HP Z2 G8 Tower Workstation Desktop PC

Engineered to evolve.

We've engineered a whole new level of performance for entry workstations, so you can cut through rendering, visualization, BIM projects without missing a beat. And when your demands change, you have impressive expandability to upgrade.

HP recommends Windows 10 Pro for business

Your new benchmark for entry workstation power.

* Unleash the full power of professional graphics and an Intel® Xeon® or Core™ vPro®[1] processor on compute-heavy projects. With support for PCIe Gen 4 and designed for unthrottled performance, you can render in real-time and visualize projects faster.

Built to expand. Power to grow.

* Need to upgrade graphics? Increase memory or storage? Add specialized PCIe cards? Go for it. With room to expand and tool-less access, you can easily upgrade and add components as your needs evolve. This is an investment that will last for years.

Industry-leading security. Durability you can trust.

* Backed by 360K hours of rigorous testing, military-standard testing,[2] and software certifications, every component is put to the test. And with hardened security features, your Z2 Tower is protected from the BIOS to the browser, above and below the OS.

Access your Z2 Tower from anywhere.

* Tap into the power of your Z2 Tower from anywhere and on almost any device with HP ZCentral Remote Boost.[3] Get fast responsiveness and exceptional image quality on demanding projects. Seamlessly collaborate with dispersed teams, even on 3D models.

* Support your unique user needs with a choice of Windows 10 Pro 64[4] or Linux® operating systems.

* Bring your ideas to life quickly and run multiple apps simultaneously with the latest Intel® Core™ vPro®[1] processors. For ultimate performance, choose the unlocked K-Series which allows for overclocking.[5]

* Run demanding professional apps with the latest Intel® Xeon® vPro®[1] processors for powerful performance and productivity. And, avoid system crashes in the middle of your workflow with Error Correction Code memory.[6]

* Seamlessly render, design and multitask on your biggest projects with professional NVIDIA RTX™ A5000 or AMD Radeon™ Pro W5700 graphics.[7,15]

* Built with the environment in mind, this product contains recycled plastics, sustainably sourced packaging,[8] ultra-efficient power consumption, and uses materials that meet GreenScreen® for Safer Chemicals' methodology standards.[9]

* Experience fast performance when working on complex design tasks with up to 128GB DDR4 memory at in an increased memory speed of up to 3200MHz.[10]

* Store massive amounts of data with up to 28TB[11] of storage, 3 hard drive bays and 2 M.2 SSD slots. With increased storage bandwidth enabled by PCIe Gen 4 and double the external storage speed, you can download and access large files quickly.

* Configure to the needs today and adapt to the future. Options include DP 1.4, VGA, HDMI, Dual USB Type-A, USB Type-C® with Alt-DP or 2nd Serial and more.[12]

* This device is designed for VR content creation with professional graphics—NVIDIA RTX™ or AMD Radeon™ Pro—and an Intel® Xeon® or Core™ processor.

* Multiple PSU options, including the 700W PSU, enable increasing need for GPU, even with the highest power CPUs and rich configurations.[13]

* Our engineers have custom tuned your PC to ensure peak performance for your heaviest workloads. Now you're ready to take on any task.[14]

* Evolve your work. Evolve your rig. With tool-less access to the interior, you can customize your Z to fit your needs.

