HP Z420 Workstation

Performance you want. Value you need.

Maintain professional expandability in an accessible, tool-free mini-tower form factor—all at a great price. With support for next-generation Intel® Xeon® processor families, the latest graphics technology, and increased I/O expandability, the HP Z420 has the power you need to get the job done.

Intelligent, business-forward design.

Quickly and easily swap out parts or make upgrades on your own. The HP Z420 Workstation features a smart chassis design built for tool-less access to the inside and easy configurability. With optional liquid cooling, your workstation is designed for whisper-quiet performance and a smooth, daily work flow.

Maximum performance.

Bring power and performance to the next level with the all new E5-1680 v2 8-core processor and Intel® C602 chipset. Achieve up to an 86% increase in memory bandwidth over previous generation HP workstations. Support up to 64 GB of the latest generation of system memory with 8 DIMM slots and integrated DDR3-1866 (Transfer rates up to 1866 MT/s) memory subsystem. Take advantage of a 600 W 90% efficient power supply ideal for high-end graphics and GPU compute solutions. Connect in a flash with 4X USB 3.0 bandwidth on an optional high-performance Thunderbolt™ 2.0 port on the HP Z420.

Customized to work for you.

Built to support next generation PCIe Gen3 graphics, the HP Z420 currently offers a breadth of AMD and NVIDIA professional graphics card options from Pro 2D to high-end 3D, up to the NVIDIA Quadro 6000. Access high-performance applications, including 2D and 3D video, on-site or from a remote location with HP Remote Graphics software. Increase productivity and spread out with the freedom of seeing and doing more all at once with support for multiple displays at peak HD resolutions.
HP Z420 Workstation

1. Handle in Top Optical Bay (optional)
2. 3 External 5.25” Bays
3. 15-in-1 Media Card Reader (optional)
4. Power Button
5. Front I/O: 1 USB 2.0, 2 USB 3.0, 1 Headphone, 1 Microphone, 1 1394a
6. Easy-open Side Panel
HP Z420 Workstation

Form Factor
Convertible minitower

Available Operating Systems
- Windows 7 Professional 32-bit
- Windows 7 Professional 64-bit
- Windows 8 Pro 64-bit
- Windows 8.1 64-bit
- Windows 8.1 Pro Downgrade to Windows 7 Professional 32-bit
- Windows 8.1 Pro Downgrade to Windows 7 Professional 64-bit
- HP Linux Installer Kit

Available Processors

<table>
<thead>
<tr>
<th>Processor Type</th>
<th>GHz</th>
<th>Cache</th>
<th>Memory</th>
<th>Cores</th>
<th>Hyper-Threading</th>
<th>Intel vPro Technology</th>
<th>Intel Turbo Boost Technology</th>
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<tr>
<td>Intel Xeon® Processor E5-1680 v2</td>
<td>3.0</td>
<td>25 MB</td>
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<td>8</td>
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<td>15 MB</td>
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<td>10 MB</td>
<td>1600 MT/s</td>
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</table>

Chipset
- Intel® C602 Chipset

Memory
- 8 DIMM slots; Up to 64 GB (8x8GB) ECC unbuffered DDR3-1866 (Transfer rates up to 1866 MT/s) (600W PSU chassis); Up to 32 GB (8x8GB) ECC unbuffered DDR3 1866 MT/s (400W PSU chassis) per CPU

Drive Controllers
- Integrated 6-channel SATA controller: 2 ports 6 Gb/s + 4 ports 3 Gb/s, RAID 0, 1, 5, 10; Optional SAS controller: LSI 9217 - 4i4e 8-port SAS/SATA 6 Gb/s, RAID 0, 1, 10

Storage
- Up to (4) 3.5-inch 7200 rpm SATA drives: 250, 500 GB, 1, 2, 3 TB, 12 TB max; Up to (4) 2.5-inch 10K rpm SAS drives: 300, 600, 900 GB, 1.2 TB, 4.8 TB max; Up to (4) 3.5-inch 15K rpm SAS drives: 300, 450, 600 GB, 2.4 TB max; Up to (4) 2.5-inch SATA solid state drives: 128, 180, 240, 255, 480, 512 GB, 2 TB max; Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB; Up to (1) SATA self-encrypting solid state drive: 180 GB; Up to (1) Intel SSD Fusion ioFX 410 GB; Up to (2) PCIe x50 HP Z Turbo Drives 256 GB, 512 GB (1 TB max)*** Note: Fourth 3.5-inch drive occupies one external 5.25-inch bay. Fourth 2.5-inch drive is installed into top optical bay handle.

