HP ZBook Studio 15.6 inch G8 Mobile Workstation PC

Power to free the creative mind

From keyboard to screen, every aspect of our ZBook Studio is designed for performance workflows. Render or visualize in real time, collaborate remotely, and even game from anywhere. With all this power engineered into such a small package, finally, there's one device for everything you do.

*Product image may differ from actual product

HP recommends Windows 11 Pro for business

Power-packed for the work you do

- With up to NVIDIA RTX™ A5000 or NVIDIA® GeForce RTX™ 3080 laptop GPUs [1] and Intel® Core™ i9 vPro® CPUs [1,3,8] you can animate in seconds and render or visualize in real time. Plus, with ZCentral Remote Boost share your power when teammates need a boost.[2]

A transformative visual experience

- Have confidence in what you see on screen. The HP DreamColor Display with 100% DCI-P3 coverage gives you complete color accuracy. Now with a 120 Hz refresh rate you get smooth motion for high-speed videos, animation, and gaming.[4]

Thin, light and designed to perform anywhere

- At less than 4lbs,[5] with long-lasting battery life and built-in noise suppression, this sleek PC is designed so you can work and game from anywhere. Need to stay in the zone? Speakers custom tuned by Bang and Olufsen surround you in rich audio.
- Work anywhere without compromising on performance or security with Windows 10 and HP's collaboration and connectivity technology.[6]
- NVIDIA RTX™ professional GPUs deliver the performance professionals need and the flexibility to work from anywhere in a compact form factor.[1]
- Experience high-end visualization and seamlessly render your biggest projects with the next generation NVIDIA® GeForce RTX™ graphics.[1]
- Take multitasking to the next level with Intel® Core™ i9 vPro® processors[1,3,8] designed to handle complex, multithreaded apps like Adobe Premiere Pro®, and you can boost your speed on single threaded apps like Autodesk® 3ds Max®[9]
- Power through projects with up to 32 GB RAM[10] for fast rendering, editing and simulating.
- Blitz through multiple tasks and ditch external drives with up to 2 TB local NVMe storage.[11,12]
- Speakers custom tuned by Bang and Olufsen surround you in a rich sound space so you hear music the way the audio engineers intended.
- Connect to everything you need with a wide-range of connectivity options: Dual USB-C® Thunderbolt™, HDMI,[13,14] mini DisplayPort™,[15,16] USB 3.0 charging port, headphone jack, and AC port.
- Get 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[17]

