ProductSheet
HP Z2 Mini G5 Workstation (643Z5UT)

Our most powerful mini workstation. Now even mightier.

Get even more high-end performance packed into an insanely small device. Take on 3D design projects and work in multiple pro apps easily. Widely versatile, it's the obvious choice for the modern workplace.

HP recommends Windows 11 Pro for business

Be uncompromising about performance
With new Intel® processor options and professional graphics options, you get reliable performance in multi-threaded apps. Don't worry about overheating—our advanced thermals keep things cool and quiet.

The perfect fit, anywhere
Create the ideal setup—from the office to the shop floor to the data center. Mount under a desk or behind a display[3], then connect to multiple screens and other hardware. Or centrally manage your fleet of mini's with versatile rack mounting options.

We test it so you can trust it. 24/7.
We know you need performance you can rely on. That's why our products endure over 360K hours of rigorous testing, MIL-STD testing[4] and software certifications.

Featuring

Intel® Core™ i7 processor
Run several CPU–heavy programs simultaneously without sacrificing performance with an Intel® Core™ i7 processor. [1]

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

NVIDIA® Quadro® Graphics
Experience high-end visualization and seamlessly render your biggest projects with the next generation NVIDIA® Quadro® T-Series graphics; Certified and supported for the apps you use every day.

Specifications

Form factor	Mini
Operating system	Windows 11 Pro
Processor family	10th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-10700K (3.8 GHz base frequency, up to 5.1 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores)[6,7]
Chipset	Intel® W480
Memory	32 GB DDR4-3200 MHz RAM (2 x 16 GB)
Memory Slots	2 SODIMM
Internal Storage	512 GB HP Z Turbo Drive PCIe® NVMe™ TLC SSD
Internal drive bays	One 2.5"; Two M.2 NVME 2280 SSD
Graphics	Discrete
Graphics (discrete)	NVIDIA® Quadro® T1000 (4 GB GDDR6 dedicated)
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics 630
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)	21.6 x 21.6 x 5.8 cm *(Standard desktop orientation.)*
Minimum dimensions (W x D x H)	8.5 x 8.5 x 2.28 in *(Standard desktop orientation.)*
Weight	Starting at 2.1 kg *(Exact weight depends on configuration.)*
Weight	Starting at 4.6 lb *(Exact weight depends on configuration.)*
Keyboard	HP Wired Desktop 320K keyboard
Pointing device	HP Wired 320M Mouse
Ports	1 headphone/microphone combo; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-C® 10Gbps signaling rate
Expansion slots	1 PCIe® 3 x16 (MXM connector)
Ports	1 RJ-45; 3 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-C® 10Gbps signaling rate (charge support up to 5V/3A)
Wireless	Intel® Wi-Fi CERTIFIED 6™ AX201 (2x2) and Bluetooth® 5 combo (Supporting Gigabit data rate)
Power	280 W external power adapter, up to 90% efficiency, active PFC
Sustainable impact specifications	Low halogen
Security management	HP Secure Erase; HP Sure Click; HP Sure Sense; HP Sure Start Gen6; HP Sure Run Gen3; HP Sure Recover Gen3; HP BIOSphere Gen6; HP Sure Admin; Hood Sensor Optional Kit; HP Client Security Manager Gen6[15,22,23,26,29,30,31,32,40,41,42]
Software included	HP PC Hardware Diagnostics UEFI; HP Performance Advisor; HP Support Assistant; HP PC Hardware Diagnostics Windows; ZCentral Remote Boost; HP Image Assistant; HP Manageability Integration Kit[11,16,27,39]
UPC number	196548065554
Manufacturer Warranty	Protected by HP, including a 3 year standard limited warranty. Optional HP Care Pack Services are extended service contracts that extend your protection beyond the standard warranties. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit www.hp.com/go/cpc

Top Recommended Displays, Accessories and Services

Z Displays

HP Z32 31.5-inch 4K UHD Display	1AA81A4

Keyboard and Mouse Kits

HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA

Keyboards

HP Wireless Premium Keyboard	Z9N41AA

Mice

HP Wireless Premium Mouse	1JR31AA

DDR4 Memory

16GB (1x16GB) 3200 DDR4 NECC SODIMM	141H5AA
32GB (1x32GB) 3200 DDR4 NECC SODIMM	141H8AT
32GB (1x32GB) 3200 DDR4 NECC SODIMM	141H8AA
8GB (1x8GB) 3200 DDR4 NECC SODIMM	141J5AA

Audio and Video Cables

HP DisplayPort to HDMI True 4K Adapter	2JA63AA

PC DVD Drives

HP External USB DVDRW Drive	F2B56AA

PC Solid State Drives

HP ZTurbo 2TB TLC Z2 G5 Mini SSDKit	141M0AA

PC SATA Hard Drives

HP 500GB 7200rpm SATA SFF SED Hard Drive	D8N29AA

Personal Systems Hardware Support Onsite Service

HP 4 year Next Business Day Response Onsite Workstation Hardware Support	U1G37E

Personal Systems Commercial Care Pack Services

HP 4 year Active Care Next Business Day Response Onsite WorkstationHardware Support	U22KBE
HP 5 year Active Care Next Business Day Resp Onsite w/Defective MediaRetention WS HW Supp	U22KGE

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Messaging Footnotes

[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.

[3] Rack mounting hardware sold separately.

[4] 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.

Technical Specifications Footnotes

[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.

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

[15] HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.

[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

[22] HP Pro Security Edition is available preloaded on select HP PCs and includes HP Sure Click Pro and HP Sure Sense Pro. 3-year license required. The HP Pro Security Edition software is licensed under the license terms of the HP End User License Agreement (EULA) that can be found at:https://h30670.www3.hp.com/ecommerce/common/disclaimer.do#EN_US as modified by the following: 7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for thirty-six (36) months thereafter ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP 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.

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

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

[29] HP Sure Click requires Windows 11 Pro, Windows 10 Pro or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.

[30] HP Sure Start Gen 6 is available on select HP PCs and workstations. See product specifications for availability.

[31] HP Sure Run Gen3 is available on select Windows 11, Windows 10 based HP Pro, Elite and Workstation PCs with select Intel® or AMD processors

[32] HP Sure Recover Gen3 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.

[39] 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.

[40] 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

[41] HP Sure Sense requires Windows 11, 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.

[42] HP Sure Admin requires Windows 11, Windows 10, 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.

Learn more at
hp.com