



# HP ProBook 650 G8 Notebook PC

Modern design for the enterprise

The new modern design of the HP ProBook 650 brings style to the enterprise and delivers the performance, durability, security, and manageability required for today's workforce. Flexible configuration options fit a range of users and budgets.



\*Product image may differ from actual product

HP recommends Windows 10 Pro for business

## Easy to carry where the day takes you

- Confidently carry this durable laptop with you knowing it's built to last and made to travel. The slim yet durable HP ProBook 650 features an aluminum chassis, an 88-percent screen-to-body ratio, and a spill resistant keyboard.

## Made for the enterprise

- With an optional quad-core 11th Gen Intel® Core™ 2,3 vPro® 1 processor, this globally available PC is easy to service, drives performance and has long battery life, and optional Thunderbolt™ docking.<sup>4</sup> The optional Opal2 SSD<sup>5</sup> provides for highly secure storage for the enterprise.

## Protected by HP Wolf Security

- HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense. From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.<sup>17</sup>
- You will appreciate the style of the aluminum chassis and the confidence that comes from 120,000 hours of the HP Total Test process and MIL-STD 810H testing.<sup>6,7</sup>
- Help speed up demanding business applications with an optional quad-core 11th Gen Intel® Core™ vPro® processor with breakthrough Intel® Iris® Xe graphics.<sup>1,2,3,16</sup>
- Enjoy the consistent feel and extremely quiet typing experience of the redesigned keyboard with rubber dome keys.
- Get going fast with Connected Modern Standby and wake your PC from the optional match-on-sensor fingerprint sensor.<sup>8</sup>
- Instantly block prying eyes by making your screen appear dark and unreadable from the side with optional HP Sure View Gen3.<sup>9</sup>
- 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>10</sup>
- Quickly transition to desktop productivity with a single USB-C® cable. The optional HP Thunderbolt™ Dock G2 delivers enterprise manageability and you can add an optional audio module.<sup>11,12,13</sup>
- Never wonder if someone is watching you with the added peace-of-mind that comes from the integrated HP Privacy Camera, with a physical shutter to protect from malicious surveillance.<sup>14</sup>
- The HP ProBook 650 uses recycled materials in the keyboard, speakers, and packaging—this ENERGY STAR® certified PC earns an EPEAT® Gold rating in the U.S.<sup>15</sup>

