



HP Z2 Mini G5 Workstation (643Y7UT)

Overview

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.

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.

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.

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.

HP's most secure workstation.

Advanced security features come standard on every Z2 Mini. System safeguards like the industry's first self-healing BIOS help lock your device, data and identity down tight.

Features

Intel® Core™ i5 processor

Experience powerful performance and seamless computing for your everyday tasks and higher performance needs with the Intel® Core™ i5 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.

[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.

[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	Mini
Operating system	Windows 11 Pro
Processor family	10th Generation Intel® Core™ i5 processor
Processor	Intel® Core™ i5-10500 (3.1 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 cores) ^[6,7]
Chipset	Intel® W480
Memory	8 GB DDR4-3200 MHz RAM (1 x 8 GB)
Memory Slots	2 SODIMM
Internal Storage	256 GB HP Z Turbo Drive PCIe® SSD
Internal drive bays	One 2.5"; Two M.2 NVME 2280 SSD
Graphics	Integrated
Graphics (integrated)	Intel® HD 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	180 W 88% efficient, wide-ranging, 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

196548065455

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

Additional specifications

Additional information about HP in the countries	hp.com
Bluetooth version	Bluetooth® 5.0
Datasheet photo 1	AHID/4c3a9451f332a64f4d857545741dca8ea89268b0
Datasheet photo 3	AHID/e2a74d6b3a43e95bedab541d92c860381d65a297
Datasheet photo 5	AHID/a2aef2c8c2eca1a01f177851db02c325cfd03951
ECC memory	non-ECC
External I/O ports footnote number	[14]
Graphic card footnote number	[10,12,21,36]
I/O Port location	Side
I/O Port location	Rear
Keyboard connectivity	wired
Legal tagline	HP recommends Windows 11 Pro for business
Memory and storage	8 GB memory; 256 GB SSD storage
Memory layout (slots & size)	1 x 8 GB
Memory module type	DIMM
Memory size	8
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	3.1
Processor cache	12 MB L3
Processor core	6
Processor family	Core™ i5
Processor frequency UOM	GHz
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	10th Generation
Processor maximum frequency	4.5
Processor maximum frequency uom	GHz

Processor model	10500
Processor threads	12
Product long name specifications	HP Z2 Mini G5 Workstation, Windows 11 Pro, Intel® Core™ i5, 8GB RAM, 256GB SSD
Security Software Licenses	HP Wolf Pro Security Edition (1 year)
Standard memory note	Transfer rates up to 3200 MT/s.
Storage brand 01	HP Z Turbo Drive
Storage capacity	256
Storage capacity uom 01	GB
Storage interface 01	PCIe®
Storage type	SSD
Storage type 01	SSD
UNSPSC code	43211515
Wireless Model	Wi-Fi 6 AX201
Wireless antenna	2x2
Wireless standard	Wi-Fi 6
Wireless supplier	Intel®
vPro enabled	non-vPro®

[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.

Accessories

Memory

★ : Recommended

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 ★
16GB (1x16GB) 3200 DDR4 ECC SODIMM	141H4AA
16GB (1x16GB) 3200 DDR4 ECC SODIMM	141H4AT
32GB (1x32GB) 3200 DDR4 ECC SODIMM	141H6AA
4GB (1x4GB) 3200 DDR4 NECC SODIMM	141J0AA
8GB (1x8GB) 3200 DDR4 ECC SODIMM	141J2AA

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 USB-C to DP Adapter	4SH08AA
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PC Drives and Storage

PC DVD Drives

HP External USB DVDRW Drive	F2B56AA ★
HP External USB DVDRW Drive	F2B56UT
HP USB External DVD-RW Writer	Y3T76AA

PC Solid State Drives

HP ZTurbo 2TB TLC Z2 G5 Mini SSDKit	141M0AA ★
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HP ZTurbo 1TB TLC Z2 G5 Mini SSDKit	141L4AA
HP ZTurbo 256GB SED Z2 G5 Mini SSDKit	141L6AA
HP ZTurbo 256GB TLC Z2 G5 Mini SSDKit	141L9AA
HP ZTurbo 512GB SED Z2 G5 Mini SSDKit	141M2AA
HP ZTurbo 512GB TLC Z2 G5 Mini SSDKit	141M4AA

PC SATA Hard Drives

HP 500GB 7200rpm SATA SFF SED Hard Drive	D8N29AA ★
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Removable Hard Drive Enclosure

Z2 G5 Mini HDD Carrier Cage	1X5Q2AA
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Keyboards/Mice and Input Devices

Keyboard and Mouse Kits

HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA ★
HP Wired Desktop 320MK Mouse and Keyboard	9SR36UT

Keyboards

HP Wireless Premium Keyboard	Z9N41AA ★
HP USB Premium Keyboard	Z9N40AA
HP Wired Desktop 320K Keyboard	9SR37AA
HP Wired Desktop 320K Keyboard	9SR37UT

Mice

HP Wireless Premium Mouse	1JR31AA ★
HP Wired Desktop 320M Mouse	9VA80AA
HP Wired Desktop 320M Mouse	9VA80UT
HP Wireless Premium Mouse	1JR31UT

