QuickSpecs

Overview
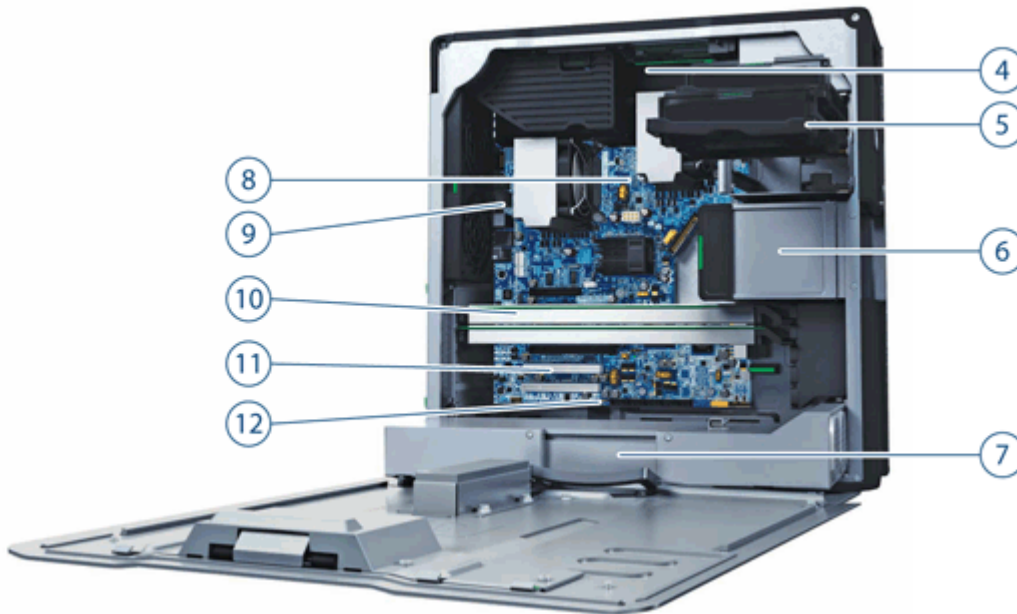

1. Power Button
2. 2 External 5.25" Bays
3. Front I/O: 3 USB 2.0, 1 IEEE 1394a (optional card required), Headphone, Microphone

Overview

4. 6 DIMM Slots for DDR3 ECC Memory

5. 2 Internal 3.5" Bays

6. 2 External 5.25" Bays

7. 650W, 85% efficient Power Supply

8. 2 Quad Core Intel 5500 Series Processors

9. Rear I/O: 6 USB 2.0, PS/2 keyboard/mouse
    1 RJ-45 to Integrated Gigabit LAN
    1 Audio Line In, 1 Audio Line Out, 1 Microphone In

10. 2 PCIe x16 Gen2 Slots

11. 1 PCIe x4 electrical / x8 mechanical Gen2,
    1 PCIe x4 electrical / x8 mechanical Gen1,
    2 PCI Slots

12. 3 Internal USB 2.0 ports

Form Factor	Minitower
Compatible Operating Systems	Genuine Windows 7® Ultimate 64-bit* Genuine Windows 7® Professional 64-bit* Genuine Windows 7® Professional 32-bit* Genuine Windows 7® Professional 64-bit with downgrade to Windows® XP Professional x64 custom installed Genuine Windows 7® Professional 32-bit with downgrade to Windows® XP Professional 32-bit custom installed Genuine Windows Vista® Business 64-bit** Genuine Windows Vista® Business 32-bit** Genuine Windows Vista® 64-bit downgrade to Genuine Microsoft® Windows® XP Professional 64-bit*** Genuine Windows Vista® 32-bit downgrade to Genuine Microsoft® Windows® XP Professional 32-bit*** HP Linux Installer Kit for Linux (includes drivers for both 32-bit & 64-bit OS versions of Red Hat Enterprise Linux WS4 and WS5 - see: http://www.hp.com/workstations/software/linux) Red Hat Enterprise Linux® WS5 (as Drop-in-the-box only) For detailed OS/hardware support information for Linux, see: http://www.hp.com/support/linux_hardware_matrix *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. **Certain Windows Vista product features require advanced or additional hardware. See www.microsoft.com/windowsvista/getready/hardwarereqs.mspx and www.microsoft.com/windowsvista/getready/capable.mspx for details. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit www.windowsvista.com/upgradeadvisor. ***Windows Vista Business disk is included for future upgrade. To qualify for this downgrade an end user must be a business (including governmental or educational institutions) and is expected to order at least 25 customer systems with the same custom image.
Available Processors	Intel® Xeon® Processor X5670 6C 2.93 GHz, 95W, 12M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel® Xeon® Processor X5667 6C 3.06 GHz, 95W, 12M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel® Xeon® Processor X5660 6C 2.80 GHz, 95W, 12M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel® Xeon® Processor X5650 6C 2.66 GHz, 95W, 12M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel® Xeon® Processor E5640 QC 2.66 GHz, 80W, 12M cache, 5.86GT/s QPI, DDR3 1066MHz, HT, Turbo Intel® Xeon® Processor E5630 QC 2.53 GHz, 80W, 12M cache, 5.86GT/s QPI, DDR3 1066MHz, HT, Turbo Intel® Xeon® Processor E5620 QC 2.40 GHz, 80W, 12M cache, 5.86GT/s QPI, DDR3 1066MHz, HT, Turbo Intel® Xeon® Processor X5570 QC 2.93 GHz, 95W, 8M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel Xeon Processor X5560 QC 2.80 GHz, 95W, 8M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel Xeon Processor X5550 QC 2.66 GHz, 95W, 8M cache, 6.40GT/s QPI, DDR3 1333MHz, HT, Turbo Intel Xeon Processor E5540 QC 2.53 GHz, 80W, 8M cache, 5.86GT/s QPI, DDR3 1066MHz, HT, Turbo Intel Xeon Processor E5530 QC 2.40 GHz, 80W, 8M cache, 5.86GT/s QPI, DDR3 1066MHz, HT, Turbo Intel Xeon Processor E5520 QC 2.26 GHz, 80W, 8M cache, 5.86GT/s QPI, DDR3 1066MHz, HT, Turbo Intel Xeon Processor E5507 4C 2.26 GHz, 80W, 4M cache, 4.80GT/s QPI, DDR3 800MHz Intel Xeon Processor E5506 QC 2.13 GHz, 80W, 4M cache, 4.80GT/s QPI, DDR3 800MHz Intel Xeon Processor E5504 QC 2.00 GHz, 80W, 4M cache, 4.80GT/s QPI, DDR3 800MHz
Available Processor Disclaimers	When ordering two processors, the second processor must be the same as the first. Intel processor numbers are not a measurement of higher performance. Processor numbers differentiate features within each processor family, not across different processor families. See: http://www.intel.com/products/processor_number/ for details. Quad-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. 64-bit computing on Intel® 64 architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processor will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will

