# HP ProBook 450 15.6 inch G10 Notebook PC (9G2D5ET)



### **Overview**

#### Essential, commercial-grade features

The HP ProBook 450 15-inch laptop provides growing businesses with the commercial-grade performance, multi-layered endpoint security, and durability in an easily upgradeable design. Powered by the latest Intel<sup>®</sup> processor[2] and long battery life, this feature-rich PC is well-equipped for long-term productivity and helps enable hybrid work.

#### Optimized for hybrid work

Look your best wherever you work with enhanced camera features and lighting adjustments.[3]

#### Performance for growing business

Keep up with demanding tasks with the latest Intel<sup>®</sup> CPU[2,4], long battery life, and upgradeable memory and storage.

#### **Tested for durability**

Passed 19 MIL-STD tests[6] for durability and easily serviceable—helping make the most of your IT investment.

#### Let nothing stand in your way

Power through your day with Windows 11 Home and the powerful collaboration and connectivity features from HP.<sup>[1]</sup>

#### 13th Gen Intel<sup>®</sup> multi-core processor

Get the perfect combination of power, snappy performance, and value with a 13th gen Intel<sup>®</sup> Core<sup>™</sup> processor to handle multiple work tasks smoothly and reliably with multiple processing cores.<sup>[2]</sup>

#### Fast and efficient wireless LAN

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>[5]</sup>

#### **HP Sure Sense**

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.

#### **Browse confidently**

Help protect your PC from websites and read only Microsoft Office and PDF attachments with embedded malware, ransomware, or viruses with hardwareenforced security from HP Sure Click.<sup>[7]</sup>

#### Work without interruption

Keep productivity high and downtime low with the fully integrated and automated features of the HP BIOSphere Gen6 firmware ecosystem. Your PCs have extra protection thanks to automatic updates and security checks.<sup>[8]</sup>

[2] 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.

[3] Requires myHP application and Windows OS.

[4] Optional feature that must be configured at the time of purchase.

[6] MIL-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.

[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 is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.

[5] 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. 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.* 

[7] HP Sure Click supports Microsoft® Internet Explorer and Chromium<sup>™</sup>. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

[8] HP BIOSphere Gen6 requires Windows 10 and is available on select HP Pro and Elite PCs. Features may vary depending on the platform and configurations.

## Specifications

Operating system	Windows 11 Home – HP recommends Windows 11 Pro for business <sup>[1]</sup>
Product color	Pike silver plastic
Processor family	13th Generation Intel <sup>®</sup> Core™ i7 processor
Processor	Intel® Core™ i7-1355U (up to 5.0 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads) <sup>[6,7]</sup>
Memory	32 GB DDR4-3200 MHz RAM (2 x 16 GB)
Memory Slots	2 SODIMM
Internal Storage	1 TB PCIe <sup>®</sup> Gen4 NVMe™ TLC SSD
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics
Display	39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 250 nits, 45% NTSC
Display	15.6" diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 250 nits, 45% NTSC <sup>[14,15,16]</sup>
Display size (diagonal)	39.6 cm (15.6")
Display size (diagonal)	15.6"
Audio	Dual stereo speakers, dual array microphones
Minimum dimensions (W x D x H)	35.94 x 23.39 x 1.99 cm
Weight	Starting at 1.79 kg (Weight will vary by configuration. Does not include power adapter.)
Keyboard	HP Premium Keyboard – spill-resistant, backlit keyboard with numeric keypad
Pointing device	Clickpad with multi-touch gesture support, taps enabled as default
Camera	720p HD camera
Ports	2 USB Type-A 5Gbps signaling rate (1 charging, 1 power); 1 AC power; 1 HDMI 2.1; 1 stereo headphone/microphone combo jack; 1 RJ-45; 2 USB Type-C <sup>®</sup> 10Gbps signaling rate (USB Power Delivery, DisplayPort <sup>™</sup> 2.1) <i>(HDMI cable sold separately.)</i>
Package dimensions (W x D x H)	6.9 x 48.3 x 30.5 cm
Wireless	Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate)
Power	HP Smart 45 W External AC power adapter <sup>[37]</sup>
Battery type	HP Long Life 3-cell, 42 Wh Li-ion
Battery weight	0.39 lb
Battery weight	180 g
Energy star certified	ENERGY STAR <sup>®</sup> certified

