# **HP Z1 Workstation**

The world's first 27" all-in-one workstation.















## Open possibility.

Experience the simplicity of all-in-one design with the HP Z1 Workstation. Enjoy the control of easily swapping out parts on your own. Add a hard drive, upgrade memory, or access the graphics card by snapping it open. Enhance your work with the HD Webcam, SRS Premium Sound processing and whisper-quiet acoustics. Unleash your creativity on a workstation that's worthy of it.

## **Workstation performance without compromise.**

Bring your ideas to life faster with the accelerated performance of the HP Z1 Workstation. The only all-in-one workstation with quad-core Intel® Xeon® processors includes ISV certifications, HP Performance Advisor and HP Remote Graphics Software, giving you the professional features you expect from a HP Workstation. Professional graphics and ECC memory make renders faster and crashes a thing of the past. Experience the HP Z1 Workstation and stay one step ahead of your imagination.

## High performance graphics. Incredible from every angle.

See your work more clearly on a 27" diagonal LED-backlit display that supports over a billion colors. With a wide, 178 degree viewing angle and an IPS<sup>2</sup> panel, the HP Z1 Workstation display is professional any way you look at it. With professional NVIDIA Quadro graphics for blazing fast renders and performance, the HP Z1 gives you the time to be your creative best.

## Build the machine you want to drive.

Customize the HP Z1 Workstation the way you want to with a variety of I/O options, including USB 3.0 for blazing fast speeds and your choice of optical drives, like the slot-load Blu-ray Writer.<sup>3</sup> Choose from a variety of storage types, including 7.2K and 10K SATA, SSD options, optional RAID configurations and a media card reader.

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Form Factor	All-in-one					
Available Operating Systems	Windows 8 Pro 64-bit Windows 8 Pro Downgrade to Windows 7 Prof Windows 8 Pro Downgrade to Windows 7 Prof Windows 7 Professional 32-bit Windows 7 Professional 64-bit* HP Linux Installer Kit SUSE Linux Enterprise Desktop 11 (90 day lice Red Hat Enterprise Linux Desktop/Workstation	essional 64-bit nse)		load)		
Available	Processor	GHz	Cache	Number of Cores	Watts	Integrated Graphics
Processors <sup>4,5,6</sup>	Intel® Core™ i3-3220 AND E1246V3 3.5 Intel® Core™ i5-3470 Intel® Xeon® E3-1225v2 Intel® Xeon® E3-1245v2 Intel® Xeon® E3-1280v2	3.3 3.2 3.2 3.4 3.6	3 MB 6 MB 8 MB 8 MB 8 MB	2 4 4 4	55W 77W 77W 77W 69W	Intel® HD Graphics 2500 Intel® HD Graphics 2500 Intel® HD Graphics P4000 Intel® HD Graphics P4000 N/A
Chipset	Intel® C206 Chipset					· · · · · · · · · · · · · · · · · · ·
Memorv <sup>7,8</sup>	Four Memory slots. Up to 32 GB, DDR3 ECC. 1600MHz <sup>2</sup> ; Up to 8 GB, DDR3 nECC, 1600MHz					
Drive Controllers	Integrated Serial ATA interfaces (2x 6Gb/s SATA, 1x 3Gb/s SATA)					
Storage <sup>10,11</sup>	SATA 7200 3.5-in. drives: 250, 500 GB, 1, 2, 3 TB; SATA 10K 2.5-in. drives: 300, 500, 600 GB, 1 TB; SATA Solid State Drives: 256, 512 GB					
Optical Storage	DVD +/- RW Super-Multi <sup>12</sup> Slot-Load or Blu-ray <sup>3</sup> Writer Slot-Load					
Drive Bays	Up to 2 internal 2.5-in. HDDs, Up to 1 internal 3.5-in. HDD					
Slots	4 slots: 1 MXM (PCle x16), 3 miniPCle (PCle2 x1)					
Available Graphics	Integrated: Intel HD Graphics 2500 (Intel® Core™ i3 and i5 Processors), Intel HD Graphics P4000 (Intel® Xeon® E3-12x5 Processors)  NVIDIA Quadro 500M  Midrange 3D: NVIDIA Quadro 1000M, NVIDIA Quadro K3000M  High-end 3D: NVIDIA Quadro K4000M					
Webcam	HD 1080p 2.0 megapixel webcam					
Audio	SRS Premium Sound, Dual-cone front-facing stereo speakers					
Network <sup>13,14</sup>	Intel Gb LAN, 802.11a/b/g/n Wireless LAN, Bluetooth <sup>15</sup> 2.1, 2.1+EDR, 3.0 and 3.0+HS					
Ports	Side: 2 USB 3.0, 1 IEEE 1394a, 1 microphone in, 1 headphone out, 4-in-1 Media Card Reader  Rear: 4 USB 2.0, 1 RJ-45 Gb-LAN, 1 Audio line-in, 1 Audio line-out, 1 DisplayPort v1.1, 1 Optical S/PDIF Output, 1 Subwoofer Output  Internal: 1 USB 2.0 Type A, 2 x USB 2.0 on header					
Input Devices	HP Wireless Keyboard and Mouse; HP USB Optical Mouse; HP USB 1000dpi Laser Mouse; HP USB Keyboard; HP USB Optical 3-Button Mouse (AMO)					
Dimensions with Stand	Height:       23.0 inches (58.42 cm)         Width:       26.0 inches (66.04 cm)         Depth:       16.5 inches (41.91 cm)					
Power Supply	400W, 90% Efficient					
Display (screen size diagonally measured)	27-inch, 2560x1440 pixel, diagonal LED-backlit IPS <sup>2</sup> display (support for up to 1.07 billion colors) <sup>1</sup>					
Display Support	Supports up to one external display via DisplayPort					
Compatible Displays (screen size diagonally measured)	HP DreamColor LP2480zx Professional Display, HP ZR30w 30-inch S-IPS LCD Monitor, HP ZR2740w 27-inch LED Backlit IPS Monitor, HP ZR2440w 24-inch LED Backlit IPS Monitor, HP ZR24w 24-inch S-IPS LCD Monitor, HP ZR2240w 21.5-inch LED Backlit IPS Monitor, HP ZR2040w 20-inch LED Backlit IPS Monitor					
Warranty <sup>16</sup>	Limited one-, three-, four- and five-year options. Mon-Fri 8-5 next business day, parts, labor and 24x7 phone support, terms and conditions may vary.					

