



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 Gen3² and HP Sure Start Gen3¹⁰ featuring a self-healing BIOS.

Featuring

- Support your unique user needs with a choice of Windows 10 Pro 64 or Linux® operating systems.
- 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®.
- 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.
- 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.
- 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.
- Optional self-encryption drives thwart outside access so your valuable IP won't fall into the wrong hands.

HP Z4 G4 Workstation Specifications Table



Operating System	Windows 10 Pro for Workstations 64 - HP recommends Windows 10 Pro ^{1,21,24,28} Windows 10 Pro 64 ^{1,21,25,28} Windows 10 Pro (National Academic Plus) ²⁸ 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	Intel® Xeon® W processor; Intel® Core™ X-Series processor ^{26,30}
Processors^{2,3,30}	Intel® Xeon® W2102 (2.9 GHz, 8.25 MB cache, 4 cores); Intel® Xeon® W2104 (3.2 GHz, 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® W2125 (4 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 4 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® W2135 (3.7 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 8.25 MB cache, 6 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® W2155 (3.3 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 13.75 MB cache, 10 cores); 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® Core™ i9-7960X (2.6 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 (3.3 GHz 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	up to 300 GB SAS (15000 rpm) ^{4,23} 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)
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: 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: AMD Radeon™ Pro WX 7100 Graphics (8 GB GDDR5 dedicated); NVIDIA® Quadro® P4000 (8 GB GDDR5 dedicated); NVIDIA® Quadro® P5000 (16 GB GDDR5X dedicated); NVIDIA® Quadro® P6000 (24 GB GDDR5X dedicated)
Audio	Integrated Realtek HD ALC221
Communications	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™ ⁹
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 available. The serial port is optional.
Drive Bays (Internal)	Two 2.5" or 3.5"
Drive Bays (External)	Two 5.25"; ¹⁶
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
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}
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	38.6 x 16.9 x 44.5 cm
Weight	Starting at 10.2 kg
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 .
Energy Efficiency Compliance	ENERGY STAR® certified and EPEAT® Gold registered configurations available ¹¹
Warranty	On-site limited warranty and service with 3 year limited warranty and service offering delivers on-site, next business-day service for parts and labor and includes free telephone support 8 am - 5 pm. Global coverage ensures that any product purchased in one country and transferred to another, non-restricted country will remain fully covered under the original warranty and service offering. ^{24/7} operation will not void the HP warranty.

HP Z4 G4 Workstation

Recommended Accessories and Services

HP Z Premium Front I/O 2xUSB-A 2xUSB-C

Use the HP Z Premium Front I/O 2xUSB-A 2xUSB-C to quickly and easily upgrade your HP Z4, Z6 or Z8 G4 Workstation standard front I/O ports from 4x USB 3.1 Gen 1 Type A ports to 2x higher-bandwidth USB 3.1 Gen 2 Type-C™ ports for modern peripheral compatibility and 2x USB 3.1 Gen 1 Type A ports.

Product number: 1XM32AA

HP Z Turbo Drv Quad Pro 2x1TB PCIe SSD

Power through your largest data challenges and get amazing performance with the HP Z Turbo Drive Quad Pro, which integrates up to four super-fast HP Z Turbo Drive G2 modules¹ into one PCIe x16 card.

Product number: T9H99AA

HP 5-year Next Business Day Onsite Workstation Only Hardware Support



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

Messaging 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 HP Client Security Suite Gen3 requires Windows and Intel® or AMD 7th Gen processors.

³ 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.

⁴ Sold separately or as an optional feature.

⁵ HP Z Premium Front I/O 2xUSB-A 2xUSB-C is sold separately or as an optional feature.

⁶ Optional and available the first half of 2018.

⁷ Windows 10 Pro is preinstalled. Windows 7 is not supported on the Intel® Core™ X - Series processor configurations. Configurations with the Intel® Core™ X processors support only a subset of the full features of the Z4 G4 system, including, but not limited to: memory type and maximum memory, PCIe slot configurations, M.2 storage capacity, GbE interface and manageability features. Please refer to the product QuickSpecs for complete details.

