# HP Z2 SFF G9 Workstation Desktop PC



# Full size Z tower power at half the size

Get all the power of a full size tower at a fraction of the size. Re-engineered to fit fullheight, full-length graphics while leaving room for upgrades and expansion, the Z2 SFF delivers high performance for your intensive workflow—from 3D design to real time ray tracing—now and in the future.



\*Product image may differ from actual product

### Full height, full length performance

Design, simulate and—for the first time—real time ray trace on a Z2 SFF. Now fitting full height, full length pro graphics and Intel<sup>®</sup> Core™ processors, including K-Series, this PC delivers tower-sized performance that defies space constraints.

### Configurable for today. Expandable for tomorrow.

 Accelerate your current workflow with a multitude of options across processor, graphics, memory, storage, and I/O ports. And with plenty of room to upgrade and expand, this PC is ready to grow with you as your workflow evolves.

#### Industry leading security. Reliability you can trust.

- Get peace of mind with a PC that's built to endure. The Z2 SFF undergoes 360K hours of rigorous testing, military-standard testing<sup>1</sup> and is certified for pro apps. And with HP Wolf Security for Business<sup>2</sup>, it's protected below, in and above the OS.
- Support your unique user needs with a choice of Windows 11 Pro, WSL2 or Linux<sup>®</sup> operating systems.<sup>4</sup>
- Bring your ideas to life quickly and run multiple apps simultaneously with the latest Intel<sup>®</sup> Core<sup>™</sup> vPro<sup>®6</sup> processors. For added performance, choose the K-Series.
- Design, real-time ray trace and simulate with up to NVIDIA RTX A4000 and AMD Radeon Pro X graphics with PCIe G4 high speed bandwidth.<sup>7</sup>
- Experience fast performance when working on complex design tasks with 4 DIMMs for up to 128GB DDR5 memory at an increased memory speed of up to 4400MHz.<sup>8</sup>
- Simplify your storage with up to 36TB with 3x M.2 storage slots and RAID for added performance and reliability.  $^{9}$
- Configure to the needs of today and tomorrow. Experience flexible I/O modules with multiple options for customers to choose from, including DP 1.4, VGA, HDMI, Dual USB Type-A, USB Type-C<sup>®</sup> with Alt-DP or 2nd Serial and more.<sup>10</sup>
- Custom tune your PC to ensure peak performance for your heaviest workloads. Now you're ready to take on any task.
- Evolve your work. Evolve your rig. With tool-less access to the interior, you can customize your Z to fit your needs.
- Get fast network connectivity with 10Gb Ethernet interface.
- HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense.
   From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.<sup>11</sup>
- Innovatively designed to keep hardware components cool and quiet no matter how hard you push it. Have confidence to run your system at max load 24/7.
- Work with confidence knowing your desktop is certified with leading software applications to ensure peak performance.<sup>3</sup>

