HP Z2 Small Form Factor G4 Workstation

Get high-end performance in a compact device. Take on 3D design projects and work in multiple pro apps with ease. And with near endless configuration options, it's the ideal hardware if you need a custom solution.

HP recommends Windows 10 Pro.

Take processing to record speeds

Crush demanding single and multi-threaded workflows and take on aggressive multi-tasking without throttling. We redesigned our proprietary motherboard to give you full performance, while keeping components running cool and quiet.

Forget off the shelf. Make it your own.

Build a system matched exactly to your needs with over a million possible configurations. Keep clear of messy dongles and adapters—with customizable I/O ports you can support new, legacy and specialized equipment.

Safeguard your data. Protect your privacy.

Advanced security features come standard on every Z2 Small Form Factor. System safeguards like HP Client Security Suite Gen3[1] and HP Sure Start Gen4[2] - the industry's first self-healing BIOS - mean your device is locked down tight, so your data and identity are too.

Featuring

- 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 Intel® Xeon® and Core™ processors.[4]
- Get great 3D performance with support for NVIDIA and AMD professional graphics from Entry to Mid-range 3D.
- With dual M.2 storage slots you can install the fasted pro-grade storage hardware to unlock your storage-bound apps without sacrificing standard PCIe slots.
- The stunning new design features front and rear ledges, so you can easily move your system from location to location.
- Perfect for OEMs, the Z2 SFF has the same dimensions as last generation and will ship and be supported over a long life.
- Get multiple high-speed network connections including a second LAN option without needing to purchase and install an additional network interface card (NIC)[5]
- 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.[5]