HP ZBook Studio 15.6 inch G8 Mobile Workstation PC Specifications Table

*Product image may differ from actual product

Available Operating Systems	Windows 11 Pro[1] Windows 11 Home – HP recommends Windows 11 Pro for business[1] Windows 11 Home Single Language – HP recommends Windows 11 Pro for business[1] Windows 11 Pro (Windows 11 Enterprise available with a Volume Licensing Agreement)[1] Windows 10 Pro[1] Windows 10 Home – HP recommends Windows 11 Pro for business[1] Windows 10 Home Single Language – HP recommends Windows 11 Pro for business[1] Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement)[1] Ubuntu 20.04[28] FreeDOS 3.0 (Device comes with Windows 10 and a free Windows 11 upgrade or may be preloaded with Windows 11. Upgrade timing may vary by device. Features and app availability may vary by region. Certain features require specific hardware (see Windows 11 Specifications).)
Processor family[3,4,5,6,11]	11th Generation Intel® Core™ i7 processor; 11th Generation Intel® Core™ i9 processor
Available Processors[3,4,5,6,11]	Intel® Core™ i7-11800H with Intel® UHD Graphics (2.3 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 8 cores); Intel® Core™ i7-11850H with Intel® UHD Graphics (2.5 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Core™ i9-11900H with Intel® UHD Graphics (2.5 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 8 cores); Intel® Core™ i9-11950H with Intel® UHD Graphics (2.6 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 8 cores), supports Intel® vPro® Technology
Product colour	Turbo Silver
Maximum memory	32 GB DDR4-3200 non-ECC SDRAM [8,9] Memory soldered down. Supports dual channel memory.
Internal storage	256 GB up to 2 TB PCIe® Gen 3 x 4 NVMe™ M.2 SSD[10] up to 512 GB PCIe® NVMe™ M.2 SED SSD[10]
Display size (diagonal)	15.6"
Display size (diagonal, metric)	39.6 cm (15.6")
Display	15.6" diagonal, FHD (1920 x 1080), IPS, anti-glare, 1000 nits, 72% NTSC, HP Sure View Reflect integrated privacy screen; 15.6" diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 400 nits, low power, 100% sRGB; 15.6" diagonal, 4K UHD (3840 x 2160), 120 Hz, IPS, anti-glare, 600 nits, HDR 400, 100% DCI-P3, HP DreamColor; 15.6" diagonal, 4K UHD (3840 x 2160), OLED, multitouch-enabled, UWVA, BrightView, Corning® Gorilla® Glass 5, 400 nits, 100% DCI-P3[7,15,16,25,27,29] 39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, anti-glare, 400 nits, low power, 72% NTSC; 39.6 cm (15.6") diagonal, FHD (1920 x 1080), IPS, anti-glare, 1000 nits, 72% NTSC, HP Sure View Reflect integrated privacy screen; 39.6 cm (15.6") diagonal, 4K UHD (3840 x 2160), 120 Hz, IPS, anti-glare, 600 nits, HDR 400, 100% DCI-P3, HP DreamColor; 39.6 cm (15.6") diagonal, 4K UHD (3840 x 2160), OLED, multitouch-enabled, UWVA, BrightView, Corning® Gorilla® Glass 5, 400 nits, 100% DCI-P3 [7,15,16,25,27,29]
Available Graphics	Integrated: Intel® Iris® Xᵉ Graphics[18,19,20,21,22,32] Discrete: NVIDIA® GeForce RTX™ 3060 (6 GB GDDR6 dedicated); NVIDIA® GeForce RTX™ 3070 (8 GB GDDR6 dedicated); NVIDIA® GeForce RTX™ 3080 (16 GB GDDR6 dedicated); NVIDIA® T1200 (4 GB GDDR6 dedicated); NVIDIA RTX™ A2000 (4 GB GDDR6 dedicated); NVIDIA RTX™ A3000 (6 GB GDDR6 dedicated); NVIDIA RTX™ A4000 (8 GB GDDR6 dedicated); NVIDIA RTX™ A5000 (16 GB GDDR6 dedicated)[12,13,18,21,22,23,50,52]
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
Memory card device	1 SD 7.0 media card reader
Ports and Connectors	Left side: 1 headphone/microphone combo; 1 SuperSpeed USB Type-A 5Gbps signaling rate (charging); 1 nano security lock slot[12,13] ; Right side: 1 power connector; 1 Mini DisplayPort™ 1.4; 2 Thunderbolt™ 4 with USB4™ Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 1 HDMI 2.1[54,56] ; (Mini Displayport and HDMI restrictions to Graphics cards are noted in Footnote54 and Footnote56)
Input devices	HP Z Command Keyboard – spill-resistant, full-size, backlit keyboard with drain and DuraKeys; HP Premium Quiet Keyboard – spill-resistant, full-size, backlit keyboard with drain and DuraKeys; HP RGB Keyboard - Full-size, per-key RGB backlit keyboard[24]; Clickpad with image sensor and glass surface supporting multi-touch gestures and taps;
Communications	WLAN: Intel® Wi-Fi CERTIFIED 6™ AX201 (2x2) and Bluetooth® 5.2 combo, vPro®; Intel® Wi-Fi CERTIFIED 6™ AX201 (2x2) and Bluetooth® 5.2 combo, non-vPro® ;
Camera	720p HD IR camera [16,17]
Software	Bing search for IE11; Buy Office; HP Hotkey Support; HP Noise Cancellation Software; HP Performance Advisor; HP Support Assistant; Native Miracast support; HP Connection Optimizer; HP Privacy Settings; HP QuickDrop; Data Science Stack; HP Easy Clean; HP PC Hardware Diagnostics; HP ZCentral Remote Boost 2020 Software for Z workstation; Tile™ Application; Windows 10 Cloud Recovery Client; 1-month Adobe® free trial offer;[30,33,51,55,57,58]
Available software	HP Smart Support
Security management	Absolute persistence module; HP Device Access Manager; HP Power On Authentication; Trusted Platform Module TPM 2.0 Embedded Security Chip; Master Boot Record security; Pre-boot authentication; HP Sure Click; Windows Defender; HP Secure Erase; HP Manageability Integration Kit; HP Sure Sense; HP BIOSphere Gen6; HP Sure Start Gen6; HP Sure Admin; HP Image Assistant; MS Bitlocker Encryption; Nano Security Lock Slot; HP Sure Recover Gen4; HP Sure Run Gen4; HP Client Security Manager Gen7; HP Sure Recover Gen4 with Embedded Reimaging;[34,35,36,37,38,39,40,41,42,43,49]
Fingerprint reader	Fingerprint reader (select models)
Power	HP Smart 150 W External AC Power Adapter; HP Slim Smart 200 W External AC Power Adapter[48]
Battery type	HP Long Life 6-cell, 83 Wh Li-ion polymer[26,47]
Battery life	Up to 9 hours and 30 minutes[44]
Battery recharge time	Supports battery HP fast charge: approximately 50% in 30 minutes
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.)
Ecolabels	ENERGY STAR® certified; EPEAT® Gold registered in US[45]
Sustainable impact specifications	Low halogen[46]

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Messaging Footnotes

[1] Optional, configurable feature that must be configured at purchase

[2] 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. ZCentral Remote Boost requires Windows 10, RHEL/CentOS (7 or 8), UBUNTU 18.04 or 20.04 LTS, or HP ThinPro 7.1 operating systems. MacOS (10.13, 10.14, 10.15) operating system is only supported on the receiver side. Requires network access. The software is available for download at hp.com/ZCentralRemoteBoost.