HP recommends Windows 11 Pro for business

# HP Z2 SFF G9 Workstation Desktop PC Specifications Table







#### \*Product image may differ from actual product

Product image may unrer mornactual produc			
Available Operating Systems	Windows 11 Pro <sup>1</sup> Windows 11 Home – HP recommends Windows 11 Pro for business <sup>1</sup> Linux <sup>®</sup> Ready <sup>3</sup> Uburtu 20.04 LTS <sup>27</sup>		
Processor family <sup>4</sup>	12th Generation Intel® Core® 17 processor; 12th Generation Intel® Core® 19 processor; 12th Generation Intel® Core® 13 processor; 12th Generation Intel® Core® 15 processor		
Available Processors	Intel® Core™ I5-12400 with Intel® UHD Graphics (2.5 GHz P-core base frequency, up to 4.4 GHz P-core Max Turbo frequency, 18 MB L3 cache, 6 P-cores, 12 threads); Intel® Core™ I3-12300 with Intel® UHD Graphics (3.5 GHz P-core Max Turbo frequency, up to 4.4 GHz P-core Max Turbo frequency, up to 4.3 GHz P-core Max Turbo frequency, up to 3.3 GHz P-core Max Turbo frequency, up to 4.4 GHz P-core base frequency, up to 4.3 GHz P-core Max Turbo frequency, up to 4.3 GHz P-core Max Turbo frequency, up to 4.5 GHz P-core base frequency, up to 4.5 GHz P-core base frequency, up to 3.3 GHz P-core Max Turbo frequency, up to 4.5 GHz P-core Max Turbo frequency, up to 4.5 GHz P-core Max Turbo frequency, up to 4.5 GHz P-core base frequency, up to 4.5 GHz P-core Max Turbo frequency, up to 5.5 GHz P-core Max Turbo frequency, up to 4.5 GHz P-core Max Turbo frequency, up to 5.5 GHz P		
Maximum memory	128 GB DDRS-4400 non-ECC SDRAM; 128 GB DDRS-4400 ECC SDRAM <sup>32</sup> Transfer rates up to 4400 MT/s. Transfer rates up to 4400 MT/s.		
Internal storage	500 GB up to 2 TB 7200 rpm SATA HDD <sup>7</sup> 1 TB up to 12 TB 7200 rpm Enterprise SATA HDD <sup>7</sup> up to 500 GB 7200 rpm SeD HDD <sup>7</sup> 512 GB up to 4 TB HP 2 Turbo Drive POle <sup>®</sup> NVMe <sup>™</sup> TLC M.2 SSD <sup>7</sup> 512 GB up to 4 TB HP 2 Turbo Drive POle <sup>®</sup> NVMe <sup>™</sup> TLC M.2 SSD <sup>7</sup> 25G GB up to 1 TB POle <sup>®</sup> NVMe <sup>™</sup> Mulue M.2 SSD <sup>7</sup> 25G GB up to 1 TB POle <sup>®</sup> NVMe <sup>™</sup> Mulue M.2 SSD <sup>7</sup> 500 GB up to 2 TB CRU SHITS Removable NVMe <sup>™</sup> Mulue <sup>™</sup> TLC M.2 SSD <sup>7</sup> 500 GB up to 2 TB CRU SHITS Removable NUMMe <sup>™</sup> Mulue <sup>7</sup>		
Optical drive	HP Slim DVD-ROM; HP Slim DVD-Writer <sup>11,1,2</sup> (##opticaldriveavalinote##)		
Available Graphics	Integrated: Intel® UHD Graphics 770 Entry 3D: NVIDIA® T400 4 GB; NVIDIA® T400 2 GB; NVIDIA® T600 4 GB <sup>30</sup> Mid-range 3D: AMD Radeon™ Pro W6600 (8GB GDDR6 dedicated); NVIDIA® T1 000 8 GB; NVIDIA RTX™ A2000 12GB; NVIDIA® T1 000 4 GB High-end 3D: NVIDIA® RTW A4000 1 6 GB; AMD Radeon™ RX 6700 XT (1 2 GB GDDR6 dedicated)		
Audio	Realter ALC3252		
Expansion slots	1 half-height PCle 4 x16; 1 half-height PCle 3 x4; 1 half-height PCle 3 x4 (x16 connector); 1 half-height PCle 3 x1; 1 full-height PCle 4 x16; 1 full-height PCle 4 x16 (x16 connector) (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage)		
Ports and Connectors	Front: 1 SuperSpeed USB Type-C* 20Gbps signaling rate (USB Power Delivery, DisplayPort* 1.4, HP Sleep and Charge); 4 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 1 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 1 SuperSpeed USB Type-A 480Mbps signaling rate; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 1 SuperSpeed USB Type-A 480Mbps signaling rate; 2 SuperSpeed USB Type		
Input devices	HP Wired Desktop 320K Keyboard; HP Wired Desktop 320MK Mouse and Keyboard; HP 125 Wired Keyboard; HP 655 Wireless Keyboard and mouse combo; HP 975 Wireless Keyboard; HP 455 Programmable Wireless		
Communications	LAN: Integrated Intel <sup>®</sup> [219-LM GbE; Intel <sup>®</sup> [125-LM 2.5 GbE LOM, non-vPro <sup>®</sup> , Intel <sup>®</sup> Ethernet Network Adapter 1225-T1; Intel <sup>®</sup> X550-T2 dual-port 10GbE NIC, INVIDIA <sup>®</sup> Mellanox ConnectX-6 DX Dual Port 10/25GbE SFP28 NIC; INVIDIA <sup>®</sup> Mellanox 25GbE SFP28 SR Transceiver; INVIDIA <sup>®</sup> Mellanox 25GbE SFP28 Drd SR Transceiver; INVIDIA <sup>®</sup> Mellanox 10GbE SFP- 2nd SR Transceiver; AVIDIA <sup>®</sup> Mellanox 10GbE SFP- 2nd SR Transceiver; Alled Teless AT- 2911T7_201 dual-port 10GbE NIC; INVIDIA <sup>®</sup> X111Cx2) and Bluetonh <sup>®</sup> 5.3 wireless card with internal anterna. Intel <sup>®</sup> Wirel 6A X211 CX2) and Bluetonh <sup>®</sup> 5.3 wireless card with internal anterna <sup>®</sup> .		
Drive Bays	One 3.5" HDD; One slim ODD; One 2.5" HDD; One 3.5" HDD; Three M.2 NVME 2280 SSD		
Software	HP PC Hardware Diagnostics UEFI; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Image Assistant; HP Manageability Integration Kit; Performance Advisor 3.0; 15,16,17		
Security management	HP Secure Erase: HP Sure Click; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Security Manager Gen6; HP Sure Start Gen7; HP Sure Recover Gen4; HP Sure Sense Gen2; HP Sure Run Gen5; <sup>19,20,21,22,23,24,25,26,31</sup>		
Security Software Licenses	HP Wolf Pro Security Edition <sup>56</sup>		
Management features	HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Management Gen4; HP System Software Manager (download); HP BIOS Configuration Utility (download) <sup>18</sup>		
Power	260 W 92% efficient, wide-ranging, active PFC; 550 W 92% efficient, wide-ranging, active PFC; 450 W 90% efficient, wide-ranging, active PFC <sup>10</sup>		
Dimensions	38.4 x 30.8 x 10 cm; (Standard desktop orientation.)		
Weight	Starting at 5.0 kg; (Exact weights depend upon configuration (System weight only))		
Ecolabels	IT ECO Declaration; TCO Certified configurations available; EPEAT® Gold registered in the U.S. <sup>13</sup>		
Energy star certified (series fixed)	ENERGY STAR® certified		
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 25% ITE-derived closed loop plastic; Bulk packaging available; 80 Plus® Gold power supplies available; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; Ocean-bound plastic in speaker enclosure and system fan; Contains recycled metal		
Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays (Supports 8 displays, driving 8 displays requires the use of integrated and discrete graphics ports. Each source can drive a total of 4 displays. At least one of the integrated graphics ports need to drive two displays in a daisy chain configuration.)		