Management features	HP Client Management Script Library (download); HP Driver Packs (download); HP Client Catalog (download); HP Manageability Integration Kit Gen4 (download); HP Image Assistant Gen5 (download); HP Cloud Recovery <sup>[20,21]</sup>
Sustainable impact specifications	Low Halogen; Bulk packaging available; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; Outside box and corrugated cushions are 100% sustainably sourced and recyclable; 10% post-consumer recycled plastic
Security management	Absolute persistence module; HP DriveLock and Automatic DriveLock; HP Secure Erase; HP Sure Click; HP Sure Sense; BIOS Update via Network; HP Sure Admin; HP BIOSphere Gen6; HP Client Security Manager Gen7; TPM 2.0 embedded security chip (Common Criteria EAL4+ and FIPS 140-2 Level 2 Certified); HP Sure Start Gen7; HP Wake on WLAN; HP Tamper Lock; HP Sure Run Gen5; Secured-Core PC Enable <sup>[22,23,24,25,26,27,28,29,30,31,32,33,34]</sup>
Software included	HP Connection Optimizer; HP Hotkey Support; HP Support Assistant; HP Power Manager; myHP; HP Privacy Settings; HP Notifications; HP QuickDrop; HP PC Hardware Diagnostics Windows; HP Services Scan; HP Smart Support (download) <sup>[17,18,19,38,44,45]</sup>
UPC number	197961980790
Manufacturer Warranty	1 year (1/1/0) limited warranty includes 1 year of parts and labor. No on- site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.

## Additional specifications

Battery brand	HP
Battery capacity	42
Battery capacity uom	Wh
Battery cells number	3
Battery life	Long Life
Battery life note	Battery is internal and not replaceable by customer. Serviceable by warranty.
Battery type	Li-ion
Bluetooth version	Bluetooth <sup>®</sup> 5.3
Brightness	250 nits
Camera resolution (vertical)	720р
Camera resolution standard	HD
Color gamut	45% NTSC
Datasheet photo 1	AHID/b91bfe13fb8be9d8c5835be445a781b144194cce
Datasheet photo 3	AHID/2fe2ae7fe007a85a8725718bcc591b6eca0d1ba2
Datasheet photo 4	AHID/9b32c542a6f1d8169766a6fcb27a6bcd4c5c8848
Datasheet photo 5	AHID/c6a40f33081433c33f1726002d703e6cafa3b4c4
Display	39.6 cm (15.6") diagonal FHD display
Display	15.6" diagonal FHD display
Display bezel	narrow bezel
Display brightness	250
Display brightness uom	nits
Display panel technology	IPS
Display resolution (pixels)	1920 x 1080
Display resolution standard	FHD
Display size (diagonal) uom	"
Display size (diagonal, imperial)	15.6
Display size (diagonal, metric)	39.6
Display size (diagonal, metric) uom	cm
Display surface treatment	anti-glare
ECC memory	non-ECC
Fingerprint reader	Fingerprint sensor
Graphic card footnote number	[43]

Keyboard backlight	backlit
Keyboard features	Spill-resistant
Keyboard keypad	numeric keypad
Keyboard name	HP Premium Keyboard
Legal tagline	HP recommends Windows 11 Pro for business
Memory and storage	32 GB memory; 1 TB SSD storage
Memory layout (slots & size)	2 x 16 GB
Memory module type	DIMM
Memory size	32
Memory size uom	GB
Memory speed	3200
Memory speed uom	MHz
Memory type	DDR4
Number of memory slots	2
Playbook TS icon OS	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905482.png
Playbook TS icon battery life	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905264.png
Playbook TS icon connectivity	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201987.png
Playbook TS icon dimensions NB	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08250394.png
Playbook TS icon display NB	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08205649.png
Playbook TS icon graphics	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08169202.png
Playbook TS icon memory	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267700.png
Playbook TS icon processor	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201972.png
Playbook TS icon storage	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08192819.png
Playbook TS icon weight imperial	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c05790117.png
Playbook TS icon weight metric	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267650.png
Processor Brand	Intel®
Processor cache	12 MB L3
Processor core	10
Processor family	Core™ i7
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	13th Generation
Processor maximum frequency	5.0
Processor maximum frequency uom	GHz
Processor model	13550

