



HP Z1 G8 Tower Desktop PC (495B6EA)



Overview

Step up to the most affordable pro-certified Z desktop.

Pro-grade performance is now within reach with a desktop built for designing, editing and even gaming. From 2D and 3D CAD to entry VR content creation, gain speed and efficiency across your workflows. Go beyond a commercial PC with a desktop certified for select professional software applications.

Performance options for what you do.

Accelerate your workflow and multitask with ease with more performance for multi-threaded apps. Choose from the latest graphics and Intel® processor options.

Industry-leading security

Hardened security features come standard on every Z1 Tower, for an always-on, always-acting, resilient defense. From the BIOS to the browser, above and below the OS, these constantly evolving solutions help protect your PC from threats.

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.[3]

Access the power of your Z1 from anywhere.

Tap into the power of your Z1 Tower 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 for Workstations 64

Work without compromising on performance or security with Windows 10 Pro for Workstations, powered by HP's collaboration and connectivity technology.^[1]

Intel® Core™ i9 processor

Get high-end performance for intensive tasks like rendering and video editing with the Intel® Core™ i9 processor.^[2]

[3] Third party software sold separately.

[4] HP ZCentral Remote Boost Sender does not come preinstalled on Z Workstations but can be downloaded and run on all Z desktop and laptops without license purchase through 2022. 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 Sender for non-Z Hardware requires a license and Windows 10, RHEL/CentOS (7 or 8), or UBUNTU 18.04 or 20.04 LTS operating systems. macOS (10.14 or newer) operating system and ThinPro 7.2 are only supported on the receiver side. Requires network access. The software is available for download at hp.com/ZCentralRemoteBoost.

[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 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>.

[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	Tower
Operating system	Windows 10 Pro for Workstations
Processor family	11th Generation Intel® Core™ i9 processor
Processor	Intel® Core™ i9-11900 (2.5 GHz base frequency, up to 5.2 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores) ^[6,7]
Chipset	Intel® Q570
Memory	32 GB DDR4-2933 MHz RAM (2 x 16 GB)
Memory Slots	4 DIMM
Internal Storage	1 TB PCIe® NVMe™ TLC SSD
Internal drive bays	One 2.5" HDD; Two 3.5" HDD
External drive bays	One slim ODD; One 5.25" ODD
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics 750
Audio	Realtek ALC3205 codec, universal audio jack with CTIA and OMTP headset support
Minimum dimensions (W x D x H)	37 x 30.8 x 16.8 cm
Weight	5.95 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 SuperSpeed USB Type-C® 20Gbps signaling rate (1 charging)
Expansion slots	1 M.2 2230; 2 PCIe 3 x1; 1 PCIe 3 x16 (wired as x4); 2 M.2 2280; 1 PCIe 4 x16 (1 M.2 2230 slot for WLAN and 2 M.2 2280 slots for storage)
Ports	1 audio-out; 1 power connector; 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
Package dimensions (W x D x H)	29.9 x 47.8 x 51.7 cm
Package weight	11.34 kg
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 BIOS Configuration Utility (download); HP Image Assistant (download); Ivanti Management Suite (download); HP Client Management Script Library (download) ^[18,22,23,24]

