



# HP Z2 Mini G5 Workstation

Our most powerful mini workstation. Now even mightier.

Get even more high-end performance packed into an insanely small device. Take on 3D design projects and work in multiple pro apps easily. Widely versatile, it's the obvious choice for the modern workplace.



HP recommends Windows 10 Pro

#### Be uncompromising about performance

- With the new Intel® 10-core processor<sup>1</sup> and NVIDIA® Quadro RTX™ 3000<sup>2</sup> that offers more graphics power over last gen, you get reliable performance in multi-threaded apps. Don't worry about overheating—our advanced thermals keep things cool and quiet.

#### The perfect fit, anywhere

- Create the ideal setup—from the office to the shop floor to the data center. Mount under a desk or behind a display<sup>3</sup>, then connect to multiple screens and other hardware. Or centrally manage your fleet of mini's with versatile rack mounting options.

#### We test it so you can trust it. 24/7.

- You need performance you can rely on. That's why our products endure over 360K hours of rigorous testing, MIL-STD testing<sup>4</sup> and software certifications. Paired with an Intel® Xeon® processor<sup>1</sup> and ECC memory, our mini is built for tough workloads.

#### HP's most secure workstation.

- Advanced security features come standard on every Z2 Mini. System safeguards like the industry's first self-healing BIOS help lock your device, data and identity down tight.
- Support your unique user needs with a choice of Windows 10 Pro 64 or Linux® operating systems.<sup>5</sup>
- Get great 3D performance with support for NVIDIA® and AMD professional graphics.<sup>6</sup>
- Get powerful performance on single and multi-threaded applications with the latest generation 10-core Intel® Xeon® and Intel® Core™ processors.<sup>1</sup>
- Drive up to six displays—four native and two additional with daisy chaining.<sup>7</sup>
- With the HP ZCentral solution you can maximize density with support for 7 Mini's in 5U, for a total of 56 HP Mini's in a standard 42U rack.<sup>8</sup>
- Get up to 4 TB dual M.2 storage and RAID for added reliability.<sup>9</sup>
- Secure your hardware with a built-in Kensington lock and a VESA sleeve that has port blocks.<sup>10</sup>
- Get multiple high-speed network connections including a second LAN option.<sup>11</sup>
- Optimize your configuration with an optional 280W power supply.<sup>12</sup>
- 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.<sup>11</sup>
- Stay informed with hardware status alerts via ZCentral Connect remote management software

