

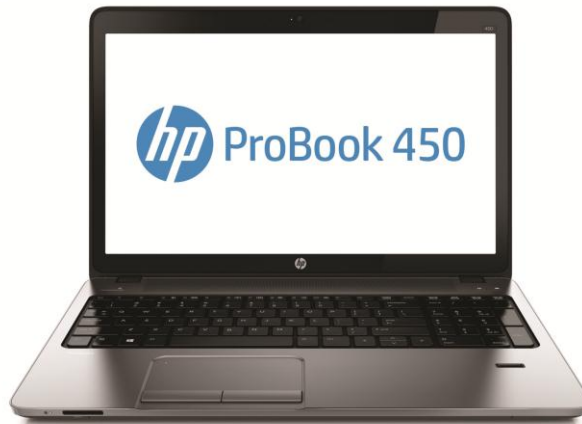
Data sheet

HP ProBook 450 Notebook PC

Give work a whole new feel with an optional intuitive touch screen.¹⁰



HP recommends Windows.

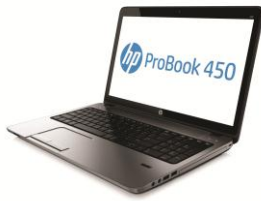


Get in touch with your productive side. Tap and scroll your way through the workday with an optional intuitive touch screen¹⁰ that helps you work so much smarter. Count on durability inside and out – from built-in security to the spill-resistant keyboard – and a thin, light design that's packed with style.

For more information visit

www.hp.com

HP ProBook 450 Notebook PC



Powerful productivity.

Take charge of your workday with the latest technologies like optional ac band WLAN,^{10,23} optional touch,¹⁰ and 4th generation Intel® Core™ processors.¹⁴

Be more hands-on with an optional 10-point touch.¹⁰ It truly makes the most of Windows 8.¹ All your work should feel this easy.

An optional 500 GB^{5, 10-} hybrid hard drive offers the storage capacity of a traditional hard drive and the responsiveness of a hybrid hard drive.



Don't let the office tie you down. Work in more places with high-speed wireless connectivity, with optional HSPA+,^{10,15} WWAN,^{10,15} ac band WLAN^{10,23} and Bluetooth® 4.0.¹⁰

You have to be quick. The speed of the latest 4th generation Intel® Core™ i3/i5/i7 processors¹⁴ help you work faster.

It's all about connections.

Easily share your internet connection with up to five devices with HP Wireless Hotspot.¹¹ Help colleagues get online and improve productivity. Print from your PC, smartphone, or tablet from virtually anywhere with HP ePrint.¹²



Make the most of virtual conferencing. DTS Sound + and an optional HD webcam²⁴ bring work to life through rich sound and video.²⁵ You're ready for web chats and conferences with Skype™ pre-configured on your HP ProBook. It's almost as good as being there.²⁴

Built to perform.

The power and performance of the HP ProBook is matched by the solid design and elegant finishes. Get the technology you trust from HP, with cutting-edge style that looks and feels the way you want.



Tackle your workload with technology that's built strong, from the core up. This HP ProBook is made with a tough aluminum reinforced chassis for lightness and durability.

Help protect sensitive electronics and key components from minor spills with a thin layer of Mylar film in the spill-resistant keyboard.

HP ProBooks undergo challenging tests so you don't have to. During the HP Total Test Process, PCs experience 115,000 hours of performance trials to ensure they can withstand rigorous work environments.

Protect your work.

Stay one step ahead of hacks and attacks. Built-in security safeguards your HP ProBook against viruses, detects possible corruption, and alerts you to unauthorized changes.²⁶

HP Client Security software suite helps you encrypt your hard drive,¹⁸ permanently delete unwanted or discarded data, restrict unauthorized access, and more.

