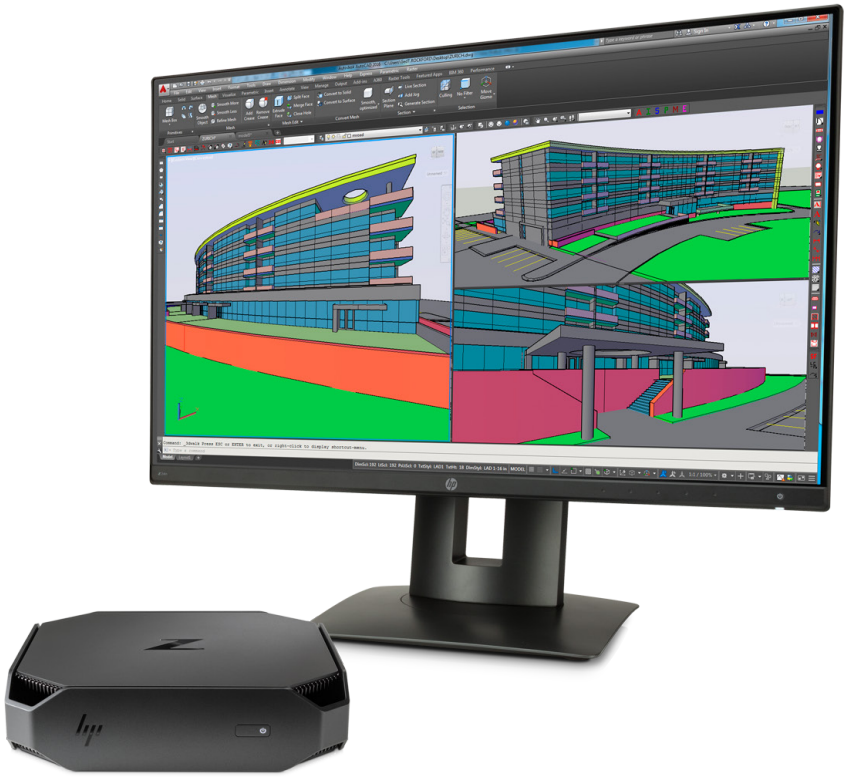
FAQ

# HP Z2 Mini Workstation



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### What is the new HP Z2 Mini Workstation?

HP has reinvented what a workstation should be with a new category: the HP Z2 Mini. Drawing inspiration from customer needs for a dramatically smaller workstation with full performance and reliability, and an iconic design language, the HP Z2 Mini is truly a workstation that's built for the masses and designed for the selective. The HP Z2 Mini Workstation offers full, un-throttled performance in a footprint that is 10x smaller than the HP EliteDesk 800 G2 Tower* and 5x smaller than the HP Z240 Small Form Factor** (SFF). It is also HP's most flexible workstation ever, with the ability to be mounted behind displays, or under desks.

### Where does the HP Z2 Mini Workstation fit within the overall HP Z Workstation family?

The affordable HP Z2 Mini Workstation is HP's smallest, full-performance workstation.* It provides maximum performance for single-threaded applications; is built with Intel® Xeon® or Intel® Core™ i7 Quad Core processors; and offers a choice of next generation NVIDIA® Quadro® M620 graphics, flexible I/O options, integrated HP Z Turbo Drive, up to 32 GB DDR4 memory, support for up to 6x 2K displays, and is VESA mountable to HP Z Displays.

The HP Z2 Mini Workstation is ideal for today's shrinking workspaces and for customers who demand a high-quality, flexible, performance-driven system while maintaining a budget.

* Based on HP's internal analysis as March 1, 2016 of HP Workstations with quad core processing, mid-range professional graphics, and commercial grade storage.