## HP Z2 SFF G9 Workstation Desktop PC

Accessories and services (not included)

HP ZTurbo 2TB PCle-Gen 4x4 TLC Z2 SSD Kit		Product number: 201F8AA
HP 975 Dual-Mode Wireless Keyboard		Now you can make your keyboard truly yours while enjoying an elevated typing experience. That's because you can connect up to 3 devices either via Bluetooth® or USB-A. We've also included many must-have features like comfortable, quiet, soft return keys, 20+ of which can be programmed with shortcuts, controllable smart backlight, and a long life, rechargeable battery. <b>Product number: 32726AA</b> <sup>1</sup> Battery life based on 5 day week, 8 hours per day. Actual battery life will vary with use and environmental conditions, and will naturally decrease with time and usage. <sup>2</sup> Enabled by HP Accessory Center (HPAC) Software. HP Accessory Center (HPAC) software available for free download in Microsoft Store or Apple Store.
NVIDIA RTX A2000 12 GB 4mDP Graphics	0	Product number: 5Z7D9AA
Allied Telesis AT-2911T/2-901 Dual Port 1GbE NIC		Product number: 6E3Y9AA
HP 5-year Next Business Day Onsite Workstation Only Hardware Support	HP Care Pack	Receive 5 years of next business day onsite repair from an HP-qualified technician for your computing device, if the issue cannot be solved remotely. For more information on Care Pack services, please visit www.hp.com/go/cpc. Product number: U7944E

### HP recommends Windows 11 Pro for business

### HP Z2 SFF G9 Workstation Desktop PC

#### Messaging Footnotes

<sup>1</sup> HP Wolf Security for Business requires Windows 10 or higher, includes various HP security features and is available on HP Pro. Elite. RPOS and Workstation products. See product details for included security features and OS requirement <sup>2</sup> PILLSTD testings not interface and the state of the s

Third party software sold separately.

