



HP Z2 G8 Tower Workstation Desktop PC (2N2E7EA)



Overview

Engineered to evolve.

We've engineered a whole new level of performance for entry workstations, so you can cut through rendering, visualization, BIM projects without missing a beat. And when your demands change, you have impressive expandability to upgrade.

Your new benchmark for entry workstation power.

Unleash the full power of professional graphics and an Intel® processor on compute-heavy projects. Designed for unthrottled performance so you can render and visualize projects faster.

Industry-leading security. Durability you can trust.

Backed by 360K hours of rigorous testing, military-standard testing,[2] and software certs, every component is put to the test. And with hardened security features, your Z2 Tower is protected from the BIOS to the browser, above and below the OS.

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.

Access your Z2 Tower from anywhere.

Tap into the power of your Z2 Tower from anywhere and on almost any device with HP ZCentral Remote Boost.[3] Get fast responsiveness and exceptional image quality on demanding projects. Seamlessly collaborate with dispersed teams, even on 3D models.

Features

Windows 10 Pro 64

Work without compromising on performance or security with Windows 10 Pro, powered by HP's collaboration and connectivity technology.

Intel® Core™ i9 processor

Get high-end performance for intensive tasks like rendering and video editing with the Intel® Core™ i9 processor.^[1]

Smaller, Functional Design

The stunning new design features front and rear ledges, so you can easily move your system from location to location.

[2] 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.

[3] HP ZCentral Remote Boost does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without an additional license purchase. When you purchase a Z device, you get an embedded license. With non-Z sender devices, it is a perpetual or floating license. ZCentral Remote Boost requires a Windows (10 or 7 SP2), RHEL (6, 7 or 8), UBUNTU 18.04 LTS, or HP ThinPro operating system. 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.

[1] 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

Form factor	Tower
Operating system	Windows 10 Pro 64 High End
Processor family	11th Generation Intel® Core™ i9 processor
Processor	Intel® Core™ i9-11900K (3.5 GHz base frequency, up to 5.3 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores) ^[6,7]
Chipset	Intel® W580
Memory	32 GB DDR4-3200 MHz RAM (2 x 16 GB)
Memory Slots	4 DIMM
Internal Storage	512 GB PCIe® NVMe™ M.2 SSD
Internal drive bays	Two M.2 NVME 2280 SSD; One 2.5" HDD; Two 3.5" HDD
External drive bays	One slim ODD; One 5.25" ODD
Optical drive	9.5 mm Slim DVD-Writer
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics 750
Compatible displays	All HP Z Displays and HP DreamColor Displays are supported. For more information see www.hp.com/go/zdisplays
Audio features	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.)
Weight	Starting at 7 kg (Exact weight depends on configuration.)
Keyboard	HP USB wired keyboard
Pointing device	HP Wired 320M Mouse
Ports	2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 universal audio jack; 2 SuperSpeed Type-A USB 5Gbps signaling rate (1 charging)
Expansion slots	1 PCIe 3 x4 (x16 connector); 1 PCIe 3 x4 (x4 connector); 1 M.2 2230 PCIe 3 x1; 1 M.2 2280 PCIe 4 x4; 1 M.2 2280 PCIe 3 x4; 1 PCIe 3 x1 (x4 connector); 1 PCIe 4 x16 (x16 connector) (1 M.2 2230 slot for WLAN and 2 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
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) ^[18]
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 20% 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

Security management

HP Secure Erase; HP Power On Authentication; HP Sure Click; Windows Defender; HP Sure Sense; HP BIOSphere Gen6; HP Client Security Manager Gen7; HP Sure Start Gen7; HP Sure Run Gen4; HP Sure Recover Gen4^[19,20,21,22,23,24,25,26]

Software included

HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Desktop Support Utilities; HP Image Assistant; HP Notifications; My HP; HP QuickDrop^[15,16,17]

Manufacturer Warranty

3 year (3/3/3) limited warranty includes 3 years of parts, labor and on-site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.

Additional specifications

Additional information on the product category	For the latest information, please visit our Web site at http://www.hp.com/workstations
Datasheet photo 1	AHID/b066925aee813bae12ed5b71ca4429c039712b3
Datasheet photo 2	Publication logos/HP_Care_Pack_RGB_blue_NT.jpg
Datasheet photo 3	AHID/aee64329b210009f14eb2a52ed95af99ca0dead5
Datasheet photo 4	AHID/94900aef0976fd4fad239f12c8042d9c626e4808
Datasheet photo 5	AHID/d798e5b443cf241ad94eda8d523599fd97bda812
ECC memory	non-ECC
I/O Port location	Front
I/O Port location	Rear
Legal tagline	HP recommends Windows 10 Pro for business
MDA key selling point	Windows 10 Pro or other operating systems available
Memory and storage	32 GB memory; 512 GB SSD storage
Memory layout (slots & size)	2 x 16 GB
Memory module type	DIMM
Memory size	32
Memory size uom	GB
Memory speed	3200
Memory speed uom	MHz
Memory type	DDR4
Number of memory slots	2
Processor Brand	Intel®
Processor base frequency	3.5
Processor base frequency uom	GHz
Processor cache	16 MB L3
Processor core	8
Processor family	Core™ i9
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	11th Generation
Processor maximum frequency	5.3
Processor maximum frequency uom	GHz
Processor threads	16

