## ProductSheet HP ProBook 450 15.6 inch G10 Notebook PC (86Q56PA)



## Essential, commercial-grade features

The HP ProBook 450 15-inch laptop provides growing businesses with the commercial-grade performance, multilayered 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 wellequipped for long-term productivity and helps enable hybrid work.



HP recommends Windows 11 Pro for business Optimized for hybrid work

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

## Tested for durability

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

#### 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.

### Featuring

### Windows 11

Work anywhere without compromising on performance or security with Windows 11 powered by HP's collaboration and connectivity technology.

### 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>[1]</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 hardware-enforced security from HP Sure Click. [5]

### 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>[7]</sup>

# **Specifications**

Operating system	Windows 11 Pro <sup>[1]</sup>	
Product color	Pike silver aluminum	
Processor family	13th Generation Intel® Core™ i5 processor	
Processor	Intel® Core™ i5-1335U (up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 10 cores, 12 threads) <sup>[6,7]</sup>	
Memory	16 GB DDR4-3200 MHz RAM (1 x 16 GB)	
Memory Slots	2 SODIMM	
Internal Storage	512 GB PCIe <sup>®</sup> NVMe <sup>™</sup> SSD	
Graphics	Integrated	
Graphics (integrated)	Intel® UHD Graphics	
Display	39.6 cm (15.6") diagonal, FHD (1920 x 1080), touch, IPS, narrow bezel, anti-glare, 250 nits, 45% NTSC	
Display	15.6" diagonal, FHD (1920 x 1080), touch, 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	
Minimum dimensions (W x D x H)	14.14 x 9.2 x 0.78 in	
Weight	Starting at 1.79 kg (Weight will vary by configuration. Does not include power adapter.)	
Weight	Starting at 3.94 lb (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) (HDMI cable sold separately.)	
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 65 W External AC power adapter <sup>[37]</sup>	
Battery type	HP Long Life 3-cell, 51 Wh Li-ion	
Energy star certified	ENERGY STAR® 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>[17,18,19,44,45]</sup>	
UPC number	197497613797	
Manufacturer Warranty	1-year and 3-year limited warranties and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. 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.	

# Top Recommended Displays, Accessories and Services

E-Series	
HP E24u G5 FHD USB-C Monitor	6N4D0AA
P-Series	
HP P27h G5 FHD Monitor	64W41AA
HP P24h G5 FHD Monitor	64W34AA
Web Cameras	
HP 325 FHD Webcam	53X27AA
Speakerphones	
Poly Sync 10 USB-A USB-C Speakerphone	772C3AA
Poly Sync 20 USB-C Speakerphone	7F0J7AA
Poly Sync 20+ USB-C Speakerphone	772D0AA
Personal Video Devices	
Poly Studio P5 USB-A Webcam	76U43AA

### **Messaging Footnotes**

[1] 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 802.11 ax devices. Wi-Fi<sup>®</sup> 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.

[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.

[5] HP Sure Click supports Microsoft<sup>®</sup> 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.

[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.

[7] 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.

#### **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 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<sup>®</sup> 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.

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