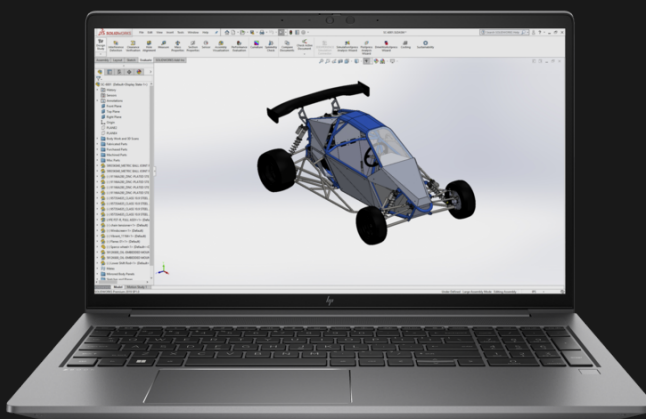


# HP ZBook Power 15.6 inch G9 Mobile Workstation PC

**Pro-certified power within reach**



**Upgrade to professional ZBook performance and security at an unbelievably affordable price. Power up your productivity on this durable yet premium device—delivering enhanced collaboration features and pro-grade components to seamlessly run leading professional software applications.**

## **Power through professional workflows**

Tackle your biggest projects and blaze through 3D modeling workloads with up to an NVIDIA RTX™ A2000 Laptop GPU.<sup>3</sup> Eliminate slowdowns and take-on serious multitasking with up to an Intel® Core™ i9 vPro® processor,<sup>1,2,3</sup> 64GB memory<sup>4</sup> and 8TB storage.<sup>3,5</sup>

## **Durable with a premium touch**

With an all-aluminum chassis and MIL-STD 810 durability,<sup>6</sup> this mobile workstation is tough enough to last, with a distinctly premium touch. See more screen, in mesmerizing clarity, with a narrow bezel 4K UHD display that makes project details pop.<sup>2</sup>

## **Connect. Communicate. Collaborate**

Collaborate effectively from anywhere with up to 16-hours of battery life,<sup>8</sup> a 720p HD camera, and AI enhanced audio software<sup>11</sup> that blocks background noises. And, with next-gen Wi-Fi 6E get a fast, reliable connection—even in dense Wi-Fi® environments.<sup>9,10</sup>

## **Certified, secured and supported**

Get peace of mind with a serviceable, high-performance PC that's certified to work with professional apps and comes with HP Wolf Security for Business—protecting below, in and above the OS.<sup>12</sup> Simplify fleet-wide rollouts with optional management tools.



# HP ZBook Power 15.6 inch G9 Mobile Workstation PC



## Additional Features

### Windows 11 Pro

Work anywhere without compromising on performance or security with Windows 11<sup>13</sup> powered by HP's collaboration and connectivity technology.

### Lightning-Fast Storage

Blitz through multiple tasks and ditch external drives with up to 8 TB local NVMe storage<sup>5,14</sup>

### Large Memory Configurations

Power through projects with up to 64 GB RAM<sup>4</sup> for fast editing and design.

### NVIDIA® Graphics

Power through projects with up to NVIDIA® A2000 laptop GPU,<sup>3</sup> certified for pro-apps.

### Intel® Core™ Processors

Take multitasking to the next level with up to Intel® Core™ i9 vPro® processors<sup>1,2,3</sup> designed to handle complex, multithreaded apps.

### Military Standards Testing<sup>6</sup>

Designed for ultimate durability, this ZBook undergoes brutal MIL-STD 810H<sup>6</sup> tests to help ensure this PC keeps rolling through your workday.

### 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>12</sup>

### Independent Software Vendor Certifications

Strenuously tested to meet ISV certification and deliver superb performance and support with leading software providers.

### Wi-Fi 6E

Get a fast and reliable connection in dense wireless environments with Wi-Fi 6E.<sup>10</sup>

### Sustainability

Help protect our shared future with PCs that drive towards increasing sustainability.

