

Brochure

Expand your power

HP Workstation accessories



Meet the new HP Z Workstation Family

All HP Z-Series Workstations feature support for Genuine Windows® 7 Ultimate or other editions.



HP Z820 Workstation: Our ultimate workstation.

The dual-socket HP Z820 Workstation delivers exceptional performance, award-winning industrial design, and tool-free serviceability in the industry's most expandable chassis.

- Windows® 7 Professional 64
- Dual Intel® Xeon® E5-2600 series multi-core processors supporting up to 16 processing cores
- Up to 512 GB of DDR3 1600 MHz memory; up to 14 TB of storage; dual-graphics support



HP Z620 Workstation: Our most versatile workstation ever.

With up to 16 discrete processor cores, the HP Z620 Workstation packs tons of computing and visualization power into a quiet, compact footprint.

- Windows® 7 Professional 64
- Single Intel® Xeon® E5-1600^{1,2,3,4} or dual Intel® Xeon® E5-2600^{1,2,3} processors
- Up to 96 GB of DDR3 1600 MHz memory; up to 11 TB of storage; dual-graphics support



HP Z420 Workstation: Performance you want. Value you need.

The HP Z420 Workstation provides high levels of performance and expandability in an accessible tool-free mini-tower form factor—all at a great price.

- Windows® 7 Professional 64
- Intel® Xeon® E5-1600^{1,2,3} (up to 6 cores) or Intel® Xeon® E5-2600^{1,2,3} (up to 8 cores) processors
- Up to 64 GB of DDR3 1600 MHz memory; up to 11 TB of storage; dual-graphics support



HP Z220 Workstations: Our most affordable, no-compromise workstations.

Available in an expandable minitower or a small form factor, the HP Z220 Workstations deliver more workstation performance with greater energy-efficiency at prices that rival those of desktop PCs.

- Windows® 7 Professional 64
- Next-gen Intel Core™ and Intel® Xeon® processor E3-1200 v2^{1,2,3} family
- Up to 32 GB of memory; up to 6 TB (CMT)/4 TB (SFF) of storage; PCIe 3D graphics



HP Z1 Workstation: The world's first 27-inch all-in-one workstation.

A full-featured workstation in an all-in-one tool-less chassis, the HP Z1 Workstation sets a new standard for design, performance, and serviceability.

- Windows® 7 Professional 64
- Professional 27-inch diagonal LED-backlit display with innovative tool-less chassis
- Intel® Xeon® processor E3-1200v2^{5,6,7} family and third-generation Intel® Core™ processors
- Up to 32 GB of memory; up to 2 TB of storage

¹ Dual-, quad-, six-, and eight-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. Not all customers or software applications will necessarily benefit from use of these technologies.

² Sixty-four-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.

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

⁴ Z620 systems configured with E5-1600 series processors may not add a second processor. To support two processors, E5-2600 series processor must be chosen.

⁵ 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.

⁶ In-plane switching

⁷ 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.

Professional graphics

Demand the best. Get the best.

Today's professional graphics applications demand high-performance graphics cards that deliver all of the functionality and performance users need. Graphics cards are ideal for workstation users who need professional 2-D or advanced 3-D graphics performance and the productivity that working across several monitors provides. Professional cards are designed to offer superior performance and are ISV-certified for workstation-class applications. In addition, they are rigorously designed and tested for high reliability and offer significantly better support.

HP workstation graphics cards fulfill your graphics needs with the following features:

- **Dedicated workstation support**—provided by both HP and graphics vendors
- **Long lifecycles**—enable stable images and consistent deployments for lower cost of ownership
- **Software provider certification**—improves stability and reliability, and supports productivity tools and drivers to accelerate performance
- **HP-tested unified graphics driver**—enables compatibility between workstation, graphics, OS, and applications; discovers issues before they appear in user environments with a thorough test suite; vetted both on Windows® and Linux
- **Warranty**—full three-year limited liability warranty on HP Workstations

