

## HP Z2 Mini G5 Workstation (329N3UT)



**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 10 Pro

### **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**

### **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. <sup>[1]</sup>

### **Intel® Core™ i7 processor**

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

## Specifications

<b>Form factor</b>	Mini
<b>Operating system</b>	Windows 10 Pro for Workstations
<b>Processor family</b>	10th Generation Intel® Core™ i7 processor
<b>Processor</b>	Intel® Core™ i7-10700 (2.9 GHz base frequency, up to 4.8 GHz with Intel® Turbo Boost Technology, 16 MB L3 cache, 8 cores) <sup>[6,7]</sup>
<b>Chipset</b>	Intel® W480
<b>Memory</b>	16 GB DDR4-3200 SDRAM (1 x 16 GB)
<b>Memory Slots</b>	2 SODIMM
<b>Internal Storage</b>	512 GB SATA SSD
<b>Internal drive bays</b>	One 2.5"; Two M.2 NVME 2280 SSD
<b>Graphics</b>	Integrated
<b>Graphics (integrated)</b>	Intel® HD Graphics 630
<b>Compatible displays</b>	All HP Z Displays and HP DreamColor Displays are supported. For more information see <a href="http://www.hp.com/go/zdisplays">www.hp.com/go/zdisplays</a>
<b>Audio features</b>	Realtek ALC3205-VA2-CG, 2.0W internal mono speaker
<b>Minimum dimensions (W x D x H)</b>	21.6 x 21.6 x 5.8 cm (Standard desktop orientation.)
<b>Minimum dimensions (W x D x H)</b>	8.5 x 8.5 x 2.28 in (Standard desktop orientation.)
<b>Weight</b>	Starting at 2.1 kg (Exact weight depends on configuration.)
<b>Weight</b>	Starting at 4.6 lb (Exact weight depends on configuration.)
<b>Keyboard</b>	HP Wired Desktop 320K keyboard
<b>Ports</b>	1 headphone/microphone combo; 2 SuperSpeed USB Type-A 10Gbps signaling rate; 1 SuperSpeed USB Type-C® 10Gbps signaling rate
<b>Expansion slots</b>	1 PCIe® 3 x16 (MXM connector)
<b>Ports</b>	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)
<b>Ports</b>	1 DisplayPort™
<b>Wireless</b>	Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo
<b>Power</b>	180 W 88% efficient, wide-ranging, active PFC
<b>Sustainable impact specifications</b>	Low halogen
<b>Security management</b>	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 <sup>[15,22,23,26,29,30,31,32,40,41,42]</sup>
<b>Software included</b>	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 <sup>[11,16,27,39]</sup>
<b>UPC number</b>	(ABA) 195697547232; (ABC) 195697547249

## Top Recommended Displays, Accessories and Services

### Z Displays

HP Z24n G2 24-inch Display	1JS09A4
HP Z27n G2 27-inch Display	1JS10A4
HP Z32 31.5-inch 4K UHD Display	1AA81A4

### Keyboards

HP Wireless Premium Keyboard	Z9N41AA
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### Mice

HP Wireless Premium Mouse	1JR31AA
HP USB Premium Mouse	1JR32AA

### DDR4 Memory

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

### PC SATA Hard Drives

HP 1TB 7200 RPM SATA SFF 1st HDD	T0K74AA
HP 500GB 7200rpm SATA SFF SED Hard Drive	D8N29AA

### PC Solid State Drives

HP 256GB SATA Solid State Drive	A3D26AA
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## Messaging Footnotes

[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.

[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/e-commerce/common/disclaimer.do#EN\\_US](https://h30670.www3.hp.com/e-commerce/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](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](http://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.

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