HP Z2 Mini G4 Workstation

Transform your workspace with our most powerful mini desktop.

Get high-end performance packed into an insanely small and versatile device. Take on 3D design projects and work in multiple pro apps with ease. And with the flexibility to be placed almost anywhere, it's the obvious choice for the modern workplace.

HP recommends Windows 10 Pro for business

Ramp up your performance

- Speed up 3D responsiveness and cut render times. With 33% faster CPUs[1] and certified graphics, you get seamless, reliable performance with multi-threaded apps. Don't worry about overheating this tiny machine—our thermals keep it cool, quiet and efficient.

The perfect fit, anywhere.

- Create the ideal setup with this flexible device—from the office to the shop floor to the data center. Mount under a desk, behind a display or in a rack.[2] Then connect to multiple displays and other external hardware with plenty of I/O ports.

Safeguard your data. Protect your privacy.

- Advanced security features come standard on every Z2 Mini. System safeguards like HP Client Security Suite Gen3[3] and HP Sure Start Gen4[4] - the industry's first self-healing BIOS - mean your device is locked down tight, so your data and identity are too.

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

- Get great 3D performance with support for NVIDIA and AMD professional graphics.

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

- Drive up to six displays - four native and two additional with daisy chaining.

- Get workstation-class performance in 2.7 liters.

- Secure your hardware with a built-in Kensington lock and a VESA sleeve that has port blocks.

- Protect the firmware that antivirus can't reach! The hardware-enforced self-healing protection offered by HP Sure Start Gen4 automatically recovers the BIOS from malware, rootkits, or corruption.

- Get multiple high-speed network connections including a second LAN option without needing to purchase and install an additional network interface card (NIC).

- Configure an optional 135W power supply for cost savings or optimize your configuration with an optional 230W power supply.

- With optional self-encryption drives, you have confidence knowing that if your storage device falls into the wrong hands, your valuable IP has enhanced protection.

HP Z2 Mini G4 Workstation Specifications Table

Available Operating Systems	Windows 10 Pro for Workstations 64 - HP recommends Windows 10 Pro[1] Windows 10 Home 64[1] Linux® Ready
Processor family[2,3]	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
Available Processors[2,3,4,5,6,34]	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	64 GB DDR4-2666 ECC SDRAM; 64 GB DDR4-2666 non-ECC SDRAM [18] Transfer rates up to 2666 MT/s.
Memory slots	2 SODIMM
Internal storage	500 GB up to 1 TB 7200 rpm SATA[8] up to 2 TB 5400 rpm SATA[8] 256 GB up to 1 TB HP Z Turbo Drive G2 PCIe® NVMe™ SSD[8,35] up to 256 GB SATA SSD[8] 16 GB PCIe® NVMe™ Intel® Optane™ Memory for storage acceleration[38]
Optical drive	Ultra-slim external DVD-Writer [9]
Available Graphics	Integrated: Intel® UHD Graphics 630; Intel® UHD Graphics P630[10,11] Discrete: NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated); AMD Radeon™ Pro WX 4150 (4 GB GDDR5 dedicated); NVIDIA® Quadro® P600 (4 GB GDDR5 dedicated) (Configurations with NVIDIA® or AMD graphics are configured on the Mini Performance model only.)
Audio	Conexant CX20632-31Z, 1.5W internal mono speaker
Expansion slots	1 M.2 PCIe 3 x1
Ports and Connectors	Side: 1 headphone/microphone combo; 2 USB 3.0 (1 charging)[9] Back: 1 DisplayPort™ 1.2; 1 RJ-45; 2 USB 3.0[14,22] Optional: 1 DisplayPort™; Flex I/O[37] (The Intel® Core™ X-Series processor configurations only have one RJ45 port available. The serial port is optional.)
Input devices	HP USB Business Slim Keyboard; HP Wireless Business Slim Keyboard; USB Smart Card (CCID) keyboard[9]; HP USB 1000 dpi Laser Mouse; HP USB Optical Mouse[9];
Communications	LAN: Integrated Intel® I219-LM PCIe® GbE ; WLAN: Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ (2x2) Wi-Fi® and Bluetooth® 5 Combo [13];
Drive Bays	One 2.5"; M.2 NVME 2280 SSD
Available Software	HP Client Security Software; HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Remote Graphics Software (RGS) 7.1; HP Sure Recover; HP Manageability Integration Kit Gen2 [15,16,27,32]
Security management	HP Keyed Cable Lock Kit; HP Client Security Suite Gen 4; HP Sure Start Gen 4; HP Sure Run[9,26,28,29,30,31]
Power	135 W external power adapter, up to 89% efficiency, active PFC; 200 W external power adapter, up to 89% efficiency, active PFC; 230 W external power adapter, up to 88% efficiency, active PFC[23]
Dimensions	21.6 x 21.6 x 5.8 cm (Standard desktop orientation.)
Weight	Starting at 2.04 kg (Exact weight depends on configuration.)
Ergonomic features	##displaytiltswiv##
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 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)

