HP Z2 Tower G5 Workstation

Our most powerful entry workstation that redefines expectations.

We've engineered a whole new level of performance for entry workstations, so you can cut through BIM, rendering and visualization 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 NVIDIA® Quadro RTX™ 6000 graphics and 10-core processing on your compute-heavy workloads. We've designed the system for zero throttling, so your components always run at top speeds without ever overheating or slowing down.

Built to expand. Power to grow.

- Need to upgrade graphics cards? Increase memory or storage? Add specialized PCIe cards? Go for it. Our most expandable entry workstation is an investment that will last for years.

We test it so you can trust it. 24/7.

- You need performance you can rely on. That's why our products endure over 360K hours of rigorous testing, MIL-STD testing[1] and software certifications. Paired with an Intel® Xeon® processor[2] and ECC memory, our Z2 is built for tough workloads.

HP's most secure workstation.

- Advanced security features come standard on every Z2 Tower. System safeguards like self-healing BIOS help lock your device, data and identity down tight.

- Support your unique user needs with a choice of Windows 10 Pro 64 or Linux® operating systems.[3]

- Get powerful performance on single and multi-threaded applications with the latest generation 10-core Intel® Xeon® and Intel® Core™ processors.[2]

- Maximize your 3D workflow with support for multiple NVIDIA® and AMD professional graphics from Entry to Ultra 3D.

- Wish support for NVIDIA Quadro® RTX 6000, you get optimized performance in visualization[4]

- Centralize your workstation fleet and power a remote workforce with HP ZCentral, a complete hardware and software solution.[5]

- Save space within your office layout with a 15% smaller system than the previous generation

- 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.[6]

- Get multiple high-speed network connections including a second LAN option.[4]

- Multiple PSU options, including the high end 700W PSU, enable increasing need for GPU even with the highest power CPUs and rich configurations.[8]

- With optional self-encryption drives, you have confidence knowing that if your storage device falls into the wrong hands, your valuable IP cannot be accessed.[4]

