Datasheet

# HP ProBook 450 G6 Notebook PC

## Power, style, and value—just what your growing business needs.

Full-featured, thin, and light, the HP ProBook 450 lets professionals stay productive in the office and on the go. Stylish design plus optional quad-core[2] performance and long battery life make this HP ProBook essential for today's workforce.

HP recommends Windows 10 Pro.

### Affordable and stylish ultraslim design

- The HP ProBook 450 delivers stylish design to every business. An ultraslim chassis with crisp lines, clean edges, and a refined natural silver finish holds the near borderless display that opens 180°, making it easy to share content.

### Security, durability, connectivity.

- Your growing business requires a PC with business-class features. The secure HP ProBook 450 is enhanced with a range of security features and built with a durable chassis and connectivity options that can be specifically tailored to your needs.

### Powerful processing

- Get through your deadline-driven, multi-tasking day using the HP ProBook 450, available with the latest optional 8th Gen quad-core Intel® Core™ processor[2,3], optional NVIDIA® GeForce® discrete graphics[4], and a long battery life.
- Be productive in any situation. Experience the new features of Windows 10 Pro on the thin, light, touch-optional HP ProBook 450.
- The HP ProBook 450 delivers design, quality, and durability to every business. An ultraslim chassis in a refined, new, natural silver finish includes a 3D forged aluminum keyboard deck and durable stamped aluminum top cover.
- Keep productivity high and downtime low with HP BIOSphere Gen4 firmware-level automation. Your PCs have extra protection thanks to automatic updates and security checks.
- Fortify your security by using multiple factors of authentication including fingerprints and facial recognition.
- Get the best of both worlds with dual solid-state and hard drive storage options from HP.
- Stay connected with HP Connection Optimizer self-healing wireless driver technology and support for the latest global 4G LTE wireless broadband technology.
- Quickly transition to your desk on the HP ProBook 450 with support for one cable docking via a USB-C™ data connection to optional docks.
- Work and play with long battery life and recharge up to 50% battery life in just 30 minutes with HP Fast Charge.
- Stand up to the workload with an HP ProBook that passed the MIL-STD 810G testing.

HP recommends Windows 10 Pro.

