



## HP Z800 WORKSTATION

### The ultimate in power and expandability

Combining ultimate performance with a revolutionary new industrial design, the HP Z800 Workstation delivers the extreme speed and massive expandability that you demand to tackle your biggest challenges.

#### **Innovation that transforms the way you work**

Designed for speed, inside and out, the new HP Z800 revolutionizes workstation industrial design. Featuring brushed aluminum side panels, integrated handles, visually cable-less engineering that maximizes airflow, modular component removal and reconnect, and optional liquid cooling, this is a system you'll want everyone to see.

Minimize power and cooling costs with ENERGY STAR® qualified configurations featuring 85% or 89% efficient power supplies and HP WattSaver which, when activated, lowers energy consumption to less than 1 Watt in off mode.

#### **Performance to help you accomplish more every minute**

Get massive, whole-system computational power from a workstation that optimizes the way the processor, memory, graphics, OS, and software technology work together.

- Process more tasks faster with the massive horsepower of quad- and six- core Intel® Xeon® processors<sup>1</sup> and Intel® QuickPath Technology
- Bring the performance of a small cluster to a workstation with the NVIDIA® Tesla™ C1060 computing processor
- Customize your HP Z800 with faster and larger memory capacity and large-scale storage
- Choose from a breadth of operating systems and new professional graphics options from NVIDIA and ATI

#### **Reliability from legendary, confidence-inspiring quality**

- Close ISV relationships help ensure that HP Workstations are fully certified and optimized for your applications
- In-depth testing and quality assurance keep you productively up-and-running
- HP Performance Advisor helps ease configuration and updates while optimizing a range of applications
- Comprehensive, lifetime HP Total Care options, easy HP financing solutions, and an array of monitors and other accessories make HP Workstations easy to own and use



# HP Z800 WORKSTATION

Windows®. Life without Walls™. HP recommends Windows 7.

<b>Form factor</b>	Rackable minitower
<b>Operating systems</b>	Genuine Windows® 7 Ultimate 64-bit* Genuine Windows® 7 Professional 32-bit* Genuine Windows® 7 Professional 64-bit* Genuine Windows® XP Professional 32-bit available through downgrade rights from Windows® 7 Professional 32-bit*† Genuine Windows® XP Professional 64-bit available through downgrade rights from Windows® 7 Professional 64-bit*† HP Installer Kit for Linux (includes drivers for both 32-bit and 64-bit OS versions of Red Hat Enterprise Linux WS4 and WS5) Red Hat Enterprise Linux WS5 (as drop-in-the-box only)
<b>Available processors<sup>1,2,3</sup></b>	Intel® Xeon® processor E5506, 2.13 GHz, 4 MB cache 800 MHz memory, Quad-Core Intel Xeon processor E5507, 2.26 GHz, 4 MB cache, 800 MHz memory, Quad-Core Intel Xeon processor E5620, 2.40 GHz, 12 MB cache, 1066 MHz memory, Quad-Core Intel Xeon processor E5630, 2.53 GHz, 12 MB cache, 1066 MHz memory, Quad-Core Intel Xeon processor E5640, 2.66 GHz, 12 MB cache, 1066 MHz memory, Quad-Core Intel Xeon processor X5650, 2.66 GHz, 12 MB cache, 1333 MHz memory, Six-Core Intel Xeon processor X5660, 2.80 GHz, 12 MB cache, 1333 MHz memory, Six-Core Intel Xeon processor X5667, 3.06 GHz, 12 MB cache, 1333 MHz memory, Quad-Core Intel Xeon processor X5670, 2.93 GHz, 12 MB cache, 1333 MHz memory, Six-Core Intel Xeon processor X5677, 3.46 GHz, 12 MB cache, 1333 MHz memory, Quad-Core Intel Xeon processor X5680, 3.33 GHz, 12 MB cache, 1333 MHz memory, Six-Core
<b>Chipset</b>	Intel 5520 (Dual)
<b>Memory<sup>4</sup></b>	12 DIMM slots, up to 192 GB, 6-channel DDR3 1333 MHz, 3 channels per CPU (actual memory speed dependent on processor capability)
<b>Drive controllers<sup>5</sup></b>	Integrated 6-channel SATA 3 Gb/s controller, RAID 0, 1, 5, 10 capable; Integrated 8-channel SAS controller, RAID 0, 1, 10 capable; Optional LSI 8888 ELP 8-port SAS HW RAID 0, 1, 5, 10 capable; Optional LSI 9260-8i 8-port SAS HW RAID 0, 1, 5, 10 capable
<b>Hard drive(s)<sup>6</sup></b>	Up to (5) 3.5-inch 7200 rpm SATA drives: 160, 250, 320, 500 GB, 1, 1.5, 2 TB, 10 TB max; Up to (6) 2.5-inch 10K rpm SATA drives: 160, 300 GB SFF, 1.8 TB max; Up to (5) 3.5-inch 15K rpm SAS drives: 146, 300, 450, 600 GB, 3 TB max; Up to (5) 160 GB SATA X25-M SSD drives; 800 GB max
<b>Optical drives<sup>7,8</sup></b>	DVD-ROM, DVD+/-RW, Slot-load DVD+/-RW, Blu-Ray Writer
<b>Drive bays</b>	3 external 5.25-inch bays, 4 internal 3.5-inch bays, Up to 4 eSATA, Up to 8 external SAS
<b>Slots</b>	2 PCI Express Gen2 x16, 2 PCI Express Gen2 x16 mechanical/x8 electrical, 1 PCI Express Gen2 x8 mechanical/x4 electrical, 1 PCI Express Gen1 x8 mechanical/x4 electrical, 1 PCI
<b>Graphics (dual graphics on selected cards)</b>	<b>Professional 2D:</b> NVIDIA Quadro NVS 295 (256 MB) <b>Entry 3D:</b> NVIDIA Quadro FX 380 (256 MB), ATI FirePro V3700 (256 MB), NVIDIA Quadro FX 580 (512 MB), ATI FirePro V3800 (512 MB), ATI FirePro V4800 (1 GB) <b>Midrange 3D:</b> NVIDIA Quadro FX 1800 (768 MB), ATI FirePro V5700 (512 MB), ATI FirePro V5800 (1 GB) <b>High-end 3D:</b> NVIDIA Quadro FX 3800 (1 GB), ATI FirePro V7750 (1 GB), NVIDIA Quadro FX 4800 (1.5 GB), NVIDIA Quadro FX 5800 (4 GB), ATI FirePro V8800 (2 GB), NVIDIA Quadro 4000 (2 GB), NVIDIA Quadro 5000 (2.5 GB), Elemental Accelerator Software for NVIDIA Quadro, NVIDIA Tesla C1060, NVIDIA Tesla C2050
<b>Audio</b>	High-definition integrated Realtek ALC262 Audio, optional Creative X-Fi Titanium PCIe Audio Card, optional HP Thin USB Powered Speakers
<b>Network</b>	Integrated Dual Broadcom 5764 LAN, Infineon TPM 1.2 Controller, Optional Broadcom NIC, Optional Intel NIC
<b>Ports</b>	<b>Front:</b> 3 USB 2.0, 1 IEEE 1394a, 1 microphone in, 1 headphone out, HP 22-in-1 Media Card Reader (optional) <b>Rear:</b> 6 USB 2.0, 1 IEEE 1394a, 1 audio in, 1 audio out, 1 microphone in, 2 PS/2, 2 RJ-45 to integrated Gb LAN, 1 serial <b>Internal:</b> 3 USB 2.0
<b>Input devices</b>	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
<b>Dimensions (H x W x D)</b>	17.5 x 8.0 x 20.7 in (44.51 x 20.35 x 52.65 cm)
<b>Power supply</b>	850 watts 85% efficient power supply or 1110 watts 89% efficient power supply; direct connect power supplies
<b>Monitors (screen size diagonally measured)</b>	HP ZR30w 30-inch S-IPS LCD Monitor, HP LP3065 30-inch Widescreen LCD Monitor, HP DreamColor LP2480zx Professional Display (24-inch diagonal widescreen), HP ZR24w 24-inch S-IPS LCD Monitor, HP ZR22w 21.5-inch S-IPS LCD Monitor, HP LP2065 20-inch LCD Monitor
<b>Warranty</b>	Limited three-year Mon-Fri 8-5 next business day, <sup>9</sup> parts, labor and 24x7 phone support; terms and conditions may vary.