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	vary depending on your hardware and software configurations. See: http://www.intel.com/info/em64t for more information.
Additional Details	• Intel® Nehalem Architecture • Up to 6.40GT/s QPI support • 3-channel 800/1066/1333 MHz DDR3 memory* subsystem • Up to 48 GB Memory capacity with 6 DIMM slots and 8 GB DIMMs • PCI Express I/O and PCIe x16 Gen2 graphics • Integrated Broadcom 5764 Gigabit LAN on Motherboard (LOM) • 6 channels of Serial ATA (SATA) 3.0 Gb/s natively supported internally • SATA RAID** 0, 1, 5, and 10 support standard on motherboard • SAS RAID 0, 1, and 10 supported using the LSI 3041E PCIe controller • SATA optical drives • High Definition integrated audio with internal speaker • 650W 85% efficient power supply • ENERGY STAR® qualification and energy-saving features available on selected configurations (Not supported by Linux) • Protected by HP Services, including a 3 years parts, 3 years labor, and 3 years onsite service (3/3/3) standard warranty. Terms and conditions vary by country. Certain restrictions and exclusions apply. *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. **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.
Form Factor	Rackable Minitower
Color	Black/Silver
I/O Slots (see system board section for more details)	• 2 PCI Express Gen2 x16 slots (full-length, full-height) • 1 PCI Express Gen2 x4/x8* slot – with x8 open-ended connectors (full-length, full-height) • 1 PCI Express Gen1 x4/x8* slot – with x8 open-ended connectors (full-length, full-height) • 2 PCI 32bit/33MHz slot, (full-length, full-height) *These slots have 4 PCI Express lanes routed to them. They are sometimes called "x4 electrial, x8 mechanical" slots. The PCIe x8 connectors are open ended, allowing a PCIe x16 card to be seated in the slot.
Bays (see storage section for more details)	Total Bays = 4
Internal Bays	2 internal 3.5" bays (with acoustic dampening rail assemblies)
External Bays	2 external 5.25" bays (3rd & 4th HDDs occupy one external bay)
Front I/O	3 USB 2.0, 1 Headphone Out, 1 Microphone In. 1 IEEE 1394a integrated with systems manufactured beginning 3/22/10.
Rear I/O	6 USB 2.0 1 RJ-45 to integrated Gigabit LAN 2 legacy PS/2 1 Audio Line In, 1 Audio Line Out, 1 Microphone In; audio ports can be retasked to function as line in, line out, microphone, or headphone. Serial supported with optional rear bulkhead adapter.

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Internal USB	3 USB 2.0 headers [3 USB 2.0 ports available by one 2x5 header and one 1x5 header: supports either up to two HP Internal USB Port Kits, AMO- EM165AA (one port on each Kit), or one Internal Port kit and one USB Media Card Reader.]	
Chassis Dimensions (W x D x H)	44.51 x 16.53 x 44 cm (17.5 x 6.5 x 17.3 in)	
System Weight	Exact weights depend upon configuration Minimum config - 15.0 kg (33.0 lb) Typical config - 16.9 kg (37.4 lb) Maximum config - 19.6 kg (43.3 lb) (Maximum shipping weight - 23.6 kg/52.0 lb)	
Temperature	Operating:	5° to 35° C (40° to 95° F)
	Non-operating	-40° to 60° C (-40° to 140° F)
Humidity	Operating:	8% to 85%
	Non-operating	8% to 90%
Maximum Altitude (non-pressurized)	Operating:	3,000 m; 10,000 feet
	Non-operating	9,100 m; 30,000 feet
Power Supply	650W 85% Efficient wide-ranging, active Power Factor Correction, with tool-free & cable-free connection The Power Supply Efficiency Report for this product may be found at this link: http://www.80plus.org/manu/psu/psu_reports/SO-034_DELTA_DPS-25AB%20A_650W_Report_mod.pdf	
Interfaces Supported	6-channel SATA 3.0 Gb/s Interface (6 Serial-ATA connectors on the motherboard, 4 channels are eSATA configurable for use with eSATA CTO/AMO Kit) SAS interface supported with optional LSI 3041E 4-port SAS/SATA PCIe card. 1 Floppy interface (1 Floppy connector), USB 2.0. 1 IEEE 1394a interface with systems manufactured beginning 3/22/10.	
Hard Drive Controllers Supported	SATA and SAS controllers	
Backup Devices	For a complete listing of compatible DAT tape drives, LTO tape drives and RDX Removable Disk Backup System offerings, please visit: http://www.hp.com/go/connect	