# HP ProBook 450 G6 Notebook PC Specifications Table

| | |
|---|---|
| Available Operating Systems | Windows 10 Pro 64 – HP recommends Windows 10 Pro for business[1]<br>Windows 10 Pro (National Academic only)[2]<br>Windows 10 Home 64[1]<br>Windows 10 Home Single Language 64[1]<br>FreeDOS |
| Processor family[7] | 8th Generation Intel® Core™ i7 processor (i7-8565U); 8th Generation Intel® Core™ i5 processor (i5-8265U); 8th Generation Intel® Core™ i5 processor (i5-8365U); 8th Generation Intel® Core™ i3 processor (i3-8145U); Intel® Celeron® processor; Intel® Pentium® processor |
| Available Processors[3,4,5,6,7] | Intel® Pentium® 5405U processor with Intel® HD Graphics 610 (2.3 GHz base frequency, 2 MB L3 cache, 2 cores); Intel® Core™ i7-8565U with Intel® UHD Graphics 620 (1.8 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores); Intel® Core™ i7+ 8565U processor (Core™ i7 and 16 GB Intel® Optane™ memory) with Intel® UHD Graphics 620 (1.8 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores); Intel® Core™ i5-8365U processor with Intel® UHD Graphics 620 Graphics (1.6 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores); Intel® Core™ i5-8265U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores); Intel® Core™ i5+ 8265U processor (Core™ i5 and 16 GB Intel® Optane™ memory) with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores); Intel® Core™ i3-8145U with Intel® UHD Graphics 620 (2.1 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 4 MB L3 cache, 2 cores); Intel® Celeron® 4205U with Intel® UHD Graphics 610 (1.8 GHz base frequency, 2 MB cache, 2 cores) |
| Display size (diagonal) | 15.6"[13,15,16] |
| Maximum memory | 32 GB DDR4-2400 SDRAM [8]<br>Both slots are customer accessible/upgradeable. Supports dual channel memory. |
| Internal storage | up to 512 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 32 GB Intel® Optane™ memory H10 [6,9,40]<br>up to 256 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 16 GB Intel® Optane™ memory H10 [6,9,40]<br>256 GB up to 1 TB PCIe® NVMe™ Value M.2 SSD [9]<br>up to 512 GB PCIe® NVMe™ M.2 SSD TLC [9]<br>up to 128 GB M.2 SATA SSD TLC [9]<br>500 GB up to 1 TB 7200 rpm SATA [9]<br>up to 1 TB 5400 rpm SATA [9] |
| Display | 15.6" diagonal FHD IPS eDP anti-glare LED-backlit, 220 cd/m², 67% sRGB (1920 x 1080); 15.6" diagonal HD SVA eDP anti-glare LED-backlit, 220 cd/m², 67% sRGB (1366 x 768); 15.6" diagonal HD SVA eDP LED-backlit touch screen, 220 cd/m², 67% sRGB (1366 x 768) [13,15,16] |
| Available Graphics | Integrated: Intel® UHD Graphics 620; Intel® HD Graphics 610; Intel® UHD Graphics 610[13]<br>Discrete: NVIDIA® GeForce® MX130 (2 GB DDR5 dedicated); NVIDIA® GeForce® MX250 (2 GB DDR5 dedicated)[14,38]<br>(Support HD Decode, DX12, and HDMI 1.4b.) |
| Audio | Single digital microphone |
| Wireless technologies | Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 Combo, non-vPro™; Intel® XMM™ 7360 LTE-Advanced Cat 9; Intel® XMM™ 7262 LTE-Advanced Cat 6; Realtek RTL8822BE 802.11a/b/g/n/ac (2x2) Wi-Fi® with Bluetooth® 4.2 Combo; Realtek RTL8821CE 802.11a/b/g/n/ac (1x1) Wi-Fi® with Bluetooth® 4.2 Combo [10,11] |
| Expansion slots | 1 SD (Supports SD, SDHC, SDXC.) |
| Ports and Connectors | 2 USB 3.1 Gen 1; 1 USB 3.1 Type-C™ Gen 1 (Power delivery, DisplayPort™); 1 USB 2.0 (power port); 1 RJ-45; 1 HDMI 1.4b; 1 headphone/microphone combo; 1 AC power<br>(Cables are not included.) |
| Input devices | HP Premium Spill-resistant Keyboard; Clickpad with multi-touch gesture support |
| Communications | Realtek RTL8111HSH-CG 10/100/1000 GbE NIC [12] |
| Camera | 720p HD camera; IR Camera [13,14,39] |
| Available Software | HP 3D DriveGuard; HP Connection Optimizer; HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP JumpStart; HP LAN Protection; HP MAC Address Manager; HP Noise Cancellation Software; HP Support Assistant; Native Miracast support; Buy Office (Sold separately) [17,18,19] |
| Security management | Absolute persistence module; Credential manager; HP BIOSphere Gen4; HP Device Access Manager; HP DriveLock and Automatic DriveLock; HP Fingerprint Sensor; HP Password Manager; HP Secure Erase; HP Security Manager; Power-on authentication; Preboot authentication; TPM 2.0 embedded security chip shipped with Windows 10 (Common Criteria EAL4+ Certified); HP Sure Click; HP Wireless Wakeup; HP Client Security Gen4; RAID configurations; Windows Defender[24,25,26,27,28,29,30,31,32] |
| Management features | HP Driver Packs; HP System Software Manager (SSM); HP BIOS Config Utility (BCU); HP Client Catalog; HP Manageability Integration Kit Gen2; Ivanti Management Suite[21,22,23] |
| Power | HP Smart 65 W USB Type-C™ adapter; HP Smart 65 W External AC power adapter; HP Smart 65 W EM External AC power adapter; HP Smart 45 W USB Type-C™ adapter; HP Smart 45 W External AC power adapter[34] |
| Battery type | HP Long Life 3-cell, 45 Wh Li-ion |
| Battery life | Up to 12 hours and 30 minutes[33] |
| Dimensions | 36.49 x 25.69 x 1.9 cm |
| Weight | Starting at 2 kg (Weight will vary by configuration.) |
| Energy efficiency compliance | ENERGY STAR® certified; EPEAT® Gold[36] |
| Environmental specifications | Low halogen; TCO 5.0 Certified[37] |
| Warranty | HP Services offers 1-year limited warranties and 90 day software limited warranty options depending on country. 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. Refer to http://www.hp.com/support/batterywarranty/ for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are 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 recommends Windows 10 Pro.

