HP Z2 Tower G9 Workstation (6H925UT)



#### **Overview**

#### Pro-power. Today and tomorrow

Experience a whole new level of performance for your professional workflow. The Z2 Tower is engineered to seamlessly run multi-threaded apps for fast rendering, simulation, and now real-time ray tracing. And when your demands change, you have impressive expandability to upgrade.

# Your new benchmark for entry workstation power

Unleash the power of professional graphics and an Intel® Core<sup>™</sup> processor on intensive multi-threaded apps. Designed for zero throttling so you can render, simulate, and even real-time ray trace without overheating or slow downs.

#### Built to expand. Power to grow

Need to upgrade graphics? Increase memory or storage? Add specialized PCIe cards? Go for it. With room to expand and tool-less access, you can easily upgrade and add components as your needs evolve. This is an investment that will last for years.

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

Get peace of mind with a PC that's built to endure. The Z2 Tower undergoes 360K hours of rigorous testing, military-standard testing[2] and is certified for pro apps. And with HP Wolf Security for Business[1], it's protected below, in and above the OS.



#### Intel® Core™ i7 processor

Run several CPU–heavy programs simultaneously without sacrificing performance with an Intel® Core™ i7 processor.<sup>[3]</sup>

#### Security is your top priority

The HP Wolf Pro Security Edition provides preconfigured enterprise-level PC protection for small and medium sized businesses.

[1] 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.

[2] 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 or damage under these test conditions requires an optional HP Accidental Damage Protection Care Pack.

[3] 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.

# Specifications

Operating system	Windows 10 Pro for Workstations (available through downgrade rights from Windows 11 Pro for Workstations) <sup><math>[1,2]</math></sup>
Processor family	12th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-12700K (up to 5.0 GHz with Intel® Turbo Boost Technology, 25 MB L3 cache, 12 cores, 20 threads) <sup>[6,7]</sup>
Memory	32 GB DDR5-4800 MHz RAM (2 x 16 GB)
Memory Slots	4 DIMM
Internal Storage	1 TB HP Z Turbo Drive PCIe® NVMe™ M.2 SSD
Internal drive bays	One 2.5" HDD; Two 3.5" HDD; Three M.2 NVME 2280 SSD
External drive bays	One slim ODD; One 5.25" ODD
Optical drive	Not included
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics 770
Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays
Audio	Realtek ALC3205-VA2-CG, 2.0W internal mono speaker
Minimum dimensions (W x D x H)	35.6 x 16.9 x 38.5 cm (Standard tower orientation.)
Minimum dimensions (W x D x H)	14 x 6.7 x 15.2 in (Standard tower orientation.)
Weight	Starting at 7.2 kg (Exact weight depends on configuration.)
Weight	Starting at 16 lb (Exact weight depends on configuration.)
Keyboard	HP Wired Desktop 320K Keyboard
Pointing device	HP Wired 320M Mouse
Ports	4 SuperSpeed USB Type-A 10Gbps signaling rate (1 charging); 1 universal audio jack
Expansion slots	1 PCIe 3 x4 (x16 connector); 1 PCIe 3 x4 (x4 connector); 1 PCIe 3 x1 (x4 connector); 1 PCIe 5 x16 (x16 connector); 1 M.2 2230 PCIe 3 X1 for WLAN (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage)
Ports	1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-A 5Gbps signaling rate; 3 USB Type-A 480Mbps signaling rate
Ecolabels	EPEAT® registered
Energy star certified	ENERGY STAR® certified
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>

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
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>[19,20,21,22,23,24,25,26,33]</sup>
Software included	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 <sup>[15,16,17]</sup>
UPC number	(ABA) 196548996940; (ABC) 196548996957

# Additional specifications

ECC memory	non-ECC
Graphic card footnote number	[32]
I/O Port location	Front
I/O Port location	Rear
Keyboard connectivity	wired
Legal tagline	HP recommends Windows 11 Pro for business
Memory and storage	32 GB memory; 1 TB SSD storage
Memory layout (slots & size)	2 x 16 GB
Memory module type	DIMM
Memory size	32
Memory size uom	GB
Memory speed	4800
Memory speed uom	MHz
Memory type	DDR5
Number of memory slots	2
Processor Brand	Intel®
Processor base frequency	3.6
Processor cache	25 MB L3
Processor core	12
Processor family	Core™ i7
Processor frequency UOM	GHz
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	12th Generation
Processor maximum frequency	5.0
Processor maximum frequency uom	GHz
Processor model	12700K
Processor threads	20
Product long name specifications	HP Z2 Tower G9 Workstation, Windows 10 Pro for Workstations (available through downgrade rights from Windows 11 Pro for Workstations), Intel® Core™ i7, 32GB RAM, 1TB SSD
Product short name specifications	HP Z2 Tower G9 Workstation, Intel® Core™ i7, 32GB RAM, 1TB SSD
Security Software Licenses	HP Wolf Pro Security Edition (1 year)
Standard memory note	Transfer rates up to 4800 MT/s.
Storage brand 01	HP Z Turbo Drive

Storage capacity	1
Storage capacity uom 01	ТВ
Storage controller	Integrated SATA (4 ports 6 Gb/s) with integrated RAID 0, 1, for PCIe SSDs supported. Requires identical hard drives (speeds, capacity, interface).
Storage form factor 01	M.2
Storage interface 01	PCIe®
Storage interface protocol 01	NVMe™
Storage type	SSD
Storage type 01	SSD
UNSPSC code	43211515

[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 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.

