

HP Z8 G4 Workstation



The world's most powerful desktop workstation ²

Top-of-the-line power to fuel those who reimagine our world. When you need a workstation with the capability to run the most complex simulations and process huge amounts of data, the HP Z8 doesn't disappoint.



HP recommends Windows 10 Pro.

Extreme power

- Run 3D simulations and edit 8K video in real time with up to 56 processing cores and the highest memory capacity available ³. Certified for serious software, such as ANSYS or After Effects, you can ideate and iterate more to deliver better work in less time.

Industry-leading design and acoustics

- From the inside out, the Z8 is an engineering wonder. The modern exterior provides tool-free access to a clean, modular interior. Strategically placed vents and ducts throughout the system streamline airflow for ultra-quiet performance.

The world's most secure workstations ⁴

- Advanced security features come standard on every Z8. Rest assured your device, identity and data are safe with security software like HP Client Security Suite ⁵ and HP Sure Start, the industry's first self-healing BIOS with intrusion detection.

Featuring

- Support your unique user needs with a choice of Windows 10 Pro 64 or Linux® operating systems.
- Achieve the performance you need with the ability to support two next generation Intel® Xeon® processors for up to 56 total processor cores in one system.
- Easily handle massive data sets with 24 memory slots supporting up to 1.5 TB of high-speed memory.
- Get ultra-flexible configuration with 7 high-performance PCIe Gen3 slots and get additional expandability supporting up to 4 PCIe storage devices with optional slots.
- Providing a choice of 1125W and 1450W 90% efficient power supplies, the Z8 fires up the maximum levels of processing, memory, graphics, storage and I/O configurability.
- Designed with two ports of lightning-quick 10 GbE network connection at a lower cost than standard PCIe add-in cards.
- The tool-less chassis lets you quickly and easily access the interior for upgrades and maintenance.
- The Z8 workstation's modern, sophisticated look features built-in handles for easy relocation.
- Innovative acoustic design allows full range configurations to run cool and quiet for maximized productivity.