Processor threads	12
Product brand name	HP
Product long name specifications	HP ProBook 450 15.6 inch G10 Notebook PC, 15.6", Windows 11 Home – HP recommends Windows 11 Pro for business, Intel® Core™ i7, 32GB RAM, 1TB SSD, FHD
Product short name specifications	HP ProBook 450 15.6 inch G10 Notebook PC, 15.6", Intel® Core™ i7, 32GB RAM, 1TB SSD
Standard memory note	Transfer rates up to 3200 MT/s.
Storage capacity	1
Storage capacity uom 01	ТВ
Storage interface 01	PCIe <sup>®</sup> Gen 4
Storage interface protocol 01	NVMe™
Storage memory technology 01	TLC
Storage type	SSD
Storage type 01	SSD
Touchscreen	No
UNSPSC code	43211503
Wireless Model	Wi-Fi 6E AX211
Wireless antenna	2x2
Wireless standard	Wi-Fi 6E
Wireless supplier	Intel®
Wireless transfer speeds	Supporting Gigabit data rate

[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 is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.

[6] 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. 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.

[7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost/ for more information.

[14] High-definition (HD) / Full high-definition (FHD) content required to view HD /FHD images.

[15] Resolutions are dependent upon monitor capability, and resolution and color depth settings.

[16] Actual brightness will be lower with touchscreen.

[17] HP Support Assistant requires Windows and Internet access.

[18] HP Quick Drop requires Internet access and Windows 10 or higher PC preinstalled with HP QuickDrop app and either an Android device (phone or tablet) running Android 7 or higher with

*the Android HP QuickDrop app, and /or an iOS device (phone or tablet) running iOS 12 or higher with the iOS HP QuickDrop app.* 

[19] HP Smart Support requires HP TechPulse to be installed. For more information about how to enable or to download HP Smart Support, please visit http://www.hp.com/smart-support.

[20] HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html .

[21] HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: https://support.hp.com/us-en/document/c05115630.

[22] 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.

[23] 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>™</sup>.

[24] HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A\_SureClick for complete details.

[25] HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.

[26] HP Sure Run Gen5 is available on select HP PCs and requires Windows 10 and higher.

[27] HP Sure Recover Gen5 with Embedded Reimaging is an optional feature which requires Windows 10 and higher must be configured at purchase. You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Network based recovery using Wi-Fi is only available on PCs with Intel Wi-Fi Module.

[28] HP Sure Start Gen7 is available on select HP PCs and requires Windows 10 and higher.

[29] HP Sure Admin requires Windows 10 or higher, 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.

[30] HP Client Security Manager Gen7 requires Windows and is available on the select HP Elite and Pro PCs.

[31] HP BIOSphere Gen6 features may vary depending on the platform and configuration.

[32] 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>™</sup>.

[33] HP Fingerprint sensor is an optional feature that must be configured at purchase.

[34] Secured-Core PC Enable requires an Intel® vPro®, AMD Ryzen™ Pro processor or Qualcomm® processor with SD850 or higher and requires 8 GB or more system memory. Secured-core PC is enabled from the factory.

[37] Availability may vary by country.

[38] Microsoft Office sold separately and requires Internet access for activation.

[44] HP Power Manager requires Windows 10 and higher and can be downloaded from the Microsoft Store.

[45] HP Services Scan is provided with Windows Update on select products and will check entitlement on each hardware device to determine if an HP TechPulse-enabled service has been purchased, and will download applicable software automatically. HP TechPulse is a telemetry and analytics platform that provides critical data around devices and applications. For full system requirements or to disable this feature, please visit http://www.hpdaas.com/requirements . Not applicable in China.

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