[2] This system is preinstalled with Windows 10 Pro software and also comes with a license for Windows 11 Pro software and provision for recovery software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

[6] 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.

[7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost/ 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 simultaneously executing versions and purchase of ZCentral Remote Boost Software Support is required. ZCentral Remote Boost requires Windows, RHEL (7 or 8), UBUNTU 18.04 LTS, or HP ThinPro 7operating 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.

[16] 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

[17] HP Support Assistant requires Windows and Internet access.

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

[19] HP Client Security Manager Gen7 requires Windows and is available on the select HP PCs.

[20] HP BIOSphere Gen6 features may vary depending on the platform and configurations.

[21] HP Sure Click requires Windows 11 Pro or Enterprise. See https://bit.ly/2PrLT6A\_SureClick for complete details.

[22] HP Sure Start Gen7 is available on select HP PCs and workstations. See product specifications for availability.

[23] HP Sure Run Gen5 is available on select HP PCs and requires Windows 10 and higher.

[24] 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.

[25] 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™.

[26] HP Sure Sense 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.

[33] HP Sure Admin requires Windows 10 or higher, 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.

## Accessories

## Memory

★ : Recommended

#### **DDR4 Memory**

16GB DDR5 (1x16GB) 4800 UDIMM ECC Memory	4M9Y1AT
16GB DDR5 (1x16GB) 4800 UDIMM NECC Memory	4M9Y0AT
32GB DDR5 (1x32GB) 4800 UDIMM ECC Memory	4M9Y3AT
32GB DDR5 (1x32GB) 4800 UDIMM NECC Memory	4M9Y2AT
8GB DDR5 (1x8GB) 4800 UDIMM NECC Memory	4M9X9AT

## **PC Drives and Storage**

#### **PC Solid State Drives**

1TB 2280 PCIe-4x4 NVMe Value M.2 Z2 Kit SSD	4M9Z3AA
512GB 2280 PCIe-4x4 NVMe Value M.2 Z2 Kit SSD	4M9Z2AA
HP Z Turbo Drive 2TB TLC Z8 G4 SSD Kit	201F8AA
HP ZTurbo 1TB 2280 PCIe-Gen4x4 Self Encrypted OPAL2 TLC M.2 Z2 SSD	223A3AA
HP ZTurbo 1TB 2280 PCIe-Gen4x4 Self Encrypted OPAL2 TLC M.2 Z2 SSD	223A3AT
HP ZTurbo 1TB PCIe-Gen 4x4 TLC Z2 SSDKit	201F5AA
HP ZTurbo 1TB PCIe-Gen 4x4 TLC Z2 SSDKit	201F5AT
HP ZTurbo 2TB 2280 PCIe-Gen4x4 Self Encrypted OPAL2 TLC M.2 Z2 SSD	223A4AA
HP ZTurbo 2TB 2280 PCIe-Gen4x4 Self Encrypted OPAL2 TLC M.2 Z2 SSD	223A4AT
HP ZTurbo 512GB PCIe-Gen 4x4 SED Z2 SSDKit	201F9AA
HP ZTurbo 512GB PCIe-Gen 4x4 TLC Z2 SSDKit	201G0AA
HP ZTurbo 512GB PCIe-Gen 4x4 TLC Z2 SSDKit	201G0AT
Z Turbo 1TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	38T76AA
Z Turbo 1TB PCIe-4x4 TLC SSD Module	38T77AA
Z Turbo 2TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	38T79AA
Z Turbo 2TB PCIe-4x4 TLC SSD Module	38T75AA
Z Turbo 4TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	5S497AA
Z Turbo 4TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	5S497AT
Z Turbo 4TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 Z2 SSD Kit	5S498AA
Z Turbo 4TB 2280 PCIe-4x4 SED OPAL2 TLC M.2 Z2 SSD Kit	5S498AT
Z Turbo 4TB 2280 PCIe-4x4 TLC M.2 Z2 SSD Kit	5S492AA
Z Turbo 4TB 2280 PCIe-4x4 TLC M.2 Z2 SSD Kit	5S492AT

Z Turbo 4TB 2280 PCIe-4x4 TLC SSD Module	5S496AA
Z Turbo 4TB 2280 PCIe-4x4 TLC SSD Module	5S496AT
Z Turbo 512GB 2280 PCIe-4x4 SED OPAL2 TLC M.2 SSD Module	38T81AA
Z Turbo 512GB PCIe-4x4 TLC SSD Module	38T80AA

#### **PC SATA Hard Drives**

HP 2TB SATA 6Gb/s 7200 Hard Drive	QB576AA
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## **Keyboards/Mice and Input Devices**