Stay up and running. HP BIOS Protection offers enhanced protection against virus attacks and other security threats, and is designed to help prevent data loss and reduce downtime.²⁶

No more remembering passwords. HP Password Manager¹⁶ lets you quickly log in to various online accounts. Simply log on to Windows® and web sites, via HP Password Manager, using an optional fingerprint reader.²⁷

Bumps happen. HP 3D DriveGuard helps protect your data when you're on the go by sensing sudden movement and protecting the hard drive.²⁸

Hardware Specifications	
Product Name	HP ProBook 450 G1 Notebook PC
Operating systems	Preinstalled: Windows 8 Pro 64 ¹ Windows 7 Professional (available through downgrade rights from Windows 8 Pro) ² Windows 8 64 ¹ Windows 7 Professional 64 ³ Windows 7 Home Premium 64 ³ Windows 7 Home Basic 64 ³ SUSE Linux Enterprise Desktop 11 FreeDOS
Processor	Intel® Quad-Core™ ¹⁴ i7, Dual-Core™ ¹⁴ i5, and i3, Celeron and Pentium
Chipset	Mobile Intel® HM87 Express
Memory	DDR3L SDRAM, 1600 MHz, two slots supporting dual-channel memory, 4 / 8 GB SODIMMs, up to 16 GB total ⁴
Internal Storage	320/500/750 GB 5400 rpm SMART SATA II HDD; ⁵ 500 GB 7200 rpm SMART SATA II HDD ⁵ 7500 GB 5400 rpm SMART SATA II Hybrid HDD ⁵ /SSHD; 1TB 5400 rpm SMART SATA II HDD ⁵ 128 GB 2.5" Solid State Drive ⁵
Removable Storage	Fixed 9.5 mm SATA optical drive: DVD+/-RW SuperMulti DL Drive; Blu-ray ROM DVD+/-RW SuperMulti DL Drive; DVD-ROM and option of no optical drive
Display	15.6" diagonal LED-backlit HD ⁸ anti-glare (1366 x 768) 15.6" diagonal LED-backlit HD ⁸ anti-glare with Touch Display supports anti-scratch, anti-smudge, anti-reflection and anti-shatter (1366 x 768)
Graphics	Integrated: Intel® HD ⁸ Graphics 4600 (Intel® Quad-Core i7 and Dual-Core i5 and i3); Intel® HD ⁸ Graphics (Celeron and Pentium configurations) Switchable Discrete: AMD Radeon™ HD ⁸ 8750M, with 1 or 2 GB dedicated DDR3 video memory ²²
Audio/Visual	DTS Sound+, stereo speakers, single integrated digital microphone or dual array microphone on models with optional ¹⁰ 720p HD ⁸ webcam
Wireless Support	WLAN: Realtek 802.11 b/g/n 1x1 ^{9,10} Mediatek 802.11 b/g/n 1x1 with Bluetooth® v4.0 Combo ^{9,10} Intel® 802.11 a/b/g/n/ac 1x1 with Bluetooth® v4.0 Combo ^{23,10} Intel® 802.11 a/b/g/n 2x2 with Bluetooth® 4.0 Combo ^{9,10} Intel® 802.11 a/b/g/n 2x2 with Bluetooth® v2.1 (on Linux operating system) ^{9,10} WWAN: HP hs3110 HSPA+ Mobile Broadband Module ^{10,15}
Communications	Realtek 10/100/1000 Ethernet Controller
Ports and Connectors	2 USB 3.0 ports, 2 USB 2.0 ports, 1 HDMI 1.4a, 12 1 VGA, 1 stereo microphone input, 1 headphone/line out, 1 RJ-45 (Ethernet), 1 power connector
Expansion Slots	Multi Media Reader Slot supporting SD, SDHC, SDXC, Memory Stick, MSXC
Input Device	Full-sized, spill-resistant keyboard, touchpad with scroll zone and gestures support, power button, 2 launch buttons (Wireless on/off and speaker mute), Function Keys, full separate numeric keypad
Software (Windows OS only)	Buy Office, HP 3D DriveGuard, ³⁰ HP Connection Manager (Win 7), HP Wireless HotSpot, ¹¹ HP PageLift (Win 8), HP Recovery Manager, HP Support Assistant ²⁵ , HP ePrint ¹²
Security	HP Client Security Suite includes: HP Password Manager, ¹⁶ HP File Sanitizer ¹⁷ and HP Device Access Manager with Just in Time Authentication, HP Drive Encryption, ¹⁸ HP Secure Erase, ¹⁹ HP Trust Circles, ²⁰ Microsoft Security Essentials (Win 7) ²⁵ & Microsoft Defender (Win 8) ²⁵ , HP SpareKey (requires initial user setup), Absolute Data Protect, ⁶ security lock slot
Dimensions (w x dx h)	Non-Touch 14.76 x 10.09 x 0.9 in (at front) 37.5 x 25.62 x 2.28 cm (at front) Touch 14.76 x 10.09 x 0.95 in (at front) 37.5 x 25.62 x 2.42 cm (at front)
Weight	Starting at 5.22 lb (2.37 kg) with optical drive Weight will vary by configuration.
Power	9-cell (93 WHr) Lithium-Ion battery; 6-cell (47 WHr) Lithium-Ion battery; Fast Charge ²¹ 90W Smart AC Adapter; 65W Smart AC Adapter

