



# HP Z2 Tower G4 Workstation

Work faster with our most powerful entry workstation

Experience server-grade power in a desktop with impressive expandability. Cut through complex BIM, rendering and visualization projects with ultra 3D pro graphics and the latest Intel® Core™ or Xeon® processors.



HP recommends Windows 10 Pro.

## Take next-gen processing to record speeds

- Crush demanding multi-threaded workflows with pro graphics and 9th gen 8-core Intel processors. We redesigned our proprietary motherboard to unlock an extra 8% boost, for an epic 41% total performance increase over last gen<sup>1</sup>.

## Built to expand

- Need to swap graphics cards? Increase CPU power? Add specialized PCIe cards? Go for it. Our most expandable entry workstation is an investment that will last for years.

## Safeguard your data. Protect your privacy.

- Advanced security features come standard on every Z2 Tower. System safeguards like HP Client Security Suite Gen3<sup>2</sup> and HP Sure Start Gen4<sup>3</sup> - 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 powerful performance on single-threaded applications with the latest generation Intel® Xeon® E processors with up to 8 cores.
- Maximize your 3D workflow with support for multiple NVIDIA® and AMD professional graphics from Entry to Ultra 3D.
- With dual M.2 storage slots you can install 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.
- Save space within your office layout with a 14% smaller system than the previous generation.
- Get multiple high-speed network connections including a second LAN option\* without needing to purchase and install an additional network interface card (NIC).
- Configure a 250W power supply for cost savings or optimize your configuration with a 500W power supply.
- 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.

## HP Z2 Tower G4 Workstation Specifications Table



<b>Available Operating Systems</b>	Windows 10 Pro for Workstations 64 - HP recommends Windows 10 Pro <sup>1</sup>
<b>Processor family</b> <sup>2,3</sup>	Intel® Xeon® processor (E-2176G, E-2174G, E-2146G, E-2144G, E-2136, E-2126G, E-2124G, E-2104G); Intel® Pentium® Gold 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; 8th Generation Intel® Core™ i7 processor; 8th Generation Intel® Core™ i5 processor; 8th Generation Intel® Core™ i3 processor
<b>Available Processors</b> <sup>2,3,4,5,6,30</sup>	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™; 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-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-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-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-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-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-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-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-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® 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™ 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® 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™ 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™ 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 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™ i5-9600 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™ 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 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 (3.0 GHz base frequency, up to 4.1 GHz with Intel® Turbo Boost Technology, 9 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™ i3-8100 with Intel® HD Graphics 630 (3.6 GHz, 6 MB cache, 4 cores)
<b>Chipset</b>	Intel® C246
<b>Maximum memory</b>	128 GB DDR4-2666 ECC SDRAM; 128 GB DDR4-2666 non-ECC SDRAM <sup>7</sup> Transfer rates up to 2666 MT/s.
<b>Memory slots</b>	4 DIMM
<b>Internal storage</b>	500 GB up to 6 TB 7200 rpm SATA <sup>8</sup> up to 500 GB SATA SED <sup>8</sup> 256 GB up to 2 TB SATA SSD <sup>8</sup> 280 GB up to 480 GB Intel® Optane™ SSD 905P <sup>8,21</sup> 256 GB up to 512 GB SATA SED SSD <sup>8</sup> up to 512 GB HP Z Turbo Drive G2 PCIe® SSD <sup>8</sup> 256 GB up to 1 TB HP Z Turbo Drive G2 PCIe® NVMe™ SSD <sup>8,31</sup> 16 GB PCIe® NVMe™ Intel® Optane™ Memory for storage acceleration <sup>38</sup>
<b>Optical drive</b>	HP Slim Blu-ray Writer; HP Slim DVD-ROM; HP Slim DVD-Writer <sup>9,18,19</sup>
<b>Available Graphics</b>	Integrated: Intel® UHD Graphics 630; Intel® UHD Graphics P630 <sup>10,11</sup> 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); NVIDIA® Quadro® P2000 (5 GB GDDR5 dedicated); AMD Radeon™ Pro WX 7100 Graphics (8 GB GDDR5 dedicated); NVIDIA® Quadro® P4000 (16 GB GDDR5 dedicated); NVIDIA® Quadro® P5000 (16 GB GDDR5X dedicated) <sup>12</sup>
<b>Audio</b>	Conexant CX20632-31Z, 1.5W internal mono speaker
<b>Expansion slots</b>	1 PCIe 3 x4 (x16 connector); 2 M.2 PCIe 3 x4; 1 PCIe Gen 3 x16; 2 PCIe 3 x1 (x4 open ended connector)
<b>Ports and Connectors</b>	Front: 1 headphone/microphone combo; 2 USB 3.0 (1 charging) <sup>9</sup> Rear: 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.2; 2 USB 2.0; 4 USB 3.0 Internal: 1 USB 3.0; 2 USB 2.0 Optional: Flex I/O (1 USB 3.0 and 2 USB 2.0 ports available as 2 separate 2 x 6 (3.0 x 1, 2.0 x 1) and 1 x 6 (2.0 x 1) header. Supports one HP Internal USB 2.0 Port Kit and one USB 3.0 media card reader.)
<b>Input devices</b>	HP PS/2 Business Slim Keyboard; HP USB Business Slim Keyboard; HP Wireless Business Slim Keyboard; USB Smart Card (CCID) keyboard <sup>2</sup> ; 3Dconnexion 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 <sup>3</sup> ;
<b>Communications</b>	LAN: Integrated Intel® I219-LM PCIe® GbE; Intel® I350-T2 dual-port GbE NIC <sup>9</sup> ; WLAN: Intel® Dual Band Wireless-AC 9560 802.11a/b/g/n/ (2x2) Wi-Fi® and Bluetooth® 5 Combo <sup>13</sup> ;
<b>Drive Bays</b>	Two 5.25"; Two 3.5"; Two M.2 NVME Z280 SSD
<b>Available Software</b>	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 <sup>15,16,23,32</sup>
<b>Security management</b>	HP BIOSphere Gen4; HP Business PC Security Lock Kit; HP Client Security Suite Gen 4; HP Keyed Cable Lock Kit; HP Solenoid Hood Lock and Sensor; HP Sure Click; HP Sure Run; HP Sure Start Gen 4; HP UltraSlim Cable Lock Kit <sup>9,22,24,25,30,31</sup>
<b>Power</b>	500 W internal power adapter, up to 90% efficiency, active PFC; 250 W internal power adapter, up to 92% efficiency, active PFC; 650 W internal power adapter, up to 90% efficiency, active PFC
<b>Dimensions</b>	35.6 x 16.9 x 43.5 cm (Standard tower orientation.)
<b>Weight</b>	Starting at 7 kg (Exact weight depends on configuration.)
<b>Energy efficiency compliance</b>	ENERGY STAR® certified and EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See <a href="http://www.epeat.net">www.epeat.net</a> for registration status by country. <sup>17</sup>
<b>Environmental specifications</b>	Low halogen <sup>33</sup>
<b>Compatible displays</b>	All HP Z Displays and HP DreamColor Displays are supported. For more information see <a href="http://www.hp.com/go/zdisplays">www.hp.com/go/zdisplays</a>
<b>Warranty</b>	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)