## HP Z2 Mini G5 Workstation Specifications Table



Available Operating Systems	Windows 10 Pro 64 <sup>1</sup> Windows 10 Pro 64 High End <sup>1</sup> Windows 10 Pro 64 Workstations Plus <sup>1</sup> Windows 10 Home 64 Plus <sup>1</sup> Windows 10 Home 64 Advanced <sup>1</sup> Windows 10 Pro for Workstations <sup>1</sup> Linux® Ready Ubuntu 20.04 LTS <sup>3</sup>
Processor family	10th Generation Intel® Core™ i3 processor; 10th Generation Intel® Core™ i5 processor; 10th Generation Intel® Core™ i7 processor; 10th Generation Intel® Core™ i9 processor; 10th Generation Intel® Xeon® processor
Available Processors <sup>2,3,5,6,25,34</sup>	Intel® Core™ i3-10100 with Intel® UHD Graphics 630 (3.6 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores); Intel® Core™ i3-10320 with Intel® UHD Graphics 630 (3.8 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores); Intel® Core™ i5-10400F (2.9 GHz base frequency, up to 4.3 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores); Intel® Core™ i5-10500 with Intel® UHD Graphics 630 (3.1 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Core™ i5-10600 with Intel® UHD Graphics 630 (3.3 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Core™ i5-10600K with Intel® UHD Graphics 630 (4.1 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Core™ i7-10700 with Intel® UHD Graphics 630 (2.9 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Core™ i7-10700K with Intel® UHD Graphics 630 (3.8 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Core™ i9-10900 with Intel® UHD Graphics 630 (2.8 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology; Intel® Core™ i9-10900F (2.8 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores); Intel® Core™ i9-10900K with Intel® UHD Graphics 630 (3.7 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1290P with Intel® UHD Graphics P630 (3.7 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1270 with Intel® UHD Graphics P630 (3.4 GHz base frequency, up to 5.0 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1270P with Intel® UHD Graphics P630 (3.8 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1250P with Intel® UHD Graphics P630 (4.1 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores), supports Intel® vPro® Technology; Intel® Xeon® W-1250 with Intel® UHD Graphics P630 (3.3 GHz base frequency, up to 4.7 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores), supports Intel® vPro® Technology; Intel® Core™ i9-10850K with Intel® UHD Graphics 630 (3.6 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 20 MB L3 cache, 10 cores)
Chipset	Intel® W480
Form factor	Mini
Maximum memory	64 GB DDR4-3200 ECC SDRAM; 64 GB DDR4-3200 non-ECC SDRAM <sup>18</sup> Transfer rates up to 2933MT/s.
Memory slots	2 SODIMM
Internal storage	up to 256 GB SATA SSD 500 GB up to 1 TB 7200 rpm SATA HDD <sup>8</sup> up to 500 GB 7200 rpm Opal 2 SATA HDD up to 2 TB 5400 rpm SATA HDD <sup>8</sup> 256 GB up to 2 TB HP Z Turbo Drive PCIe® NVMe™ SSD M.2 <sup>8, 35</sup> up to 256 GB HP Z Turbo Drive PCIe® NVMe™ Opal 2 M.2 SSD <sup>8</sup> up to 512 GB HP Z Turbo Drive PCIe® NVMe™ SED Opal 2 M.2 SSD <sup>8</sup> 256 GB up to 1 TB PCIe® NVMe™ M.2 SSD <sup>7</sup> up to 256 GB SATA SED Opal 2 SSD <sup>8</sup> up to 512 GB SATA SED Opal 2 SSD <sup>8</sup>
Optical drive	Ultra-slim external DVD-Writer <sup>9</sup>
Available Graphics	Discrete: NVIDIA® Quadro® P620 (4 GB GDDR5 dedicated); AMD Radeon™ Pro WX 3200 (4 GB GDDR5 dedicated); NVIDIA® Quadro RTX™ 3000 (6 GB GDDR6 dedicated); NVIDIA® Quadro® T2000 (4 GB GDDR6 dedicated); NVIDIA® Quadro® T1000 (4 GB GDDR6 dedicated) <sup>10,12,21,36</sup>
Audio	Realtek ALC3205-VA2-CG, 2.0W internal mono speaker
Expansion slots	1 PCIe® 3 x16 (MXM connector)
Ports and Connectors	Side: 1 headphone/microphone combo; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-C® 10Gbps signaling rate Rear: 1 RJ-45; 3 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-C® 10Gbps signaling rate (charge support up to 5V/3A) <sup>14</sup> Optional Ports: Flex IO upper – choose one of the following options: 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate, 1 serial; Flex IO lower – choose one of the following options: 1 DisplayPort™ 1.4, 1 HDMI 2.0b, 1 VGA, 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate, 1 SuperSpeed USB Type-C® 10Gbps signaling rate (USB Power Delivery, Alt Mode DisplayPort™), 1 GbE LAN, 1 Thunderbolt™ 3 (40Gbps signaling rate) with SuperSpeed USB Type-C® 10Gbps signaling rate, 2.5 GbE LAN <sup>24</sup>
Input devices	HP USB Business Slim Keyboard; HP Wireless Business Slim Keyboard; USB Smart Card (CCID) keyboard; HP USB Premium keyboard; HP Premium Wireless keyboard; HP Wireless Business Slim Keyboard and mouse combo <sup>5</sup> ; HP Wireless Business Mouse; HP USB Black Wired Mouse; HP Wireless Premium Mouse; HP USB Premium Wired Mouse <sup>5</sup> ;
Communications	LAN: Integrated Intel® i219-LM PCIe® GbE; WLAN: Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo ;
Drive Bays	One 2.5"; Two M.2 NVMe 2280 SSD
Software	HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Image Assistant; HP Manageability Integration Kit <sup>11,16,27,39</sup>
Security management	HP Secure Erase; HP Sure Click; HP Sure Sense; HP Sure Start Gen6; HP Sure Run Gen3; HP Sure Recover Gen3; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Security Manager Gen6 <sup>15,22,23,26,29,30,31,32,40,41,42</sup>
Power	180 W external power adapter, up to 89% average efficiency, active PFC; 280 W external power adapter, up to 89% average efficiency, active PFC
Dimensions	21.6 x 21.6 x 5.8 cm (Standard desktop orientation.)
Weight	Starting at 2.1 kg (Exact weight depends on configuration.)
Energy efficiency compliance	ENERGY STAR® certified and EPEAT® registered configurations available <sup>17</sup>
Sustainable impact specifications	Low halogen <sup>33</sup>
Compatible displays	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>
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)

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HP USB Premium Mouse



Create a sleek, professional workspace with the HP USB Premium Mouse, which integrates seamlessly with your HP notebook.  
Product number: 1JR32AA

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.  
Product number: Z9N41AA

HP Z2 Mini G5 Workstation 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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## HP Z2 Mini G5 Workstation

### Messaging Footnotes

- <sup>1</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>2</sup> NVIDIA® Quadro RTX™ 3000 graphics are an add-on feature that must be configured at the time of purchase. Planned to be available in 1H 2021.
- <sup>3</sup> Rack mounting hardware sold separately.
- <sup>4</sup> Undergoes MIL-STD testing. MIL-STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Service.
- <sup>5</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>6</sup> Sold separately or as an optional feature.
- <sup>7</sup> 6 display solution is achieved using a combination of Intel® HD graphics and NVIDIA Quadro® graphics and is ONLY supported on Windows 10.
- <sup>8</sup> HP ZCentral Connect Software requires purchase of a perpetual floating license per simultaneous connection and purchase of 1 year ZCentral Connect Software Support Service and requires download at [hp.com/ZCentral](http://hp.com/ZCentral). Requires HP ZCentral Remote Boost Software which can be downloaded at [hp.com/ZCentralRemoteBoost](http://hp.com/ZCentralRemoteBoost), a Windows 10, Windows Server 2016 or newer operating system, Microsoft Active Directory and Intel Active Management Technology for select features.
- <sup>9</sup> For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of disk is reserved for system recovery software.
- <sup>10</sup> Lock sold separately or as an optional feature. Mounting hardware sold separately.
- <sup>11</sup> Sold separately or as an optional feature.
- <sup>12</sup> Optional feature that must be configured at purchase.

