integrated Privacy Screen, 1000 nits, 72% NTSC (1920 x 1080) 15.6" diagonal FHD IPS eDP On-Cell slim touch screen, 250 nits, 45% NTSC (1920 x 1080) 15.6" diagonal FHD IPS eDP anti-glare slim, 250 nits, 45% NTSC (1920 x 1080) 15.6" diagonal HD SVA eDP anti-glare slim, 220 nits, 45% NTSC (1366 x 768)
Available Graphics	Integrated: Intel® UHD Graphics 620 <sup>14</sup> Discrete: NVIDIA® GeForce® MX130 (2 GB DDR5 dedicated); NVIDIA® GeForce® MX250 (2 GB DDR5 dedicated) <sup>15,34</sup> (Support HD Decode, DX12, and HDMI 1.4b.)
Audio	Stereo speakers, integrated microphone (mono or dual array)
Wireless technologies <sup>10,11,12</sup>	Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 Combo, non-vPro™ Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® 5 Combo, non-vPro™ Realtek 802.11ac (2x2) WLAN and Bluetooth® 5 Combo
Expansion slots	1 SD (Supports SD, SDHC, SDXC.)
Ports and Connectors	1 USB 3.1 Type-C™ Gen 1 (Power delivery, DisplayPort™); 2 USB 3.1 Gen 1; 1 USB 2.0 (power port); 1 HDMI 1.4b; 1 RJ-45; 1 headphone/microphone combo; 1 AC power (HDMI cable sold separately.)
Input devices	HP Premium Keyboard, spill-resistant with optional backlit; Clickpad with multi-touch gesture support;
13	Realtek 10/100/1000 GbE NIC
Camera <sup>14,15</sup>	720p HD camera; IR Camera
Available Software <sup>18</sup>	HP Connection Optimizer; HP Image Assistant; HP Hotkey Support; HP JumpStart; HP Noise Cancellation Software; HP Support Assistant; Buy Office (Sold separately)
Security management <sup>21,22,23,24,25,26,27,28,29,35</sup>	Absolute persistence module; HP DriveLock and Automatic DriveLock; HP Fingerprint Sensor; HP Secure Erase; Preboot authentication; TPM 2.0 embedded security chip shipped with Windows 10 (Common Criteria EAL4+ Certified); HP Sure Click; Windows Defender; HP BIOSphere Gen5; HP Client Security Gen5; HP Sure Sense
Management features	HP Driver Packs; HP System Software Manager (SSM); HP BIOS Config Utility (BCU); HP Client Catalog; HP Manageability Integration Kit Gen3 <sup>19,20</sup>
Power <sup>30</sup>	HP Smart 65 W External AC power adapter; HP Smart 65 W EM External AC power adapter; HP Smart 65 W USB Type-C™ adapter; HP Smart 45 W External AC power adapter; HP Smart 45 W USB Type-C™ adapter
Battery type	HP Long Life 3-cell, 45 Wh Li-ion Battery is internal and not replaceable by customer. Serviceable by warranty.
Dimensions	14.37 x 10.11 x 0.75 in; 36.49 x 25.69 x 1.9 cm
Weight	Starting at 4.41 lb (non-touch); Starting at 4.48 lb (touch); Starting at 2 kg (non-touch); Starting at 2.03 kg (touch)
Energy efficiency compliance <sup>32</sup>	ENERGY STAR® certified; EPEAT® Silver
Environmental specifications <sup>33</sup>	Low halogen; TCO 5.0 Certified
Warranty	HP Services offers 3-year and 1-year limited warranties and 90 day software support options depending on country and the SKU selected by the customer. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform. On-site service and extended coverage is also available with HP Care Pack Services, optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc.

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#### Accessories and services (not included)

## HP 65W USB-C Slim Travel Power



Use one adapter to power and charge your notebook or mobile device<sup>1</sup> and a USB accessory at the same time, in the office or on the go, with the surprisingly compact HP 65W USB-C Slim Travel Power Adapter.

Product number: 3PN48AA

HP USB-C/A Universal Dock G2



Get to work fast with one cable from your USB-A- and USB-CTM-enabled notebooks  $^{\rm 1}$  to your displays, devices, and wired network with the flexible, compact HP USB-C/A Universal Dock G2. The dock is driven by DisplayLink and compatible with notebooks from HP, Apple®, Dell, Lenovo, and more.<sup>2</sup> **Product number: 5TW13AA** 

**HP Ultra Mobile Wireless Mouse** 



Low-profile, long-life, and designed for comfort. Here's the long-life wireless mouse that's so compact you can toss it in your carrying case without bulking out its profile, so power-smart it keeps up with your work day, and so comfortable you'll look for reasons to use it.

Product number: H6F25AA

HP EliteDisplay E243m 23.8-inch Monitor



Connect and collaborate in complete comfort on the HP EliteDisplay E243m 23.8-inch Monitor, which is Skype for Business® certified for optimal video and audio experiences between displays and has a 3-sided micro-edge bezel for seamless multi-display<sup>1</sup> tiling and 4-way adjustable ergonomics. **Product number: 1FH48AA** 

**HP USB Collaboration Keyboard** 



Make your Skype for Business® voice and video calls¹ easier than ever with the elegant HP USB Collaboration Keyboard, redesigned for enhanced every day and collaborative productivity.