### Multiple Ports for Maximum Productivity

Connect to everything you need with a wide-range of connectivity options: multiple USB 3.1 Type-A ports, Thunderbolt™ 4 with USB Type-C®,<sup>15</sup> HDMI 2.0,<sup>16</sup> Smart Card Reader, and headphone/microphone combo jack.

### HP Thunderbolt Dock

Plug in to greater connectivity at your desktop with the optional HP Thunderbolt Dock for lightning-fast Thunderbolt™ 4<sup>15,17</sup> transfers and the flexibility to run up to two external 4K displays.<sup>18,19</sup>



# HP ZBook Power 15.6 inch G9 Mobile Workstation PC

## Specifications Table

<b>Available Operating Systems</b>	Windows 11 Pro <sup>1</sup> Windows 11 Pro Education <sup>1</sup> Windows 11 Home – HP recommends Windows 11 Pro for business <sup>1</sup> Windows 11 Home Single Language – HP recommends Windows 11 Pro for business <sup>1</sup> Windows 11 Pro (preinstalled with Windows 10 Pro Downgrade) <sup>1,2</sup> Windows 11 Pro for Workstations (preinstalled with Windows 10 Pro Downgrade for Workstations) <sup>1</sup> FreeDOS 3.0
<b>Processor family</b> <sup>2,3,4,5,25</sup>	12th Generation Intel® Core™ i5 processor; 12th Generation Intel® Core™ i7 processor; 12th Generation Intel® Core™ i9 processor
<b>Available Processors</b> <sup>2,3,4,5,16,25</sup>	Intel® Core™ i9-12900HK with Intel® UHD Graphics (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.8 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads) Intel® Core™ i9-12900H with Intel® UHD Graphics (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.8 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads), supports Intel® vPro® Technology Intel® Core™ i7-12800H with Intel® UHD Graphics (1.8 GHz E-core base frequency, 2.4 GHz P-core base frequency, up to 3.7 GHz E-core Max Turbo frequency, up to 4.8 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads), supports Intel® vPro® Technology Intel® Core™ i7-12700H with Intel® UHD Graphics (1.7 GHz E-core base frequency, 2.3 GHz P-core base frequency, up to 3.5 GHz E-core Max Turbo frequency, up to 4.7 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 20 threads), supports Intel® vPro® Technology Intel® Core™ i5-12600H with Intel® UHD Graphics (2.0 GHz E-core base frequency, 2.7 GHz P-core base frequency, up to 3.3 GHz E-core Max Turbo frequency, up to 4.5 GHz P-core Max Turbo frequency, 18 MB L3 cache, 4 P-cores and 8 E-cores, 16 threads), supports Intel® vPro® Technology Intel® Core™ i5-12500H with Intel® UHD Graphics (1.8 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 3.3 GHz E-core Max Turbo frequency, up to 4.4 GHz P-core Max Turbo frequency, 18 MB L3 cache, 4 P-cores and 8 E-cores, 16 threads)
<b>Maximum memory</b>	64 GB DDR5-4800 non-ECC SDRAM <sup>7</sup> Transfer rates up to 4800 MT/s.
<b>Memory slots</b>	2 SODIMM; supports dual channel <sup>8,9,10</sup>
<b>Internal storage</b>	256 GB up to 4 TB PCIe® Gen4 NVMe™ M.2 SSD <sup>11,52</sup> 256 GB up to 512 GB PCIe® Gen4 NVMe™ M.2 SED SSD <sup>11</sup> up to 8 TB PCIe® Gen4 x2 NVMe™ <sup>11</sup>
<b>Display size (diagonal, metric)</b>	39.6 cm (15.6")
<b>Display</b>	39.6 cm (15.6") diagonal, FHD (1920 x 1080), touch, IPS, narrow bezel, anti-glare, 250 nits, 45% NTSC; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), touch, IPS, narrow bezel, anti-reflection Corning® Gorilla® Glass 5, 250 nits, 45% NTSC; 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, 4K UHD (3840 x 2160), IPS, narrow bezel, anti-glare, 400 nits, low power, 100% sRGB <sup>14,21,23,24</sup>
<b>Available Graphics</b>	Integrated: Intel® Iris® X® Graphics <sup>16,32</sup> Discrete: NVIDIA RTX™ A1000 Laptop GPU (4 GB GDDR6 dedicated) NVIDIA RTX™ A2000 Laptop GPU (8 GB GDDR6 dedicated) NVIDIA® T600 Laptop GPU (4 GB GDDR6 dedicated)
<b>Audio</b>	HP Audio, dual stereo speakers, dual array digital microphones, functions keys for volume up and down, combo microphone/headphone jack, HD audio <sup>45</sup>
<b>Memory card device</b>	1 smart card reader (select models)
<b>Ports and connectors</b>	Left side: 1 USB Type-A 5Gbps signaling rate (charging); 1 HDMI; 1 RJ-45 <sup>6</sup> ; Right side: 1 Thunderbolt™ 4 with USB4™ Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 2 SuperSpeed USB Type-A 5Gbps signaling rate (charging) <sup>28,55</sup>
<b>Keyboard</b>	HP Premium Quiet Keyboard, spill-resistant, full-size, backlit, keyboard with a Programmable Key and numeric keypad
<b>Mouse</b>	ClickPad Mylar with multi-touch gesture support, taps enabled as default; Microsoft Precision Touchpad with gesture support



