# HP ZBook 15 G6 Mobile Workstation



### HP's best-selling ZBook

Our powerhouse ZBook thrives with heavy workloads from rendering to engineering to simulation. With room to grow, it's the only machine you'll ever need.



HP recommends Windows 10 Pro.

### Full-throttle performance

 Get blazing-fast performance with the heaviest multi-app workloads. Boost your speed on single and multi-threaded apps with the high-performance multi-core Intel processor. Through it all, our cutting-edge thermal design keeps everything cool and quiet.

#### Ready to expand. No tools required.

 When your technology needs evolve, you can easily upgrade. Simply remove the back panel and switch out your memory or storage in seconds.

#### Industry-leading security

- Advanced security features come standard on every ZBook 15. System safeguards like HP Client Security Suite and HP Sure Start - the industry's first self-healing BIOS - mean your device is locked down tight, so your data and identity are too.
- Work anywhere without compromising on performance or security with Windows 10 Pro, powered by HP's collaboration and connectivity technology.<sup>3</sup>
- Accelerate your workflow. Power through projects with up to 128 GB RAM for fast rendering, editing and visual effects performance.<sup>4</sup>
- Take multitasking to the next level with the Intel<sup>®</sup> Core™ i9 processor designed to handle complex, multithreaded apps like Adobe Premier Pro, and with fast clock speeds you can boost your speed on single threaded apps like Autodesk 3ds Max.<sup>5,6</sup>
- Run demanding professional apps with the newest generation Intel<sup>®</sup> Xeon<sup>®</sup> processorsfor powerful performance and productivity.<sup>5</sup>
- Render the most demanding projects and experience virtual immersion with the next generation of VR-ready NVIDIA Quadro® graphics.
- Strenuously tested to meet software certification and deliver superb performance with leading software providers, including Autodesk and Adobe.
- Bring your projects to life with one billion colors on the stunning 600 nit, 4K UHD HP DreamColor display. Maintain color accuracy with a built-in color calibration system.<sup>7</sup>
- Blitz through multiple tasks and ditch external drives with up to 6 TB storage. Get 4 TB local PCIel NVMe storage up to 21x faster than standard HDD and 6x faster than SATA SSD.  $^8\,$
- Our ZBooks are designed to undergo extensive MIL-STD 810G testing.<sup>9</sup>
- Plug in to greater connectivity at your desktop with the HP ZBook Dock for lightning-fast Thunderbolt™ 3 transfers and the flexibility to run up to two external 4K displays. <sup>10,11</sup>
- Accidents happen which is why we designed our keyboard with a drain hole, so minor spills flow out the bottom for easy cleanup.
- Easy-to-remove rear panel allows for future expansion via 3 (2x M.2, 1x 2.5) storage slots. 4 million separate custom configurations to choose from will meet the demands of engineers and designers to ensure extended device lifetime.