### How does the HP Z2 Mini Workstation compare to the HP Z240 Workstations?

| | HP Z240 Workstations | HP Z2 Mini Workstation |
|---|---|---|
| **Processors**[1] | Intel® Xeon® E3-1200 v5/v6 family and 6th and 7th gen Intel® Core™ processors | Intel® Xeon® E3-1200 v5/v6 family and 6th and 7th gen Intel® Core™ processors (fewer configurable options) |
| **Chipset**[2] | Intel® C236 | Intel® C236 |
| **Graphics** | NVIDIA® Quadro® (latest generation)<br>AMD FirePro™ (next generation) | Intel® HD integrated GFX<br><br>Option for discrete professional GFX from NVIDIA® Quadro M620 Graphics for higher performance 3D applications in the Performance Model only |
| **Memory**[3] | Up to 64 GB DDR4 ECC Unbuffered 2400 MHz | Up to 32 GB DDR4-2400 MHz non-ECC/ECC |
| **USB** | **HP Z240 SFF**<br>Front: 2 x USB 2.0, 2 x USB 3.0<br>Rear: 6 x USB 3.0<br>**HP Z240 Tower**<br>Front: 2 x USB 2.0, 2 x USB 3.0<br>Rear: 4 x USB 2.0, 2 x USB 3.0 | 4 USB 3.0 ports (2 side, 2 rear)<br>2 USB-Type C™ 3.1 G1 ports (rear) |
| **PCI slots** | **HP Z240 SFF**<br>1 PCIe Gen 3 x16<br>2 PCIe Gen 3 x1 (x1 connector)<br>1 PCIe Gen 3 x4 (x16 connector)<br>1 80 mm M.2 (PCIe Gen3 x4)<br>**HP Z240 Tower**<br>1 PCIe Gen 3 x16<br>1 PCIe Gen 3 x4 (x16 mechanically)<br>1 PCIe Gen 3 x4 (x4 mechanically)<br>1 PCIe Gen 3 x1<br>1 PCI legacy 32-bit (optional)[10]<br>1 110 mm M.2 (PCIe Gen3 x4) | 1 80 mm M.2 (PCIe Gen3 x4)<br>1 30 mm M.2 (PCIe Gen3 x1) |
| **Chassis** | **HP Z240 SFF (HxWxD)**<br>13.3" x 3.95" x 15.1"<br>337 mm x 100 mm x 384 mm<br>**HP Z240 Tower (HxWxD)**<br>15.7" x 6.7" x 17.4"<br>399 mm x 170 mm x 442 mm<br><4U in rack<br>Integrated front handle ledge and rear ledge<br>Optional front handle[10] | HP Z2 Mini G3 (HxWxD)<br>2.3" x 8.5" x 8.5"<br>58 mm x 216 mm x 216 mm |
| **LAN** | 1 x integrated GbE LAN | 1x integrated GbE LAN<br>1x WLAN/BT module (configurable option) |