# HP ZBook Power 15.6 inch G9 Mobile Workstation PC

## Specifications Table

	LAN: Intel® I219-LM GbE, vPro®; Intel® I219-V GbE, non-vPro®;
<b>Communications</b>	WLAN: Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card, vPro®; Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card, non-vPro® <sup>12,13</sup> ; NFC Mirage WNC XR4V-1
<b>Camera</b>	720p HD camera; 720p HD IR camera <sup>17,18</sup>
<b>Software</b> <sup>15,26,35,39</sup>	Bing search for IE11 Buy Office HP Hotkey Support HP Performance Advisor HP Recovery Manager HP Remote Graphics Software HP Support Assistant HP JumpStart Native Miracast support HP Connection Optimizer HP Cloud Recovery HP Admin HP Privacy Settings HP QuickDrop HP Easy Clean HP PC Hardware Diagnostics HP ZCentral Remote Boost 2020 Software for Z workstation Tile™ Application HP Auto Lock and Awake
<b>Available software</b>	HP Smart Support <sup>43</sup>
<b>Security management</b> <sup>19,22,27,30,31,34,38,47,49,50,53</sup>	Absolute persistence module HP Device Access Manager HP Power On Authentication HP Security Manager Integrated smart card reader Master Boot Record security Pre-boot authentication HP Sure Click Windows Defender HP Secure Erase HP Manageability Integration Kit HP Sure Sense HP Secure Platform HP Sure Recover Gen3 HP BIOSphere Gen6 HP Sure Start Gen6 HP Sure Run Gen3 HP Tamper Lock Nano Security Lock Slot HP Client Security Suite Gen7 Trusted Platform Module TPM 2.0 Windows Secured Core
<b>Security Software Licenses</b>	HP Wolf Pro Security Edition <sup>56</sup>
<b>Fingerprint reader</b>	Fingerprint reader (select models)
<b>Management features</b>	HP Power Manager <sup>33</sup>
<b>Power</b>	120 W Slim Smart external AC power adapter; 150 W Slim Smart external AC power adapter <sup>20</sup>
<b>Battery type</b>	HP Long Life 6-cell, 83 Wh Li-ion polymer <sup>37,40</sup>
<b>Battery life</b>	Up to 18 hours
<b>Dimensions</b>	35.94 x 23.39 x 2.28 cm; 552 x 69 x 345 mm (Package)
<b>Weight</b>	Starting at 1.93 kg; (Weight varies by configuration and components.)
<b>Ecolabels</b>	EPEAT® registered configurations available <sup>41</sup>
<b>Energy star certified</b>	ENERGY STAR® certified
<b>Sustainable impact specifications</b>	Low Halogen; 40% post-consumer recycled plastic; Bulk packaging available; External power supply 90% efficiency; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; Outside box and corrugated cushions are 100% sustainably sourced and recyclable; Ocean-bound plastic in speaker enclosure(s) <sup>42,44,46,48,51</sup>
<b>Warranty</b>	3 year (3/3/0) limited warranty includes 3 years of parts and labor. No on-site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.



