# HP ProBook 450 G8 Notebook PC



## Modern design for today's workstyles

With a new compact design, the HP ProBook 450 Laptop PC delivers commercial performance, security, and durability to professionals at growing companies who move from desk to meeting room to home.



HP recommends Windows 10 Pro for business

#### A new design for wherever work takes you

 The compact, light, slim chassis with aluminum components is easy to carry from place to place. An optional high-brightness display<sup>3</sup> provides an over 87-percent screen-to-body ratio and a new keyboard delivers a quiet and responsive experience.

#### Multi-layered security protection

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

#### Power that lasts

- Equipped with the latest optional quad-core Intel® processor<sup>2,4</sup> with breakthrough Intel® Iris® Xe graphics<sup>5</sup> and fast, upgradeable dual channel SODIMM memory<sup>6</sup>, the HP ProBook 450 drives performance with long battery life and high-speed solid-state drives.
- A lightweight chassis with aluminum components brings a stylish look.
   Confidence in performance comes from 120,000 hours of the HP Total Test Process and MIL-STD 810H testing.<sup>7,8</sup>
- Help speed up demanding business applications with an optional quad-core Intel® Core™ processor.<sup>2,4</sup>
- Get going fast with Connected Modern Standby and wake your PC from the optional match-on-sensor fingerprint sensor.<sup>3</sup>
- Enjoy the consistent feel and extremely quiet typing experience of the redesigned keyboard with rubber dome keys.
- Firmware attacks can completely devastate your PC. Stay protected with HP Sure Start Gen6, the self-healing BIOS that automatically recovers itself from attacks or corruption.<sup>9</sup>
- Fortify your security with multiple factors of authentication and policies hardened at the silicon level.<sup>10</sup>
- The portability of your PC and the reliability of a fast connection determines where you can work. Get a fast and reliable connection in dense wireless environments with gigabit-speed Wi-Fi 6.<sup>11,12</sup>
- Instantly block prying eyes by making your screen appear dark and unreadable from the side with optional HP Sure View Gen3.<sup>13</sup>
- Get peace-of-mind with a built-in HP Privacy Camera that blocks the lens of your camera.<sup>14</sup>