Graphics cards



HP Workstation Z220 (CMT)	HP Workstation Z220 (SFF)	HP Workstation Z420	HP Workstation Z620	HP Workstation Z820	HP Z1 Workstation
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Part number	Description	HP Workstation Z220 (CMT)	HP Workstation Z220 (SFF)	HP Workstation Z420	HP Workstation Z620	HP Workstation Z820	HP Z1 Workstation
A6R69AT	AMD FirePro V3900 1 GB	•	•	•	•	•	
A3J92AT	AMD FirePro V4900 1 GB	•		•	•	•	
LS992AT	AMD FirePro V5900 2 GB	•		•	•	•	
LS993AT	AMD FirePro V7900 2 GB	•		•	•	•	
FH519UT	NVIDIA Quadro NVS 450 512 MB PCI e			•	•	•	
XP612AT	NVIDIA NVS 300 512 MB	•	•	•	•	•	
A7U59AT	NVIDIA NVS 310 512 MB	•	•	•	•	•	
A7U60AT	NVIDIA Quadro 410 512 MB	•	•	•	•	•	
WS093AT	NVIDIA Quadro 600 1 GB	•	•	•	•	•	
WS094AT	NVIDIA Quadro 2000 1 GB	•		•	•	•	
WS095AT	NVIDIA Quadro 4000 2 GB	•		•	•	•	
WS096AT	NVIDIA Quadro 5000 2.5 GB			•	•	•	
WS097AT	NVIDIA Quadro 6000 6 GB			•	•	•	
B9C77AT	NVIDIA Quadro 500M						•
B9C78AT	NVIDIA Quadro 1000M						•

Learn more about video/graphics options for HP Workstations at hp.com/go/leadershipgraphics.

HP recommends Windows® 7.

AMD FirePro™ Professional Graphics

Performance you can see—on multiple displays.

AMD FirePro™ professional graphics are designed to satisfy users that demand the highest quality, reliability, and application performance.

Gain top performance—by design, at every price point.

Engineered for speed, AMD FirePro™ graphics cards deliver unbelievable performance at every price point.

Feed productivity with the AMD Eyefinity advantage.

AMD FirePro™ graphics cards exclusively feature AMD Eyefinity multi-display technology, which simplifies visualization solutions, and can even increase desktop productivity.

- Create a hugely expanded visual workspace by allowing users to run up to four displays on a single graphics card.¹
- Empower professionals who work with large visual data sets (design, medical imaging, video production, etc.) to meet workflow demands with the ability to see full-screen 3-D images and video across multiple displays as a single desktop.

Work smarter with reliable application performance.

AMD FirePro™ professional graphics are rigorously tested to deliver high performance on the applications your users need.

- Certified for leading applications including 3ds Max®, AutoCAD, CATIA®, Inventor®, Maya®, Photoshop®, Pro/ENGINEER®, Siemens NX, and SolidWorks®. For a complete list, go to amd.com/firepro and click Certified Applications.
- Supports the latest industry-standard APIs (OpenGL®, Open-CL™, Linux, and Microsoft® DirectX® 11) and is optimized for the next generation of major CAD and DCC applications.



AMD FirePro™ V7900

Delivers incredible performance, superb visual quality, and outstanding multi-display capabilities all in a single-slot solution. An excellent solution for professionals who work with advanced visualization, complex models, and large data sets.



AMD FirePro™ V5900

Packs a huge punch in a single slot solution, making it ideal for professionals who work with a broad range of applications, moderately complex models and datasets, and advanced visual effects.



AMD FirePro™ V4900

This mid-range 3-D professional graphics solution offers the perfect balance of price and performance for a broad range of applications.



AMD FirePro™ V3900

Enables an exceptional user experience by delivering features and reliability designed to help boost the productivity of professionals working with low- to moderate-complexity designs.

¹ AMD Eyefinity technology can support multiple displays using a single enabled ATI FirePro™ professional graphics card; the number of supported displays varies by card model. Microsoft® Windows® 7, Windows Vista®, or Linux is required in order to support more than two displays. Depending on the card model, native DisplayPort™ connectors and/or certified DisplayPort™ active or passive adapters to convert your monitor's native input to your card's DisplayPort™ or Mini-DisplayPort™ connector(s) may be required. See amd.com/firepro for details.

Learn more about HP Workstations with AMD FirePro™ professional graphics at hp.com/go/firepro.

Hard drives and solid state drives

Store more. Worry less.

As applications become more complex and data files grow, storage capacity needs increase. Adding more or higher-capacity hard drives solves most capacity needs. But performance is an important consideration, too. As a disc drive fills up, performance slows, so it's important to avoid approaching full capacity. Increased performance can also be achieved by using higher speed (RPM) drives and RAID configurations.

Storage technology is an important component of reliability. HP Workstations offer RAID storage controllers that improve performance and enhance reliability with data redundancy. Self-monitoring analysis and reporting technology (SMART) allows the hard drive to monitor its performance and raise flags if imminent failures are predicted. Solid state drives have no moving parts, which means they can offer very high performance—faster startup and fewer delays during routine operations—as well as high reliability.