# HP ZBook Power 15.6 inch G9 Mobile Workstation PC

## Accessories and services (not included)

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### HP Prelude 15.6-inch Topload



Transport your work gear with a stylish and durable laptop bag thoughtfully designed with nylon fabric and a padded compartment for your laptop. The HP Prelude Topload comes with convenient handles or a crossbody strap that helps you carry it the way you want. A pop of color on the zipper is sure to brighten your day every time you open the bag.

**Product number: 1E7D7AA**

### HP Wireless Rechargeable 950MK Mouse and Keyboard



Experience clutter-free productivity, simple, streamlined connectivity, and fast out-of-the-box HP Link-5 plug and play setup with the elegant HP Wireless Rechargeable 950MK Mouse and Keyboard.

**Product number: 3M165AA**

### HP Stereo USB Headset G2



Plug right in and get ready to speak and hear clearly all day. With noise-cancelling, comfortable design, and easy adjustment, your sound comfort will carry you from call to call without interference or frustration.

**Product number: 428K6AA**



# HP ZBook Power 15.6 inch G9 Mobile Workstation PC

## Messaging Footnotes

<sup>1</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>2</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>3</sup> Optional, configurable feature that must be configured at purchase.

<sup>4</sup> Up to 64GB memory is an optional feature that must be configured at purchase.

<sup>5</sup> For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of system disk is reserved for system recovery software.

<sup>6</sup> Testing is not intended to demonstrate fitness of U.S. Department of Defense (DoD) 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.

<sup>7</sup> Select household wipes can be safely used to clean HP Elite and Workstation PCs up to 1,000 wipes: See wipe manufacturer's instructions for disinfecting and the HP cleaning guide for HP tested wipe solutions at [How to Sanitize Your HP Device Whitepaper](#) (<http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-7610ENW>). Not applicable to HP Elite c1030 Chromebook.

<sup>8</sup> Battery life will vary depending on the 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 MobileMark18 battery benchmark <https://bapco.com/products/mobilemark-2018/> for additional details.

<sup>9</sup> Wi-Fi 6E is an optional feature that must be configured at purchase.

<sup>10</sup> Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 6E is supported.

<sup>11</sup> DNN Noise Reduction is delivered automatically through Windows update or can be downloaded from <https://support.hp.com/us-en/drivers>. Requires Windows 10 or higher, compatible with internal PC speakers, microphone and analog headsets. The DNN Noise Reduction setting can be configured through the Application HP Audio Control.

<sup>12</sup> HP Wolf Security for Business requires Windows 10 or 11 Pro or higher, includes various HP security features and is available on HP Pro, Elite and Workstation products. See product details for included security features and OS requirement.

<sup>13</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 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>

<sup>14</sup> Optional, configurable feature.

<sup>15</sup> SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4

<sup>16</sup> HDMI cables are sold separately.

<sup>17</sup> HP Thunderbolt Dock with Thunderbolt™ 4 sold separately.

<sup>18</sup> External displays sold separately.

<sup>19</sup> Optional hybrid graphics is required to run up to two external 4K displays.

only supported on the receiver side. Requires network access. The software is available for download at [hp.com/ZCentralRemoteBoost](http://hp.com/ZCentralRemoteBoost) .

<sup>16</sup> Intel® Integrated graphics: Intel® X® Graphics.

<sup>17</sup> FHD and HD content required to view HD images respectively.

<sup>18</sup> Windows Hello face authentication utilizes a camera specially configured for near infrared (IR) imaging to authenticate and unlock Windows devices as well as unlock your Microsoft Passport.

