HP ZBook Studio G7 Mobile Workstation



The new standard for the serious creator

Real-time rendering. Sleek design. An impressive combination of power and size. Ready for a workflow revolution? With NVIDIA® Quadro® graphics combined with the remarkable power of Z, pro-grade performance has never looked or felt better.



HP recommends Windows 10 Pro for business

Pro-grade performance. Stable and certified

 Powerful performance. Uncompromising reliability. With NVIDIA® Quadro® graphics, universal software certification, 8-core Intel® Xeon®¹ processors and 32GB memory, your workforce can render, design, simulate & analyze with complete confidence.

Engineered to go mobile

• Introducing HP's smallest 15" laptop for creators. Our groundbreaking design packs a nearly borderless screen and long-lasting battery life into a lightweight, scratch resistant aluminum frame.

Ingenious design. Revolutionary experience.

- Tirelessly re-engineered from the ground up, this is superior design. Vapor chamber cooling and liquid-crystal polymer thermals equip you to run at max performance. Our astonishingly quiet, comfortable keyboard keeps you in the zone.
- Work anywhere without compromising on performance or security with Windows 10 Pro, powered by HP's collaboration and connectivity technology.⁵
- Experience high-end visualization and seamlessly render your biggest projects with the next generation NVIDIA® Quadro® T-Series and RTX graphics; Certified and supported for the apps you use every day.⁶
- Take multitasking to the next level with up to the 10th gen Intel® Core™ i9 or Intel® Xeon® processor designed to handle complex, multithreaded apps like Adobe Premier Pro®, and boost your speed on single threaded apps like Autodesk 3ds Max ^{7,8}
- Power through projects with up to 32 GB RAM for fast rendering, editing and simulating.⁹
- Blitz through multiple tasks and ditch external drives with up to 4 TB local NVMe storage. 10,11
- Speakers custom tuned by Bang and Olufsen surround you in a rich sound space so you hear music the way the audio engineers intended. Featuring the most powerful speakers with the greatest levels of bass on any HP notebook.
- Connect to everything you need with a wide-range of connectivity options: Dual USB-C® Thunderbolt™, HDMI or Mini DisplayPort™, USB 3.0 charging port, headphone jack, and AC port.
- A completely revamped standby system means you're ready to work the moment inspiration strikes. With no sleep mode and no off mode, the modern standby keeps your rig connected and on demand whenever you need it.
- Transfer files over Wi-Fi® up to 3x faster with Wi-Fi 6.¹²
- Instantly protect against visual hacking with HP Sure View, and defend against firmware and malware attacks with HP Sure Start and HP Sure Sense.^{13,14,15}
- A highly recyclable & lightweight aluminum exterior with 5x the abrasion resistance of painted carbon fiber allows for a more durable, thin, and recyclable device.

