HP Z2 Tower G9 Workstation Desktop

Pro-power. Today and tomorrow.

Experience a whole new level of performance for your professional workflow. The Z2 Tower is engineered to seamlessly run multithreaded apps for fast rendering, simulation, and now real-time ray tracing. And when your demands change, you have impressive expandability to upgrade.



*Product image may differ from actual product

Your new benchmark for entry workstation power

Unleash the power of professional graphics and an Intel[®] Core[™] processor, including K-Series, on intensive multi-threaded apps. Designed for zero throttling so you can render, simulate, and even real-time ray trace without overheating or slow downs.

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. Reliability you can trust

- Get peace of mind with a PC that's built to endure. The Z2 Tower undergoes 360K hours of
 rigorous testing, military-standard testing² and is certified for pro apps. And with HP Wolf
 Security for Business¹, it's protected below, in and above the OS.
- Support your unique user needs with a choice of Windows 11 Pro, WSL2 or Linux[®] operating systems.⁴
- Bring your ideas to life quickly and run multiple apps simultaneously with the latest Intel[®] Core™ vPro^{®6} processors. For added performance, choose the K-Series.
- Design, render, ray-trace and even work on large datasets seamlessly with up to NVIDIA RTX A5000 and AMD Radeon Pro X with PCIe G5 high speed bandwidth.⁷
- Experience fast performance when working on complex design tasks with 4 DIMMs for up to 128GB DDR5 memory at an increased memory speed of up to 4400MHz.⁸
- Storage fit for a pro. Get up to 48TB with 3x M.2 storage slots and RAID for added performance and reliability.⁹
- Configure to the needs today and adapt to the future with multiple flex I/O options. Choose from DP 1.4, VGA, HDMI, Dual USB Type-A, USB Type-C[®] with Alt-DP or 2nd Serial and more.¹⁰
- 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.¹
- Evolve your work. Evolve your rig. With tool-less access to the interior, you can customize your Z to fit your needs.
- Connect at a clip with fast network connectivity with 10Gb Ethernet interface.
- Work with confidence knowing your desktop is certified with leading software applications to ensure peak performance.³
- Innovatively designed to keep hardware components cool and quiet no matter how hard you push it. Have confidence to run your system at max load 24/7.
- Custom tune your PC to ensure peak performance with three different modes to takle any task.