<sup>19</sup> HP Sure Click requires Windows 10 Pro or higher or Enterprise. See [https://bit.ly/2PrLT6A\\_SureClick](https://bit.ly/2PrLT6A_SureClick) for complete details.

<sup>20</sup> 120 W power adapter is only available with UMA graphics. 150 W power adapter is only available with discrete graphic options.

<sup>21</sup> UHD content required to view UHD images.

<sup>22</sup> HP BIOSphere Gen6 features may vary depending on the platform and configuration.

<sup>23</sup> Resolutions are dependent upon monitor capability, and resolution and color depth settings.

<sup>24</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>26</sup> HP Quick Drop requires Internet access and Windows 10 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.

<sup>27</sup> HP Sure Run Gen3 is available on select HP PCs and requires Windows 10 and higher.

<sup>28</sup> SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.

<sup>29</sup> HP Performance Advisor Software - HP Performance Advisor is ready and waiting to help you get the most out of your HP Workstation from day one—and every day after. Learn more or download at: <https://www.hp.com/us-en/workstations/performance-advisor.html>

<sup>30</sup> HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>

<sup>31</sup> Absolute Persistence Module: 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.

<sup>32</sup> The system must be populated with dual channel memory for Intel Iris XE. Otherwise, system uses the Intel® UHD Graphics.

<sup>33</sup> Manage and monitor your battery's performance and condition and customize charging options with the easy-to-use HP Power Manager dashboard.

<sup>34</sup> Security lock for security slot is sold separately.

<sup>35</sup> Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: <http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast> .

<sup>37</sup> Battery is internal and not replaceable by customer. Serviceable by warranty. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year warranty as the platform.

<sup>38</sup> HP Sure Start Gen6 is available on select HP PCs and requires Windows 10 and higher.

<sup>39</sup> HP Support Assistant: Requires Windows and Internet access.

<sup>40</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>41</sup> Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit <http://www.epeat.net> for more information

<sup>42</sup> External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.

<sup>43</sup> HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, thru HP Factory Configuration Services; or it can be downloaded. For more information about how to enable HP Smart Support or for download, please visit <http://www.hp.com/smart-support> .

<sup>44</sup> Percentage of ocean-bound plastic contained in each component varies by product.

<sup>45</sup> Dual-microphone array when equipped with optional webcam and optional world facing microphone.

<sup>46</sup> Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.

<sup>47</sup> 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>48</sup> Fiber cushions made from 100% recycled wood fiber and organic materials.

<sup>49</sup> HP Sure Recover Gen3 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. Network based recovery using Wi-Fi is only available on PC's with Intel Wi-Fi Module.

<sup>50</sup> HP Sure Sense is available on select HP PCs and is not available with Windows10 Home.

<sup>51</sup> 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.

<sup>52</sup> Storage Slot 1 can support both PCIe Gen3 and Gen4 drives.

<sup>53</sup> 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 functionality can be enabled from the factory.

<sup>55</sup> Thunderbolt™ 4 and USB4™ maximum speed of 40Gbps will be divided between the different data workstreams.

<sup>56</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.

## 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 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> .

<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> HDMI port-cable not included.

<sup>7</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>8</sup> Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory channels.

<sup>9</sup> Intel® allows architectures designed with four DIMM slots to run at 3200 MT/s.

<sup>10</sup> Maximum memory capacities assume Windows 64-bit operating systems. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

<sup>11</sup> For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

<sup>12</sup> GbE - 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>13</sup> Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.

<sup>14</sup> HD camera feature. InfraRed feature , IPS Anti-reflection Touchscreen feature are based on the selection of display.

<sup>15</sup> HP ZCentral Remote Boost Sender does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without license purchase through 2022. With non-Z sender devices, purchase of perpetual individual license or perpetual floating license per simultaneously executing versions and purchase of ZCentral Remote Boost Software Support is required. ZCentral Remote Boost Sender for non-Z Hardware requires a license and Windows 10, RHEL/CentOS (7 or 8), or UBUNTU 18.04 or 20.04 LTS operating systems. macOS (10.14 or newer) operating system and ThinPro 7.2 are

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