- This system may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality See microsoft.com/windows/windows-7/ for details.
- 1.07 billion viewable colors through A-FRC technology. All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
- In-plane switching
- As Blu-ray contains new technologies, certain disc, digital connection, compatibility and/or performance issues may arise, and do not constitute defects in the product. Flawless playback on all systems is not guaranteed. In order for some Blu-ray titles to play, they may require a DVI or HDMI digital connection and your display may require HDCP support. HD DVD movies cannot be played on this workstation.

  Multi-Core technologies are designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating systems software for
- full benefits; Not all customers or software applications will necessarily benefit from use of these technologies.
- 64-bit computing on Intel\* architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel\* 64 architecture. Processors will not operate (including 32-bit operation) without an Intel\* 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. See intel.com/info/em64t for more information.
- Intel's numbering is not a measurement of higher performance.
- Each processor supports up to 2 channels of DDR3 memory. To realize full performance at least 1 DIMM must be inserted into each channel. Intel® Xeon® E3 and Intel® Cora™ i3 processors can support either ECC or non-ECC memory.
- The CPU determines the speed at which the memory is clocked. If a 1333MHz capable CPU is used, the maximum speed the memory will run at is 1333MHz regardless of the specified speed of the memory.
- 10 SATA hardware RAID is not supported on Linux systems. The Linux kernel, with built-in software RAID, provides excellent functionality and performance. It is a good alternative to hardware-based RAID. 4.pdf for RAID capabilities with Linux.
- For hard drives, 1 GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less.
- Actual speeds may vary. Does not permit copying of commercially available DVD movies or other copyright protected materials. Intended for creation and storage of your original material and other lawful uses. Note that DVD-RAM cannot read or write to 2.6 GB Single Sided/5.2 GB Double Sided Version 1.0 media.
- Wireless use requires separately purchased service contract. Check with your local vendor for coverage area and availability in your area. Connection and speeds will vary due to location, environment, network conditions, and other factors.
- Wireless access point and Internet service required. Availability of public wireless access points limited.
- 15 Bluetooth is a trademark owned by its proprietor and used by Hewlett-Packard Company under license.
  16 HP Care Pack Services extend service contracts beyond the standard warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at hp.com/go/carepack. Service levels and response times for HP Care Packs may vary depending on your geographic location.

#### Learn more

#### hp.com/zworkstations

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