## What processors will the HP Z2 Mini Workstation offer?

| Name | Cores | Clock Speed (GHz) | Intel® Turbo Boost Technology* | Cache (MB) | Memory Speed (MHz) | Hyper-Threading | Integrated Graphics | Featuring Intel® vPro™ Technology | TDP (W) |
|---|---|---|---|---|---|---|---|---|---|
| **HP Z2 Mini G3 Performance base unit** | | | | | | | | | |
| Intel® Xeon® processor E3-1245 v6 | 4 | 3.7 | 4.1 | 8 | 2400 | Y | Intel® HD Graphics P630 | Y | 80 W |
| Intel® Xeon® processor E3-1225 v6 | 4 | 3.3 | 3.7 | 8 | 2400 | N | Intel® HD Graphics P630 | Y | 80 W |
| Intel® Xeon® processor E3-1205 v6 | 4 | 3.0 | N/A | 8 | 2400 | N | Intel® HD Graphics P630 | Y | 65 W |
| Intel® Xeon® processor E3-1245v5 | 4 | 3.5 | 3.9 | 8 | 2133 | Y | Intel® HD Graphics P530 | Y | 80 W |
| Intel® Xeon® processor E3-1225v5 | 4 | 3.3 | 3.7 | 8 | 2133 | N | Intel® HD Graphics P530 | Y | 80 W |
| Intel® Core™ i7-7700 processor | 4 | 3.6 | 4.2 | 8 | 2400 | Y | Intel® HD Graphics 630 | Y | 65 W |
| Intel® Core™ i5-7500 processor | 4 | 3.4 | 3.8 | 6 | 2400 | N | Intel® HD Graphics 630 | Y | 65 W |
| Intel® Core™ i3-7100 processor | 2 | 3.9 | N/A | 3 | 2400 | N | Intel® HD Graphics 630 | N | 51 W |
| Intel® Core™ i7-6700 processor | 4 | 3.4 | 4.0 | 8 | 2133 | Y | Intel® HD Graphics 530 | Y | 65 W |
| Intel® Core™ i5-6500 processor | 4 | 3.2 | 3.6 | 6 | 2133 | N | Intel® HD Graphics 530 | Y | 65 W |
| Intel® Core™ i3-6100 processor | 2 | 3.7 | N/A | 3 | 2133 | N | Intel® HD Graphics 530 | N | 51 W |
| **HP Z2 Mini G3 Entry base unit** | | | | | | | | | |
| Intel® Xeon® processor E3-1205 v6 | 4 | 3.0 | N/A | 8 | 2400 | N | Intel® HD Graphics P630 | Y | 65 W |
| Intel® Core™ i7-7700 processor | 4 | 3.6 | 4.2 | 8 | 2400 | Y | Intel® HD Graphics 630 | Y | 65 W |
| Intel® Core™ i5-7500 processor | 4 | 3.4 | 3.8 | 6 | 2400 | N | Intel® HD Graphics 630 | Y | 65 W |
| Intel® Core™ i3-7100 processor | 2 | 3.9 | N/A | 3 | 2400 | N | Intel® HD Graphics 630 | N | 51 W |
| Intel® Core™ i7-6700 processor | 4 | 3.4 | 4.0 | 8 | 2133 | Y | Intel® HD Graphics 530 | Y | 65 W |
| Intel® Core™ i5-6500 processor | 4 | 3.2 | 3.6 | 6 | 2133 | N | Intel® HD Graphics 530 | Y | 65 W |
| Intel® Core™ i3-6100 processor | 2 | 3.7 | N/A | 3 | 2133 | N | Intel® HD Graphics 530 | N | 51 W |

* The specifications shown in this column represent the maximum turbo frequency with one core active. Turbo boost stepping occurs in 100 MHz increments. Processors that do not have turbo functionality are denoted as N/A.

**What testing and reliability has been built into the HP Z2 Mini Workstation?**
At HP, we recognise that professionals can't settle for anything less than the highest levels of reliability, so we design our workstations to meet the challenges of the most demanding application workloads and duty cycles—an HP focus for the past 30 years. Today, our three decades of workstation engineering innovation have paid off in a level of reliability that is widely recognised in the industry. HP Workstations are designed for heavy usage and are fully tested with and certified for a broad variety of professional applications in Product Development, AEC, Financial Services, Media and Entertainment, and many other segments.

Please read the white paper, Building reliability into HP Workstations, for details about how HP tests workstation products.

**Which segments is the HP Z2 Mini Workstation targeted at?**
Product Development/AEC users will identify with this workstation's iconic appearance that's smaller than a motorcycle helmet, but powerful enough to design a motorcycle. Its versatile size allows user to deploy it almost anywhere (on the desk, behind an HP Z Display, or on a wall), and it's certified to run smoothly with applications such as AutoCAD, SolidWorks, ArchiCAD, and Sketchup.

OEMs can revolutionise their end solutions with HP's smallest, embedded workstation—it's a good choice for digital signage, process controls, and video surveillance, to name just a few use cases. The HP Z2 Mini Workstation has an option for a 3-year product life, which can benefit customers who value lifecycle stability.