# HP ProBook 450 G8 Notebook PC Specifications Table







Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro for business <sup>1</sup> Windows 10 Pro 64 (National Academic License) <sup>2</sup> Windows 10 Home 64 Windows 10 Home 64 Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement) <sup>1</sup> FreeDOS
Processor family <sup>6</sup>	11th Generation Intel® Core™ 17 processor; 11th Generation Intel® Core™ 15 processor; 11th Generation Intel® Core™ 13 processor
Available Processors <sup>3,4,5,6</sup>	Intel® Core™ i3-1115G4 with Intel® UHD Graphics (up to 4.1 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 2 cores) Intel® Core™ i5-1135G7 (up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores) Intel® Core™ i7-1165G7 (up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 4 cores)
Display size (diagonal)	15.6"
Maximum memory	32 GB DDR4-3200 SDRAM <sup>7</sup> Both slots are accessible/upgradeable by IT or self-maintainers only. Supports dual channel memory.
Memory slots	2 SODIMM
Internal storage	512 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 32 GB Intel® Optane™ memory H10 <sup>8,9,10</sup> 128 GB up to 1 TB PCIe® NVMe™ M.2 SSD TLC <sup>8</sup> 256 GB up to 512 GB PCIe® NVMe™ Value M.2 SSD <sup>8</sup>
Display <sup>12,14,15,16</sup>	15.6" diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 250 nits, 45% NTSC 15.6" diagonal, HD (1366 x 768), narrow bezel, anti-glare, 250 nits, 45% NTSC 15.6" diagonal, FHD (1920 x 1080), touch, narrow bezel, anti-glare, 250 nits, 45% NTSC 15.6" diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 1000 nits, 100% sRGB, HP Sure View integrated privacy screen 15.6" diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 400 nits, 100% sRGB, HP Sure View integrated privacy screen
Available Graphics	Integrated: Intel® Iris® Xº Graphics; Intel® UHD Graphics <sup>12,44</sup> Discrete: NVIDIA® GeForce® MX450 (2 GB DDR5 dedicated) <sup>41</sup> (Support HD Decode, DX12, and HDMI 1.4b.)
Audio	Dual stereo speakers, dual array microphone
Expansion slots	1 microSD (Supports SD, SDHC, SDXC.)
Ports and Connectors	2 SuperSpeed USB Type-A 5Gbps signaling rate (1 charging, 1 power); 1 SuperSpeed USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4); 1 headphone/microphone combo; 1 HDMI 1.4b; 1 AC power (HDMI cable sold separately.)
Available Keyboards <sup>13</sup>	HP Premium Keyboard – spill-resistant, full-size, optional backlit keyboard with numeric keypad
Available Pointing Devices	Clickpad with multi-touch gesture support
Communications <sup>11,4243</sup>	Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® 5 combo, non-vPro® Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo, non-vPro® Realtek 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo Realtek 10/100/1000 GbE NIC Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo, non-vPro® Realtek 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo Intel® Unitel® Dual Bluetooth® 5 combo, non-vPro® Realtek Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo VPro® Realtek Wi-Fi 6 AX2621 (2x2) and Bluetooth® 5 combo, Pro® Realtek Wi-Fi 6 TR.18852AE 802.11a/b/g/n/ac (2x2) and Bluetooth® 5.2 combo
Camera <sup>12</sup>	720p HD camera; IR Camera (select models)
Software 17,18,36	HP Connection Optimizer; HP Image Assistant; HP Hotkey Support; HP Noise Cancellation Software; HP Support Assistant; Buy Office (Sold separately); HP Power Manager; HP WorkWell; myHP; HP Privacy Settings; HSA Fusion for Commercial; HSA Telemetry for Commercial; Touchpoint Customizer for Commercial; HP Notifications; Xerox® DocuShare® 30 day free trial offer
Security management <sup>23,24,25,26,27,28,29,30,31,32,33,35</sup>	Absolute persistence module; HP DriveLock and Automatic DriveLock; 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 Sure Sense; BIOS Update via Network; Master Boot Record Security; Support for chassis padlocks and cable lock devices; HP Sure Start Gen6; HP Sure Run Gen3; HP Sure Admin; HP Client Security Manager Gen7
Security Software Licenses	HP Pro Security Edition (select models) <sup>56</sup>
Fingerprint reader	Fingerprint sensor (select models)
Management features	HP Driver Packs; HP System Software Manager (SSM); HP BIOS Config Utility (BCU); HP Client Catalog; HP Manageability Integration Kit Gen3 <sup>21,22</sup>
Power <sup>37</sup>	HP Smart 65 W External AC power adapter; HP Smart 65 W EM External AC power adapter; HP Smart 45 W External AC power adapter; HP Smart 65 W USB Type-C® adapter; HP Smart 45 W USB Type-C® adapter
Battery type	HP Long Life 3-cell, 45 Wh polymer Battery is internal and not replaceable by customer. Serviceable by warranty.
Battery life <sup>45</sup>	Up to 12 hours and 30 minutes
Dimensions	14.14 x 9.2 x 0.78 in; 35.94 x 23.39 x 1.99 cm
Weight	Starting at 3.83 lb; Starting at 1.74 kg (Weight will vary by configuration.)
Energy efficiency compliance <sup>39</sup>	ENERGY STAR® certified; EPEAT® Gold registered. EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.
Sustainable impact specifications <sup>40</sup>	Low halogen; TCO Certified
Warranty <sup>38</sup>	HP Services offers 1-year and 3-year limited warranty 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.

### HP ProBook 450 G8 Notebook PC

#### Accessories and services (not included)

#### HP Prelude Pro Recycled Backpack

Commute with a stylish and durable backpack thoughtfully designed with the environment in mind and made with recycled fabric <sup>1</sup>. The HP Prelude Pro Recycled Backpack comes with safety features for your peace of mind when you carry your devices from work to home and

Product number: 1X644AA

HP USB-C Dock G5



Connect your USB-C $^{\circ}$ -enabled laptop to your displays, accessories, and wired network with the versatile, elegant, and space-saving HP USB-C $^{\circ}$  Dock G5. **Product number: 5TW10AA** 

**HP Sure Key Cable Lock** 



Take the guess work out of securing your notebook, display, dock, and accessories with the removable, interchangeable heads of the HP Sure Key Cable Lock. 
Product number: 6UW42UT

HP Wired Desktop 320MK Mouse and Keyboard



Work efficiently and enhance your everyday productivity with the reliable HP Wired Desktop

320MK Mouse and Keyboard. Product number: 9SR36UT

HP 45W Smart AC Adapter

Be productive throughout the day and keep an extra adapter on hand with the lightweight and versatile HP 45W Smart AC Adapter. Product number: H6Y88UT

Additional Services (Not included)



**HP Care Pack** 

UK726E - HP 3 year Next Business Day Onsite HW Support w/Accidental Damage Protection-G2 for Notebooks

UB5E5E - HP 3 year Next business day onsite HW Support w/Accidental Damage Protection-G2 for Notebooks

### HP ProBook 450 G8 Notebook PC

#### Messaging Footnotes

- <sup>2</sup> 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
- Optional feature that must be configured at the factory.
   Quad-core processor sold separately or as an optional feature.
- 5 Intel® Iris® X° graphics requires Intel® Core™ i5 or i7 processor.
  6 Dual channel memory is sold separately or as an optional feature. 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.
- THP Total Test Process testing is not a guarantee of future performance under these test conditions. Any accidental damage requires an optional HP Accidental Damage Protection Care Service.