## HP ProBook 650 G8 Notebook PC Specifications Table



\*Product image may differ from actual product

Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro for business <sup>1</sup> Windows 10 Home 64 <sup>1</sup> Windows 10 Home Single Language 64 <sup>1</sup> FreeDOS
Processor family <sup>6</sup>	11th Generation Intel® Core™ i7 processor; 11th Generation Intel® Core™ i5 processor; 11th Generation Intel® Core™ i3 processor
Available Processors <sup>3,4,5,6,45</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 (2.4 GHz base frequency, 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); Intel® Core™ i7-1185G7 (up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 4 cores), supports Intel® vPro® Technology; Intel® Core™ i5-1145G7 (up to 4.4 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores), supports Intel® vPro® Technology
Maximum memory	64 GB DDR4-3200 SDRAM <sup>7</sup> Both slots are customer accessible/upgradeable. Supports dual channel memory.
Memory slots	2 SODIMM
Internal storage	up to 512 GB Intel® PCIe® NVMe™ QLC M.2 SSD with 32 GB Intel® Optane™ memory H10 <sup>8,41</sup> 128 GB up to 1 TB PCIe® Gen3x2 NVMe™ M.2 SSD TLC <sup>8</sup> 256 GB up to 512 GB PCIe® Gen3x4 NVMe™ M.2 SED SSD TLC <sup>8</sup> 256 GB up to 512 GB PCIe® NVMe™ Value M.2 SSD <sup>8</sup>
Display size (diagonal, metric)	39.6 cm (15.6")
Display	39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 1000 nits, 100% sRGB, HP Sure View integrated privacy screen; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 400 nits, low power, 100% sRGB; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 250 nits, 45% NTSC; 39.6 cm (15.6") diagonal, HD (1366 x 768), narrow bezel, anti-glare, 250 nits, 45% NTSC; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), touch, narrow bezel, anti-glare, 250 nits, 45% NTSC <sup>11,14,15,16</sup>
Available Graphics	Integrated: Intel® Iris® Xe Graphics; Intel® UHD Graphics <sup>11,43</sup> Discrete: NVIDIA® GeForce® MX450 (2 GB DDR5 dedicated) <sup>44</sup> (Support HD Decode, DX12, and HDMI 1.4b.)
Audio	Dual stereo speakers, dual array microphone
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 RJ-45; 1 headphone/microphone combo; 1 HDMI 1.4b; 1 AC power (HDMI cable sold separately.) Optional Ports: 1 Smartcard reader (optional); 1 Thunderbolt™ 4 with USB4 Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4) <sup>13</sup>
Input devices	HP Premium Keyboard – spill-resistant, optional backlit keyboard with numeric keypad <sup>12</sup> ; Clickpad with multi-touch gesture support;
Communications	Integrated 10/100/1000 GbE NIC; Realtek 10/100/1000 GbE NIC <sup>10</sup> ; Intel® 9560 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo, non-vPro®; Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® 5 combo, non-vPro®;
Camera	720p HD camera; IR Camera <sup>11</sup>
Software	HP Connection Optimizer; HP Image Assistant; HP Hotkey Support; HP Noise Cancellation Software; HP Support Assistant; HP Power Manager; myHP; HP Privacy Settings; HSA Fusion for Commercial; HSA Telemetry for Commercial; Touchpoint Customizer for Commercial; HP Notifications <sup>17,18</sup>
Security management	Absolute persistence module; HP Secure Erase; 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; Support for chassis padlocks and cable lock devices; HP Sure Start Gen6; HP Sure Admin; HP Sure Run Gen4; HP Sure Recover Gen4; HP Client Security Manager Gen7; NVMe DriveLock; Pre-Boot Security; BIOS update (Status) over Wi-Fi <sup>23,24,25,26,27,28,29,30,31,32,33,34,35</sup>
Security Software Licenses	HP Wolf Pro Security Edition <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	HP Smart 65 W 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 <sup>37</sup>
Battery type	HP Long Life 3-cell, 45 Wh polymer <sup>36</sup>
Dimensions	35.94 x 23.39 x 1.99 cm
Weight	Starting at 1.74 kg (Weight will vary by configuration.)
Energy efficiency compliance	ENERGY STAR® certified; EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. <sup>39</sup>
Sustainable impact specifications	Low Halogen; TCO 8.0 certified <sup>40</sup>
Warranty	1 year standard parts and labor limited warranty (1-1-0), depending on country (upgrades available). 1 year limited warranty on primary battery.

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Accessories and services (not included)

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HP 65W USB-C Power Adapter



Power and charge your notebook or tablet<sup>1</sup> from its USB-C® port with the HP 65W USB-C Power Adapter.  
Product number: 1HE08AA

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: 9SR36AA

HP 3 year Next Business Day Onsite Hardware Support for Notebooks



Receive 3 years of next business day onsite HW support from an HP-qualified technician for your computing device, if the issue cannot be solved remotely.  
Product number: UA6A1E

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# HP ProBook 650 G8 Notebook PC