The HP Z2 Mini Workstation is ideal for Finance, because it can drive up to six displays natively and its small size can reduce the clutter on a trader's desk. And, this workstation is great for Education because of its competitive price and the ability to mount it behind a display to keep it safe from a busy classroom.

**Why should someone in these segments buy the HP Z2 Mini Workstation?**
The HP Z2 Mini Workstation offers a wide span of technology, innovation, and performance that customers will not find with other workstations. With all of the upgraded and supported components, professionals in any industry will be able to appreciate the size, speed, reliability, and configurability of HP Workstations to help bridge the gap between concepts and finished products fast, with ease, and with reduced down time.

**What key benefits can HP Workstation users realise over PC solutions?**
Customers receive many incremental benefits as they look to move from a PC up to a workstation-class product. As a long-time industry leader in workstations, HP offers more configurability upfront and the ability to easily upgrade or replace parts with a tool-free chassis design that decreases servicing down time. Workstations are also designed and tested to a higher standard than commercial PCs and are built for a five year life. HP Z Workstation users receive more flexibility with their systems because HP has already certified their machines with ISVs to ensure a wide range of programs run seamlessly.

## Memory and design

**What memory does the HP Z2 Mini offer?**
The HP Z2 Mini Workstation supports up to 32 GB ECC or nECC DDR4 memory.[3]

**What design innovations does the HP Z2 Mini offer?**
The HP Z2 Mini is 5x smaller than the HP Z240 Small Form Factor Workstation and 10x smaller than the HP EliteDesk 800 G2 Tower, offers support for up to six displays, and is VESA mountable to HP Z Displays.

**What are some other features that make this workstation a great choice?**
The HP Z2 Mini is tested to the same gruelling quality and reliability standards as the rest of the HP Z Workstation family and offers flexibility and convenience with:

- Four easy-access USB 3.0 ports (two side, two rear)
- Two USB 3.1 G1 Type-C™ ports (HP Z2 Mini Performance model only)
- Two storage bays (1x M.2 2280 for HP Z Turbo Drives, 1x 2.5" SATA HDD)[4]
- Up to 1.5 TB max storage[4]
- 3x3x3 limited standard warranty
- Certified for the same ISV applications as the Z240
- Security and manageability features, such as Intel® vPro™ technology[5]

## Operating systems

**Which Windows solutions are supported?**
The HP Z2 Mini Workstation comes with the following preinstalled:

- Microsoft Windows 10 Pro 64[6]
- Windows 7 Pro 64 available through downgrade rights from Windows 10 Pro 64[7]

**What Linux® solutions are available?**

- HP Linux® ready
- Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)
- SUSE Linux® Enterprise Desktop SP3

**Is dual OS preload an option?**
Dual OS preload is only available through Custom Integration Services.

**What is the HP Installer Kit for Linux®?**
The HP Installer Kit for Linux® is FreeDOS with our driver discs included. FreeDOS is a bare-bones OS, intended for those who want to load their own Linux® version.

**What value does Linux® bring to HP on personal workstations?**
Linux® offers fast, flexible and reliable operating systems for HP Workstations. Designed for organisations requiring security, compatibility, stability, and unlimited scalability, Linux® powers millions of computers with enterprise-proven technologies.

## Software

**What manageability features are available on HP Workstations?**
HP Workstations meet the industry standard specifications for DASH 1.1 and support Intel® Active Management Technology (AMT) 11.0 and Intel® vPro™ Technology. Through these programs, IT administrators can remotely control features such as: power management, hardware inventory/alerting (including BIOS and firmware revisions), system defense filters, remote scheduled maintenance, and much more. HP Workstations also support software such as optional[7] LANDesk Management Suite, Microsoft System Center Configurations Manager, and HP Client Automation Enterprise.