HP Z2 Tower G5 Workstation Specifications Table

Available Operating Systems	Windows 10 Pro 64[1] Windows 10 Pro 64 High End[1] Windows 10 Pro 64 Workstations Plus[1,20] Windows 10 Home 64 Plus[1] Windows 10 Home 64 Advanced[1] Windows 10 Pro for Workstations[1] Linux® Ready
Processor family[2,3]	10th Generation Intel® Core™ i3 processor; 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[2,3,5,6,11,30]	Intel® Core™ i3-10100 with Intel® UHD Graphics 630 (3.6 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores); Intel® Core™ i3-10300 with Intel® UHD Graphics 630 (3.7 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores); Intel® Core™ i3-10320 with Intel® UHD Graphics 630 (3.8 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores); Intel® Core™ i5-10400 with Intel® UHD Graphics 630 (2.9 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Core™ i5-10400F (2.9 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores); Intel® Core™ i5-10500 with Intel® UHD Graphics 630 (3.1 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Core™ i5-10600 with Intel® UHD Graphics 630 (3.3 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™ i5-10600K with Intel® UHD Graphics 630 (4.1 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™ i7-10700 with Intel® UHD Graphics 630 (2.9 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Core™ i7-10700K with Intel® UHD Graphics 630 (3.8 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Core™ i9-10900 with Intel® UHD Graphics 630 (2.8 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology; Intel® Core™ i9-10900F (2.8 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores); Intel® Core™ i9-10900K with Intel® UHD Graphics 630 (3.7 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology; Intel® Core™ i9-10900KF (3.7 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1270 with Intel® UHD Graphics P630 (3.4 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1250P with Intel® UHD Graphics P630 (4.1 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1270P with Intel® UHD Graphics P630 (3.8 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-1250 with Intel® UHD Graphics P630 (3.3 GHz base frequency, up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1290 with Intel® UHD Graphics P630 (3.2 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology
Chipset	Intel® W480
Form factor	Tower
Maximum memory	128 GB DDR4-3200 ECC SDRAM; 128 GB DDR4-3200 non-ECC SDRAM Transfer rates up to 2933MT/s.
Memory slots	4 DIMM
Internal storage	256 GB up to 2 TB SATA SSD[8] 256 GB up to 2 TB HP Z Turbo Drive PCIe® NVMe™ SSD M.2[8] up to 256 GB HP Z Turbo Drive PCIe® NVMe™ SED Opal 2 M.2 SSD[8] up to 512 GB HP Z Turbo Drive PCIe® NVMe™ SED Opal 2 M.2 SSD[8] 500 GB up to 2 TB 7200 rpm SATA HDD[8] 1 TB up to 8 TB 7200 rpm Enterprise SATA HDD[8] 256 GB up to 1 TB PCIe® NVMe™ SSD[31] up to 256 GB SATA SED Opal 2 SSD[8] up to 512 GB SATA SED Opal 2 SSD[8] up to 1 TB HP Z Turbo Drive PCIe® NVMe™ SED Opal 2 M.2 SSD[8] up to 2 TB HP Z Turbo Drive PCIe® NVMe™ SED Opal 2 M.2 SSD[8]
Optical drive	HP Slim DVD-ROM; HP Slim Blu-ray Writer; HP Slim DVD-Writer [9,18,19]
Available Graphics	Discrete: AMD Radeon™ Pro WX 3200 (4 GB GDDR5 dedicated); NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated); NVIDIA® Quadro® P400 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P620 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P2200 (5 GB GDDR5X dedicated) High-end 3D: NVIDIA® Quadro® RTX 4000 (8 GB GDDR6 dedicated); AMD Radeon™ Pro W5500 Graphics (8GB GDDR5 dedicated); AMD Radeon™ Pro W5700 Graphics (8GB GDDR5 dedicated) Ultra High-end 3D: NVIDIA® Quadro RTX™ 5000 (16 GB GDDR6 dedicated); NVIDIA® Quadro RTX™ 6000 (24 GB GDDR6 dedicated)
Audio	Realtek ALC3205-VA2-CG, 2.0W internal mono speaker
Expansion slots	1 PCIe 3 x4 (x16 connector); 1 PCIe 3 x16 (x16 connector); 1 M.2 2230 PCIe 3 x1; 2 M.2 2280 PCIe 3 x4; 2 PCIe® 3 x1 (x4 connector) (1 M.2 slot for WLAN and 2 M.2 2230/2280 slot for storage.)
Ports and Connectors	Front: 1 headphone/microphone combo; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 2 SuperSpeed USB Type-A 5Gbps signaling rate Rear: 1 audio-in; 1 audio-out; 1 RJ-45; 2 USB 2.0; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 5Gbps signaling rate; 2 SuperSpeed USB Type-A 10Gbps signaling rate Optional Ports: Flex IO upper – choose one of the following options: 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate, 1 serial; Flex IO lower – choose one of the following options: 1 DisplayPort™ 1.4, 1 HDMI 2.0b, 1 VGA, 1 Dual SuperSpeed USB Type-A 10Gbps signaling rate, 1 SuperSpeed USB Type-C® 5Gbps signaling rate (USB Porwer Delivery, Alt Mode DisplayPort™), 1 GbE LAN, 1 Thunderbolt™ 3 (40Gbps signaling rate) with SuperSpeed USB Type-C® 10Gbps signaling rate, 2.5 GbE LAN[7]
Input devices	HP PS/2 Business Slim Keyboard; HP USB Business Slim Keyboard; HP Wireless Business Slim Keyboard; USB Smart Card (CCID) keyboard; HP USB Premium keyboard; HP Premium Wireless keyboard; HP Wireless Business Slim Keyboard and mouse combo[9]; HP PS/2 Business Mouse; HP Wireless Business Mouse; HP USB Black Wired Mouse; HP Wireless Premium Mouse; HP USB Premium Wired Mouse[9];
Communications	LAN: Integrated Intel® I219-LM PCIe® GbE; Intel® I350-T2 dual-port GbE NIC; Intel® I350-T4 4-port GbE NIC; Intel® X710-DA2 2-Port 10GbE SFP+ NIC; HP 10GbE SFP+ SR Transceiver; Intel® X550-T2 2-Port 10GbE NIC; Aquantia AQN-108 1-Port 5GbE NIC [4]; WLAN: Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo ;
Drive Bays	One 5.25"; Two 3.5"; Two M.2 NVME 2280 SSD
Software	HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Image Assistant; HP Manageability Integration Kit[12,16,21,23]
Security management	HP Business PC Security Lock Kit; HP Keyed Cable Lock Kit; HP Solenoid Hood Lock and Sensor; HP UltraSlim Cable Lock Kit; HP Secure Erase; HP Sure Click; HP Sure Sense; HP Sure Start Gen6; HP Sure Run Gen3; HP Sure Recover Gen3; HP BIOSphere Gen6; HP Sure Admin; HP Client Security Manager Gen6[15,22,24,25,26,27,28,29,32,34]
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 kg (Exact weight depends on configuration.)
Energy efficiency compliance	ENERGY STAR® certified and EPEAT® 2020 registered where applicable. EPEAT® registration varies by country. See www.epeat.net for registration status by country.[17]
Sustainable impact specifications	Low halogen[33]
Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays
Warranty	3 year (3-3-3) limited warranty and service offering includes 3 years of parts, labor and on-site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.