# HP ProBook 450 G6 Notebook PC

## Accessories and services (not included)

| | | |
|---|---|---|
| HP USB-C Mini Dock | | Be productive on the go with streamlined, pocket-sized port expansion that's fashionable and functional. The HP USB-C™ Mini Dock has a modern, textured design and packs pass-through charging[1] and data, video, network, and device connectivity[2] into a compact, portable dock. Offering flexibility and wireless connectivity in the office and on the road. HP's extensive range of notebook PCs enable increased productivity and efficiency, by providing the perfect combination of built-in mobility features to match the particular needs of individuals from businesses large and small.<br>Product number: 1PM64AA |
| HP 17.3 Business Backpack | | Keep your hands free and your notebook safe with the HP 17.3 Business Backpack, designed to go with you in and out of the office and on the road. It has lockable1 zippers, a secure RFID pocket, and room for your device up to 17.3" diagonal, phone, accessories, and so much more. Offering flexibility and wireless connectivity in the office and on the road. HP's extensive range of notebook PCs enable increased productivity and efficiency, by providing the perfect combination of built-in mobility features to match the particular needs of individuals from businesses large and small.<br>Product number: 2SC67AA |
| HP USB Essential Keyboard and Mouse | | The HP USB Essential Keyboard/Mouse Bundle is designed to help you customize your desktop work space when you park your notebook at the office. Offering flexibility and wireless connectivity in the office and on the road. HP's extensive range of notebook PCs enable increased productivity and efficiency, by providing the perfect combination of built-in mobility features to match the particular needs of individuals from businesses large and small.<br>Product number: H6L29AA |
| HP 65W Smart AC Adapter | | Feed your notebook with controlled servings of electricity. HP's new 65W Smart AC Adapter regulates power and offsets electrical spikes, is designed to reduce cable stress, and includes a special dongle to support current and prior HP models – perfect for replacing your notebook's power adapter or as a needed back-up. Offering flexibility and wireless connectivity in the office and on the road. HP's extensive range of notebook PCs enable increased productivity and efficiency, by providing the perfect combination of built-in mobility features to match the particular needs of individuals from businesses large and small.<br>Product number: H6Y89AA |
| HP 3-year Travel Next Business Day Low End Notebook Only Hardware Support | hp Care Pack | This HP services offers notebook users on the go prompt, reliable coverage in major geographies of the world, for 3 years. For more information on Care Pack services, please visit www.hp.com/go/cpc. |

HP recommends Windows 10 Pro.

# HP ProBook 450 G6 Notebook PC

## Messaging 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.
[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] Sold separately or as an optional feature.
[5] HP BIOSphere Gen4 requires 8th generation Intel® or AMD processors. Features may vary depending on the platform and configurations.
[6] Multi Factor Authenticate Gen2 requires Windows, 7th or 8th generation Intel® Core™ processor, Intel® integrated graphics, and Intel® WLAN. Microsoft System Center Configuration Manager is required for deployment.
[7] Storage capacity varies based on type of media and recording format.
[8] Wireless and Bluetooth® may be optional features. Wireless requires separately purchased access point and internet service. Availability of public wireless access points limited.
[9] Recharges your battery up to 50% within 30 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.
[10] MIL STD 810G 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.

## 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/.
[2] 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.
[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] 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] 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.
[7] NOTE: 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.
[8] 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] WLAN is an optional feature. 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.
[11] 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.
[12] 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.
[13] HD content required to view HD images.
[14] Sold separately or as an optional feature.
[15] Touchscreen is an optional feature that must be configured at purchase.
[16] Resolutions are dependent upon monitor capability, and resolution and color depth settings.
[17] Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
[18] HP ePrint Driver requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter). Print times and connection speeds may vary.
[19] HP Support Assistant requires Windows and Internet access.
[21] HP Driver Packs not preinstalled, however available for download at http://www.hp.com/go/clientmanagement.
[22] HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html
[23] Ivanti Management Suite subscription required.
[24] HP BIOSphere Gen4 requires Intel® or AMD 8th Gen processors. Features may vary depending on the platform and configurations.
[25] HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method.
[26] 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.
[27] HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.
[28] HP Password Manager requires Internet Explorer or Chrome or FireFox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser.
[29] HP Fingerprint Sensor sold separately or as an optional feature.
[30] Windows Defender Opt in and internet connection required for updates.
[31] RAID configuration is optional and does require a second hard drive.
[32] 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.
[33] 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.
[34] Availability may vary by country.
[35] 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.
[36] EPEAT® registered where applicable. EPEAT registration varies by country. See http://www.epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at www.hp.com/go/options.
[37] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
[38] 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).
[39] Supports WDR (Wide Dynamic Range).
[40] Intel® Optane™ memory is sold separately. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system. Available for HP commercial desktops and notebooks and for select HP workstations (HP Z240 Tower/SFF, Z2 Mini, ZBook Studio, 15 and 17 G5) and requires a SATA HDD, 7th Gen or higher Intel® Core™ processor or Intel® Xeon® processor E3-1200 V6 product family or higher, BIOS version with Intel® Optane™ supported, Windows 10 version 1703 or higher, M.2 type 2280-S1-B-M connector on a PCH Remapped PCIe Controller and Lanes in a x2 or x4 configuration with B-M keys that meet NVMe™ Spec 1.1, and an Intel® Rapid Storage Technology (Intel® RST) 15.5 driver.

## Sign up for updates hp.com/go/getupdated

Copyright © 2019 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Core, XMM, Intel vPro, and Optane are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Bluetooth is a trademark owned by its proprietor and used by HP Inc. under license. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. USB Type-C™ and USB-C™ are trademarks of USB Implementers Forum. SD, SDHC and SDXC are registered trademarks of SD-3C in the United States, other countries or both. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. All other trademarks are the property of their respective owners.

4AA7-3640EEAP, November 2019