Sales office and telephone number

Albania: +49 89 9396 1803; Algeria: +213 (0) 61 68 23 00; Austria: +43 (0) 810 00 60 80; Bahrain: 800 171; Belgium: +32 (02) 729 71 11; Bulgaria: +359 2 969 87; Bosnia-Herzegovina: +49 89 9396 1803; Commonwealth of Independent States (CIS): +(095) 923 50 01; Croatia: +385 1 606 02 00; Czech Republic: +420 261 108 108; Denmark: +45 48 12 10 00; HP East Africa, Authorized Consultant: +254 20 27 16 111 ; Egypt: HP +202 792 5070 ; Estonia: +372 6 813 820; Finland: HP Myyntipalvelu 010 217 2700; France: +33 (0) 826 800 400; Germany: +49 (0) 180 532 62 22; Greece: +30 801 11 22 55 47; Hungary: +36 (1) 382 11 11; Iceland: +354 (1) 67 10 00; Ireland: +353 1 615 82 00; Israel: +972 9 830 48 48; Italy: Prodotti +39 02 92607 330, Servizio HP Care Pack: +39 02 9212 2040; Kazakhstan & Kyrgyzstan: +7 327 2 58 43 43; Latvia: +371 703 07 00; Lithuania: +370 5 2103 300; Luxembourg : (+352) 263 160 34 Macedonia: +49 89 9396 1803; Malta: +49 89 9396 1803; Middle East (Within UAE Toll Free): 800 45 20; Moldova: +49 89 9396 1803; Morocco (African Region): Call Centre +212 22 40 47 47, HP Sale Office +212 22 97 37 37/+212 22 43 64 00; Netherlands: 0800 266 7272; Nigeria: + 234 13 205 241/3; Norway: +47 24 09 70 00; Poland: 0 801 522 622 and/or 00 48 22 565 77 00 (calls are charged at national rates); Portugal: +351 808 200 808 (end user welcome desk for commercial products) ; Romania: +40 (21) 303 83 00; Saudi Arabia: (Toll free) 800 897 14 33, Office Number: +96612731200; Serbia and Montenegro: +381 11 201 99 00; Slovakia: 0800 147 147; Slovenia: +386 1 230 74 20; Spain: +34 (91) 631 16 00; Sweden: +46 200 27 00 00; Switzerland: Pre-sales/product information +41 (0) 848 88 44 66, Spare parts, manuals +41 (0) 848 84 74 64; Tunisia: +216 1 89 12 22; Turkey: +90 (212) 444 79 79; UAE (Toll Free): 800 45 20; UAE (Toll Free): 800 45 20 or 800 49 10; Ukraine: +380 44 490 61 20 ; United Kingdom: HP Teleweb Glasgow +44 (0) 845 270 40 00

Service description	HP 5 year Next Business Day Onsite Hardware Support for Workstations
Services (Care Pack)	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.
Standard memory note	Transfer rates up to 3200 MT/s.
Storage capacity 01	512
Storage capacity uom 01	GB
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

[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. 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.

[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 10 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 Gen4 is available on select Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors

[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] 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 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.