## HP ZBook 15 G6 Mobile Workstation Specifications Table







Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro. <sup>1</sup> Windows 10 Pro for Workstations 64 <sup>1</sup> Windows 10 Home 64 <sup>1</sup> Windows 10 Home Single Language 64 <sup>1</sup> FreeDOS Red Hat® Enterprise Linux® 7 - Web support only <sup>43</sup>
Processor family <sup>2,3,4,5,25</sup>	9th Generation Intel® Core™ i5 processors (i5 9300H, i5 9400H); 9th Generation Intel® Core™ i7 processors (i7 9750H, I7 9850H); 9th Generation Intel® Core™ i9 processor (i9 9880H); 9th Generation Intel® Xeon® processor (Xeon E-2286M)
Available Processors <sup>2,3,4,5,16,25</sup>	Intel® Core™ i5 9300H with Intel® UHD Graphics 630 (2.4 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores); Intel® Core™ i7 9750H with Intel® UHD Graphics 630 (2.6 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores); Intel® Core™ i5-9400H with Intel® UHD Graphics 630 (2.5 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores), vPro™; Intel® Core™ i7-9850H with Intel® UHD Graphics 630 (2.6 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores, vPro™; Intel® Core™ i9-9880H with Intel® UHD Graphics 630 (2.3 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores), vPro™; Intel® UHD Graphics P630 (2.4 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores), vPro
Display size (diagonal)	15.6"19,20,21,23
Maximum memory	128 GB DDR4-2667 non-ECC SDRAM; 64 GB DDR4-2667 ECC SDRAM <sup>7</sup> Transfer rates up to 2667 MT/s.
Memory slots	4 SODIMM
Internal storage	256 GB up to 2 TB PCle® NVMe™ M.2 SSD 11 up to 512 GB PCle® NVMe™ M.2 SED SSD 11 500 GB up to 1 TB 7200 rpm SATA HDD 11 256 GB up to 1 TB M.2 SATA SSD 11
	up to 2 TB 5400 rpm SATA HDD <sup>11</sup>
Storage acceleration	16 GB PCle® NVMe™ Intel® Optane™ Memory for storage acceleration <sup>49</sup>
Display	15.6" diagonal UHD eDP + PSR anti-glare WLED-backlit 400 nits 72% sRGB (3840 x 2160); 15.6" diagonal UHD eDP + PSR anti-glare WLED-backlit touch screen with Corning® Gorilla® Glass 5 and ambient light sensor 400 nits 72% sRGB (3840 x 2160); HP Dream Color display 15.6" diagonal UHD anti-glare WLED-backlit 600 nits 100% DCI P3 (3840 x 2160); HP SureView Integrated Privacy Display Gen3 15.6" diagonal FHD eDP + PSR anti-glare WLED-backlit 1000 nits 72% sRGB (1920 x 1080); HP SureView Integrated Privacy Display Gen3 15.6" diagonal FHD eDP + PSR anti-glare WLED-backlit touch screen with Corning® Gorilla® Glass 5 1000 nits 72% sRGB (1920 x 1080); 15.6" diagonal FHD eDP anti-glare WLED-backlit 250 nits 45% sRGB (1920 x 1080); 15.6" diagonal FHD eDP anti-glare WLED-backlit 250 nits 45% sRGB (1920 x 1080); 15.6" diagonal FHD eDP + PSR anti-glare WLED-backlit 400 nits 72% sRGB (1920 x 1080) 19.20.21.23
Available Graphics	Integrated: Intel® UHD Graphics 630; Intel® UHD Graphics P630 <sup>16</sup> Discrete: NVIDIA® Quadro® RTX 3000 (6 GB GDDR6 dedicated); NVIDIA® Quadro® T2000 (4 GB GDDR5 dedicated); NVIDIA® Quadro® T1000 (4 GB GDDR5 dedicated)
Audio	Audio by Bang & Olufsen, dual stereo speakers, HP World Facing Microphone dual array digital microphone, functions keys for volume up and down, combo microphone/headphone jack, HD audio 45
Expansion slots	1 smart card reader; 1 SD media card reader
Ports and Connectors	Left side: 1 RJ-45; 1 USB 3.1 Gen 1; 1 USB 3.1 Gen 1 (charging) Right side: 1 power connector; 1 USB 3.1 Gen 1; 1 HDMI 2.0b; 1 headphone/microphone combo; 2 USB Type-C™ (Thunderbolt™ 3, pass through support DispalyPort™ 1.4, USB 3.1 Gen 2, with BC 1.2) <sup>6,15,48</sup>
Input devices	HP Collaboration Keyboard, full-size, spill-resistant, backlit, with drain and DuraKeys, clickpad with glass surface, multi-touch gestures and taps enabled; Dual pointstick; Clickpad with multi-touch gestures enabled, taps enabled as default; Microsoft Precision Touchpad Default Gestures Support;
Communications	LAN: Integrated Intel® I219-LM GbE, vPro™; Integrated Intel® I219-V GbE, non-vPro™ <sup>12</sup> ; WLAN: Intel® Dual Band Wi-Fi 6 AX200 (2x2) and Bluetooth® 5 combo, vPro™; Intel® Dual Band Wi-Fi 6 AX200 (2x2) and Bluetooth® 5 combo, non-vPro™ <sup>13</sup> ; WWAN: Intel® XMM™ 7360 LTE Advanced <sup>14</sup> (Optional Near Field Communication (NFC) module)
Camera	720p HD webcam; 1080p FHD webcam with IR <sup>17,18</sup>
Available Software	Bing search for IE11; Buy Office; HP Hotkey Support; HP Noise Cancellation Software; HP Performance Advisor; HP Recovery Manager; HP Remote Graphics Software; HP Support Assistant; Skype for Business Certified; HP JumpStart; HP Mobile Connect Pro; Native Miracast support; HP Connection Optimizer; HP Cloud Recovery <sup>26,27,28,29,35,36,46</sup>
Security management	Absolute persistence module; HP Device Access Manager; HP FingerPrint Sensor; HP Power On Authentication; HP Security Manager; Security lock slot; Trusted Platform Module TPM 2.0 Embedded Security Chip; Master Boot Record security; Pre-boot authentication; HP BIOSphere Gen5; HP Sure Start Gen5; HP Secure Erase; HP Client Security Manager Gen5; HP Manageability Integration Kit; HP Sure Recover Gen2; Microsoft Defender; HP Client Security Suite Gen5; HP Sure Sense <sup>22,24,30,31,33,34,38,39,47,50</sup>
Power	150 W Slim Smart external AC power adapter
Battery type	HP Long Life 4-cell, 90 Wh Li-ion polymer <sup>37,40,44</sup>
Dimensions	37.6 x 26.4 x 2.6 cm
Weight	Starting at 2.6 kg (Weight varies by configuration and components.)
Energy efficiency compliance	ENERGY STAR® certified and EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See www.epeat.net for registration status by country. 41
Environmental specifications	Low halogen <sup>42</sup>

### HP ZBook 15 G6 Mobile Workstation

### Accessories and services (not included)

HP 5-year Next Business Day Onsite Workstation Only Hardware Support



**HP Care Pack** 

Receive 5 years of next business day onsite repair from an HP-qualified technician for your computing device, if the issue cannot be solved remotely. For more information on Care Pack services, please visit www.hp.com/go/cpc.