Sustainable impact specifications	Ocean-bound plastic in speaker enclosure; 45% post-consumer recycled plastic; 5% ITE-derived closed loop plastic; Bulk packaging available; 80 Plus® Platinum power supplies available; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable
Security management	HP Power On Authentication; 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; Windows Defender; HP Sure Sense; Trusted Platform Module TPM 2.0 Embedded Security Chip shipped with Windows 10. (Common Criteria EAL4+ Certified); HP Client Security Manager Gen7; HP Sure Start Gen7; HP Sure Run Gen4; HP Sure Recover Gen4; HP Tamper Lock ^[25,26,27,28,29,30,31]
Software included	HP Jumpstart; HP Noise Cancellation Software; HP Support Assistant; Buy Office (sold separately); HP Privacy Settings; HP Desktop Support Utilities; HP Setup Integrated OOBE ^[21]
UPC number	(AB6) 196068414238; (AB8) 196068414245; (AB9) 196068414252; (ABB) 196068414269; (ABD) 196068414276; (ABE) 196068414283; (ABF) 196068414290; (ABH) 196068414306; (ABN) 196068414313; (ABT) 196068414320; (ABU) 196068414337; (ABV) 196068414351; (ABY) 196068414344; (ABZ) 196068414368; (ACB) 196068414382; (AK8) 196068414375; (AKC) 196068414399; (AKD) 196068414405; (BCM) 196068414436; (UUG) 196068414429; (UUW) 196068414443; (UUZ) 196068414450
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/78b2223a69fe095b5d1d658a0f1efc3102908a68
Datasheet photo 2	Publication logos/HP_Care_Pack_RGB_blue_NT.jpg
Datasheet photo 3	AHID/b516e316507edc05581593dd24445cc11c234a04
Datasheet photo 4	AHID/50983d0203dffb116ecdbe61cd076ec38593a28d
Datasheet photo 5	AHID/fe319dfd5f79b122f35b5144aca1491e849d7339
ECC memory	non-ECC
Graphic card footnote number	[16,17,39,40]
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 3070 (8 GB GDDR6 dedicated)
Graphics card brand	NVIDIA®
Graphics card family	GeForce
Graphics card memory size	8
Graphics card memory size uom	GB
Graphics card memory type	GDDR6
I/O Port location	Rear
I/O Port location	Front
Keyboard connectivity	wired
Keyboard interface	USB
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	2933
Memory speed uom	MHz
Memory type	DDR4
Model Number	RTX™ 3070
Number of memory slots	2
Processor Brand	Intel®
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	5.2
Processor maximum frequency uom	GHz
Processor model	11900
Processor threads	16
Product long name specifications	HP Z1 G8 Tower Desktop PC, Windows 10 Pro for Workstations, Intel® Core™ i9, 32GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 3070
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
Standard memory note	Transfer rates up to 2933 MT/s.
Storage capacity	1
Storage capacity uom 01	TB
Storage interface 01	PCIe®
Storage interface protocol 01	NVMe™
Storage memory technology 01	TLC
Storage type	SSD
Storage type 01	SSD
UNSPSC code	43211515

[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.

[18] 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>.

[21] HP Support Assistant: Requires Windows and Internet access.

[22] HP Driver Packs: Not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>

[23] HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.

[24] Ivanti Management Suite subscription required.

[25] HP Client Security Manager Gen6 requires Windows and is available on select HP Pro and Elite PCs.

[26] Windows Defender Opt in Windows 10 and internet connection required for updates.

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

[28] HP Sure Sense requires Windows 10.

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

[30] HP Sure Recover Gen4 is available on select HP PCs and requires an open network connection. Not available on platforms with multiple internal storage drives. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.

[31] HP Sure Click is available on most HP PCs 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.

Monitors

Business Monitors

★ : Recommended

E-Series

HP E27 G4 FHD Monitor	9VG71AA ★
HP E27q G4 QHD Monitor	9VG82AA ★
HP E24 G4 FHD Monitor	9VF99AA ★
HP E22 G4 FHD Monitor	9VH72AA
HP E23 G4 FHD Monitor	9VF96AA
HP E24 G4 FHD No Stand Monitor	9VF99A9
HP E24i G4 WUXGA Monitor	9VJ40AA
HP E24mv G4 FHD Conferencing Monitor	169L0AA
HP E24q G4 QHD Monitor	9VG12AA
HP E24t G4 FHD Touch Monitor	9VH85AA

EliteDisplays

HP EliteDisplay E190i 48 cm (18.9") 5:4 LED Backlit IPS Monitor (ENERGY STAR)	E4U30AA	obsolete
HP EliteDisplay E243m 60.45 cm (23.8") Monitor	1FH48AA	

Healthcare Edition Displays

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

P-Series

HP P19b G4 Monitor	9TY83AA	
HP P21b G4 Monitor	9TY24AA	obsolete
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

Business LCD Monitors

HP P204v 19.5-inch Monitor

5RD66AA

Z Displays

HP Z24f G3 FHD Display

3G828AA

HP Z24n G3 WUXGA Display

1C4Z5AA

HP Z27q G3 QHD Display

1C4Z7AA

Accessories

PC Drives and Storage

★ : Recommended

PC Solid State Drives

1TB PCIe 4x4 NVMe TLC SSD	406L7AA
512GB PCIe 4x4 NVMe TLC SSD	406L8AA
HP PCIe NVME TLC 256GB SSD M.2 Drive	1CA51AA
HP PCIe NVME TLC 512GB SSD M.2 Drive	X8U75AA