Accessories

Memory

★ : Recommended

DDR4 Memory

8GB (1x8GB) 3200 DDR4 ECC UDIMM

141J3AA ★

Graphics Cards

Graphics Cards

AMD Radeon Pro W5500 8GB 4DP GFX

9GC16AA ★

NVIDIA Quadro P400 2GB Graphics

1ME43AA ★

AMD Radeon Pro WX 3200 4GB (4)mDP GFX

6YT68AA ★

AMD Radeon Pro W5700 8GB 5mDP+USBc GFX

9GC15AA

AMD Radeon Pro WX 3200 4GB (4)mDP GFX

6YT68AT

NVIDIA Quadro P2200 5GB (4)DP GFX

6YT67AA

NVIDIA Quadro P2200 5GB (4)DP GFX

6YT67AT

NVIDIA Quadro P400 2GB Graphics

1ME43AT

NVIDIA RTX A5000 24 GB 4DP Graphics

20X23AA

PC Drives and Storage

PC SATA Hard Drives

HP 1TB SATA 6Gb/s 7200 Hard Drive

LQ037AA ★

2TB 7200RPM SATA 3.5in Enterprise

2Z274AA

8TB 7200RPM SATA 3.5in Enterprise

2Z273AA

HP 1TB Enterprise SATA 7200 HDD

WOR10AA

HP 1TB SATA 6Gb/s 7200 Hard Drive

LQ037AT

HP 4TB SATA 7200 Hard Drive

K4T76AA

HP 4TB SATA 7200 Hard Drive

K4T76AT

HP 500GB SATA 6Gb/s 7200 Hard Drive

LQ036AA

HP 500GB SATA 6Gb/s 7200 Hard Drive

LQ036AT

PC Solid State Drives

HP ZTurbo 1TB PCIe-Gen 4x4 TLC Z2 SSDKit

201F5AA ★

HP ZTurbo 2TB 2280 PCIe-Gen4x4 Self Encrypted OPAL2 TLC M.2 Z2 SSD

223A4AA ★

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	201F5AT
HP ZTurbo 256GB PCIe-Gen 4x4 SED Z2 SSDKit	201F6AA
HP ZTurbo 256GB PCIe-Gen 4x4 TLC Z2 SSDKit	201F7AA
HP ZTurbo 256GB PCIe-Gen 4x4 TLC Z2 SSDKit	201F7AT
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

Removable Hard Drive Enclosure

HP 4-in-1 SFF (2.5in) HDD Carrier	B8K60AA
HP DX175 Removable HDD Frame/Carrier	1ZX71AA
HP DX175 Removable HDD Spare Carrier	1ZX72AA

Personal Media Storage

HP SD card reader Z2 G5 Twr	141K3AA
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Keyboards/Mice and Input Devices

Keyboards

HP Wireless Premium Keyboard	Z9N41AA ★
HP USB Premium Keyboard	Z9N40AA ★
HP PS/2 Slim Business Keyboard	N3R86AA ★
HP PS/2 Slim Business Keyboard	N3R86AT
HP USB Premium Keyboard	Z9N40AT
HP Wired Desktop 320K Keyboard	9SR37AA
HP Wired Desktop 320K Keyboard	9SR37ET
HP Wireless Premium Keyboard	Z9N41AT

Mice

HP Wireless Premium Mouse	1JR31AA ★
HP USB Premium Mouse	1JR32AA ★
HP Wired Desktop 320M Mouse	9VA80AA ★
HP 935 Creator Wireless Mouse	1DOK8AA
HP PS/2 Mouse	QY775AA

HP Wired Desktop 320M Mouse

9VA80ET

Keyboard and Mouse Kits

HP Wired Desktop 320MK Mouse and Keyboard

9SR36AA

HP Wired Desktop 320MK Mouse and Keyboard

9SR36ET

PC Controller/Controller Options

PC Processor Cards

Aquantia NBASE-T 5GbE PCIe NIC

1PM63AA

Intel Ethernet I350-T2 2-Port 1Gb NIC

V4A91AA

Intel Ethernet I350-T4 4-Port 1Gb NIC

W8X25AA

Expansion Solution and Controller Cards

Port Adapters

HP 1GbE LAN Flex Port 2020

141J6AA

HP DP Flex Port 2020

141J7AA

HP Dual USB-A 3.2 Gen1 Flex 2020

141J8AA

HP HDMI Flex Port 2020

141K1AA

HP PCIe x1 Parallel Port Card

N1M40AA

HP QX310 Removable Carrier only

8GQ91AA

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

Expansion Packs and Solutions

HP Z2 TWR Card Hldr

2B1D4AA

Cables/Cable Kits/Cable Adapters

Audio and Video Cables

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 HDMI True 4K Adapter

2JA63AA

Cable Adapters

HP Single miniDP-to-DP Adapter Cable

2MY05AA

HP USB-C to DP Adapter

4SH08AA

Data Transfer Cables

Intel 10GbE SFP+ SR Transceiver

C3N53AA

Chassis and Chassis Accessories

Brackets/Bezels/Panels

HP Dust Filter Z2 G5 Tower

141L2AA

HP Dust Filter bezel Z2 G5 Tower

141L3AA

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

Rack Kits

HP Z2 Mini/Z2 Tower/Z4/Z6 Depth Adjustable Fixed Rail Rack Kit

2A8Y5AA

Rail Kits

HP Z4/Z6 G4 Depth Adj Fxd Rail Rack Kit

2HW42AA

Network Adapters

Adapter Cards

Intel X550 10GBASE-T Dual Port NIC

1QL46AA

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