\* Windows 7 systems 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 <http://www.microsoft.com/windows/windows-7/> for details.

† Windows XP Professional is preinstalled on this system and includes end user rights and media for Windows 7 Professional. You may only use one version at a time. You must back up all data (files, photos, etc.) before uninstalling operating systems to avoid loss of your data.

<sup>1</sup> Quad- and six-core technologies are designed to improve performance of multithreaded software products and hardware-aware multitasking operating systems and may require appropriate operating system software for full benefits; check with software provider to determine suitability; Not all customers or software applications will necessarily benefit from use of these technologies.

<sup>2</sup> 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 [www.intel.com/info/em64t](http://www.intel.com/info/em64t) for more information.

<sup>3</sup> Intel's numbering is not a measurement of higher performance.

<sup>4</sup> Each processor supports up to 3 channels of DDR3 memory. To realize full performance at least 1 DIMM must be inserted into each channel. To get full 6 channel support, 2 processors MUST be installed.

<sup>5</sup> 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. Please visit <http://h20000.www2.hp.com/bc/docs/support/SupportManual/c00060684/c00060684.pdf> for RAID capabilities with Linux.

<sup>6</sup> For hard drives, 1 GB = 1 billion bytes. 1 TB = 1 trillion bytes. Actual formatted capacity is less. Up to 8 GB of hard drive (or system disk) is reserved for the system recovery software for Windows XP Pro and up to 20 GB for Windows 7.

<sup>7</sup> 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. Double Layer discs can store more data than single-layer discs. However, double-layer discs burned with this drive may not be compatible with many existing single-layer DVD drives and players.

<sup>8</sup> As Blu-Ray is a new format containing 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.

<sup>9</sup> 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 [www.hp.com/go/lookuptool](http://www.hp.com/go/lookuptool). Additional HP Care Pack Services information by product is available at [www.hp.com/go/carepack](http://www.hp.com/go/carepack). Service levels and response times for HP Care Packs may vary depending on your geographic location.

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