[3] 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

[4] DreamColor is an optional feature that must be configured at purchase.

[5] Starting at weight. Weight will vary with configuration.

[6] 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 .

[8] 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.

[9] Adobe Premiere Pro® and Autodesk® 3ds Max® sold separately.

[10] Up to 32GB memory is an optional feature that must be configured at purchase.

[11] 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.

[12] Optional, configurable feature

[13] HDMI cables are sold separately.

[14] HDMI Port is only available on configurations with integrated graphics or Nvidia Quadro T-Series graphics.

[15] MiniDisplayPort cables are sold separately.

[16] MiniDisplayPort is only available on configurations with NVIDIA RTX-Series graphics.

[17] 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.

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 .

[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 drivers on http://www.support.hp.com.

[6] 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

[7] Actual brightness will be lower with HP Sure View or touch-screen.

[8] Memory is soldered down and not upgradeable.

[9] 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 (for Windows) is reserved for system recovery software.

[11] 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.

[12] HDMI 2.0 works with Discrete Graphics and Intel(r) Iris Xe Graphics. Note: For Nvidia Discreate Gfx, it can support HDMI 2.1 except GPU of QN20-P1 SKU(HDMI2.0 support).

[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 and Discrete configurations support 4 independent displays (both Intel and NVIDIA Graphic cards, UMA/DIS mode need to close lid or only 3 displays max are supported externally. Max. resolution = 4K @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] Intel GPU and NVIDIA® T1200 Laptop GPU: Support HD decode, DX12, HDMI 2.0, DP 1.4, HDCP 2.2 via DP up to 5K@60Hz(W/o DSC) or 8K@60(With DSC) and via HDMI up to 4K @ 60Hz

[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.

[22] GPU configurations may be limited to specific GPU/Memory Configurations

[23] MiniDP cable sold separately.

[24] HP Z Command Keyboard only available in the US.

[25] HP Sure View is optional and must be configured at purchase. It operates in landscape orientation.

[26] 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.

[27] Display options may be limited to specific CPU / GPU Configurations.

[28] Not all features are available in all editions or versions of Ubuntu. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply and additional requirements may apply over time for updates.

[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. ZCentral Remote Boost requires Windows 10, RHEL/CentOS (7 or 8), UBUNTU 18.04 or 20.04 LTS, or HP ThinPro 7.1 operating systems. MacOS (10.13, 10.14, 10.15) 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] Others NVIDIA dGPU: Support HD decode, DX12, HDMI 2.1, DP 1.4,HDCP 2.3 via DP up to 5K@60Hz(W/o DSC) or 8K@60(With DSC and requires 2 display heads) and via HDMI up to 8K @ 60Hz(With DSC and requires 2 display heads)

[33] HP Connection Optimizer requires Windows 10.

[34] 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

[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] HP Sure Run Gen4 is available on select HP PCs and requires Windows 10.

[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 Gen7 requires Windows and is available on the select HP Elite and Pro PCs.

[40] HP Sure Recover Gen4 is available on select HP PCs and requires Windows 10 and 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 PCs with Intel Wi-Fi Module.

[41] HP Sure Recover Gen4 with Embedded Reimaging is an optional feature which requires Windows 10 must be configured at purchase. You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Network based recovery using Wi-Fi is only available on PCs with Intel Wi-Fi Module.

[42] HP Sure Click requires Windows 10. See https://bit.ly/2PrLT6A_SureClick for complete details

[43] HP Sure Start Gen6 is available on select HP PCs and requires Windows 10.

[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 MobileMark18 battery benchmark https://bapco.com/products/mobilemark-2018/ for additional details.

[45] Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. 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] Supports HP Fast Charge Technology

[48] 150W Power Adapter is not available with Nvidia RTX™ A3000 or higher configurations

[49] 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.

[50] NVIDIA® GeForce RTX™ 3060 graphics and NVIDIA® GeForce RTX™ 3080 graphics options available in 2nd half of 2021

[51] HP Easy Clean requires Windows 10 RS3 and will disable the keyboard, touchscreen, and clickpad only. Ports are not disabled. See user guide for clean.

[52] NVIDIA RTX™ A5000 graphics option available in 2nd half of 2021

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

[54] HDMI 2.1 for select models NVIDIA® T1200 supports HDMI 2.0 and NVIDIA RTX™ A2000 Supports HDMI 2.1

[55] 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.

[56] Mini DisplayPort 1.4 for select models NVIDIA RTX™ A2000, NVIDIA RTX™ A3000, NVIDIA RTX™ A4000, NVIDIA RTX™ A5000, NVIDIA® GeForce RTX™ 3060,NVIDIA® GeForce RTX™ 3070, NVIDIA® GeForce RTX™ 3080

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