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Accessories and services (not included)

HP USB Premium Mouse

Create a sleek, professional workspace with the HP USB Premium Mouse, which integrates seamlessly with your HP notebook. Engineered for demanding graphics and processor intensive applications.
Product number: 1JR32AA

HP Z24n G2 24-inch Display

Be a productive powerhouse with the sleek WUXGA HP Z24n G2 60.96 cm (24") Display. This virtually seamless display is factory-tested for reliability and longevity with integrated color calibration, uninterrupted multi-screen[1] tiling, and expansive device connections, including USB-C™. Engineered for demanding graphics and processor intensive applications.
Product number: 1JS09A4

HP Wireless Premium Keyboard

Boost your productivity and work comfortably at your desk or across the room with the elegant, redesigned, anodized aluminum-trimmed HP Wireless Premium Keyboard. Engineered for demanding graphics and processor intensive applications.
Product number: Z9N41AA

HP 5 year Next Business Day Onsite Hardware Support for Workstations

Receive 5 years of next business day onsite HW Support from an HP-qualified technician for your computing device, if the issue cannot be solved remotely.
Product number: U7944E

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Messaging Footnotes

[1] 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.

[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] 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] Sold separately or as an optional feature.

[5] HP ZCentral Connect Software requires purchase of a perpetual floating license per simultaneous connection and purchase of 1 year ZCentral Connect Software Support Service and requires download at hp.com/ZCentral. Requires HP ZCentral Remote Boost Software which can be downloaded at hp.com/ZCentralRemoteBoost, a Windows 10, Windows Server 2016 or newer operating system, Microsoft Active Directory and Intel Active Management Technology for select features.

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

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

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] Intel Core i9-10900F, Intel Core i5-10400F, Intel Core i3-10320, Intel Core i3-10300, Intel Xeon W-1270P, Intel Xeon W-1290 available in first quarter of 2021.

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

[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] Flex IO port will be occupied when Thunderbolt is installed

[8] 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.

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

[11] Intel® HD graphics 630 is configurable as a standalone graphics option; Intel® HD graphics P630 only used when NVIDIA® Optimus™ Technology is enabled.

[12] 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.

[15] HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.

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

[18] 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.

[19] 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.

[20] 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.

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

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

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

[24] HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.

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

[26] HP Sure Start Gen 6 is available on select HP PCs and workstations. See product specifications for availability.

[27] HP Sure Run Gen3 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors

[28] HP Sure Recover Gen3 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.

[29] 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

[30] Configurations with the Xeon W-1250P and W-1290P offered on the performance model (125W motherboard) only.

[31] 256 GB up to 1TB PCIe NVMe SSD not available until November 2020 and require configuration at the factory.

[32] 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.

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

[34] 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.

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