HP ZBook Studio G7 Mobile Workstation Specifications Table







Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro for business ^{1,47} Windows 10 Home 64 ^{1,47} Windows 10 Pro for Workstations 64 ^{1,47} Ubuntu 20.04 FreeDOS 3.0
Processor family ^{2,3,4,5,6,49}	10th Generation Intel® Core™ i5 processor; 10th Generation Intel® Core™ i7 processor; 10th Generation Intel® Core™ i9 processor; 10th Generation Intel® Xeon® processor
Available Processors ^{2,3,4,5,6,49}	Intel® Core™ i7-10750H with Intel® UHD Graphics (2.6 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores) Intel® Core™ i5-10400H with Intel® UHD Graphics (2.6 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores), supports Intel® vPro® Technology Intel® Core™ i7-10850H with Intel® UHD Graphics (2.7 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology Intel® Core™ i9-10885H with Intel® UHD Graphics (2.4 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Xeon® W-10885M with Intel® UHD Graphics (2.4 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® technology
Display size (diagonal)	15.6"
Maximum memory	32 GB DDR4-2667 non-ECC SDRAM ^{8,9} Memory soldered down. Supports dual channel memory.
Internal storage	256 GB up to 4 TB PCle® Gen 3 x 4 NVMe™ M.2 SSD ^{10,50} 512 GB PCle® NVMe™ M.2 SED SSD ¹⁰
Display ^{15,25,26,27,28,29}	15.6" diagonal FHD, IPS, eDP + PSR anti-glare, low power, 400 nits, 72% NTSC (1920 x 1080) Next Gen HP DreamColor 15.6" diagonal 4K UHD, IPS, HDR 400, eDP + PSR anti-glare, 600 nits, 100% DCI P3 (3840 x 2160) 15.6" diagonal 4K UHD, UWVA, HDR 500 True Black, eDP + PSR, Brightview, OLED with ambient light sensor, 400 nits, 100% DCI-P3 (3840 x 2160) 15.6" diagonal FHD, IPS, eDP + PSR, anti-glare, HP Sure View Reflect integrated privacy screen, 1000 nits, 72% NTSC (1920 x 1080)
Available Graphics	Integrated: Intel® UHD Graphics ^{15,18,19,20,21,22} Discrete: NVIDIA® Quadro® T1000 with Max-Q Design (4 GB GDDR6 dedicated); NVIDIA® Quadro® T2000 with Max-Q Design (4 GB GDDR6 dedicated); NVIDIA® Quadro RTX™ 3000 with Max-Q Design (6 GB GDDR6 dedicated); NVIDIA® Quadro RTX™ 4000 with Max-Q Design (8 GB GDDR6 dedicated); NVIDIA® Quadro RTX™ 5000 with Max-Q Design (16 GB GDDR6 dedicated) 12,13,21,22
Audio	Audio by Bang & Olufsen, stereo speakers (2 tweeters & 2 woofers), HP World Facing Microphone dual array digital microphones, functions keys for volume up and down, combo microphone/headphone jack, HD audio with 150Hz Bass Roll off
Expansion slots	1 SD 4.0 media card reader 11,52 (SD 4.0 supports next generation secure digital and is compatible to SD, SDHC, SDXC, SDUC media)
Ports and Connectors	Left side: 1 power connector; 1 Mini DisplayPort™ 1.4; 1 SuperSpeed USB Type-C® 10Gbps signaling rate ^{12,13,52} Right side: 1 USB 3.1 Gen 1 (charging); 1 headphone/microphone combo
Available Keyboards ²⁴	HP Premium Quiet Keyboard, full-size, spill-resistant, backlit, with drain and DuraKeys, clickpad with image sensor and glass surface, multitouch gestures and taps enabled; HP Z Command Keyboard, full-size, spillresistant, backlit, with drain and DuraKeys, clickpad with image sensor and glass surface, multi-touch gestures and taps enabled
WLAN ¹⁴	Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo, vPro™ Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo, non-vPro™
Camera ^{16,17}	720p HD with Temporal Noise Reduction webcam with IR
Software ^{30,31,32,33}	Bing search for IE11; Buy Office; HP Hotkey Support; HP Noise Cancellation Software; HP Performance Advisor; Native Miracast support; HP Connection Optimizer; HP ZCentral Remote Boost Software
Security management ^{34,35,36,37,38,39,40,41,42,43}	Absolute persistence module; HP Device Access Manager; HP Power On Authentication; Security lock slot; Trusted Platform Module TPM 2.0 Embedded Security Chip; Master Boot Record security; Pre-boot authentication; Microsoft Security Defender; HP Secure Erase; HP Client Security Manager Gen5; HP Manageability Integration Kit; HP Sure Recover with Embedded Reimaging Gen2; HP BIOSphere with HP Sure Start; HP Sure Sense
Fingerprint reader	Fingerprint reader (select models)
Power ⁴⁸	HP Smart 150 W External AC Power Adapter; HP Slim Smart 200 W External AC Power Adapter
Battery type ⁴⁷	HP Long Life 6-cell, 83 Wh Li-ion polymer
Battery life ⁴⁴	Up to 18 hours
Battery recharge time	Supports battery HP fast charge: approximately 50% in 30 minutes ⁴⁷
Dimensions	13.93 x 9.24 x 0.70 in (non touch); 13.93 x 9.24 x 0.69 in (touch); 35.4 x 23.46 x 1.79 cm (non-touch); 35.4 x 23.46 x 1.75 cm (touch)
Weight	Starting at 3.96 lb; Starting at 1.79 kg (Weight varies by configuration and components.)
Energy efficiency compliance ^{45, 53}	ENERGY STAR® certified and EPEAT® Gold registered configurations available
Environmental specifications ⁴⁶	Low halogen
Warranty	3 year or 1 year limited warranty options available, depending on country. Batteries have the same 1 year or 3 year limited warranty as the platform. 24/7 operation will not void the HP warranty. Optional HP Care Pack Services are extended service contracts which go beyond your standard limited warranties.

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Accessories and services (not included)

Additional Services (Not included)



HP Care Pack

UDOP8E - HP 1 year Next business day onsite Hardware Support with Accidental Damage

Protection
U02BVE - HP 3 year Next business day onsite Hardware Support with Accidental Damage
Protection

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Messaging Footnotes

- 1 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
- Optional, configurable features
 One-billion colors through A-FRC technology.
- S 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.
 6 NVIDIA®, the NVIDIA® logo, and NVIDIA® Quadro® are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries.
- 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.

- ⁸ Adobe Premier Pro[®] and Autodesk 3ds Max sold separately.
 ⁹ Up to 32GB memory is an optional, configurable feature.
 ¹⁰ 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.
- 11 4TB PCIe Gen 3 x4 NVMe M.2 SSD TLC is planned to be available in 2nd half of 2020.

 12 Wi-Fi 6 offers up to 3x faster file transfer speeds than Wi-Fi® 5 Based on Wi-Fi 5 80MHz and Wi-Fi 6 160MHz minimum requirements when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 802.11ax (Wi-Fi 6). Only available in countries where 802.11ax is supported.

 13 HP Sure View integrated privacy screen is an optional feature that must be configured at purchase.

 14 HP Sure Start Gen5 is available on select HP PCs with Intel processors. See product specifications for availability.

- ¹⁵ HP Sure Sense requires Windows 10. See product specifications for availability.