Product number: U7944E

### HP ZBook 15 G6 Mobile Workstation

#### Messaging Footnotes

- $^{\rm 1}$  Requires Windows and Intel® or AMD 7th or 8th generation processors.
- <sup>2</sup> HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and functions in landscape orientation. Planned to be available in October 2019
- <sup>3</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

4 Up to 128GB memory is an optional, configurable feature.

5 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

- Adobe Premier Pro and Autodesk 3ds Max sold separately.
  DreamColor display required for 1 billion colors and is an optional or add on feature.
- <sup>8</sup> For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30GB (for Windows 10) of system disk is reserved for system recovery software.

  <sup>9</sup> MIL-STD-810G testing is pending. 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.

10 HP Thunderbolt Dock with Thunderbolt™ 3 sold separately.

11 Hybrid graphics setting is required to run up to two external 4K displays.

#### 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 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

  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<sup>®</sup> Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
- 5 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

6 HDMI port-cable not included.

- 7 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.

  8 Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory channels.

- 9 Intel® allows architectures designed with four DIMN slots to run at 2400 MT/s

  10 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.

  11 For storage drives GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35 GB of disk (for Windows 10) 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.
- 13 Wireless cards are optional or add-on features and requires separately purchased wireless access point and internet service. Availability of public wireless access points limited. The specifications for the 802.11ax 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 802.11ax WLAN devices.

  14 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. 4G LTE not
- available on all products, and in all regions.

  15 Mini DisplayPort 1.4 with discrete, 1.2 with UMA.
- 16 Intel® Integrated graphics: Intel® UHD Graphics 630 integrated on CoreTM i7 processors and Intel® UHD Graphics P630 integrated on Xeon® processors.
  17 FHD and HD content required to view HD images respectively.
- 18 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 View is optional and must be configured at purchase <sup>20</sup> HP Sure View available on 2nd half of 2019.

- 21 UHD content required to view UHD images.

  22 HP BIOSphere Requires Intel® 8th generation processors. HP Sure Start Gen5 Available on HP Elite and HP Z Workstation products equipped with Intel® 8th generation processors.

- 23 Resolutions are dependent upon monitor capability, and resolution and color depth settings.
  24 HP Client Security Manager Gen5 requires Windows and is available on select HP Pro, Elite and Z PCs. See product specifications for details.
  25 vPro. 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. Compatibility future "virtual appliances" is yet to be determined. <sup>26</sup> Skype is not offered in China.
- 27 HP Mobile Connect Pro is only available on preconfigured devices with WWAN. For geographic availability refer to http://www.hp.com/go/mobileconnect.
- 28 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>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://www8.hp.com/us/en/workstations/performance-advisor.html

30 HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement

- <sup>31</sup> 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.
- Requires Windows and Intel® 8th generation processors.
   Microsoft Defender Opt in and internet connection required for updates.
   Security lock slot is Lock sold separately.
- 35 HP Support Assistant requires Windows and Intel® 8th generation processors. 36 HP Connection Optimizer requires Windows 10.
- 37 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.
- <sup>38</sup> HP Sure Start Gen5 is available on select HP PCs with Intel processors. See product specifications for availability <sup>39</sup> HP Sure Sense requires Windows 10. See product specifications for availability.

- 40 Supports HP Fast Charge Technology.
   41 Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information
- \*\* Based on us cream \*\* registration according to recent rooms \*\* Company \*\* The company \*\* The company \*\* Company \*\* The company \*\* Company \*\*

- 45 Dual-microphone array when equipped with optional webcam and optional world facing microphone.
  46 HP Remote Graphics Software The remote desktop solution for serious workstation users and their most demanding applications. Download at: http://www.hp.com/go/RGS
- 47 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™

48 HDMI 2.0b with discrete, 1.4 with UMA.

49 Intel® Optane™ memory is sold separately. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system. Available for HP commercial desktops and notebooks and for select HP workstations (HP Z240) Tower/SFF, Z2 Mini, ZBook Studio, 15 and 17 G5) and requires a SATA HDD, 7th Gen or higher Intel® Core™ processor or Intel® Xeon® processor E3-1200 V6 product family or higher, BIOS version with Intel® Optane™ supported, Windows 10 version 1703 or higher, M.2 type 2280-S1-B-M connector on a PCH Remapped PCIe Controller and Lanes in a x2 or x4 configuration with B-M keys that meet NVMe™ Spec 1.1, and an Intel® Rapid Storage Technology (Intel® RST) 15.5 driver. 50 HP Sure Recover Gen2: See product specifications for availability. Requires an open, wired network connection. Not available on platforms with multiple internal storage drives. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. HP Sure Recover (Gen1) does not support platforms with Intel® Optane

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