



# HP Z1 Entry Tower G6

Step up to HP's most affordable pro-certified Z

World-class performance is now within reach with a desktop certified for select professional software applications. From 2D/3D CAD design to entry VR content creation, gain speed and efficiency across your professional workflows. Go beyond a PC. Upgrade to a Z.



HP recommends Windows 10 Pro for business

## Pick the latest components for what you do

- Multitask with the new Intel® 10-core processor<sup>1</sup> paired with the ideal graphics for your work. Designing in CAD? Accelerate 3D workflows with NVIDIA® Quadro RTX™ 5000.<sup>2</sup> Creating in VR? Go for the punch of a GeForce RTX™ 2080 SUPER™ instead.<sup>3</sup>

## Certified to fly with professional apps

- Work confidently knowing your desktop is tested and certified for select professional apps. We've worked closely with software providers on apps like AutoCAD®, SOLIDWORKS® and Revit® so you get seamless, reliable performance across your workflow.<sup>4</sup>

## HP's most secure workstation.

- Advanced security features come standard on every Z1 Tower. System safeguards like self-healing BIOS help lock your device, data and identity down tight.<sup>5</sup>
- Be productive in any situation. Windows 10 Pro and powerful security, collaboration, and connectivity features from HP help you power through your day.<sup>6</sup>
- Get powerful performance on single-threaded applications with the latest generation 10-core Intel® Core™ processors.<sup>1</sup>
- Create complex 2D designs and 3D models with optional certified NVIDIA® Quadro RTX™ 5000 graphics.<sup>8</sup>
- Amp up your VR experience with fast, smooth performance with optional NVIDIA® GeForce RTX™ 2080 SUPER™ graphics.<sup>8</sup>
- Configure a third configurable rear I/O port for customizable display connections with your choice of VGA, DisplayPort™, HDMI or USB-Type C® with DisplayPort™.
- We know you need performance you can rely on. That's why our products endure rigorous military standard testing and software certifications.<sup>9</sup>
- Get fast network connectivity with 2.5Gb Ethernet interface.
- Get fast memory speeds with support for 2933MHz DDR4.<sup>8</sup>
- Centralize your workstation fleet and power a remote workforce with HP ZCentral, a complete hardware and software solution.<sup>10</sup>

