

HP Z2 G8 SFF Workstation (2N2E8EA)

Overview

Small size. Endless options.



Get high-end performance in a compact device. Designed to pack more graphics and processing power into less space, you can easily take on 2D and 3D CAD projects. And with near endless configuration options, it's the ideal hardware option for custom solutions.[1]

Performance that defies space constraints.

Seamlessly render, design and run multiple apps with professional graphics and an Intel® processor. Designed for unthrottled performance, you can render and visualize projects faster.

Highly customizable to fit your needs.

Build a system matched exactly to your needs with over a million possible configurations. And with customizable I/O ports, you can support new and legacy technologies, dynamic displays and even a second LAN—without messy dongles or adapters.

Industry-leading security. Durability you can trust.

Backed by 360K hours of rigorous testing, military-standard testing,[3] and software certifications, every component is put to the test. And with hardened security features, your Z2 SFF is protected from the BIOS to the browser, above and below the OS.

Access your Z2 SFF from anywhere.

Tap into the power of your Z2 SFF from anywhere and on almost any device with HP ZCentral Remote Boost.[4] 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™ i7 processor

Run several CPU-heavy programs simultaneously without sacrificing performance with an Intel® Core™ i7 processor.^[2]

Smaller, Functional Design

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

[1] Based on HP's internal analysis of non-gaming small form factor desktop workstations with a minimum 3 ISV certs, configurable professional graphics, and a dedicated workstation brand as of April 2021. Power based on processor, graphics, memory, and power supply.

[3] 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.

[4] 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.

[2] 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	Small form factor
Operating system	Windows 10 Pro 64
Processor family	11th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-11700 (2.5 GHz base frequency, up to 4.9 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores) ^[6,7]
Chipset	Intel® W580
Memory	16 GB DDR4-3200 MHz RAM (1 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; One 3.5" HDD
External drive bays	One 3.5" HDD; One slim 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)	33.8 x 30.8 x 10 cm (Standard desktop orientation.)
Weight	Starting at 5.4 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); 1 Type-C SuperSpeed® USB 20Gbps 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 PCIe 4 x16; 1 M.2 2280 PCIe 4 x4; 1 M.2 2280 PCIe 3 x4; 1 PCIe 3 x1 (x1 connector) (1 M.2 2230 slot for WLAN and 2 M.2 2280 slots for storage)
Ports	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; 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

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/4077b9e64afa1c0b3195dea6305dbbc8dcc41318
Datasheet photo 2	Publication logos/HP_Care_Pack_RGB_blue_NT.jpg
Datasheet photo 3	AHID/2d5190f7983ceab60c488a52cc8f1ad74f50acac
Datasheet photo 4	AHID/d01d6620629e6b876df790e8c56e521ad2a422d2
Datasheet photo 5	AHID/4b61292e74c29380c9a08f761c399741ae51fbd5
ECC memory	non-ECC
Graphic card footnote number	[32]
I/O Port location	Rear
I/O Port location	Front
Legal tagline	HP recommends Windows 10 Pro for business
MDA key selling point	Windows 10 Pro or other operating systems available
Memory and storage	16 GB memory; 512 GB SSD storage
Memory layout (slots & size)	1 x 16 GB
Memory module type	DIMM
Memory size	16
Memory size uom	GB
Memory speed	3200
Memory speed uom	MHz
Memory type	DDR4
Number of memory slots	1
Processor Brand	Intel®
Processor base frequency	2.5
Processor base frequency uom	GHz
Processor cache	16 MB L3
Processor core	8
Processor family	Core™ i7
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	11th Generation
Processor maximum frequency	4.9
Processor maximum frequency uom	GHz
Processor model	11700

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 ★

PC Drives and Storage

PC SATA Hard Drives

HP 1TB SATA 6Gb/s 7200 Hard Drive

LQ037AA ★

2TB 7200RPM SATA 3.5in Enterprise

ZZ274AA

8TB 7200RPM SATA 3.5in Enterprise

ZZ273AA

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

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 DP25 Removable 2.5in HDD Frame Carrier

W3J84AA

Personal Media Storage

HP SD card reader Z2 G5 SFF

16U37AA

Cables/Cable Kits/Cable Adapters

Audio and Video Cables

HP DisplayPort to HDMI True 4K Adapter

2JA63AA ★

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

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

Keyboards/Mice and Input Devices

Keyboards

HP Wireless Premium Keyboard

Z9N41AA ★

HP USB Premium Keyboard

Z9N40AA ★

HP PS/2 Slim Business Keyboard

N3R86AA ★

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

Graphics Cards

Graphics Cards

NVIDIA Quadro P400 2GB Graphics

1ME43AA ★

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

6YT68AA ★

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

6YT68AT

NVIDIA Quadro P400 2GB Graphics

1ME43AT

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 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

