HP Z4 G4 Workstation

Perfect for engineering, visualization and Machine Learning, HP's most popular workstation delivers disruptive performance for a wide spectrum of applications. With a choice of Intel® Xeon® or Core™ X processors, and support for dual extreme graphics, you get all you need, nothing more.

HP recommends Windows 10 Pro.

Feature-rich functionality

The Z4 is ahead of its time with more standard features than any other single processor HP workstation. With multiple configuration options, you can choose the perfect blend of components that meet your performance requirements.

Visualization powerhouse

Visualize your project anytime with the power to move seamlessly between 3D CAD, rendering and simulation applications. The Z4 can easily handle tasks that require high frequency processing, multiple cores and high-powered GPUs for an optimized design process.

HP's most secure workstations

Advanced security features come standard on every Z4. Rest assured your device, identity and data are safe with security software like HP Client Security Suite Gen3[2] and HP Sure Start Gen3[10] featuring a self-healing BIOS.

Featuring

- Support your unique user needs with a choice of Windows 10 Pro 64 or Linux® operating systems.[1]
- Run demanding professional apps with the newest generation Intel® Xeon® processors available with up to 18 cores for powerful performance and productivity.
- Experience disruptive price-performance on multi-threaded applications, or combined workflows such as simulation based design, with Intel® Core™ X-Series processors: the high-performance single-socket processors from Intel®.[8]
- Get serious about graphics and reach peak productivity with access to a breadth of NVIDIA® and AMD professional graphics from entry to high-end 3D.[4]
- Install pro-grade storage hardware and elevate your storage-bound apps without sacrificing standard PCIe slots.
- The simply stunning design features front and rear handles, so you can easily relocate your system.
- Save space within your office layout with a chassis that is 10% smaller than the previous generation.
- Multiple high-speed network connections are easy and speedy with dual embedded 1GbE LAN ports with Thunderbolt™ 3 technology for fast data transfers.[6,9]
- The optional dual front I/O USB 3.1 G2 Type C™ module lets you transfer data to devices using modern connection technology at higher data rates.[5]
- Optional self-encryption drives thwart outside access so your valuable IP won't fall into the wrong hands.[4]