HP recommends Windows 11 Pro for business

HP Z2 Tower G9 Workstation Desktop PC Specifications Table



*Product image may differ from actual product

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Available Operating Systems	Windows 11 Pro ¹ Windows 11 Prone – HP recommends Windows 11 Pro for Business ¹ Linux ^{ae} Ready ³ Ubuntu 20.04 LTS ²⁷		
Processor family ⁴	12th Generation Intel® Core [™] i7 processor; 12th Generation Intel® Core [™] i9 processor; 12th Generation Intel® Core [™] i5 processor		
Available Processors	Intel [®] Core [®] I5-12400 with Intel [®] UHD Graphics (2.5 GHz P-core base frequency, up to 4.4 GHz P-core Max Turbo frequency, 10 MB I3 cache, 6 P-cores, 12 threads). Intel [®] Core [®] I3-1200 with Intel [®] UHD Graphics (2.5 GHz P-core base frequency, up to 4.5 GHz P-core base frequency, up to 4.5 GHz P-core Max Turbo frequency, 10 H I3 cache, 6 P-cores, 8 threads). Intel [®] Core [®] I3-1200 with Intel [®] UHD Graphics (2.5 GHz P-core Base frequency, up to 3.5 GHz P-core Max Turbo frequency, 10 H I3 cache, 6 P-cores, 8 threads). Intel [®] Core [®] I3-1200 with Intel [®] UHD Graphics (2.5 GHz P-core Base frequency, up to 3.5 GHz P-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, up to 5.3 GHz P-core Max Turb frequency, up to 5.3		
Maximum memory	128 GB DDR5-4400 non-ECC SDRAM; 128 GB DDR5-4400 ECC SDRAM ²⁹ Transfer rates up to 4400 MT/s. Transfer rates up to 4400 MT/s.		
Memory slots	rinalser rats op to 4400 M/s. 4 DIMM		
Internal storage	4 Umini 500 GB up to 2 TB 7200 rpm SATA HDD ⁷ 1 TB up to 12 TB 7200 rpm SEM HDD ⁷ up to 500 GB 7200 rpm SEM HDD ⁷ 512 GB up to 4 TB HP 2 Turbo Drive PCIe [®] NVMe ^{INF} TL CM 2 SSD ⁷ 512 GB up to 4 TB HP 2 Turbo Drive PCIe [®] NVMe ^{INF} SED Opal 2 TLC M.2 SSD ⁷ 256 GB up to 1 TB PCIe [®] NVMe ^{INF} SED Opal 2 TLC M.2 SSD ⁷ 256 GB up to 1 TB PCIe [®] NVME ^{INF} SED Opal 2 TLC M.2 SSD ⁷ 500 GB up to 2 TB CRU SHIPS Removable NVMe ^{INF} Module ⁷		
Optical drive	HP Slim DVD-ROM; HP Slim DVD-Writer ^{11,12} (##opticaldriveavailnote##)		
Available Graphics	Integrated: Intel® UHD Graphics 770 Entry 3D: NVIDM® T4004 GB; NVIDIA® T600 4 GB ³² Mid-range 3D: AMD Radeon™ Pro W6600 (BGB GDDR6 dedicated); NVIDIA® T1000 8 GB; NVIDIA RTX™ A2000 12GB; NVIDIA® T1000 4 GB High-end 3D: AMD Radeon™ Pro W6600 (32 GB GDDR6 dedicated); NVIDIA® T1X™ A5000 24 GB; NVIDIA® RTX™ A4000 16 GB; AMD Radeon™ RX 6700 XT (12 GB 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 PCIe 3 x1 (x4 connector); 1 PCIe 5 x16 (x16 connector); 1 M.2 2230 PCIe 3 X1 for WLAN (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage)		
Ports and Connectors	Front 4 SuppeSpeed USB Type-A 10Cbps signaling rate (1 charging): 1 universal audio jack: Reart Jaudio:n: 1 Jaudio:n: 1 Audio:n: 1 Audio:n: 1 Audio:n: 1 SuppeSpeed USB Type-A 10Cbps signaling rate; 2 USB Type-A 400Mbps signaling rate; Optional Ports: Flex IO - choose one of the following options: 1 DisplayPort "1: 4, 1 HDMI 2.0b, 1 VGA, 1 Audi SupeSpeed USB Type-A 5Cbps signaling rate; 3 USB Type-A 400Mbps signaling rate (15W USB Power Delwery, Alt Mode DisplayPort) "1 Houderout" 3 HDMI 2.0b, 1 VGA, 1 CMI 2.0b, 1 CMI 2		
Input devices	HP Wired Desktop 320K keyboard; HP Wired Desktop 320MK Mouse and Keyboard; HP 125 Wired Keyboard; HP 655 Wireless Keyboard and mouse combo; HP 975 Wireless Keyboard; HP 455 Programmable Wireless		
Communications	LAN: Integrated Intel® [219-LM GbE; Intel® [225-LM 2.5 GbE LOM, non-vPro®; Intel® Ethernet Network Adapter [225-T1; Intel® X550-T2 dual-port 10GbE NIC; Allied Telesis AT-29117/2-901 dual-port 1GbE NIC ³⁰ ; WLAN: Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with internal antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® WI-F1 6 KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® KX211 (2x2) and Bluetooth® 5.3 wireless card with external antenna; Intel® KX211 (2x2) antenna; Intel® KX21		
Drive Bays	One slim ODD; One 5.25" ODD; One 2.5" HDD; Two 3.5" HDD; Three M.2 NVME 2280 SSD		
Software	HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Image Assistant; HP Manageability Integration Kit; Performance Advisor 3.0; ^{15,16,17}		
Security management	HP Secure Erase: HP Sure (Lick; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Security Manager Gen6; HP Sure Start Gen7; HP Sure Recover Gen4; HP Sure Sense Gen2; HP Sure Run Gen5; ^{13,20,21,22,23,24,25,26,33}		
Security Software Licenses	HP Wolf Pro Security Edition 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	35.6 x 16.9 x 38.5 cm; (Standard tower orientation.)		
Weight	Starting at 7.2 kg; (Exact weight depends on configuration.)		
Ecolabels	IT ECO Declaration; TCO Certified configurations available; EPEAT® Gold registered in the U.S. ^{13,31}		
Energy star certified (series fixed)	ENERGY STAR® certified		
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% 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; Ocean-bound plastic in speaker enclosure and system fan; Contains recycled metal		
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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Accessories and services (not included)

NVIDIA RTX A4000 16 GB 4DP Graphics	O	Product number: 20X24AA
NVIDIA Mellanox ConnectX-6 LX Dual Port 25GbE SFP28 NIC		Product number: 436M8AA
HP CRU QX328 5.25 in Front Removable Frame		Product number: 4N011AA
HP Business Slim Smartcard Keyboard		Boost your productivity, make a stylish IT choice, and get integrated security features with the HP USB Slim Smartcard Keyboard, which has a built-in smart card reader and is designed to complement the latest HP Business PCs. Product number: Z9H48AA ¹ Refer to cleaning instructions in user guide.
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

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Messaging Footnotes

¹ HP Wolf Security for Business requires Windows 10 or higher, includes various HP security features and is available on HP Pro, Elite, RPOS and Workstation products. See product details for included security features and OS requirement. ² 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 or damage under these test conditions requires an optional HP Accidental Damage Protection Care Pack.