HP Z8 G4 Workstation Specifications Table



Operating System	Windows 10 Pro for Workstations ¹ HP Installer Kit for Linux [®] Red Hat [®] Enterprise Linux [®]
Processor Family	Intel [®] Xeon [®] Scalable processor
Processors^{2,3}	Intel [®] Xeon [®] Platinum 8180 (2.5 GHz base frequency, up to 3.8 GHz with Intel [®] Turbo Boost Technology, 38.5 MB cache, 28 cores); Intel [®] Xeon [®] Platinum 8160 (2.1 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 33 MB cache, 24 cores); Intel [®] Xeon [®] Gold 6152 (2.1 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 24.75 MB cache, 18 cores); Intel [®] Xeon [®] Gold 6148 (2.4 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 27.5 MB cache, 20 cores); Intel [®] Xeon [®] Gold 6142 (2.6 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 22 MB cache, 16 cores); Intel [®] Xeon [®] Gold 6136 (3 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 24.75 MB cache, 12 cores); Intel [®] Xeon [®] Gold 6140 (2.3 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 24.75 MB cache, 18 cores); Intel [®] Xeon [®] Gold 6134 (3.2 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 24.75 MB cache, 14 cores); Intel [®] Xeon [®] Gold 6130 (2.1 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 22 MB cache, 16 cores); Intel [®] Xeon [®] Gold 6128 (3.4 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 19.25 MB cache, 6 cores); Intel [®] Xeon [®] Gold 5120 (2.2 GHz base frequency, up to 3.2 GHz with Intel [®] Turbo Boost Technology, 19.25 MB cache, 14 cores); Intel [®] Xeon [®] Gold 5118 (2.3 GHz base frequency, up to 3.2 GHz with Intel [®] Turbo Boost Technology, 16.5 MB cache, 12 cores); Intel [®] Xeon [®] Gold 5122 (3.6 GHz base frequency, up to 3.7 GHz with Intel [®] Turbo Boost Technology, 16.5 MB cache, 4 cores); Intel [®] Xeon [®] Silver 4114 (2.2 GHz base frequency, up to 3 GHz with Intel [®] Turbo Boost Technology, 13.75 MB cache, 10 cores); Intel [®] Xeon [®] Silver 4112 (2.6 GHz base frequency, up to 3 GHz with Intel [®] Turbo Boost Technology, 8.25 MB cache, 4 cores); Intel [®] Xeon [®] Silver 4108 (1.8 GHz base frequency, up to 3 GHz with Intel [®] Turbo Boost Technology, 11 MB cache, 8 cores); Intel [®] Xeon [®] Bronze 3104 (1.7 GHz, 8.25 MB cache, 6 cores)
Chipset	Intel [®] C622
Maximum Memory	Up to 1.5 TB DDR4-2666 ECC SDRAM Standard memory note: Transfer rates up to 2666 MT/s.
Memory Slots	24 DIMM
Drive Controllers	Integrated SATA 6.0 Gb/s; Factory integrated RAID available for SATA/SAS drives (RAID 0, 0 Data, 1, 5, and 10)
Internal Storage	up to 300 GB SAS (15000 rpm) ⁴ 500 GB up to 2 TB SATA (7200 rpm) ⁴ up to 500 GB SATA SED (7200 rpm) ⁴ 1 TB up to 4 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
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)
Drive Bays (Internal)	Four 2.5" or 3.5" ¹⁶
Drive Bays (External)	Two 5.25" ¹⁶
Available Graphics	Entry 3D: NVIDIA [®] Quadro [®] P400 (2 GB GDDR5 dedicated); NVIDIA [®] Quadro [®] P600 (2 GB GDDR5 dedicated); AMD FirePro [™] W2100 Graphics (2 GB DDR3 dedicated) Mid-range 3D: NVIDIA [®] Quadro [®] P1000 (4 GB GDDR5 dedicated); NVIDIA [®] Quadro [®] P2000 (5 GB GDDR5 dedicated); AMD Radeon [™] Pro WX 3100 Graphics (4 GB GDDR5 dedicated); AMD Radeon [™] Pro WX 4100 Graphics (4 GB GDDR5 dedicated) ¹⁷ 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 [®] P5000 (16 GB GDDR5X dedicated); NVIDIA [®] Quadro [®] P6000 (24 GB GDDR5X dedicated) ⁷
Expansion Slots	2 PCIe x4; 3 PCIe x8; 4 PCIe x16 1 PCIe x8 has rear bulkhead access and 2 PCIe x8 are internal access only. Slot 1: Transforms to PCIe x8 when 2nd CPU is installed. Slots 3 and 6: are available only when 2nd processor is installed. PCIe x16 - Available only when 2nd processor is installed.
Ports and Connectors	Front: 1 headset connector; 4 USB 3.1 (1 charging); 2 USB 3.1 Type-C [™] Rear: 6 USB 3.1 Gen 1; 2 RJ-45 (1 GbE); 1 audio line out; 1 audio line in; 1 PS/2 mouse port; 1 PS/2 keyboard port; 1 serial port (optional) Premium front includes: 1 headset, 2 USB 3.1 Gen 1 (1 charging), 2 USB 3.1 Gen 2 Type-C [™] , SD Media Card Reader.
Communications	LAN: Integrated Intel [®] I219-LM PCIe [®] GbE; Integrated Intel [®] X722 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; HP dual-port 10GbBase-T NIC ¹⁹ WLAN: Intel [®] Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi [®] and Bluetooth [®] 4.2 Combo, non-vPro ^{™9}
Audio	Realtek HD ALC221
Power	1700 W internal power supply, up to 90% efficiency, active PFC; 1450 W internal power supply, up to 90% efficiency, active PFC; 1125 W internal power supply, up to 90% efficiency, active PFC
Input Device	HP Wireless Business Slim Keyboard and Mouse Combo; HP USB Business Slim Keyboard; USB Premium wired keyboard; USB Smart Card (CCID) keyboard 3Dconnexion CADMouse; HP USB Optical Mouse; HP PS/2 Mouse; HP USB Hardened Mouse ¹⁰
Security	HP Sure Start Gen3; Secure authentication; Kensington lock slot; Full volume encryption; HP Keyed Cable Lock Kit; TPM 2.0 certified; HP Secure Erase ^{14,15,18}
Software	HP Remote Graphics Software (RGS); HP Performance Advisor
Dimensions	21.59 x 55.12 x 44.45 cm
Weight	Starting at 22.4 kg Exact weight depends on configuration.
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	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.