Expansion Solutions Optional:¹⁰ HP 3005pr USB 3.0 Port Replicator, HP 2005pr USB 2.0 Port Replicator

Warranty Limited 1 year warranty. 1 year limited warranty on primary battery.
Optional¹⁰ HP Care Pack Services ¹³ are extended service contracts which go beyond your standard warranties.
For more details visit: <http://www.hp.com/go/cpc>.

1. Not all features are available in all editions of Windows 8. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows 8 functionality. See <http://www.microsoft.com> for details.
2. This system is preinstalled with Windows® 7 Pro software and also comes with a license and media for Windows 8 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
3. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. Not all features are available in all editions of Windows 7. See <http://windows.microsoft.com/en-us/windows7/products/home> for details.
4. Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.
5. For hard drives and solid state drive, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16GB (for Windows 7) of system and up to 36 GB (for Windows 8) disk is reserved for system recovery software.
6. Absolute Data Protect agent is shipped turned off, and must be activated by customers. Service may be limited, check with Absolute for availability outside the U.S. The optional subscription service of Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: <http://www.absolute.com/company/legal/agreements/computrace-agreement>. If Data Delete is utilized, the Recovery Guarantee payment is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either create a PIN or purchase one or more RSA SecurID tokens from Absolute Software.
7. Some functionality of this technology, such as Intel® Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Microsoft Windows required.
8. HD content required to view HD images.
9. Wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.
10. Sold separately or as an optional feature.
11. The wireless hotspot application requires an active internet connection and separately purchased data plan. While HP wireless hotspot is active, on-device applications will continue to work and will use the same data plan as the wireless hotspot. Wireless hotspot data usage may incur additional charges. Check with your service provider for plan details. Requires Windows 8.
12. 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). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.
13. 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.
14. Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
15. WWAN use 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.
16. Requires Internet Explorer, IE8 or IE9. Some websites and applications may not be supported.
17. For the use cases outlined in the DOD 5220.22-M Supplement. Does not support Solid State Drives (SSDs). Initial setup required. Web history deleted only in Internet Explorer and Firefox browsers and must be user enabled.
18. Requires Windows. Data is protected prior to Drive Encryption login. Turning the PC off or into hibernate logs out of Drive Encryption and prevents data access. 2013 Desktops are planned to support drive encryption in October 2013.
19. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.
20. HP Trust Circles Standard, when included, allows up to 5 Trust Circles with up to 5 contacts in each Trust Circle. Optional Trust Circles Professional required for unrestricted number of Trust Circles.
21. Fast Charge Technology recharges your battery up to 90% within 90 minutes when the system is off. Fast Charge Technology does not apply to the 9-cell battery. When the PC is powered on, charge time may increase and will vary based on the workload of the notebook PC.
22. AMD Dynamic Switchable Graphics technology requires either an AMD "A" series APU or an Intel processor, plus an AMD Radeon™ discrete graphics configuration and is not available on FreeDos and Linux OS. With AMD Dynamic Switchable Graphics 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).
23. Wireless access point and internet access required. 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.
24. Optional webcam required.
25. Internet access required.
26. HP Tools partition with an HP BIOS required for automatic recovery.

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