### Keyboards

HP 125 Wired Keyboard	266C9AA
HP 125 Wired Keyboard	266C9UT
HP 455 Programmable Wireless Keyboard	4R177AA
HP 975 Dual-Mode Wireless Keyboard	3Z726UT
HP Business Slim Smartcard Keyboard	Z9H48AA
HP Business Slim Smartcard Keyboard	Z9H48AT
HP Wired Desktop 320K Keyboard	9SR37AA
HP Wired Desktop 320K Keyboard	9SR37ET
HP Wired Desktop 320K Keyboard	9SR37UT

#### Mice

HP 125 Wired Mouse	265A9AA
HP 125 Wired Mouse	265A9UT
HP 125 Wired Mouse	266C9ET
HP Wired Desktop 320M Mouse	9VA80AA
HP Wired Desktop 320M Mouse	9VA80ET
HP Wired Desktop 320M Mouse	9VA80UT

### **Keyboard and Mouse Kits**

HP 655 Wireless Keyboard and Mouse Combo	4R009AA
HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
HP Wired Desktop 320MK Mouse and Keyboard	9SR36ET
HP Wired Desktop 320MK Mouse and Keyboard	9SR36UT

## **Expansion Solution and Controller Cards**

#### **Port Adapters**

HP 1GbE LAN Flex Port 2020

HP DP Flex Port 2020	141J7AA
HP Dual USB-A 3.2 Gen1 Flex 2020	141J8AA
HP PCIe x1 Parallel Port Card	N1M40AA
HP PCIe x1 Parallel Port Card	N1M40AT
HP USB-C 3.2 Gen2 Alt Flex Port 2020	141K6AA
HP VGA Flex Port 2020	141K7AA
HP Z2 G5 2nd serial port adapter	141K8AA
HP Z2 G5 Internal Serial and PS/2 Port	141K9AA
HP Z2 G9 Single Type-C SuperSpeed USB 20Gbps Front Port	4M9X8AT

## **Security and Protection**

#### **PC Locks**

HP Business PC Security Lock v3 Kit	3XJ17AA
HP Business PC Security Lock v3 Kit	3XJ17AT
HP Keyed Cable Lock 10 mm	T1A62AA
HP Keyed Cable Lock 10 mm	T1A62UT
HP Master Keyed Cable Lock 10mm	T1A63AA
HP Master Keyed Cable Lock 10mm	T1A63UT

## **Cables/Cable Kits/Cable Adapters**

### Audio and Video Cables

HP DisplayPort To VGA Adapter	AS615A6
HP DisplayPort To VGA Adapter	AS615AA
HP DisplayPort To VGA Adapter	AS615AT
HP DisplayPort To VGA Adapter	F7W97AA
HP DisplayPort to DVI-D Adapter	FH973AA
HP DisplayPort to DVI-D Adapter	FH973AT
HP DisplayPort to DVI-D Adapter (Bulk 90)	FH973A6
HP DisplayPort to HDMI True 4K Adapter	2JA63AA

### **Cable Adapters**

HP Single miniDP-to-DP Adapter Cable	2MY05AA
HP USB-C to DP Adapter	4SH08AA
HP USB-C to HDMI Adapter	4SH07AA
HP USB-C to VGA Adapter	4SH06AA

## **Chassis and Chassis Accessories**

#### **Brackets/Bezels/Panels**

HP Dust Filter Z2 G5 Tower	141L2AA
HP Z2 TWR Dual Front Fan Kit	4N007AA

## Audio/Multimedia and Communication Devices

#### Headsets

HP Reverb G2 Virtual Reality Headset	1N0T4AA
HP Reverb Virtual Reality Headset G2 (359V7AV)	428Z7AA

## Rack Brackets/Bezels/ Panels/Rails/ Trays/Mounting

Rack Kits	
HP Z2 Mini/Z2 Tower/Z4/Z6 Depth Adjustable Fixed Rail Rack Kit	2A8Y5AA
Batteries/Chargers/Adapters	
Power Cords	
HP Z2 Power Cord Kit M	1N1D5AA
PC Controller/Controller Options	
PC Processor Cards	
•	406L9AA
PC Processor Cards Intel 1225V Single Port 2.5GbE PCIe NIC Graphics Cards	406L9AA
PC Processor Cards Intel I225V Single Port 2.5GbE PCIe NIC	406L9AA
PC Processor Cards Intel 1225V Single Port 2.5GbE PCIe NIC Graphics Cards	406L9AA 5Z7D8AA

### HyperX Gaming Peripherals

HyperX Gaming Headsets	★ : Recommended
HyperX Cloud Headsets SC	
HyperX Cloud Core + 7.1 - Gaming Headset (Black)	4P4F2AA
HyperX Cloud Flight Headsets SC	
HyperX Cloud Flight - Wireless Gaming Headset (Black-Red)	4P5L4AA
HyperX Cloud MIX Headsets SC	
HyperX Cloud MIX - Gaming Headset (Black-Gunmetal)	4P5K9AA
HyperX Cloud Stinger Headsets SC	
HyperX Cloud Stinger Core - Gaming Headset (Black)	4P4F4AA
HyperX Microphones	
HyperX SoloCast Microphones SC	

HyperX SoloCast - USB Microphone (Black)

4P5P8AA

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