## Messaging Footnotes

- <sup>1</sup> For full Intel® vPro® functionality, Windows 10 Pro 64 bit, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See <http://intel.com/vpro>.
- <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.
- <sup>3</sup> Quad-core Intel® Core™ processors are optional.
- <sup>4</sup> Sold separately or as an optional feature.
- <sup>5</sup> Optional feature that must be configured at the factory.
- <sup>6</sup> HP 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.
- <sup>7</sup> MIL STD 810H 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.
- <sup>8</sup> Optional features must be configured at the time of purchase.
- <sup>9</sup> 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>10</sup> HP Sure Start Gen6 is available on select HP PCs.
- <sup>11</sup> Sold separately or as an optional feature.
- <sup>12</sup> USB-C® laptops must be able to support power and video.
- <sup>13</sup> HP Audio Module sold separately and required for audio.
- <sup>14</sup> HP Privacy Camera only available PCs equipped with HD or IR camera and must be installed at the factory.
- <sup>15</sup> Based on US EPEAT® registration according to IEEE 1680.1 -2018 EPEAT®. EPEAT® status varies by country. Visit [www.epeat.net](http://www.epeat.net) for more information.
- <sup>16</sup> Intel® Iris® X® graphics requires Intel® Core™ i5 or i7 processor.
- <sup>17</sup> HP Wolf Security for Business requires Windows 10, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPOS products. See product details for included security features and OS requirements.

## Technical Specifications Footnotes

- <sup>1</sup> 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/>.
- <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.
- <sup>3</sup> Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
- <sup>4</sup> Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See [www.intel.com/technology/turboboost](http://www.intel.com/technology/turboboost) for more information.
- <sup>5</sup> 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>.
- <sup>6</sup> 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>7</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>8</sup> 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.
- <sup>9</sup> 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.
- <sup>10</sup> HD content required to view HD images.
- <sup>11</sup> Backlit keyboard is an optional feature.
- <sup>12</sup> Thunderbolt™ 4 is only available with vPro® processors. SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.
- <sup>13</sup> Resolutions are dependent upon monitor capability, and resolution and color depth settings.
- <sup>14</sup> 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>15</sup> Actual brightness will be lower with touchscreen or Sure View.
- <sup>16</sup> HP Connection Optimizer requires Windows 10.
- <sup>17</sup> HP Support Assistant requires Windows and Internet access.
- <sup>18</sup> HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.
- <sup>19</sup> HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.
- <sup>20</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>21</sup> HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.
- <sup>22</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>23</sup> HP Drive Lock & Automatic Drive Lock is not supported on NVMe drives.
- <sup>24</sup> 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>25</sup> 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>26</sup> HP Sure Click requires Windows 10 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>27</sup> Windows Defender Opt In, Windows 10, and internet connection required for updates.
- <sup>28</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>29</sup> HP Sure Sense requires Windows 10.
- <sup>30</sup> HP Client Security Manager Gen7 requires Windows and is available on the select HP Pro and Elite PCs.
- <sup>31</sup> HP Sure Start Gen6 is available on select HP PCs.
- <sup>32</sup> HP Sure Run Gen4 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors.
- <sup>33</sup> HP Sure Recover Gen4 is available on select HP PCs and requires an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.
- <sup>34</sup> 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.
- <sup>35</sup> Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors.
- <sup>36</sup> Availability may vary by country.
- <sup>37</sup> 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](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.
- <sup>38</sup> Based on US EPEAT® registration according to IEEE 1680.1 -2018 EPEAT®. Status varies by country. Visit [www.epeat.net](http://www.epeat.net) for more information.
- <sup>39</sup> External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
- <sup>40</sup> 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.
- <sup>41</sup> 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.
- <sup>42</sup> 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).
- <sup>43</sup> For full Intel® vPro® functionality, Windows 10 Pro 64 bit, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See <http://intel.com/vpro>.
- <sup>44</sup> HP Wolf Pro Security Edition (including HP Sure Click Pro and HP Sure Sense Pro) is available preloaded on select SKUs and, depending on the HP product purchased, includes a paid 1-year or 3-year license. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User license Agreement (EULA) that can be found at: [https://support.hp.com/us-en/document/ish\\_3875769-3873014-16](https://support.hp.com/us-en/document/ish_3875769-3873014-16) as that EULA is modified by the following: "7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for either a twelve (12) month or thirty-six (36) month license term ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf 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.

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