  BMIL STD 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 Service. 9 HP Sure Start Gen6 is available on select HP PCs.
- 10 HP Multi Factor Authenticate Gen3 is available on select HP PCs and requires Intel® Core™ processor, Intel® integrated graphics, and Intel® WLAN
- 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 PC to communicate with other 802.11ax devices.
- 12 Wi-Fi® supporting gigabit speeds is achievable with Wi-Fi 6 (802.11ax) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.

  13 HP Sure View Gen3 integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
- <sup>14</sup> HP Privacy Camera only available PCs equipped with HD or IR camera and must be installed at the factory.

#### **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.
- <sup>3</sup> 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.

  <sup>4</sup> Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

- 5 Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
  6 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 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any 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 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any 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 8 or Windows 9 or drivers on http://www.support.hp.com.
- 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.
- <sup>8</sup> 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
- <sup>9</sup> Intel<sup>®</sup> Optane<sup>™</sup> memory system acceleration does not replace or increase the DRAM in your system. Requires 8th Gen or higher Intel<sup>®</sup> Core™ processor, BIOS version with Intel<sup>®</sup> Optane™ supported, Windows 10 64-bit, and an Intel<sup>®</sup> Rapid Storage Technology (Intel<sup>®</sup> RST) driver.
- 10 Intel® Optane™ memory H10 only for Intel® PCIe® NVMe™ QLC M.2 SSD.
  11 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 PC to communicate with other 802.11ax devices
- HD content required to view HD images.
   Backlit keyboard is an optional feature.

- 14 Resolutions are dependent upon monitor capability, and resolution and color depth settings.
   15 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>16</sup> Actual brightness will be lower with touchscreen or Sure View
- 17 HP Connection Optimizer requires Windows 10.
   18 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.
- 22 Hp Manageability Integration Nrt can be downloaded from http://www.hp.com/go/clientmanagement.
- <sup>23</sup> Absolute firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/

  <sup>24</sup> HP Drive Lock & Automatic Drive Lock is not supported on NVMe drives.
- 25 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™. 26 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>27</sup> HP Sure Click requires Windows 10 Pro or Enterprise and supports Microsoft Internet Explorer, Google Chrome™, 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> Windows Defender Opt In, Windows 10, and internet connection required for updates.
- <sup>29</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>30</sup> HP Sure Sense requires requires Windows 10 Pro or Enterprise.
- $^{31}$  HP Client Security Manager Gen7 requires Windows and is available on the select HP Pro and Elite PCs.  $^{32}$  HP Sure Start Gen6 is available on select HP PCs.
- 33 HP Sure Run Gen3 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors.
- 35 HP Sure Admin requires Windows 10, HP BIOS, HP Manageability Integration Kit from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.
  36 Simply sign up and start using Xerox® DocuShare® Go. No credit card. No obligation. Data will become unavailable unless a subscription is entered before the end of the 30 day free trial period. See visit www.xerox.com/docusharego for
- details.

  37 Availability may vary by country
- 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 http://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.
- 39 Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

  40 External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

  41 Integrated graphics depends on processor. NVIDIA® Optimus™ technology requires an Intel processor, plus an NVIDIA® GeForce® 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).

  42 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. 46 LTE not available on all products, in all regions.

  43 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.
- 44 Intel® Iris® X\* Graphics capabilities require system to be configured with Intel® Core™ i5 or i7 processors and dual channel memory. Intel® Iris® X\* Graphics with Intel® Core™ i5 or 7 processors and single channel memory will only function
- as UHD graphics 43 Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See www.bapco.com for additional details.
- 56 HP Pro Security Edition is available preloaded on select HP PCs and includes HP Sure Click Pro and HP Sure Sense Pro. 3-year license required. The HP Pro Security Edition software is licensed under the license terms of the HP End User License Agreement (EULA) that can be found at: https://h30670.www3.hp.com/ecommerce/common/disclaimer.do#EN\_US as modified by the following: "7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for thirty-six (36) months thereafter ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support." HP Pro Security Edition is optimized for the SMB environment and ships pre-configured - manageability is optional. The HP Pro Security Edition supports a limited tool set that can be used by the HP Manageability Integration Kit which can be downloaded from http://www.hp.com/go/clientmanagement

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