Third party software sold separately. 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 11 Pro is automatically updated.

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 Tunctionality. Windows 11 Pro is automatically upda which is alwayse snabled. (SP fees may apply and additional requirements may apply over time for updates. See thirty.//www.windows.com. 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. ⁶ For full Intel⁹ 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

Sold separately or as an optional feature. ³ Gen over aen.

For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB of system disk (for Windows 11) is reserved for system recovery software

¹⁰ Optional features that must be configured at purchase or are sold separately

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

¹ Not an teachings are available in all equilors of versions of windows, systems may require upgraded and values processor hardware or holds updated to take initial values are available. High special internet and Microsoft account required. (JP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.
 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 11 Pro 64 bit, a vPro supported processor, vPro enabled clipset, 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://www.windows.software.matrix.

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

⁶ Intel indice backs performance varies depending on hardware, soluware and overall system comparison. See http://www.intel.com/tel.indocgy.udbobocs.tor index indomator.
⁷ For storage drives, Get = 1 billion bytes. Tel = 1 trillion bytes. Area in trillion bytes. Tel = 1 trillion bytes. Area in trillion bytes. Tel = 1 trillion bytes. Te

¹⁴ With Build Address (and in the content on the content of the content of the 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.
 ¹⁵ HD Zicentral 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. The polymers have boost Software Support is required. Zicentral Remote Boost 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/ZicentralRemoteBoost.
 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 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 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 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 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-advis

advisor.html ¹⁷ HP Support Assistant requires Windows and Internet access.

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 ¹⁸ HP Managesbiltiy Integrations Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html
 ¹⁹ HP Client Security Manager Gen7 requires Windows and is available on the select HP PCs.
 ²⁰ HP BIOSheere Gen6 features Fanzy and yeapending on the platform and configurations.
 ²¹ HP Surget Gen7 requires Windows 11 Pro or Enterprise. See https://bit.ly/2PrIT6A_SureClick for complete details.
 ²² HP Sure State Gen7 is available on select HP PCs and workstations. See product specifications for availability.
 ²³ HP Sure Kinc Gen4 is available on select HP PCs and workstations. See product specifications for availability.
 ²⁴ HP Sure Kinc Gen4 is available on select HP PCs and requires windows 10 and higher.
 ²⁴ HP Sure Recover Gen4 is available on select HP PCs and requires windows 10 and higher.
 ²⁴ HP Sure Recover Gen4 is available on select HP PCs and requires an open network connection. You multi back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.
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 ²⁴ HP Sure Recover Gen4 is available on select HP PCS and requires and supports Microsoft Internet Explorer, Google Chrome™, supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Archat are installed Adobe Acrobat are installed

Adobe Acrobat are installed. ²⁷ A certified preloaded version of Ubuntu® 20.04 LTS is available from HP for this platform. ²⁸ Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11 ax) is backwards compatible with prior 802.11 specs. ²⁹ 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. ³⁰ Intel (330-T4 4-port GDE INC: is an AMO only. ³¹ CC certified configurations available when ENERGY STAR configurations are selected with a USB type C connector. ENERGY STAR available with a combination of high-performance CPU's, high-performance GPU's and select memory configurations.

²¹ UCU etritined conguisations available when EVEKKY 5 IAR conguisations are selected with a USE type L connector. EVEKKY 5 IAR available with a Combination of high-performance U-US and Select memory connigurations.
²³ WIDIA⁸⁷ HOVO (2 G6 DDR6 dedicated may go End of Life in late 2022.
²³ PMIDA⁸⁷ HOVO (2 G6 DDR6 dedicated may go End of Life in late 2022.
²³ PMIDA⁸⁷ HOVO (2 G6 DDR6 dedicated may go End of Life in late 2022.
²³ HOV EXPENDENT Constraints of the PS use Admin requires Windows 10 or higher, 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.
⁵⁴ HP Wolf Pro Security Edition for Life Prolos Apple able prolos available prolos

Sign up for updates hp.com/go/getupdated

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