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#### 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 Z38c 37.5-inch Curved Display



Completely immerse yourself in the expansive elegance of the HP Z38c Curved Display. Form meets function with crisp, panoramic views so you can stay focused on your work. 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: Z4W65A4**

#### 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

- <sup>1</sup> 41% total performance increase based on Cinebench test (multi-threaded apps) comparing Intel® Core™ i9-9900K on newly designed motherboard to Intel® Core™ i7-8700K.
- <sup>2</sup> Requires Windows and Intel® or AMD 7th or 8th generation processors.
- <sup>3</sup> HP Sure Start Gen4 is available on HP Elite and HP Workstation products equipped with 8th generation Intel® or AMD processors.
- <sup>3</sup> 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>
- <sup>4</sup> 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.
- <sup>5</sup> Sold separately or as an optional feature.
- <sup>6</sup> Sold separately or as an optional feature.

### Technical Specifications Footnotes

- <sup>1</sup> 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>
- <sup>2</sup> 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.
- <sup>3</sup> 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>
- <sup>4</sup> 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.
- <sup>5</sup> 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.
- <sup>6</sup> Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost> for more information.
- <sup>8</sup> 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.
- <sup>9</sup> Optional or add-on feature
- <sup>10</sup> HD content required to view HD images.
- <sup>11</sup> Intel® HD graphics 630 is configurable as a standalone graphics option; Intel® HD graphics P630 only used when NVIDIA® Optimus™ Technology is enabled.
- <sup>13</sup> 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.
- <sup>14</sup> 3 DisplayPort 1.2 in Performance model.
- <sup>15</sup> HP Client Security requires Windows and Intel® or AMD 7th or 8th generation processors.
- <sup>16</sup> HP Performance Advisor and HP Remote Graphics Software requires Internet access.
- <sup>17</sup> Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit [www.epeat.net](http://www.epeat.net) for more information.
- <sup>18</sup> 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.
- <sup>19</sup> 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.
- <sup>20</sup> 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.
- <sup>22</sup> HP BIOSphere Gen4 features may vary depending on the PC platform and configurations requires 8th Gen Intel® processors.
- <sup>23</sup> HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>
- <sup>24</sup> HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.
- <sup>25</sup> 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.
- <sup>30</sup> HP Sure Start Gen4 is available on HP Elite and HP Workstation products equipped with 8th generation Intel® or AMD processors.
- <sup>31</sup> HP Sure Run is available on HP Elite products equipped with 8th generation Intel® or AMD processors.
- <sup>32</sup> 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.
- <sup>33</sup> External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
- <sup>38</sup> 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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