PC SATA Hard Drives

HP 1TB 7200rpm SATA (NCQ/Smart IV) 6Gbp/s Hard Drive	QK555AA	
HP 1TB 7200rpm SATA (NCQ/Smart IV) 6Gbp/s Hard Drive	QK555AT	
HP 500GB 7200rpm SATA (NCQ/Smart IV) 6.0 Gbp/s Hard Drive	QK554AA	
HP 500GB 7200rpm SATA (NCQ/Smart IV) 6.0 Gbp/s Hard Drive	QK554AT	obsolete

PC DVD Drives

HP 9.5mm G3 8/6/4 SFF G4 400 SFF/MT DVD Writer	1CA53AA	obsolete
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Graphics Cards

Graphics Cards

AMD Radeon R7 430 2GB DisplayPort VGA Card	5JW82AA
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Keyboards/Mice and Input Devices

Keyboards

HP 125 USB WD KBD (Bulk 12)	266C9A6
HP 125 Wired Keyboard	266C9AA
HP Business Slim Smartcard Keyboard	Z9H48AA
HP USB Premium Keyboard	Z9N40AA
HP USB Premium Keyboard	Z9N40AT
HP Wired Desktop 320K Keyboard	9SR37AA
HP Wired Desktop 320K Keyboard	9SR37ET
HP Wireless Premium Keyboard	Z9N41AA
HP Wireless Premium Keyboard	Z9N41AT

Mice

HP 125 Wired Mouse	265A9AA	
HP 125 Wired Mouse (Bulk120)	265A9A6	
HP USB Fingerprint Mouse	4TS44AA	obsolete
HP USB Fingerprint Mouse	4TS44ET	obsolete
HP Wired Desktop 320M Mouse	9VA80AA	
HP Wired Desktop 320M Mouse	9VA80ET	
HP Wireless Premium Mouse	1JR31AA	

Keyboard and Mouse Kits

HP 225 Wired Mouse and Keyboard Combo	286J4AA	
HP USB Keyboard and Mouse Healthcare Edition	1VD81AA	
HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA	
HP Wired Desktop 320MK Mouse and Keyboard	9SR36ET	

Memory

DDR4 Memory

HP 16GB DDR4-3200 DIMM	13L74AA	
HP 16GB DDR4-3200 DIMM	13L74AT	
HP 32GB DDR4-3200 DIMM	13L72AA	
HP 4GB DDR4-3200 DIMM	13L78AA	
HP 4GB DDR4-3200 SODIMM	13L78AT	
HP 8GB DDR4-3200 DIMM	13L76AA	
HP 8GB DDR4-3200 DIMM	13L76AT	

Expansion Solution and Controller Cards

Port Adapters

HP 800/600/400 G3 Serial/ PS/2 Adapter	1VD82AA	
HP DisplayPort Port Flex IO v2	13L54AA	
HP PCIe x1 Parallel Port Card	N1M40AA	
HP Serial Port Flex IO v2	13L56AA	
HP Type-C USB 3.1 Gen2 Port Flex IO v2	13L59AA	
HP USB to Serial Port Adapter	J7B60AA	
HP VGA Port Flex IO v2	13L53AA	

Security and Protection

PC Locks

HP Business PC Security Lock v3 Kit	3XJ17AA
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Cables/Cable Kits/Cable Adapters

Audio and Video Cables

HP DisplayPort Cable Kit	VN567AA
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

PC Cable Options

HP HDMI Standard Cable	T6F94AA
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Cable Adapters

HP USB-C to DP Adapter	N9K78AA
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Point of Sales System Options

POS Display Accessories

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

Audio/Multimedia and Communication Devices

Speakers

HP S101 Speaker Bar	5UU40AA
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Headsets

HP Stereo 3.5mm Headset	T1A66AA	obsolete
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PC Controller/Controller Options

PC Processor Cards

Intel I225V Single Port 2.5GbE PCIe NIC	406L9AA
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