

Data sheet

HP Z230 Tower Workstation

QEB2016-A



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Rock solid reliability, affordably priced.

With the HP Z230 Tower Workstation, you will gain peace of mind from our extreme test and validation processes designed for always-on environments. You can control your environmental impact better than ever¹ while lowering your total cost of ownership with a 92% efficient power supply. Work smarter with software tools designed to deliver better, smarter performance—the HP Z230 Tower Workstation has earned a wide range of ISV certifications.

Totally immersive. Perfectly productive.

The HP Z230 Tower Workstation features complete computing power in a new compact design. Don't let its compact design fool you, it is remarkably expandable to ensure you'll always have all the computing power you need. It is designed to grow along with your business so that you can scale and expand by adding more storage and connectivity when you need it.

Optimize this workstation for peak performance with HP Performance Advisor that easily configures your system with the best settings designed for specific applications.²

The HP Z230 has power to spare—and share.

Enjoy the latest in performance and energy efficiency from Intel's next generation processor architecture. The latest Intel® Core™ i5 processor family³ and rich graphics are designed to keep up with your workload. Keep your work front-and-center with support for up to six monitors^{4,5} and easily connect your peripherals and devices using the four PCIe slots,⁶ one PCI input/output slot, ten external USB ports and the fast charging USB port. With HP RGS you can take your graphics intensive workstation applications wherever you go and collaborate with colleagues around the office or around the world, in real time.



Specifications

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D1P34AV

Operating System⁷	Windows 10 Enterprise 64-bit Preloaded 64-bit SDC 5.x with Office Suite (Default)
Processor^{3,8}	Intel® Core™ i5-4690 3.5/3.9 GHZ Turbo, 6 MB cache 1600MHz RAM, Intel® HD 4600 Graphics, 4 Cores/4 Threads
Memory^{9,10}	8 GB (2x4 GB) DDR3-1600 non-ECC Unbuffered RAM
Storage¹¹	1TB 7200 RPM 6Gb/s SATA with 32 MB cache
Graphics	Integrated Intel® HD 4600 graphics with 20 Graphics Execution Units. Support for Microsoft DirectX 11, OpenGL 4.0 and OpenCL 1.2; 2 DisplayPort and 1 DVI-I Single Link connector. Included HP DisplayPort M to DVI F Dongle.
Power	400W active PFC; Dual voltage (100-240V 50/60 Hz) autosensing
Warranty	4 year next business day on-site with storage media and memory component retention
Energy Efficiency Compliance	EPEAT® Gold registered
Security	Trusted Computing Group certified Trusted Platform Module (TPM) version 1.2 - Infineon SLB9635TT1.2, BIOS protection as identified in NIST SP 800-147, BIOS settings comply.
Removeable Media	HP Internal Slim SATA SuperMulti Optical Drive: DVD+/-R 8X; DVD+/-RW 8X; DVD+/-R DL 8X; CD-R 24X; CD-RW 24X; 4.7 GB single layer 8.5 GB dual layer
Audio	HD Integrated -with Realtek HD ALC221 Audio Front: Headphone and MIC, Rear: Line-in, Line-out, MIC
Communications	Integrated 10/100/1000 Ethernet PHY Connection I217LM. Management capabilities: WOL, PXE 2.1 and AMT 9
I/O Ports and Connectors	Front: 2 USB 3.0, 1 USB 2.0, 1 USB 2.0 Charging Data Port, 1 Headphone, and 1 Microphone; Internal: 1 USB 3.0 and 3 USB 2.0 ports available as 2 separate 2x10 (3.0 x1, 2.0 x1) and 2x5 (2.0 x2) header: supports one HP Internal USB 2.0 Port Kit and one USB 3.0 Media Card Reader Rear: 1 DVI-I Single Link and 2 DisplayPort (DP 1.2) outputs from Intel® HD P4600 graphics; 2 USB 3.0 ports, 4 USB 2.0 ports, 2 PS/2, RJ-45 (LoM), 1 Audio Line-in, and 1 Audio Line-out, Microphone.
Dimensions (H x W x D)	15.7 x 6.7 x 17.4 in
Weight	Typical: 20.94 lbs, Max: 26.01 lbs
Keyboard and Mouse	HP USB 104-key enhanced keyboard with integrated FIPS 201-1 CAC reader; HP USB Optical Mouse

Options	Part Number	Description
	N2G68AV#ABA	Windows 7 Enterprise 64-bit (available through downgrade rights from Windows 10 Enterprise 64-bit) ¹² 64-bit SDC 3.x with Office suite
	N2G71AV#ABA	OEM Windows 10 Pro 64-bit ⁷ (Non-Network Use Only) - USAF will allow system to be restored through restore partition that resides on hard drive. In the event of a hard drive failure, the USAF will allow restore media to be provided without customer requesting it.
	N2G68AV#ABA / E5X75AV#ABA	OEM Windows 7 Professional 64-bit (available through downgrade rights from Windows 10 Pro 64-bit) ¹³ (Non-Network Use Only)

Options (continued)	Part Number	Description
	D5K40AV / D5K50AV / D5H35AV	OEM Linux® Red Hat® Enterprise Workstation or Desktop version with all device drivers for full functionality (1-yr maintenance support) USB Keyboard included with Red Hat Enterprise Linux®
	D5G55AV	16 GB DDR3-1600 nECC (2x8 GB) Unbuffered RAM
	D5G56AV	32 GB DDR3-1600 nECC (4x8 GB) Unbuffered RAM
	G5L80AV	Intel® Xeon® E3-1241v3 3.5/3.9 GHZ Turbo, 8 MB cache 1600MHz RAM, Intel® HD P4600 Graphics, 4 Cores/4 Threads
	J3G80AV	NVIDIA® Quadro® K620 2 GB with (1) Dual Link DVI-I and (1) DP 1st No cables included Graphics; Dual digital outputs, Direct X 11. Shader Model 5.0, OpenGL 4.4 - DP to DVI-D adapter included in base, supports dual independent monitors.
	D5G68AV	2 TB 7200 RPM 6Gb/s SATA with 64 MB cache
	E2G51AV	Intel® Gigabit Ethernet I210-T1 PCIe NIC 10/100/1000



- 1 After-Market Option
- 2 Requires Windows 7 or Windows 10.
- 3 Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
- 4 Requires both NVIDIA NVS 510 and NVS 310 graphics cards to be installed.
- 5 Optional feature sold separately or as an add on feature.
- 6 PCIe Gen 3 is a new technology; card availability may be limited.
- 7 Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.microsoft.com>.
- 8 Intel® Hyper-Threading - The hyper-threading feature is designed to improve performance of multi-threaded software products; please contact your software provider to determine software compatibility. Not all customers or software applications will benefit from the use of hyperthreading. Go to intel.com/info/hyperthreading for more information, including which processors support HT Technology.
- 9 Each processor supports up to 2 channels of DDR3 memory. To realize full performance at least 1 DIMM must be inserted into each channel.
- 10 Intel® Xeon E3, Intel Core i3 and Intel Pentium processors can support either ECC or non-ECC memory. Intel Core i5 and i7 processors only support non-ECC memory.
- 11 For hard drives, 1 GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36GB (for Windows 10) is reserved for system recovery software.
- 12 This system is preinstalled with Windows 7 Enterprise software and also comes with a license and media for Windows 10 Enterprise software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.
- 13 This system is preinstalled with Windows 7 Professional software and also comes with a license and media for Windows 10 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

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