⁸ Dual embedded 1GbE LAN ports on Intel® Xeon® processor configurations; single embedded 1GbE LAN ports on Intel® Core™ X processor configurations.

⁹ HP Sure Start Gen3 is available on HP EliteBook, HP ZBook, and HP Z Workstation products equipped with Intel® 7th generation processors.

Screen image courtesy of Renault Sport Racing.

Screen image courtesy of Chris McLennan.

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 Some Intel® vPro™ functionality of this technology, such as Intel® Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Microsoft Windows required. Intel vPro is supported only with Intel® Xeon™ configurations.

⁴ For hard drives and solid state drives, 1 GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB of system disk is reserved for system recovery software.

⁵ 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. No support for DVD RAM.

⁶ 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.

⁷ HP VR Ready Configurations available.

⁸ For systems installed with Microsoft Windows 7 (Ultimate, Enterprise or Professional), the maximum accessible system memory is 192 GB. Windows 7 is not supported on the Intel® Core XTM - Series processor configurations. Windows 7 is not supported on the Intel® Core XTM - Series processor configurations. For systems installed with Microsoft Windows 8.x (Enterprise or Pro), the maximum accessible system memory is 512 GB.

⁹ Wireless access point and Internet access required. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.

¹⁰ Optional or add-on feature.

¹¹ EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at <http://www.hp.com/go/options> www.hp.com/go/options

¹² External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.

¹³ HP Remote Graphics Software requires a Windows, Linux®, or Mac® OS X 10.10 and newer operating system and network access.

¹⁴ HP Sure Start Gen3 is available on HP EliteBook, HP ZBook, and HP Z Workstation products equipped with Intel® 7th generation processors.

¹⁵ HP Secure Erase: For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88. Supported on Elite platforms with BIOS version F.03 or higher.

¹⁶ Each bay is configurable to 2.5" or 3.5".

¹⁷ The AMD Radeon™ Pro WX 4100 Graphics is available only as an aftermarket option.

¹⁸ HP Keyed Cable Lock Kit is available only as an aftermarket option.

¹⁹ Available the first half of 2018.

²⁰ I210-AT, I219-V are available in Intel® Xeon® configurations only.

²¹ NOTE: In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any

Windows 8 or Windows 7 drivers on <http://www.support.hp.com>.

²² 465W and 750W power supply options are only available for Intel® Xeon® configurations.

²³ Supported only on Intel® Xeon® configurations: Not supported with Intel® Core XTM processor configurations.

²⁴ Available on Intel® Xeon® W processor configurations only.

²⁵ Available on Intel® Core™ X-Series processor configurations only.

²⁶ Choice of Intel Core X processor family will affect other configuration choices and system feature set availability; refer to the product Quickspecs for details.

²⁷ Intel® C422 for Intel® Xeon® configurations, Intel® X299 for Intel® Core™ X configurations.

²⁸ For Intel Core i9-X processors Windows 10 Pro 64 / National Academic Plus wont be available until April 30, 2018. Windows 10 Pro 64 Workstation Plus only available from May 1, 2018.

Sign up for updates

hp.com/go/getupdated

Copyright © 2018 HP Development Company, L.P. The only warranties for HP products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Xeon, Thunderbolt and Intel vPro are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries. Bluetooth is a trademark of its proprietor and used by HP Inc. under license. USB Type-C™ and USB-C™ are trademarks of USB Implementers Forum. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. AMD and Radeon are trademarks of Advanced Micro Devices, Inc. NVIDIA. The NVIDIA logo and Quadro are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Red Hat(R) is a registered trademark of Red Hat, Inc. in the United States and other countries. Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries. All other trademarks are the property of their respective owners.

4AA7-1580EEAP, July 2018