## HP Z1 Entry Tower G6 Specifications Table



Available Operating Systems	Windows 10 Pro 64 – HP recommends Windows 10 Pro for business <sup>1</sup> Windows 10 Pro 64 (National Academic only) <sup>1,2</sup> Windows 10 Home 64 <sup>1</sup> Windows 10 Home Single Language 64 <sup>1</sup> Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement) <sup>1</sup> FreeDOS
Processor family	Intel® Pentium® processor; 10th Generation Intel® Core™ i3 processor; 10th Generation Intel® Core™ i5 processor; 10th Generation Intel® Core™ i7 processor; 10th Generation Intel® Core™ i9 processor; Intel® Celeron® processor
Available Processors <sup>3,4,5,6,41</sup>	Intel® Celeron® G5900 with Intel® UHD Graphics 610 (3.4 GHz base frequency, 2 MB L3 cache, 2 cores) Intel® Celeron® G5920 with Intel® UHD Graphics 610 (3.5 GHz base frequency, 2 MB L3 cache, 2 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™ i9-10900K 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® Pentium® Gold G6400 with Intel® UHD Graphics 610 (4.0 GHz base frequency, 4 MB L3 cache, 2 cores) Intel® Pentium® Gold G6600 with Intel® UHD Graphics 630 (4.2 GHz base frequency, 4 MB L3 cache, 2 cores) Intel® Pentium® Gold G6500 with Intel® UHD Graphics 630 (4.1 GHz base frequency, 4 MB L3 cache, 2 cores)
Chipset	Intel® Q470 (vPro®)
Form factor	Tower
Maximum memory	128 GB DDR4-2933 SDRAM 7.8 Transfer rates up to 2933MT/s.
Memory slots	4 DIMM
Internal storage	500 GB up to 2 TB 7200 rpm SATA <sup>9</sup> 2 TB 5400 rpm SATA <sup>9</sup> 500 GB SATA SED Opal 2 HDD <sup>9</sup> 500 GB 7200 rpm SATA FIPS SED <sup>9</sup> 256 GB up to 512 GB PCIe® NVMe™ M.2 SSD <sup>9</sup> 128 GB up to 2 TB PCIe® NVMe™ TLC M.2 SSD <sup>9</sup> 256 GB up to 512 GB PCIe® NVMe™ SED Opal 2 TLC M.2 SSD <sup>9</sup> 256 GB up to 512 GB Intel® Optane™ Memory H10 with Solid State Storage <sup>9,10</sup>
Additional storage	5-in-1 SD card reader (optional)
Storage acceleration <sup>9</sup>	16 GB PCIe® NVMe™ Intel® Optane™ Memory for storage acceleration
Optical drive <sup>11</sup>	HP 9.5 mm Slim DVD-Writer; HP 9.5 mm Slim DVD-ROM; HP 9.5 mm Slim Blu-ray write
Available Graphics	Integrated: Intel® UHD Graphics 610; Intel® UHD Graphics 630 Discrete: NVIDIA® Quadro RTX™ 4000 (8 GB GDDR6 dedicated); NVIDIA® Quadro RTX™ 5000 (16 GB GDDR6 dedicated); NVIDIA® Quadro® P1000 (4 GB GDDR5 dedicated); AMD Radeon™ R7 430 Graphics (2 GB GDDR5 dedicated); NVIDIA® Quadro® P400 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P620 (2 GB GDDR5 dedicated); NVIDIA® Quadro® P2200 (5 GB GDDR5X dedicated); NVIDIA® GeForce® RTX 2080 SUPER™ (8 GB GDDR6 dedicated); AMD Radeon™ RX 550X Graphics (4 GB GDDR5 dedicated); NVIDIA® GeForce® RTX 2060 SUPER™ (6 GB GDDR6 dedicated) <sup>16,17,33</sup>
Audio	Conexant CX20632 codec, universal audio jack with CTIA and OMTP headset support
Expansion slots	1 M.2 2230; 1 PCIe 3 x16; 2 PCIe 3 x1; 1 PCIe 3 x16 (wired as x4); 2 M.2 2280/2242 (1 M.2 slot for WLAN and 2 M.2 2280/2242 slot for storage)
Ports and Connectors	Front: 2 SuperSpeed USB Type-A 10Gbps signaling rate; 2 SuperSpeed USB Type-A 5Gbps signaling rate; 1 SuperSpeed USB Type-C® 10Gbps signaling rate (15W output, DisplayPort™ 1.2) Rear: 1 audio-in/out; 1 power connector; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 5Gbps signaling rate; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 2 USB Type-A 480Mbps signaling rate
Optional Ports	Flex IO – choose one of the following options: 1 DisplayPort™ 1.4, 1 HDMI 2.0, 1 VGA, 2 SuperSpeed USB Type-A 10Gbps signaling rate, 1 SuperSpeed USB Type-C® 10Gbps signaling rate (15W output, DisplayPort™ 1.2), 1 Thunderbolt™ 3.0 with 1 serial and PS/2 ports combination <sup>37,38</sup>
Available Keyboards <sup>19</sup>	HP PS/2 Business Slim Keyboard; HP USB Keyboard; USB Smart Card (CCID) keyboard; HP USB Premium keyboard; HP Wireless Business Slim Keyboard and mouse combo; HP Wired Desktop 320K keyboard; HP USB Business Slim Antimicrobial keyboard; HP USB PS2 Washable keyboard; HP USB Healthcare Edition Keyboard and mouse combo; HP Wireless Premium Keyboard and mouse combo
Available Pointing Devices <sup>19</sup>	HP USB 1000 dpi Laser Mouse; HP USB Hardened Mouse; HP USB Optical Mouse; HP USB Premium Mouse; HP USB and PS/2 Washable Mouse; HP USB Antimicrobial Mouse; HP Wired Desktop 320M mouse; HP PS/2 mouse; HP USB Fingerprint mouse
LAN <sup>12</sup> Network Interface <sup>12</sup>	Intel® I210-T1 PCIe® GbE Integrated Intel® I219LM GbE LOM
WLAN <sup>13,14</sup>	Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® M.2 PCIe®, vPro® Intel® AX201 Wi-Fi 6 (2x2) and Bluetooth® M.2 PCIe®, non-vPro®
Drive Bays	One slim ODD; One 5.25" ODD; One 2.5" HDD; Two 3.5" HDD
Software <sup>21</sup>	HP Jumpstarts; HP Noise Cancellation Software; HP Support Assistant; Buy Office (sold separately); HP Privacy Settings; HP Desktop Support Utilities
Security management <sup>25,26,27,28,29,30,31,33</sup>	HP Secure Erase; Power-on password (via BIOS); SATA port disablement (via BIOS); Setup password (via BIOS); Support for chassis padlocks and cable lock devices; USB enable/disable (via BIOS); Serial enable/disable (via BIOS); HP Sure Click; HP Sure Sense; HP Sure Start Gen6; HP Sure Run Gen3; HP Sure Recover Gen3; HP DriveLock and Automatic DriveLock; HP BIOSphere Gen6; Trusted Platform Module TPM 2.0 Embedded Security Chip shipped with Windows 10. (Common Criteria EAL4+ Certified); HP Client Security Manager Gen6
Management features	HP Client Catalog (download); HP Cloud Recovery; HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen4; HP System Software Manager (download); HP Image Assistant Gen5 (download); HP BIOS Configuration Utility (download) <sup>22,23,24</sup>
Power <sup>40</sup>	260 W 92% efficient, wide-ranging, active PFC; 350 W 92% efficient, wide-ranging, active PFC; 550 W 92% efficient, wide-ranging, active PFC
Dimensions	14.57 x 12.13 x 6.61 in; 37 x 30.8 x 16.8 cm
Weight	21.74 lb; 9.86 kg (Exact weight depends on configuration.)
Energy efficiency compliance <sup>34</sup>	ENERGY STAR® certified and EPEAT® Silver registered configurations available
Environmental specifications <sup>35</sup>	Low halogen
Warranty	Protected by HP, including a 3 year standard limited warranty. Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit <a href="http://www.hp.com/go/cpc">www.hp.com/go/cpc</a>