Product number: Z9N38AA

HP 3 year Next Business Day Onsite HW Support w/Accidental Damage Protection-G2



**HP Care Pack** 

When hardware issues come up, the sooner you can get running again, the better. Have expertise at the ready with HP Hardware Next Business Day Onsite Service with Accidental Damage Protection, and vastly improve your product uptime. With high-quality remote assistance or convenient onsite support available the next business day, help is there when you need it—so you can get back to work.

Product number: UK726E (for 1 year platforms), UB5E5E (for 3 year platforms)

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#### Messaging Footnotes

- $^{\rm 2}$  Quad-core processor sold separately or as an optional feature.
- 3 Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.

  4 MIL STD 810G testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage
- requires an optional HP Accidental Damage Protection Care Pack.

  SHP Sure Start Gen5 is available on select HP PCs with Intel processors. See product specifications for availability.
- <sup>6</sup> HP Sure Sense requires Windows 10. See product specifications for availability. On units with WWAN shipping to China, HP Sure Sense is only available via Softpag download
- 8 HP Sure View Gen3 integrated privacy screen is an optional feature that must be configured at purchase. It is only available on non-touch models and is designed to function in landscape orientation. 7 HP Privacy Camera only available PCs equipped with HD or IR camera and must be installed at the factory.
- 9 HP Sure Click is available on most HP PCs and supports Microsoft® Internet Explorer and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read-only mode, when Microsoft Office or
- 10 HP Multi Factor Authenticate Gen3 is available on select HP PCs and requires Intel® Core™ processor, Intel® integrated graphics, and Intel® WLAN.
- 11 HP Client Security Manager Gen5 requires Windows and is available on the select HP Pro and Elite PCs. See product specifications for details.

  12 Based on internal testing vs. previous generation product with 802.11ac wireless LAN module.

#### Technical Specifications Footnotes

- 1 Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is
- automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com/.

  Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see https://aka.ms/ProEducation for Windows 10 Pro Education feature information.

  Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance. 

  4 Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
- <sup>5</sup> Intel<sup>®</sup> Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information. <sup>6</sup> Max Boost clock frequency performance varies depending on hardware, software and overall system configuration.
- 7 In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com.

  B Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.
- 9 For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.

  10 Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802,11ac WLAN devices.
- Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi 6 (802.11ax) are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ax devices.
- 12 WWAN module is optional, must be configured at the factory and requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.

  13 The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet
- server and network infrastructure is required.

  14 HD content required to view HD images.

- 15 Sold separately or as an optional feature.
   16 Resolutions are dependent upon monitor capability, and resolution and color depth settings
- 17 HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
- <sup>18</sup> HP Support Assistant requires Windows and Internet access.
  <sup>19</sup> HP Driver Packs not preinstalled, however available for download at http://www.hp.com/go/clientmanagement.
- <sup>20</sup> HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement.

  <sup>21</sup> Absolute agent is shipped turned off, and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply, For full details visit; http://www.absolute.com/company/legal/agreements/ computrace-agreement. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.
- <sup>22</sup> HP Drive Lock & Automatic Drive Lock is not supported on NVMe drives.
  <sup>23</sup> HP Fingerprint Sensor sold separately or as an optional feature.
- <sup>24</sup> HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™
- <sup>25</sup> Firmware TPM is version 2.0. Hardware TPM is v1.2, which is a subset of the TPM 2.0 specification version v0.89 as implemented by Intel Platform Trust Technology (PTT).

  <sup>26</sup> HP Sure Click is available on most HP PCs and supports Microsoft® Internet Explorer and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.
- <sup>28</sup> HP BIOSphere Gen5 is available on select HP Pro and Elite PCs. See product specifications for details. Features may vary depending on the platform and configurations
- <sup>29</sup> HP Client Security Manager Gen5 requires Windows and is available on the select HP Pro and Elite PCs. See product specifications for detail <sup>30</sup> Availability may vary by country.
- <sup>31</sup> HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.
- 32 Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.
  33 External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
- an Integrated graphics depends on processors. NVDIA® Optimus™ technology requires an Intel processor, plus an NVIDIA® (serorce® discrete graphics configuration and is available on Windows 10 Pro OS. With NVIDIA® Optimus™ technology, full enablement of all discrete graphics video and display features may not be supported on all systems (e.g. OpenGL applications will run on the integrated GPU or the APU as the case may be).

  35 HP Sure Sense requires Windows 10. See product specifications for availability.

  36 Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system. Requires 8th Gen or higher Intel® Core™ processor, BIOS version with Intel® Optane™ supported, Windows 10 64-bit, and an Intel® Rapid Storage Technology (Intel® RST) driver.
- 37 Intel® Optane™ memory H10 only for Intel® PCIe® NVMe™ QLC M.2 SSD.

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