**What standard software is included (preloaded) with the HP Z2 Mini Workstation?**
HP Remote Graphics Software[8]

- HP Remote Graphics Software (HP RGS) is the remote desktop solution for serious workstation users and their most demanding applications. Best of all, it comes with every new HP Z Workstation.
- This advanced tool allows users to access and share the desktop of a remote workstation over a standard network. All applications run natively on the remote workstation and take full advantage of the compute and graphics resources of the sending system.
- HP RGS also allows professionals to collaborate in real time with colleagues across the hall or across the continent using graphic intensive applications.
- For more details, refer to the HP RGS Datasheet and QuickSpecs at hp.com/go/rgs.

HP Performance Advisor[9]

- Designed for non-techies, this ultra-savvy software wizard is the simplest and most effective way to make sure your computer is always operating at its optimum potential. HP Performance Advisor comes pre-installed with every HP Workstation.
- Maximise your entire workstation environment with access to the HP certified ISV ecosystem. Workstation optimisation can take up to 80 steps, but with HP Performance Advisor, you can do it in two—one-click to improve performance of your key applications and another to select and download certified graphics drivers.
- Gain a quick and accurate understanding of your entire system in one simple, intelligent interface. Expedite troubleshooting and eliminate downtime with one-click system reporting. Stay up-to-date with instant access to an extensive library of white papers on your workstation and key applications.

Additional preloaded software:

- Cyberlink Power DVD (reader)
- Cyberlink Power2Go (burner)

**What ISV certifications will be in place?**
Please refer to hp.com/go/isv to view the most recent list of ISV certifications for each platform.

## Warranty and support

**Will the HP Z2 Mini be covered under HP Elite Support?**
The HP Z2 Mini Workstation will receive HP Elite support via an onshore call centre in the United States and a dedicated support team. For more information, see hp.com/united-states/campaigns/elite-products/assets/Elite_Premium_Support_FAQ.pdf.

**What is the warranty and support for the HP Z2 Mini Workstation?**

- The operating system and preinstalled software follows the same warranty of the system. HP provides support for both Windows and Linux®.
- The standard, limited warranty for HP Z2 Mini Workstations will be 3/3/3.
- On-site warranty and service.
- Three-year limited warranty and service offering delivers on-site, next business-day service for parts and labor and includes free telephone support 8 AM-5 PM. Global coverage ensures that any product purchased in one country and transferred to another, non-restricted country will remain fully covered under the original warranty and service offering

### Notations/disclaimers

* HP EliteDesk 800 G2 Tower volume = 28.1317 cubic L; Z2 Mini = 2.71 cubic L volume, or 10.38x smaller than the Tower.
** HP Z240 SFF volume= 13 cubic L; HP Z2 Mini volume is 2.7 cubic L, or 1/5 the volume of the Z240 SFF.
[1] 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 is not a measurement of higher performance.
[2] Each processor supports two (Intel® Core™) or four (Intel® Xeon®) channels of DDR4 memory. To realise full performance, at least 1 DIMM must be inserted into each channel Actual memory speeds dependent on processor capability.
[3] Intel® Xeon® and Intel® Pentium processors can support either ECC or non-ECC memory. Intel® Core™ i5/i7 processors only support non-ECC memory.
[4] For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7), up to 30 GB (for Windows 8), and up to 36 GB (for Windows 10) of system disk is reserved for system recovery software.
[5] Some vPro functionality, such as Intel® Active management technology and Intel® Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel® vPro technology is dependent on 3rd party software providers. Microsoft Windows required.
[6] 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 microsoft.com.
[7] This system is preinstalled with Windows 7 Pro software and also comes with a license and media for Windows 10 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
[8] HP RGS requires a Windows, Linux®, or Mac® OS X 10.10 or newer operating system and network access.
[9] HP Performance Advisor requires Windows and Internet access.
[10] Sold separately or as an optional feature.

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