### 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> Not all features are available in all editions or versions of Ubuntu. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply and additional requirements may apply over time for updates.
- <sup>5</sup> For full Intel® vPro™ functionality, Windows 10 Pro 64 bit, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See <http://intel.com/vpro>
- <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>7</sup> 256 GB up to 1TB PCIe NVMe SSD not available until November 2020 and require configuration at the factory.
- <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> Keyboard and Mouse are optional or add on features. The HP Antimicrobial Keyboard and HP Antimicrobial Mouse are only available in China.
- <sup>10</sup> NVIDIA® Quadro RTX™ 3000 is available in Q1, 2021, and only available factory integrated.
- <sup>11</sup> HP Support Assistant requires Windows and Internet access.
- <sup>12</sup> NVIDIA® Quadro® P620, available in Oct, 2020 and requires factory configuration.
- <sup>13</sup> DisplayPort 1.2 in Performance model with discrete graphics.
- <sup>15</sup> HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.
- <sup>16</sup> HP Performance Advisor Software - HP Performance Advisor is ready and waiting to help you get the most out of your HP Workstation from day one—and every day after. Learn more or download at: <https://www8.hp.com/us/en/workstations/performance-advisor.html>
- <sup>17</sup> Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit [www.epeat.net](http://www.epeat.net) for more information.
- <sup>18</sup> Non-ECC memory is supported on all processors. ECC is only enabled on Xeon.
- <sup>21</sup> Discrete graphics must be purchased with Intel Core i9-10900F processor and Intel Core i5-10400F processor.
- <sup>22</sup> HP Pro Security Edition is available preloaded on select HP PCs and includes HP Sure Click Pro and HP Sure Sense Pro. 3-year license required. The HP Pro Security Edition software is licensed under the license terms of the HP End User License Agreement (EULA) that can be found at: [https://h30670.www3.hp.com/e-commerce/common/disclaimer.do#EN\\_US](https://h30670.www3.hp.com/e-commerce/common/disclaimer.do#EN_US) as modified by the following: 7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for thirty-six (36) months thereafter ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support.
- <sup>24</sup> Actual flex I/O choice depends on configuration selected.
- <sup>25</sup> Configurations with Intel® on i9-10900F and i5-10400F CPUs; Discrete graphics card must be configured when configuring CPUs without Intel UHD graphics.
- <sup>26</sup> HP BIOSphere Gen6 features may vary depending on the platform and configurations.
- <sup>27</sup> HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>
- <sup>29</sup> HP Sure Click requires Windows 10 Pro or Enterprise. See [https://bit.ly/2PrlT6A\\_SureClick](https://bit.ly/2PrlT6A_SureClick) for complete details.
- <sup>30</sup> HP Sure Start Gen 6 is available on select HP PCs and workstations. See product specifications for availability.
- <sup>31</sup> HP Sure Run Gen3 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors
- <sup>32</sup> HP Sure Recover Gen3 is available on select HP PCs and requires an open network connection. 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>34</sup> Configurations with the Intel Xeon W-1250P, W-1270P, W-1290P are offered on the 125W motherboard only.
- <sup>35</sup> HP Z2 Mini G5 Workstation can only support one storage device for system boot: either one SATA or one NVMe, not both.
- <sup>36</sup> NVIDIA® Quadro® P620 (4 GB GDDR5 dedicated); AMD Radeon™ Pro WX 3200 (4 GB GDDR5 dedicated); NVIDIA® Quadro® T2000 (4 GB GDDR6 dedicated); NVIDIA® Quadro® T1000 (4 GB GDDR6 dedicated) Only available factory integrated.
- <sup>39</sup> HP ZCentral Remote Boost does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without license purchase. With non-Z sender devices, purchase of perpetual individual license or perpetual floating license per simultaneously executing versions and purchase of ZCentral Remote Boost Software Support is required. RGS requires Windows, RHEL (7 or 8), UBUNTU 18.04 LTS, or HP ThinPro 7 operating systems. MacOS (10.13 or newer) operating system is only supported on the receiver side. Requires network access. The software is available for download at [hp.com/ZCentralRemoteBoost](http://hp.com/ZCentralRemoteBoost).
- <sup>40</sup> Secure Erase - For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane
- <sup>41</sup> HP Sure Sense requires Windows 10 Pro or Enterprise and supports Microsoft Internet Explorer, Google Chrome™, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.
- <sup>42</sup> HP Sure Admin requires Windows 10, HP BIOS, HP Manageability Integration Kit from <http://www.hp.com/go/clientmanagement> and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.

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