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### 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> Sold separately or as an add-on feature.
- <sup>3</sup> GeForce graphics are an add-on feature that must be configured at the time of purchase.
- <sup>4</sup> Third party software sold separately. Certifications are still pending.
- <sup>5</sup> Based on HP's unique and comprehensive security capabilities at no additional cost on HP Workstations with Windows and 8th Gen and higher Intel® processors or AMD Ryzen™ 4000 processors and higher.
- <sup>6</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>8</sup> Sold separately or as an optional feature.
- <sup>9</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>10</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.

### 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> 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>3</sup> Multi-core 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>4</sup> Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See [www.intel.com/technology/turboboost](http://www.intel.com/technology/turboboost) for more information.
- <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>7</sup> For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system. Memory modules support data transfer rates up to 2666 MT/s or 2933 MT/s as depending on processor config; with 1 DIMM per channel. Additional DIMM loading on any channel may impact maximum memory speed. Actual data rate is determined by the system's configured; See processor specifications for supported memory data rate.
- <sup>8</sup> All memory slots are customer accessible / upgradeable.
- <sup>9</sup> For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.
- <sup>10</sup> Intel® Optane™ H10 memory system acceleration does not replace or increase the DRAM in your system. Requires 8th Gen or higher Intel® Core™ processor, BIOS version with Intel® Optane™ supported, Windows 10 64-bit, and an Intel® Rapid Storage Technology (Intel® RST) driver.
- <sup>11</sup> HD-DVD disks cannot be played on this drive. No support for DVD-RAM. Actual speeds may vary. Don't copy copyright-protected materials. 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.
- <sup>12</sup> Intel® I210-T1 PCIe® GbE: Sold separately or as an optional feature.
- <sup>13</sup> Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.
- <sup>14</sup> Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. The specifications for the 802.11ax WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the PC to communicate with 802.11ax WLAN devices. Wi-Fi 6 requires a wireless router, sold separately, that supports 802.11ax (Wi-Fi 6). Only available in countries where 802.11ax is supported.
- <sup>16</sup> The TWR can support a single graphics card up to 300W.
- <sup>17</sup> NVIDIA® GeForce® RTX 2060 SUPER, NVIDIA® GeForce® RTX 2080 SUPER, NVIDIA® Quadro® RTX 4000, NVIDIA® Quadro® RTX 5000 require 550W chassis.
- <sup>19</sup> The HP Antimicrobial USB mouse and HP USB Slim Business Antimicrobial Keyboard are available in China only.
- <sup>21</sup> HP Support Assistant: Requires Windows and Internet access.
- <sup>22</sup> HP Driver Packs: Not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>
- <sup>23</sup> HP Cloud Recovery is available for HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: <https://support.hp.com/us-en/document/c05115630>.
- <sup>24</sup> HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.
- <sup>25</sup> HP Sure Sense requires Windows 10 Pro or Enterprise. See product specifications for availability.
- <sup>26</sup> HP BIOSphere Gen6 is available on select HP Pro and Elite PCs. See product specifications for details. Features may vary depending on the platform and configurations.
- <sup>27</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>28</sup> HP Sure Run Gen3 is available on select Windows 10 based HP Pro, Elite and Workstation 26PCs with select Intel® or AMD processors.
- <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 Client Security Manager Gen6 requires Windows and is available on the select HP PCs.
- <sup>31</sup> HP Sure Start Gen6 is available on select HP PCs with Intel processors.
- <sup>33</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. Network based recovery using Wi-Fi is only available on PC's with Intel Wi-Fi Module.
- <sup>34</sup> 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>35</sup> External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.
- <sup>37</sup> Of the following, only one option can be configured at a time: DisplayPort™ 1.4; HDMI 2.0; 2 Type A SuperSpeed USB 10Gbps; 1 serial; Thunderbolt™ 3.0; 1 USB-C® SuperSpeed USB 10Gbps (DisplayPort™ 1.2, 15W output); or VGA
- <sup>38</sup> Thunderbolt™ 3.0 and Serial/PS/2 combo occupies a PCIe slot.
- <sup>39</sup> Not all Graphic Cards may be available in all countries.
- <sup>40</sup> Performance PCA requires 550W Power Supply.
- <sup>41</sup> 125W processor requires performance PCA

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