Chassis and Chassis Accessories

Brackets/Bezels/Panels

HP Dust Filter Z2 G5 SFF

141L0AA

Point of Sales System Options

POS Display Accessories

HP Engage One 10.1-inch Display	1XD80AA
HP Engage One 10.1-inch Touch Display	1XD81AA
HP Engage One W 10.1-inch Display	3FH66AA
HP Engage One W 10.1-inch Touch Display	3FH67AA
HP L5010ta	2KY27AA
HP L5015ta	2KY28AA
HP L5015tm 38,1 cm (15") Retail Touch Monitor	M1F94AA
HP L7010t 10.1-inch Retail Touch Monitor	T6N30AA
HP L7014 14-inch Retail Monitor	T6N31AA
HP L7014t 14-inch Retail Touch Monitor	T6N32AA
HP L7016t 15.6-inch Retail Touch Monitor	V1X13AA

Network Adapters

Adapter Cards

Intel X550 10GBASE-T Dual Port NIC	1QL46AA
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Monitors

Business Monitors

★ : Recommended

Z Displays

HP DreamColor Z31x Studio Display	Z4Y82A4
HP Z24f G3 FHD Display	3G828AA
HP Z24n G3 WUXGA Display	1C4Z5AA
HP Z24u G3 WUXGA USB-C Display	1C4Z6AA
HP Z25xs G3 QHD USB-C DreamColor Display	1A9C9AA
HP Z27k G3 4K USB-C Display	1B9T0AA
HP Z27q G3 QHD Display	1C4Z7AA
HP Z27u G3 QHD Display	1B9X2AA
HP Z27xs G3 4K USB-C DreamColor Display	1A9M8AA
HP Z32 31.5-inch 4K UHD Display	1AA81A4
HP Z38c 37.5-inch Curved Display	Z4W65A4
HP Z43 42.5-inch 4K UHD Display	1AA85A4

E-Series

HP E14 G4 Portable Monitor	1B065AA
HP E22 G4 FHD Monitor	9VH72AA
HP E23 G4 FHD Monitor	9VF96AA
HP E24 G4 FHD Monitor	9VF99AA
HP E24d G4 FHD Advanced Docking Monitor	6PA50AA
HP E24i G4 WUXGA Monitor	9VJ40AA
HP E24q G4 QHD Monitor	9VG12AA
HP E24t G4 FHD Touch Monitor	9VH85AA
HP E24u G4 FHD USB-C Monitor	189T0AA
HP E27 G4 FHD Monitor	9VG71AA
HP E27d G4 QHD Advanced Docking Monitor	6PA56AA
HP E27q G4 QHD Monitor	9VG82AA
HP E27u G4 QHD USB-C Monitor	189T3AA

EliteDisplays

HP EliteDisplay E190i 48 cm (18.9") 5:4 LED Backlit IPS Monitor (ENERGY STAR)	E4U30AA
HP EliteDisplay E243 60.45 cm (23.8") Monitor	1FH47AA

HP EliteDisplay E243d 23.8-inch Docking Monitor	1TJ76AA
HP EliteDisplay E243d 23.8-inch Docking Monitor	7MP20AA
HP EliteDisplay E243m 60.45 cm (23.8") Monitor	1FH48AA
HP EliteDisplay E273m 68.58 cm (27") Monitor	1FH51AA

Healthcare Edition Displays

HP Healthcare Edition HC241 Clinical Review Monitor	3ME68AA
HP Healthcare Edition HC241p Clinical Review Monitor	3ME69AA

ProDisplays

HP Mini-in-One 24 Display	7AX23AA
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P-Series

HP P19b G4 Monitor	9TY83AA
HP P21b G4 Monitor	9TY24AA
HP P22 G4 22 FHD Monitor	1A7E4AA
HP P22h G4 FHD Monitor	7UZ36AA
HP P22h G4 FHD Monitor	7UZ36AT
HP P22v G4 Monitor	9TT53AA
HP P24 G4 24 FHD Monitor	1A7E5AA
HP P24h G4 FHD Monitor	7VH44AA
HP P24q G4 QHD Height Adjust Monitor	8MB10AA
HP P24v G4 Monitor	9TT78AA
HP P27h G4 FHD Monitor	7VH95AA
HP P27q G4 QHD Height Adjust Monitor	8MB11AA
HP P27v G4 Monitor	9TT20AA

S-Series

HP S430c 43.4-inch Curved Ultrawide Monitor	5FW74AA
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