HP Z2 G8 Tower Workstation Desktop PC Specifications Table

Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro for business[1] Windows 10 Pro 64 High End[1] Windows 10 Pro for Workstations[1,2] Windows 10 Home 64 Plus[1] Windows 10 Home 64 Advanced[1] Linux® Ready[3] Ubuntu 20.04 LTS[27]
Processor family[4]	11th Generation Intel® Core™ i5 processor; 11th Generation Intel® Core™ i7 processor; 11th Generation Intel® Core™ i9 processor
Available Processors[4,5,6]	Intel® Core™ i9-11900K with Intel® UHD Graphics 750 (3.5 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Core™ i9-11900F (2.5 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores) Intel® Core™ i9-11900 with Intel® UHD Graphics 750 (2.5 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Core™ i7-11700K with Intel® UHD Graphics 750 (3.6 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Core™ i7-11700 with Intel® UHD Graphics 750 (2.5 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Core™ i5-11600K with Intel® UHD Graphics 750 (3.9 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology Intel® Core™ i5-11600 with Intel® UHD Graphics 750 (2.8 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology Intel® Core™ i5-11500 with Intel® UHD Graphics 750 (2.7 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology Intel® Core™ i5-11400F (2.6 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores) Intel® Core™ i5-11400 with Intel® UHD Graphics 730 (2.6 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores) Intel® Xeon® W-1390 with Intel® UHD Graphics P750 (2.8 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Xeon® W-1370P with Intel® UHD Graphics P750 (3.6 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Xeon® W-1370 with Intel® UHD Graphics P750 (2.9 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology Intel® Xeon® W-1350P with Intel® UHD Graphics P750 (4.0 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology Intel® Xeon® W-1350 with Intel® UHD Graphics P750 (3.3 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology Intel® Xeon® W-1390P with Intel® UHD Graphics P750 (3.5 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology
Chipset	Intel® W580
Form factor	Tower
Maximum memory	128 GB DDR4-3200 ECC SDRAM; 128 GB DDR4-3200 non-ECC SDRAM Transfer rates up to 3200 MT/s.
Memory slots	4 DIMM
Internal storage	500 GB up to 2 TB 7200 rpm SATA HDD[7] 1 TB up to 8 TB 7200 rpm Enterprise SATA HDD[7] 500 GB 7200 rpm SED HDD[7] 256 GB up to 2 TB PCIe® NVMe™ TLC M.2 SSD[7] 256 GB up to 2 TB HP Z Turbo Drive PCIe® NVMe™ TLC M.2 SSD[7] 256 GB up to 2 TB HP Z Turbo Drive PCIe® NVMe™ SED Opal 2 TLC M.2 SSD[7]
Optical drive[11,12]	HP Slim DVD-ROM; HP Slim DVD-Writer
Available Graphics	Integrated: Intel® UHD Graphics 730; Intel® UHD Graphics 750; Intel® UHD Graphics P750 Entry 3D: NVIDIA® Quadro® P400 (2 GB GDDR5 dedicated) Mid-range 3D: NVIDIA® T1000 (4 GB GDDR6 dedicated); AMD Radeon™ Pro WX 3200 Graphics (4 GB GDDR6 dedicated) High-end 3D: AMD Radeon™ Pro W5500 (8 GB GDDR6 dedicated); AMD Radeon™ Pro W5700 Graphics (8GB GDDR6 dedicated)
Audio	Realtek ALC3205-VA2-CG, 2.0W internal mono speaker
Expansion slots	1 PCIe 3 x4 (x16 connector); 1 PCIe 3 x4 (x4 connector); 1 M.2 2230 PCIe 3 x1; 1 M.2 2280 PCIe 4 x4; 1 M.2 2280 PCIe 3 x4; 1 PCIe 3 x1 (x4 connector); 1 PCIe 4 x16 (x16 connector) (1 M.2 2230 slot for WLAN and 2 M.2 2280 slots for storage)
Ports and Connectors	Front: 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 universal audio jack; 2 SuperSpeed Type-A USB 5Gbps signaling rate (1 charging) Rear: 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate
Optional Ports	Flex IO – choose one of the following options: 1 DisplayPort™ 1.4, 1 HDMI 2.0b, 1 VGA,1 2nd 1GbE LAN, 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate,1 SuperSpeed USB Type-C® 10Gbps signaling rate (15W USB Power Delivery, Alt Mode DisplayPort™) 1 Thunderbolt™ 3 with SuperSpeed USB4 Type-C® 40Gbps signaling rate (cabled to PCIe® AIC); Front - 1 SuperSpeed USB Type-C® 20Gbps signaling rate (1 charging), 1 SD card reader; Rear - 1 serial[8]
Available Keyboards[9]	HP USB Premium keyboard; HP Premium Wireless keyboard; HP Wireless Business Slim Keyboard and mouse combo; HP USB Business Slim SmartCard CCID Keyboard; HP Wired Desktop 320MK Mouse and Keyboard; HP Wired Desktop 320K Keyboard
Available Pointing Devices[9]	HP USB Premium Mouse; HP Wireless Premium Mouse; HP Wired 320M Mouse
Communications[10,28]	Integrated Intel® I219-LM GbE Intel® I350-T2 dual-port GbE NIC Intel® I225-LM 2.5 GbE LOM, non-vPro® HP 10 GbE SFP+ SR Transceiver Intel® X710-DA2 dual-port 10GbE SFP+ NIC Aquantia AQN-108 1-port 5GbE NIC Intel® Ethernet Network Adapter I225-T1 Intel® X550-T2 dual-port 10GbE NIC Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo
Drive Bays	One slim ODD; One 5.25" ODD; Two M.2 NVME 2280 SSD; One 2.5" HDD; Two 3.5" HDD
Software[15,16,17]	HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Desktop Support Utilities; HP Image Assistant; HP Notifications; My HP; HP QuickDrop
Security management[19,20,21,22,23,24,25,26]	HP Secure Erase; HP Power On Authentication; HP Sure Click; Windows Defender; HP Sure Sense; HP BIOSphere Gen6; HP Client Security Manager Gen7; HP Sure Start Gen7; HP Sure Run Gen4; HP Sure Recover Gen4
Security Software Licenses	HP Pro Security Edition (select models)[56]
Management features	HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen4; HP System Software Manager (download); HP BIOS Configuration Utility (download)[18]
Power	350 W 92% efficient, wide-ranging, active PFC; 700 W 92% efficient, wide-ranging, active PFC; 500 W 90% efficient, wide-ranging, active PFC
Dimensions	14 x 6.7 x 15.2 in; 35.6 x 16.9 x 38.5 cm (Standard tower orientation.)
Weight	Starting at 15.43 lb; Starting at 7 kg (Exact weight depends on configuration.)
Energy efficiency compliance[13]	ENERGY STAR® certified; EPEAT® Gold registered in US
Sustainable impact specifications[14]	Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 20% ITE-derived closed loop plastic; Bulk packaging available; 80 Plus® Gold power supplies available; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable
Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays

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Messaging Footnotes

[1] vPro® is available on Intel® Core™ i5-11500 and above processors. vPro® is available on all Intel® Xeon® processors.

