



HP Z2 Mini G5 Workstation (2N2C5EA)

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

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.^[1]

NVIDIA® Quadro® Graphics

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

[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 10 Pro 64
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	1 TB PCIe® NVMe™ SSD
Internal drive bays	One 2.5"; Two M.2 NVME 2280 SSD
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 features	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 <i>(Standard desktop orientation.)</i>
Weight	Starting at 2.1 kg <i>(Exact weight depends on configuration.)</i>
Keyboard	HP Wired Desktop 320K keyboard
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 6 AX201 (2x2) and Bluetooth® 5 combo, non-vPro®
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]

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
Bluetooth version	Bluetooth® 5.0
Datasheet photo 1	AHID/4c3a9451f332a64f4d857545741dca8ea89268b0
Datasheet photo 2	Publication logos/HP_Care_Pack_RGB_blue_NT.jpg
Datasheet photo 3	AHID/a2aef2c8c2eca1a01f177851db02c325cfd03951
Datasheet photo 4	AHID/e2a74d6b3a43e95bedab541d92c860381d65a297
Datasheet photo 5	AHID/2287844aa740a1baf1a5f2b276a5aa725086bd2e
ECC memory	No
External I/O ports footnote number	[14]
Graphic card footnote number	[10,12,21,36]
Graphics	Discrete
Graphics (discrete)	NVIDIA® Quadro RTX™ 3000 (6 GB GDDR6 dedicated)
Graphics card brand	NVIDIA®
Graphics card form factor	MXM
Graphics card memory size	6
Graphics card memory size uom	GB
Graphics card memory type	GDDR6
I/O Port location	Rear
I/O Port location	Side
Legal tagline	HP recommends Windows 10 Pro
MDA key selling point	Windows 10 Pro or other operating systems available
Memory and storage	32 GB memory; 1 TB SSD storage
Memory layout (slots & size)	2 x 16 GB
Memory module type	SODIMM
Memory size	32
Memory size uom	GB
Memory speed	3200
Memory speed uom	MHz
Memory type	DDR4
Model Number	RTX™ 3000
Number of memory slots	2
Processor Brand	Intel®

Processor base frequency	3.8
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	10th Generation
Processor maximum frequency	5.1
Processor maximum frequency uom	GHz
Processor model	10700K
Processor threads	16
Product long name specifications	HP Z2 Mini G5 Workstation
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	1
Storage capacity uom 01	TB

Storage form factor 01	M.2
Storage interface 01	PCIe®
Storage interface protocol 01	NVMe™
Storage memory technology 01	TLC
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 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 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 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.

[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 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 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	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

Keyboards/Mice and Input Devices

Keyboards

HP Wireless Premium Keyboard	Z9N41AA ★
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	Z9N41AT

Mice

HP Wireless Premium Mouse	1JR31AA ★
HP USB Premium Mouse	1JR32AA ★
HP 935 Creator Wireless Mouse	1D0K8AA
HP Wired Desktop 320M Mouse	9VA80AA
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

Expansion Solution and Controller Cards

Port Adapters

HP 1GbE LAN Flex Port 2020	141J6AA
HP 2.5GbE LAN Flex Port Z2 Mini	169K0AA
HP DP Flex Port 2020	141J7AA
HP Dual USB-A 3.2 Gen1 Flex 2020	141J8AA
HP Dual USB-A 3.2 Gen1 Flex 2020 Mini	141J9AA
HP Flex 1GbE Fiber LC Single Port	20J15AA
HP HDMI Flex Port 2020	141K1AA
HP Mini Serial Upper Flex 2020 Mini	141K2AA
HP Thunderbolt 3 Flex Port 2020 Mini	141K4AA
HP USB-C 3.2 Gen2 Alt Flex Port 2020	141K6AA
HP VGA Flex Port 2020	141K7AA

PC Drives and Storage

PC Solid State Drives

HP 2TB PCIe NVME TLC M.2 Z2 G5 Mini SSD	35F75AA
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 2TB TLC Z2 G5 Mini SSDKit	141M0AA
HP ZTurbo 512GB SED Z2 G5 Mini SSDKit	141M2AA
HP ZTurbo 512GB TLC Z2 G5 Mini SSDKit	141M4AA

PC SATA Hard Drives

HP 2TB SATA SSD	Y6P08AA
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PC DVD Drives

HP External USB DVDRW Drive	F2B56AA
HP External USB DVDRW Drive	F2B56ET
HP USB External DVD-RW Writer	Y3T76AA

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

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
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Security and Protection

PC Locks

HP Business PC Security Lock v3 Kit	3XJ17AA
HP Keyed Cable Lock 10 mm	T1A62AA

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 USB-C to DP Adapter	4SH08AA
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Drive Cables and Cable Adapters

Z2 G5 Mini HDD Carrier Cage	1X5Q2AA
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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

Cabinets and Stands

PC Stands

HP Z2 Mini Vertical Stand

3RW66AA

Cases and Covers

Covers

HP Z2 Mini ePSU Sleeve

3RW68AA

Monitors

Business Monitors

★ : Recommended

Z Displays

HP Z32 31.5-inch 4K UHD Display	1AA81A4 ★
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 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 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
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HP EliteDisplay E243m 60.45 cm (23.8") Monitor	1FH48AA
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HP EliteDisplay E273m 68.58 cm (27") Monitor	1FH51AA
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Healthcare Edition Displays

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

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

HP P22 G4 22 FHD Monitor	1A7E4AA
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HP P22h G4 FHD Monitor	7UZ36AA
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HP P22h G4 FHD Monitor	7UZ36AT
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HP P24 G4 24 FHD Monitor	1A7E5AA
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HP P24h G4 FHD Monitor	7VH44AA
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HP P27h G4 FHD Monitor	7VH95AA
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S-Series

HP S430c 43.4-inch Curved Ultrawide Monitor	5FW74AA
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Remote Connectivity Software

★ : Recommended

Workstation Remote Connectivity Software

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

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