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.
- 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 Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

- 4 Intel® 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 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any 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 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any 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 8 or Windows 9 o drivers on http://www.support.hp.com.
- 6 Some functionality of VPrq, 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 with future "virtual appliances" is yet to be determined.
- 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. Memory is soldered down and not upgradeable.

- ¹⁰ Memory configuration may be limited to specific CPU / GPU Configurations.

 ¹⁰ For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of disk is reserved for system recovery software.
- 11 SD Media does not come with the device and requires compatible media in order to use the slot.
- 12 HDMI 2.0 works with Discrete Graphics and drops to HDMI 1.4 with Intel(r) UHD Graphics.
 13 HDMI 2.0 connector is provided with Intel(*) UHD Graphics and/or NVIDIA Quadro T1000 or T2000 configurations; miniDP 1.4 connector is provided with NVIDIA Quadro RTX 3000 or higher configurations
- 14 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 notebook to communicate with other 802.11ax devices. Only available in countries where 802.11ax is supported.
- 15 UHD content required to view UHD images.
- 16 HD content required to view HD images.

 17 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.
- 18 Both UMA & Discrete configurations support 3 independent displays when on the HP UltraSlim Dock (sold separately) Max. resolution = 2.5K @60Hz (DP2) & FHD (VGA), and support 3 independent displays when on the HP Thunderbolt Dock G2 (sold separately) Max. resolution = 2.5K @60Hz (DP1) & 2.5K @60Hz (DP2) & FHD (VGA) OR 4K @60Hz (one DP Port) & 4K @60Hz (Type-C output port using a Type C-to-DP adapter).

 19 Support HD decode, DX12, HDMI 1.4, HDCP 2.2 via DP up to 4K @ 60Hz and via HDMI up to 4K @ 30Hz.
- ²⁰ Shared video memory (UMA) uses part of the total system memory for video performance. System memory dedicated to video performance is not available for other use by other programs ²¹ HDMI cable Sold Separately.
- 23 GPU configurations may be limited to specific GPU/Memory Configurations.

 33 miniDP cable sold separately.

 34 HP Premium Quiet Creator Bridge Keyboard only available in the US.

 35 HP Sure View is optional and must be configured at purchase.

 26 HP Sure View is optional and must be configured at purchase.

- 27 Display options may be limited to specific CPU / GPU Configurations. 28 Vesa Certification for HDR 400 and HDR 500 True Black are pending.
- ²⁹ Resolutions are dependent upon monitor capability, and resolution and color depth settings
- ³⁰ HP ZCentral Remote Boost does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without license purchase. 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. RGS requires Windows, RHEL (7 or 8), UBUNTU 18.04 LTS, or HP ThinPro 7 operating systems. MacOS
- (10.13 or newer) operating system is only supported on the receiver side. Requires network access. The software is available for download at hp.com/ZCentralRemoteBoost.

 31 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.
- ³² 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

- 33 HP Connection Optimizer requires Windows 10.
 34 HP BIOSphere Gen5 is available on select HP Pro, Elite and ZBook PCs. See product specifications for details. Features may vary depending on the platform and configurations.
 35 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.

 ³⁶ Microsoft Defender Opt in and internet connection required for updates
- 37 HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement.
- 38 Security lock slot is Lock sold separately.
 39 HP Client Security Manager Gen5 requires Windows and is available on select HP Pro, Elite, and ZBook PCs. See product specifications for details.
- When Sectority Manager Gen's requires windows and is available on seeter HP Pro, Little and ZBook P.C.s. See product specifications for details.

 When Sure Recover Gen2: See product specifications for availablity. 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™.

 When Recover with Embedded Reimaging Gen2 is an optional feature which must be configured at purchase. See product specifications for availablity. Not available on platforms with multiple internal storage drives. You must back up important files, data, photos, videos, etc. before use to avoid loss of data. HP Sure Recover with Embedded Reimaging (Gen1) does not support platforms with Intel® Optane™.

 When Recover When Recover When Recover When Recover with Embedded Reimaging (Gen1) does not support platforms with Intel® Optane™.

 When Recover When Recover
- 43 HP Sure Start Gen5 is available on select HP PCs with Intel processors. See product specifications for availability.

 44 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 MobileMark 14 battery benchmark https://bapco.com/products/mobilemark-2014/ for additional details.

 45Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

 46 External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.
- ⁴⁷ HP tested Windows 10, version 1809 on this platform. For testing information on newer versions of Windows 10, please see https://support.hp.com/document/c05195282 ⁴⁸ 150W Power Adapter is not available with NVIDIA Quardro RTX 3000 or higher configurations.
- 49 Intel® Xeon® W 10885M is scheduled to be available in the 2nd half of 2020
- 50 4TB PCIe Gen 3 x4 NVMe M.2 SSD TLC Option available in 2nd half of 2020.
 51 NVIDIA Quadro RTX 5000 graphics option available in 2nd half of 2020
- 52 1 HDMI 2.0 or 1 mini DisplayPort™ 1.4 53 Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

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