[2] Undergoes MIL-STD testing. MIL-STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Service.

[3] HP ZCentral Remote Boost does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without an additional license purchase. When you purchase a Z device, you get an embedded license. With non-Z sender devices, it is a perpetual or floating license. ZCentral Remote Boost requires a Windows (10 or 7 SP2), RHEL (6, 7 or 8), UBUNTU 18.04 LTS, or HP ThinPro operating system. 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.

[4] 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 .

[5] Altering clock frequency or voltage may damage or reduce the useful life of the processor and other system components, and may reduce system stability and performance. HP does not warrant the product for over-clocked use.

[6] Error Correction Code (ECC) memory requires Intel® Xeon® processors.

[7] Graphics are sold separately or as an optional feature.

[8] 100% outer box packaging made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100% recycled wood fiber and organic material. Any plastic cushions are made from >90% recycled plastic.

[9] Based on IEEE 1680.1-2018 standards.

[10] Memory speed increase is compared gen/gen.

[11] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB is reserved for system recovery software.

[12] Flexible I/O needs to be configured at time of purchase.

[13] Optional feature that must be configured at purchase.

[14] Intel DTT only enabled on Intel® Xeon® 8-core 80W and Intel® Core™ 8-core 65W processors.

[15] NVIDIA® RTX™ A5000 graphics are planned to be available in 2H 2021.

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] Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see https://aka.ms/ProEducation for Windows 10 Pro Education feature information.

[3] For detailed OS/hardware support information for Linux, see: http://www.hp.com/support/linux_hardware_matrix

[4] 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.

[5] 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

[6] Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost for more information.

[7] For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB of system disk (for Windows 10) is reserved for system recovery software.

[8] Flex IO port and one PCIe slot will be occupied when Thunderbolt is installed. Thunderbolt will be available in Q3, 2021.

[9] Keyboard and Mouse are optional or add on features. The HP Antimicrobial Keyboard and HP Antimicrobial Mouse are only available in China.

[10] Intel I350-T4 4-port GbE NIC is an AMO only.

[11] Duplication of copyrighted material is strictly prohibited. Actual speeds may vary. Double Layer media compatibility will widely vary with some home DVD players and DVD-ROM drives. Note that DVD-RAM cannot read or write to 2.6GB Single Sided/5.2 Double Sided-Version 1.0 Media.

[12] With Blu-Ray, certain disc, digital connection, compatibility and/or performance issues may arise, and do not constitute defects in the product. Flawless playback on all systems is not guaranteed. In order for some Blu-ray titles to play, they may require a DVI or HDMI digital connection and your display may require HDCP support. HD-DVD movies cannot be played on this Desktop PC.

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

[14] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

[15] 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 7operating 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.

[16] 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

[17] HP Support Assistant requires Windows and Internet access.

[18] HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html

[19] HP Client Security Manager Gen7requires Windows and is available on the select HP PCs.

[20] HP BIOSphere Gen6 features may vary depending on the platform and configurations.

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

[22] HP Sure Start Gen7 is available on select HP PCs and workstations. See product specifications for availability.

[23] HP Sure Run Gen4 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors

[24] HP Sure Recover Gen4 is available on select HP PCs and requires an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.

[25] 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

[26] HP Sure Sense requires Windows 10 Pro or Enterprise and supports Microsoft Internet Explorer, Google Chrome™, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

[27] A certified preloaded version of Ubuntu 20.04 LTS is available from HP for this platform.

[28] Intel® I225 and Intel® X710 will be available in Q3, 2021.

[56] HP Pro Security Edition is available preloaded on select HP PCs and includes HP Sure Click Pro and HP Sure Sense Pro. 3-year license required. The HP Pro Security Edition software is licensed under the license terms of the HP End User License Agreement (EULA) that can be found at: https://h30670.www3.hp.com/ecommerce/common/disclaimer.do#EN_US as modified by the following: "7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for thirty-six (36) months thereafter ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP 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." HP Pro Security Edition is optimized for the SMB environment and ships pre-configured - manageability is optional. The HP Pro Security Edition supports a limited tool set that can be used by the HP Manageability Integration Kit which can be downloaded from http://www.hp.com/go/clientmanagement .

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