<sup>4</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 11 Pro 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.

hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance

<sup>6</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> Sold separately or as an optional feature

<sup>8</sup> Gen over gen.

For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB of system disk (for Windows 11) is reserved for system recovery software

<sup>10</sup> Optional features that must be configured at purchase or are sold separately.

<sup>11</sup> HP Wolf Security for Business requires Windows 10 or higher, includes various HP security features and is available on HP Pro, Elite, RPOS and Workstation products. See product details for included security features and OS requirement.

#### **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 is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com.

<sup>3</sup> For detailed OS/hardware support information for Linux, see: http://www.hp.com/support/linux\_hardware\_matrix.
 <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> For full Intel® vPro<sup>2M</sup> functionality, Windows 11 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

Finel 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> For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB of system disk (for Windows 11) is reserved for system recovery software

<sup>8</sup> Flex IO port and one PCIe slot will be occupied when Thunderbolt is installed.
<sup>9</sup> Keyboard and Mouse are optional or add on features.

<sup>10</sup> Specific chassis required for 550 W 92% efficient, wide-ranging, active PFC power supply

<sup>1</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/S.2 Double Sided-Version 1.0 Media. 12 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

HDM digital connection and your display may require HDCP support. HD-DVD movies cannot be played on this Desktop PC. <sup>13</sup> Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT® Status varies by country. Visit www.epeat.net for more information

15 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 <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> HP Support Assistant requires Windows and Internet access

<sup>18</sup> HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html

<sup>19</sup> HP Client Security Manager Gen7 requires Windows and is available on the select HP PCs.
 <sup>20</sup> HP BlOSphere Gen6 features may vary depending on the platform and configurations.
 <sup>21</sup> HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A\_SureClick for complete details.

<sup>22</sup> HP Sure Start Gen7 is available on select HP PCs and vorkstations. See product specifications for availability.
 <sup>23</sup> HP Sure Recover Gen4 is available on select HP PCs and requires Windows 10 and higher.
 <sup>24</sup> HP Sure Recover Gen4 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>24</sup> HP Sure Recover Gend is available on select HP PLs 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>25</sup> HP 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>™</sup>.
<sup>26</sup> HP Sure Secures requires Windows 11 Pro or Enterprise and supports Microsoft Internet Explorer, Google Chrome<sup>™</sup>, and Chromium<sup>™</sup>. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

<sup>7</sup> A certified preloaded version of Ubuntu<sup>®</sup> 20.04 LTS is available from HP for this platform

<sup>28</sup> Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-FI 6 (802.11ax) is backwards compatible with prior 802.11 specs
<sup>29</sup> When slot 2 is configured with a PCle card, slot 1 will automatically downgrade to PCle x8 electrical.

 <sup>42</sup> When slot 2 is configured with a PLie data, slot 1 with advantational voltage dot acts and second advantational voltage dot acts and voltage dot advantational voltage dot advantadvantational voltage dot advantational voltage dot advantati under the license terms of the IP Wolf Security Edition in Such Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for either a twelve (12) month or thirty-six (36) month license term ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf 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.

### Sign up for updates hp.com/go/getupdated

The product could differ from the images shown. © 2014 Hewlett-Packard Development Company, L.P. The Information contained herein is subject to change without notice. Warranties for HP products and services are set out in the express warranty statements accompanying such products and services. In addition, our products and services come with guarantees that cannot be excluded under the Australian Consumer Law. Subject to the foregoing, nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel. Pentium, the Intel Jogo, Intel Core, Thunderbolt, vPro, Ontane, and Core Inside are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Bluetooth is a trademark of its proprietor, used by HPL inc. under license. USB Type-C<sup>®</sup> and USB-C<sup>®</sup> are registered trademarks of USB Implementers Forum. Adobe DPL is a trademark of Adobe Systems Incorporated. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. DisplayPort<sup>™</sup> and the DisplayPort<sup>™</sup> logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. NVIDIA, the NVIDIA logo, Quadro, and GeForce are trademarks and/or registered trademarks of NVIDIA Corporation in the US. and other countries. Bluetooth is a trademark of its proprietor and used by HP Inc. under license. AMD and Radeon are trademarks of Advanced Micro Devices, Inc. All other trademarks are the property of their respective owners