HP Z4 G4 Workstation Specifications Table

Operating System	Windows 10 Pro for Workstations 64 - HP recommends Windows 10 Pro [1,21,24] Windows 10 Pro 64 [1,21,25] Red Hat® Enterprise Linux® (HP Linux® Installer Kit includes drivers for 64-bit versions of Red Hat® Enterprise Linux® 7.4, SUSE Linux® Enterprise Desktop 12 and Ubuntu 16.04. Red Hat® Enterprise Linux® (1-year paper license only) is available as a second operating system.)
Processor Family [26,30]	Intel® Xeon® W processor; Intel® Core™ X-Series processor
Processors[2,3,29]	Intel® Xeon® W2195 (2.3 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 24.75 MB cache, 18 cores) Intel® Xeon® W2175 (2.5 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 19.25 MB cache, 14 cores) Intel® Xeon® W2155 (3.3 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 13.75 MB cache, 10 cores) Intel® Xeon® W2145 (3.7 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 11 MB cache, 8 cores) Intel® Xeon® W2135 (3.7 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 6 cores) Intel® Xeon® W2133 (3.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 6 cores) Intel® Xeon® W2125 (4 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 4 cores) Intel® Xeon® W2123 (3.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 4 cores) Intel® Xeon® W2104 (3.2 GHz, 8.25 MB cache, 4 cores) Intel® Xeon® W2102 (2.9 GHz, 8.25 MB cache, 4 cores) Intel® Core™ i9 9980XE (3 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 24.75 MB cache, 18 cores) Intel® Core™i9 9920X (3.5 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 19.25 MB cache, 12 cores) Intel® Core™i9 9820X (3.3 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Max Technology 3.0, 16.5 MB cache, 10 cores) Intel® Core™ i7 9800X (3.8 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 16.5 MB cache, 8 cores) Intel® Core™ i9-7980XE (2.6 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 24.75 MB cache, 18 cores) Intel® Core™ i9-7960X (2.8 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 22.0 MB cache, 16 cores) Intel® Core™ i9-7940X (3.1 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 19.25 MB cache, 14 cores) Intel® Core™ i9-7920X (2.9 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Max Technology 3.0, 16.5 MB cache, 12 cores) Intel® Core™ i9-7900X (3.3GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Max Technology 3.0, 13.75 MB cache, 10 cores) Intel® Core™ i7-7820X (3.6 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Max Technology 3.0, 11.0 MB cache, 8 cores) Intel® Core™ i7-7800X (3.5 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 6 cores)
Chipset	Intel® C422; Intel® X299 [26]
Maximum Memory	256 GB DDR4-2666 ECC SDRAM (for Intel® Xeon® configurations); 128 GB DDR4-2666 non-ECC SDRAM (for Intel® Core™ X configurations) [8] (Transfer rates up to 2666 MT/s.)
Memory Slots	8 DIMM
Drive Controllers	Integrated SATA 6.0 Gb/s supporting RAID 0, 1, 5, 10; Optional SAS controller supporting RAID, 0, 1, 10 for SAS drives
Internal Storage	300 GB SAS (15000 rpm) [4,23] 500 GB up to 2 TB SATA (7200 rpm) [4] 500 GB SATA SED (7200 rpm) [4] 1 TB up to 6 TB 7200 rpm SATA Enterprise [4] 256 GB up to 2 TB SATA SSD [4] 256 GB up to 512 GB SATA SED Opal 2 SSD [4] 240 GB up to 480 GB SATA Enterprise SSD [4] 256 GB up to 1 TB HP Z Turbo Drive PCIe® NVMe™ SSD [4] 256 GB up to 2 TB HP Z Turbo Drive PCIe® NVMe™ SSD M.2 [4] 256 GB up to 512 GB HP Z Turbo Drive PCIe® NVMe™ SED SSD M.2 [4] 256 GB up to 4 TB HP Z Turbo Drive Quad Pro PCIe® SSD [4,24] 256 GB up to 8 TB HP Z Turbo Drive Dual Pro PCIe® SSD [4,24]
Optical Storage	HP Slim DVD-ROM; HP Slim Blu-ray Writer; HP Slim DVD-Writer [5,6]
Additional Storage	HP SD 4 Media Card Reader (optional)
Available Graphics	Entry 3D: AMD FirePro™ W2100 Graphics (2 GB DDR3 dedicated); NVIDIA® Quadro® P400 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P620 (2 GB GDDR5 dedicated) Mid-range 3D: AMD Radeon™ Pro WX 3100 Graphics (4 GB GDDR5 dedicated); NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated); NVIDIA® Quadro® P2000 (5 GB GDDR5 dedicated) High-end 3D: NVIDIA® Quadro® P4000 (8 GB GDDR5 dedicated); AMD Radeon™ Pro WX 7100 Graphics (8 GB GDDR5 dedicated) Ultra High-end 3D: NVIDIA® Quadro® SYNC II; NVIDIA® Quadro® RTX 6000 (24 GB GDDR6 dedicated); NVIDIA® Quadro® RTX 5000 (16 GB GDDR6 dedicated); NVIDIA® Quadro® P6000 (24 GB GDDR5X dedicated); NVIDIA® Quadro® P5000 (16 GB GDDR5X dedicated); NVIDIA® Quadro® GV100 (32 GB GDDR5 dedicated); NVIDIA® Quadro® GP100 (16GB HBM2 dedicated); AMD Radeon™ Pro WX 9100 graphics (16GB dedicated)
Audio	Integrated Realtek HD ALC221
Networking	LAN: Integrated Intel® I219-LM PCIe® GbE; Integrated Intel® I210-AT PCIe® GbE; Intel® I350-T2 dual-port GbE NIC; Intel® I350-T4 dual-port GbE NIC; Intel® I210-T1 PCIe® GbE; Intel® X550-T2 dual-port GbE NIC; Intel® X710-DA2 dual-port GbE NIC; Intel® 10 GbE SFP+ SR transceiver [20] WLAN: Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo, non-vPro™
Expansion Slots	2 PCIe 3 x4; 2 PCIe 3 x4, 1 M.2 PCIe 3 x4, 1 PCIe x8, 2 PCIe x16 (for Intel® Core™ i9-X configurations); 2 PCIe 3 x4, 1 M.2 PCIe 3 x4, 1 PCIe x8 (mechanical only), 1 PCIe x16 (x8 electrical), 1 PCIe x16 (for Intel® Core™ i7-X configurations)
Ports and Connectors	Front: 1 headset connector; 4 USB 3.1 (1 charging) Front (Premium version): 1 headset connector; 2 USB 3.1 Gen 2 Type-C™; 2 USB 3.1 Gen1 (1 charging) Rear: 1 audio-in; 1 audio-out; 1 PS/2 keyboard port; 1 PS/2 mouse port; 1 serial; 2 RJ-45 (1 GbE); 6 USB 3.1 Gen 1 (The Intel® Core™ X-Series processor configurations only have one RJ45 port and 5 Rear USB 3.1 Gen 1 ports available. The serial port is optional.)

Drive Bays (Internal)	Two 2.5" or 3.5"[16]
Drive Bays (External)	Two 5.25"
Input Device	HP PS/2 Business Slim Keyboard; HP USB Business Slim Keyboard; USB Premium wired keyboard; USB Smart Card (CCID) keyboard[10] 3Dconnexion CADMouse; HP USB Optical Mouse; HP PS/2 Mouse; HP USB Hardened Mouse[10]
Software	HP Remote Graphics Software (RGS); HP Performance Advisor [13,31]
Security	Full volume encryption; HP Keyed Cable Lock Kit; HP Secure Erase; HP Sure Start Gen3; Kensington lock slot; Secure authentication; TPM 2.0 certified; HP Device Access Manager; HP Sure Click; HP BIOSphere Gen3; HP Client Security Manager Gen3; HP MIK/SCCM Gen2; Self Encrypting Drive (SED) [7,14,15,17,18,28]
Power	1000 W internal power supply, up to 90% efficiency, active PFC; 465 W internal power supply, up to 90% efficiency, active PFC; 750 W internal power supply, up to 90% efficiency, active PFC [19,22]
Dimensions (W x D x H)	15.2 x 6.65 x 17.5 in 38.6 x 16.9 x 44.5 cm
Weight	Starting at 22.4 lb Starting at 10.2 kg
Energy Efficiency Compliance	ENERGY STAR® certified and EPEAT® Gold registered configurations available [11]
Environmental Certification	Low halogen[12]
Compatible Displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays.
Warranty	Protected by HP Services, including a 3 years parts, 3 years labor, and 3 years onsite service (3-3-3) standard limited warranty. Certain restrictions. 24/7 operation will not void the HP warranty.