HP Workstation Z220 (CMT)	HP Workstation Z220 (SFF)	HP Workstation Z420	HP Workstation Z620	HP Workstation Z820	HP Z1 Workstation
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Part number	Description	HP Workstation Z220 (CMT)	HP Workstation Z220 (SFF)	HP Workstation Z420	HP Workstation Z620	HP Workstation Z820	HP Z1 Workstation
Hard drives¹ and enclosures							
A2Z20AA	HP 300 GB SAS 2.5 inch 10K RPM SFF HDD			•	•	•	
A2Z21AA	HP 600 GB SAS 2.5 inch 10K RPM SFF HDD			•	•	•	
LU967AT	HP 300 GB SAS 6 Gb/s 15K RPM HDD			•	•	•	
LU968AT	HP 450 GB SAS 6 Gb/s 15K RPM HDD			•	•	•	
VM647AA	HP 600 GB SAS 6 Gb/s 15K RPM HDD			•	•	•	
FX619AA	HP 300 GB SATA 2.5 inch 10K RPM SFF HDD	•	•	•	•	•	•
XQ245AT	HP 600 GB SATA 2.5 inch 10K RPM SFF HDD						•
LQ034AT	HP 250 GB SATA 6 Gb/s 7200 RPM HDD	•	•	•	•	•	•
LQ036AT	HP 500 GB SATA 6 Gb/s 7200 RPM HDD	•	•	•	•	•	•
LQ037AT	HP 1 TB SATA 6 Gb/s 7200 RPM HDD	•	•	•	•	•	•
QB576AT	HP 2 TB SATA 6 Gb/s 7200 RPM HDD	•	•	•	•	•	•
QF298AA	HP 3 TB SATA 6 Gb/s 7200 RPM HDD			•	•	•	
Solid state drives							
A3D25AT	HP 128 GB SATA Solid State Drive	•	•	•	•	•	
LZ704AT	HP 160 GB SATA Solid State Drive	•		•	•	•	•
A3D26AT	HP 256 GB SATA Solid State Drive	•	•	•	•	•	
LZ069AT	HP 300 GB SATA Solid State Drive	•	•	•	•	•	•
HP Hard Drive Carriers							
NB792AA	HP DX115 Removable HDD Carrier			•	•	•	
FZ576AA	HP DX115 Removable HDD Frame and Carrier			•	•	•	
B2P96AA	HP Z1 HDD Carrier Kit (for 3.5 inch drive or two 2.5 inch drives)						•

¹ 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.

Memory and processors

The speed you need to get the job done

Memory¹

When working with large files and robust applications, additional memory is recommended to maintain the performance and reliability you demand from your workstations. The new HP Z Workstations feature greater memory capacity and faster memory speeds for data-intensive operations. For instance, HP Z820 Workstation has up to 16 DIMM slots and is expandable up to 512 GB of DDR3-1600 speed memory.

Adding HP warranted and tested memory to your workstations provides excellent benefits, including:

- Ability to handle increasingly demanding applications without degrading performance
- Easier toggling between several open applications
- Reduced system downtime, data loss, and financial impact of memory failure

Non-HP memory may perform less effectively or may even fail when exposed to the demands of a high-end workstation motherboard.

Processors²

Multi-tasking is now a necessity in our daily computing needs. And as those applications become more demanding, the need for processing power increases. Second processors are an ideal solution for users working with large designs, complex analysis, scientific modeling, or simply running a number of applications at the same time. Leveraging additional processing cores can improve multi-threaded applications—and boost mega-tasking productivity.

Part number	Description	HP Workstation Z220 (CMT)	HP Workstation Z220 (SFF)	HP Workstation Z420	HP Workstation Z620	HP Workstation Z820	HP Z1 Workstation
Memory							
B1S52AT	HP 2 GB (1x2 GB) DDR3-1600 non-ECC RAM	•	•				•
B1S53AT	HP 4 GB (1x4 GB) DDR3-1600 non-ECC RAM	•	•				
B1S54AT	HP 8 GB (1x8 GB) DDR3-1600 non-ECC RAM	•	•				
A2Z47AT	HP 2 GB (1x2 GB) DDR3-1600 ECC RAM			•	•	•	•
A2Z48AT	HP 4 GB (1x4 GB) DDR3-1600 ECC RAM			•	•	•	•
A2Z50AA	HP 8 GB (1x8 GB) DDR3-1600 ECC RAM	•	•	•			•
A2Z49AT	HP 4 GB (1x4 GB) DDR3-1600 ECC registered RAM				•	•	
A2Z51AA	HP 8 GB (1x8 GB) DDR3-1600 ECC registered RAM				•	•	
A2Z52AA	HP 16 GB (1x16 GB) DDR3-1600 ECC registered RAM					•	
A2Z53AA	HP 32 GB (1x32 GB) DDR3-1333 ECC LR RAM					•	
Processors							
A6S74AT	Z620 Xeon E5-2620 6C 2.00 15 MB 1333 CPU2				•		
A6S77AT	Z620 Xeon E5-2643 4C 3.30 10 MB 1600 CPU2				•		
A6S86AT	Z820 Xeon E5-2609 4C 2.40 10 MB 1066 CPU2					•	
A6S87AT	Z820 Xeon E5-2620 6C 2.00 15 MB 1333 CPU2					•	
A6S88AT	Z820 Xeon E5-2630 6C 2.30 15 MB 1333 CPU2					•	
A6S90AT	Z820 Xeon E5-2643 4C 3.30 10 MB 1600 CPU2					•	
A6S91AT	Z820 Xeon E5-2650 8C 2.00 20 MB 1600 CPU2					•	