3Dconnexion CadMouse

Simplify scroll, click, and zoom functions and comfortably drive your CAD projects with the 3Dconnexion CADMouse. Simplify scroll, click, and zoom functions and comfortably drive your CAD projects with the 3Dconnexion CADMouse. Bringing powerful, intelligently engineered workstations to power users who demand IT that performs – with uncompromising graphics and speed. HP Workstations are easy-to-buy, quick-to-deploy and simple-to-maintain solutions that support businesses, grow with complex needs and anticipate challenges.
Product number: M5C35AA

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. Bringing powerful, intelligently engineered workstations to power users who demand IT that performs – with uncompromising graphics and speed. HP Workstations are easy-to-buy, quick-to-deploy and simple-to-maintain solutions that support businesses, grow with complex needs and anticipate challenges.
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] 33% total performance increase based on Cinebench test (multi-threaded apps) comparing Intel® Core™ i9-9900K to Intel® Core™ i7-8700K.

[2] Mounting hardware sold separately.

[3] Requires Windows and Intel® or AMD 7th or 8th generation processors.

[4] HP Sure Start Gen4 is available on HP Elite and HP Workstation products equipped with 8th generation Intel® or AMD processors.

[4] 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.

[5] 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.

[6] 6 display solution is achieved using a combination of Intel® HD graphics and NVIDIA Quadro® graphics and is ONLY supported on Windows 10.

[7] Lock sold separately or as an optional feature. Mounting hardware sold separately.

[8] HP Sure Start Gen4 is available on HP Elite and HP Workstation products equipped with 8th generation Intel® or AMD processors.

[9] Sold separately or as an optional feature.

[10] 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.

[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.

[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] Non-ECC memory is supported on all processors. ECC is only enabled on Xeon, Pentium and i3 core processors.

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

[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] 1 Flexible I/O port with options: DP 1.2, HDMI, VGA, USB 3.1 Type C with Alt-DP mode, Thunderbolt 3.0, RJ-45 Ethernet (2nd LAN) or None

[23] 200W Power Supply and 230 W external power adapter in Performance Model only.

[26] HP BIOSphere Gen4 features may vary depending on the PC platform and configurations requires 8th Gen Intel® processors.

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

[28] HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.

[29] 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.

[30] HP Sure Start Gen4 is available on HP Elite and HP Workstation products equipped with 8th generation Intel® or AMD processors.

[31] HP Sure Run is available on HP Elite products equipped with 8th generation Intel® or AMD processors.

[32] 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.

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

[34] Configurations with the Xeon E-2124G, E-2126G, E-2136, E-2144G, 2174G and E-2176G offered on the Mini Performance model only.

[35] HP Z2 Mini G4 Workstation can only support one storage device: either one SATA or one NVMe, not both.

[37] 1 extra DisplayPort, 1 USB Type-C™ on performance model.

[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.

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