Optical Storage

Drive Bays
- 3 external 5.25-inch bays, 3 internal 3.5-inch HDD bays (4 total when using 5.25-inch bay converters); up to 4 eSATA

Expansion Slots
- 2 PCI Express Gen3 x16 mechanical/electrical; 1 PCI Express Gen2 x8 mechanical/electrical; 1 Legacy PCI

Available Graphics

- Professional: NVIDIA® NVS™ 300, NVIDIA® NVS™ 310, NVIDIA® NVS™ 315, NVIDIA® NVS™ 510
- Entry: NVIDIA® Quadro® 410, NVIDIA® Quadro® K600, AMD FirePro™ V3900
- Mid-range: NVIDIA® Quadro® K2000
- High-end 3D: NVIDIA® Quadro® K4000, NVIDIA® Quadro® K5000, NVIDIA® Quadro® K6000 (AMO only), NVIDIA® Tesla™ K20C, NVIDIA® Tesla™ K40

Audio
- Integrated Intel/Realtek HD ALC262 Audio; Creative Recon3D PCIe Audio Card; optional HP Thin USB Powered Speakers

Network
- Integrated Intel GbE LAN; Optional Intel CT x1 Pcie NIC; Optional Intel Ethernet I210-T1 PCIe NIC; Optional Broadcom NIC; Optional HP 361T PCIe Dual Port Gigabit NIC; Optional HP X520 10GbE Dual Port Adapter; Optional HP 10GbE SFP+ SR Transceiver; Intel 82576 EP, 1.2 Controller; WLAN Intel 7260 802.11 a/b/g/n 1x1 wireless; HP 5x2 tennant; Power over Ethernet; HP Z420 Workstation

Ports
- Front: 2 USB 3.0, 1 USB 2.0, 1 IEEE 1394a standard, 1 microphone in, 1 headphone out
- Rear: 2 USB 3.0, 4 USB 2.0, 1 IEEE 1394a standard, 2 IEEE 1394b ports via optional add-in PCIe card, 1 audio in, 1 audio out, 1 microphone in, 2 PS/2, 1 RJ-45 to integrated GbE port, 1 serial via optional adapter, 1 Thunderbolt™ 2 port via optional add-in PCIe card

Internal: 6 USB 2.0, supports up to three HP Internal USB Ports (one two-port kit on each eSATA or adapter)

Remote Technology
- HP Remote Graphics Software (RGS)

Input Devices
- PS/2 standard keyboard; USB standard keyboard; USB Smart Card Keyboard; PS/2 optical scroll mouse; USB 2-button optical scroll mouse; USB 3-button optical mouse; USB SpaceExplorer; USB SpacePilot; USB Laser Scroll Mouse

Dimensions (H x W x D)
- 17.63 x 7.0 x 17.5 in (44.76 x 17.78 x 44.52 cm)

Power Supply
- 600-Watt 90% efficient power supply or 400-Watt 90% efficient power supply

Compatible Displays (screen size diagonally measured)

Warranty
- Limited three-year Mon-Fri B-S next business day, parts, labor and 24x7 phone support, terms and conditions may vary. Extendable up to five years.
8. 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.


6. Thunderbolt™ 2 is available via an optional add-in card. Thunderbolt is new technology. Thunderbolt cable and Thunderbolt device (sold separately) must be compatible with Windows.

5. Maximum memory capacities assume Windows 64-bit operating systems or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

4. Each processor supports up to 4 channels of DDR3 memory. To realize full performance at least 1 DIMM must be inserted into each channel.

3. Intel's numbering is not a measurement of higher performance.

2. 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. 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.

1. 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.

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