¹ Memory frequency and type must match existing DIMMs.

² First and second processors must match.

HP recommends Windows® 7.

Performance displays

Stunning at every angle

Featuring advanced IPS panels, HP Performance Displays deliver maximum image integrity and accuracy at up to 178 degree angles of view, up to 10x the contrast ratio,¹ ultra-fast response times and 30-bit panels (select models) for smoother color transitions and 1.07² billion colors—so the work you see can be as great as the work you do.

Productive from the start

HP Performance Displays are designed for the way you work, so you can accomplish more: eight-way³ comfort adjust stand, easy cable management, convenient four-port USB hub, and ready to go with HP Quick Release for simple setup on optional arms, mounts, and stands.

Proven over the long term

Only HP Performance Displays deliver mission-critical reliability that's energy efficient and affordable as well:

- **Extensive testing**—enables seamless operation with HP Workstations and professional graphics applications
- **Energy-efficient design**—ZR displays have 85% efficient power supplies and contain up to 98% recyclable content
- **HP reliability**—long-life designs and quality, backed by an HP Three-Year Advance Exchange warranty that's extendable up to five years



Model number	Part number	Size	Description
ZR2040w	LM975A8#ABA	20 inch diagonal	1600x900, 16:9, 1.4 MP, 250 nits, LED backlit LCD
ZR2240w	XW475A8#ABA	21.5 inch diagonal	1920x1080, 16:9, 2.1 MP, 250 nits, LED backlit LCD
ZR2440w	XW477A8#ABA	24 inch diagonal	1920x1200, 16:10, 2.3 MP, 350 nits, LED backlit LCD
ZR2740w	XW476A8#ABA	27 inch diagonal	2560x1440, 16:9, 3.7 MP, 380 nits, 1.07 ⁴ billion colors, LED backlit LCD
ZR30w	VM617A8#ABA	30 inch diagonal	2560x1600, 16:10, 4.1 MP, 370nits, 1.07 billion colors, CCFL LCD
LP2480zx DreamColor	GV546A8#ABA	24 inch diagonal	1920x1200, 16:10, 2.3 MP, 250 nits, 1.07 billion colors, RGB LED LCD

¹ As compared to mainstream monitors with TN (Twisted Nematic) panels when viewed at 60 degrees.

² All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

³ Eight-way comfort adjust stand provides tilt forward/back, pivot portrait/landscape, swivel left/right, and height up/down adjustability with a telescoping column. Thirty inch model has six-way stand (no pivot).

⁴ For the ZR2740, up to 1.07 billion colors through A-FRC technology.

HP recommends Windows® 7.

HP Mobile Workstations

Do it all on the go.



HP EliteBook 8470w Mobile Workstation
Workstation power. Notebook mobility.



HP EliteBook 8770w Mobile Workstation
Power to perform



HP EliteBook 8570w Mobile Workstation
Portable powerhouse

Look for these key mobility accessories to complete your solution:

Part number	Description
H2P64UT#ABA	HP 4 GB DDR3 1600 PC3-10600 SODIMM
H2P65UT#ABA	HP 8 GB' DDR3 1600 PC3-10600 SODIMM
BP849UT	HP Business Nylon Backpack (fits up to 17.3")
A7E32AA#ABA	HP 90W Dock Station for 8460w and 8470w
A7E38AA#ABA	HP 230W Advanced Docking Station for 8570w and 8770w
AW664AA#ABA	HP Adjustable Dual Display Stand
QK640UT	HP BB09 Ultra Extended Life Notebook Battery for all Mobile workstations
BT796UT#ABA	HP 90W Slim AC Adapter for mobile workstations

¹ 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.

For more information about HP Workstation Accessories, contact your local HP reseller, visit hp.com/go/wsaccessories, or call 1-800-888-9909.

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