HP Z2 Small Form Factor G4 Workstation Specifications Table

Operating System	Windows 10 Pro for Workstations 64 - HP recommends Windows 10 Pro [1] Windows 10 Home 64 [1] Windows 10 Pro (National Academic only) [1,20]
Processor Family	Intel® Pentium® Gold processor; Intel® Xeon® processor (E-2176G, E-2174G, E-2146G, E-2144G, E-2136, E-2126G, E-2124G, E-2104G); 8th Generation Intel® Core™ i3 processor; 8th Generation Intel® Core™ i5 processor; 8th Generation Intel® Core™ i7 processor; 9th Generation Intel® Core™ i9 processor; 9th Generation Intel® Core™ i7 processor; 9th Generation Intel® Core™ i5 processor; 9th Generation Intel® Core™ i3 processor [2,3]
Processors[2,3,4,5,6,30]	Intel® Xeon® E-2176G vPro™ (3.7 GHz base frequency, up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores) Intel® Xeon® E-2104G vPro™ with Intel® HD Graphics P630 (3.2 GHz, 8 MB cache, 4 cores) Intel® Pentium® Gold G5400 with Intel® HD Graphics 610 (3.7 GHz base frequency, 4 MB cache, 2 cores) Intel® Core™ i7 8700 vPro™ with Intel® HD Graphics 630 (3.2 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores) Intel® Core™ i5 8600 vPro™ with Intel® HD Graphics 630 (3.1 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores) Intel® Core™ i5 8500 vPro™ with Intel® HD Graphics 630 (3 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores) Intel® Core™ i3-8100 with Intel® HD Graphics 630 (3.6 GHz, 6 MB cache, 4 cores) Intel® Xeon® E-2174G vPro™ (3.8 GHz base frequency, up to 4.7 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Intel® Xeon® E-2144G vPro™ (3.6 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Intel® Xeon® E-2136 vPro™ (3.3 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores) Intel® Xeon® E-2126G vPro™ (3.3 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores) Intel® Core™ i3-9100 with Intel® UHD Graphics 630 (3.6 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores) Intel® Core™ i5-9500 with Intel® UHD Graphics 630 (3.0 GHz base frequency, up to 4.4 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores) Intel® Core™ i5-9600 with Intel® UHD Graphics 630 (3.1 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 9 MB cache, 6 cores) Intel® Core™ i7-9700 with Intel® UHD Graphics 630 (3.0 GHz base frequency, up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB cache, 8 cores) Intel® Core™ i7-9700K with Intel® UHD Graphics 630 (3.6 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 12 MB cache, 8 cores) Intel® Core™ i9-9900 with Intel® UHD Graphics 630 (3.1 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores) Intel® Core™ i9-9900K with Intel® UHD Graphics 630 (3.6 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores) Intel® Xeon® E-2224G (3.4 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores), vPro™ Intel® Xeon® E-2226G (3.4 GHz base frequency, up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores), vPro™ Intel® Xeon® E-2236 (3.4 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores), vPro™ Intel® Xeon® E-2244G (3.8 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores), vPro™ Intel® Xeon® E-2274G (4.0 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores), vPro™ Intel® Xeon® E-2276G (3.8 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores), vPro™ Intel® Xeon® E-2278G (3.4 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB cache, 8 cores), vPro™ Intel® Xeon® E-2286G (4.0 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 12 MB cache, 6 cores), vPro™
Chipset	Intel® C246
Maximum Memory	128 GB DDR4-2666 ECC SDRAM; 128 GB DDR4-2666 non-ECC SDRAM [7] (Transfer rates up to 2666 MT/s.)
Memory Slots	4 DIMM
Drive Controllers	Integrated SATA (4 ports 6 Gb/s) with integrated RAID 0, 1, for PCIe SSDs supported. Requires identical hard drives (speeds, capacity, interface).
Internal Storage	500 GB up to 6 TB 7200 rpm SATA [8] 500 GB SATA SED [8] 256 GB up to 2 TB SATA SSD [8] 280 GB up to 480 GB Intel® Optane™ SSD 905P [8,21] 256 GB up to 512 GB SATA SED SSD [8] 1 TB 7200 rpm SATA SSHD [8] 256 GB up to 1 TB HP Z Turbo Drive G2 PCIe® NVMe™ SSD [8,31]
Optical Storage	HP Slim Blu-ray Writer; HP Slim DVD-ROM; HP Slim DVD-Writer [9,18,19]
Drive Bays (Internal)	One 2.5"; One 3.5"; Two M.2 NVME 2280 SSD
Drive Bays (External)	One 3.5" HDD
Available Graphics	Integrated: Intel® UHD Graphics 630; Intel® UHD Graphics P630 [10,11] Entry 3D: NVIDIA® Quadro® P400 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P620 (2 GB GDDR5 dedicated); AMD Radeon™ Pro WX 3100 Graphics (4 GB GDDR5 dedicated); NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated) [12]
Expansion Slots	2 M.2 PCIe 3 x4; 1 PCIe Gen 3 x16; 2 PCIe 3 x1 (x4 open ended connector); 2 PCIe 3 x4 (x16 connector)
Ports and Connectors	Front: 1 headphone/microphone combo; 1 USB 2.0 (charging); 2 USB 3.0; 1 USB 3.1 Gen 2 Type-C™ (charging) [9] Back: 1 audio-in; 1 audio-out; 1 DVI-I single link; 1 RJ-45; 2 DisplayPort™ 1.2; 2 USB 2.0; 4 USB 3.0 [14] Rear: 1 USB 3.0; 2 USB 2.0 Optional: Flex I/O
Networking	LAN: Integrated Intel® I219-LM PCIe® GbE; Intel® I350-T2 dual-port GbE NIC [9] WLAN: Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ (2x2) Wi-Fi® and Bluetooth® 5 Combo [13]
Audio	Conexant CX20632-31Z, 1.5W internal mono speaker
Input Device	HP PS/2 Business Slim Keyboard; HP USB Business Slim Keyboard; HP Wireless Business Slim Keyboard; USB Smart Card (CCID) keyboard; [9]; 3D connexion CADMouse; HP SpaceMouse Pro USB 3D; HP USB 1000 dpi Laser Mouse; HP USB Hardened Mouse; HP USB Optical 3-Button Mouse; HP USB Optical Mouse; [9]
Power	310 W internal power adapter, up to 90% efficiency, active PFC; 250 W internal power adapter, up to 92% efficiency, active PFC; 400 W internal power adapter, up to 90% efficiency, active PFC
Security	HP Business PC Security Lock Kit; HP Keyed Cable Lock Kit; HP Solenoid Hood Lock and Sensor; HP UltraSlim Cable Lock Kit; HP Client Security Suite Gen 4; HP Sure Start Gen 4; HP Sure Run; HP Sure Click; HP BIOSphere Gen4 [9,22,24,25,26,27]
Software	Buy Office; CyberLink Power2Go; CyberLink PowerDVD; HP Client Security Software; HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Remote Graphics Software (RGS) 7.1; PDF Complete - Corporate Edition; HP Sure Recover; HP Manageability Integration Kit Gen2 [15,16,23,28]
Dimensions (W x D x H)	13.3 x 15 x 3.95 in 33.8 x 38.1 x 10 cm (Standard desktop orientation.)
Weight	Starting at 12.66 lb Starting at 5.7 kg (Exact weight depends on configuration.)
Energy Efficiency Compliance	ENERGY STAR® certified and EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See www.epeat.net for registration status by country. [17]
Environmental	Low halogen [29]
Compatible Displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays

Accessories and Services (not included)

HP Z24n G2 24-inch Display		Be a productive powerhouse with the sleek WUXGA HP Z24n G2 24-inch 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™. Product number: 1JS09A8
HP 6TB Enterprise SATA 7200 HDD		Expand your workstation storage with the HP 4 TB SATA 7200 HDD,[1] an excellent solution for high capacity applications. Product number: 3DH90AA
HP 16GB (1x16GB) DDR4-2666 nECC RAM		Boost the capabilities of your HP Workstation and improve system performance and application responsiveness with low-power, high-speed DDR4 memory from HP. Product number: 3PL82AA
HP 4 year Next Business Day Onsite Hardware Support w/ Defective Media Retention for Workstations		When hardware issues come up, the sooner you can get running again, the better. Have expertise at the ready with HP Hardware Next Business Day[1] Onsite Service with Defective Media Retention, and vastly improve your product uptime. With high-quality remote assistance or convenient onsite support available the next business day, help is there when you need it—so you can get back to work. Product number: U1G56E (for 4 year platforms), U1G57E (for 5 year platforms)

Messaging Footnotes

[1] Requires Windows and Intel® or AMD 7th or 8th generation processors.
[2] HP Sure Start Gen4 is available on HP Elite and HP Workstation products equipped with 8th generation Intel® or AMD processors.
[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] 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] Sold separately or as an optional feature.

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] 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
[4] Intel® Optane™ memory (cache) is sold separately. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system and requires configuration with an Intel® Core™ i+ processor.
[5] vPro. Some 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. Compatibility future "virtual appliances" is yet to be determined.
[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] Only 2 DIMM configurations run at 2400 MHz and 4 DIMM configurations run at 2133 MHz.
[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] Optional or add-on feature
[10] HD content required to view HD images.
[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] NVIDIA® Quadro® mobile professional graphics support up to four independent displays when using a HP ZBook Dock with Thunderbolt 3 (sold separately) or DP 1.2 hubs with MST.
[13] Wireless access point and Internet service required and sold separately. 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 workstation to communicate with other 802.11ac WLAN devices.
[14] 3 DisplayPort 1.2 in Performance model.
[15] HP Client Security requires Windows and Intel® or AMD 7th or 8th generation processors.
[16] HP Performance Advisor and HP Remote Graphics Software requires internet access.
[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.
[22] HP BIOSphere Gen4 features may vary depending on the PC platform and configurations requires 8th Gen Intel® processors.
[23] HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html
[24] HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.
[25] HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer and Chromium™. Check http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW for all compatible platforms as they become available.
[26] HP Sure Start Gen4 is available on HP Workstation products equipped with Intel® 8th generation processors.
[27] HP Sure Run is available on HP Workstations products equipped with 8th generation Intel® or AMD® processors.
[28] HP Sure Recover is available on HP Workstations with 8th generation Intel® or AMD processors and requires an open, wired network connection. Not available on platforms with multiple internal storage drives, Intel® Optane™. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.
[29] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
[31] 1TB, 4TB and 6TB Enterprise Class 3.5" HDDs.
[38] Intel® Optane™ memory is sold separately. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system. Available for HP commercial desktops and notebooks and for select HP workstations (HP Z240 Tower/SFF, Z2 Mini, ZBook Studio, 15 and 17 G5) and requires a SATA HDD, 7th Gen or higher Intel® Core™ processor or Intel® Xeon® processor E3-1200 V6 product family or higher, BIOS version with Intel® Optane™ supported, Windows 10 version 1703 or higher, M.2 type 2280-S1-B-M connector on a PCH Remapped PCIe Controller and Lanes in a x2 or x4 configuration with B-M keys that meet NVMe™ Spec 1.1, and an Intel® Rapid Storage Technology (Intel® RST) 15.5 driver.
[30] Configurations with the Xeon E-2124G, E-2126G, E-2136, E-2144G, 2174G and E-2176G offered on the Mini Performance model only.

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