Expansion Solution and Controller Cards

Port Adapters

HP 2.5GbE LAN Flex Port Z2 Mini	169K0AT
HP DP Flex Port 2020	141J7AA
HP Flex 1GbE Fiber LC Single Port	20J15AA
HP Mini Serial Upper Flex 2020 Mini	141K2AT

Batteries/Chargers/Adapters

AC Adapters

HP 280W Slim Smart 7.4mm AC Adapter	4J0P0AA
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Power Cords

HP Z2 Power Cord Kit M	1N1D5AA
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Rack Brackets/Bezels/ Panels/Rails/ Trays/Mounting

Mounting Kits

HP B500 PC Mounting Bracket	2DW52AA
HP B550 PC Mounting Bracket	16U00AA
HP Mini Chassis ePSU rack mount brackets	3RW67AA
Z2 Mini Arm/Wall VESA Mount Solution	Y7B61AA
Z2 Mini Arm/Wall VESA Mount Solution	Y7B61AT

Rack Kits

HP Z2 Mini Rack Tray Support Kit	1A4W4AA
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
HP Z4/Z6 G4 Depth Adj Fxd Rail Rack Kit	2HW42AT

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

Point of Sales System Options

POS Display Accessories

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

Cabinets and Stands

PC Stands

HP Z2 Mini Vertical Stand	3RW66AA
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Cases and Covers

Covers

HP Z2 Mini ePSU Sleeve	3RW68AA
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HP Care Pack Services

★ : Recommended

Personal Systems Hardware Support Onsite Service

HP 4 year Next Business Day Response Onsite Workstation Hardware Support	U1G37E ★
HP 1 year PW Next Business Day Response Onsite w/Defective MediaRetention WS HW Supp	U1G23PE
HP 1 year PW Next business day Response onsite WS HW Supp	U1G24PE
HP 3 year Next Business Day Onsite Optional CSR Workstations HardwareSupport	U1G59E
HP 3 year Next Business Day Response Onsite w/Accidental DamageProtection WS Supp	U0A88E
HP 3 year Next Business Day Response Onsite w/Defective Media RetentionWS HW Supp	U1G55E
HP 3y NBD ONS w/Accidental Damage Protection/Defective Media RetentionWS (Low End) HW Supp	U9WU5E
HP 4 year Next Business Day Response Onsite w/Accidental DamageProtection WS HW Supp	U0A89E
HP 4 year Next Business Day Response Onsite w/Defective Media RetentionWS HW Supp	U1G56E
HP 4y NBD ONS w/Accidental Damage Protection/Defective Media RetentionWS (Low End) HW Supp	U9WU6E
HP 5 year Next Business Day Response Onsite Workstation Hardware Support	U1G39E
HP 5 year Next Business Day Response Onsite w/Accidental DamageProtection Workstation HW Supp	U1G62E
HP 5 year Next Business Day Response Onsite w/Defective Media RetentionWS HW Supp	U1G57E
HP 5y NBD ONS w/Accidental Damage Protection/Defective Media RetentionWS (Low End) HW Supp	U9WU7E
HP 5y NBD Resp Onsite w/Accidental Damage Protection/Defective MediaRetention WS HW Supp	HL565E

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 ★
HP 3 year Active Care Next Business Day Resp Onsite w/Defective MediaRetention WS HW Supp	U22KDE
HP 3 year Active Care Next Business Day Response Onsite WorkstationHardware Support	U22K9E

HP 3 year Data Recovery Desktop Hardware Support

UE372E

HP 3 year Data Recovery-OS Restore Onsite (6 calls) (Promo) Desktop
Hardware Support

U9AN7E

HP 4 year Active Care Next Business Day Resp Onsite w/Defective
MediaRetention WS HW Supp

U22KFE

HP 5 year Active Care Next Business Day Response Onsite
WorkstationHardware Support

U22KCE

Monitors

Business Monitors

★ : Recommended

Z Displays

HP Z32 31.5-inch 4K UHD Display	1AA81A4 ★
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 Z38c 37.5-inch Curved Display	Z4W65A4
HP Z43 42.5-inch 4K UHD Display	1AA85A4

E-Series

HP E22 G4 FHD Monitor	9VH72AA
HP E23 G4 FHD Monitor	9VF96AA
HP E24 G4 FHD Monitor	9VF99AA
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
HP E24u G4 FHD USB-C Monitor	189T0AA
HP E27 G4 FHD Monitor	9VG71AA
HP E27q G4 QHD Monitor	9VG82AA
HP E27u G4 QHD USB-C Monitor	189T3AA

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 P22 G4 22 FHD Monitor

1A7E4AA

HP P22h G4 FHD Monitor

7UZ36AA

HP P24 G4 24 FHD Monitor

1A7E5AA

Remote Connectivity Software

★ : Recommended

Workstation Remote Connectivity Software

HP ZCentral Connect 2020 E-LTU	9TS59AAE	obsolete
HP ZCentral Remote Boost 2020 Floating E-LTU	9TS61AAE	
HP ZCentral Remote Boost 2020 Standard E-LTU	9TS60AAE	

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