

HP Z6 G5 A Workstation Desktop PC

Maximized Cores. Astounding Graphics. Unbound Potential



The Z6 G5 A is a powerhouse for virtual production, 3D rendering, AI and machine learning. Its innovative system design, with a next-gen AMD Ryzen™ Threadripper™ PRO CPU,¹ combines an astounding number of cores in a single CPU with multiple GPUs.² Create and render at once on intensive projects.

Create, render, process—all at once

Tear through virtual production or 3D modeling. The system design packs up to 96 cores in a single workstation CPU¹ so there's room for up to three high-end GPUs³ and eight memory channels.⁴ And, do it all with efficient performance per watt.

Expandable. Flexible. Whisper Quiet

Designed to pack all the power and components you need now with room to grow. Get maximum expandability with up to 6 PCIe slots (up to gen 5) and 12 NVMe SSDs.⁵ Conquer intense projects without throttling on a device designed to run quiet and cool.

Comprehensive Security. Trusted Reliability

Get peace of mind with a workstation that's built to endure. The Z6 G5 A undergoes 360K hours of rigorous testing, MIL-STD testing,⁶ and is certified for pro apps. And with HP Wolf Security for Business, it's protected below, in, and above the OS.⁷

Part of the world's most sustainable PC portfolio⁸

At HP, we care about the impact our products have on our people, communities, and the planet. That's why this device contains 40% recycled plastics⁹ and is EPEAT® Gold registered.¹⁰ Take pride knowing that you are helping protect our shared future.



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Operating Systems

Support your unique user needs with a choice of Windows 11 Pro¹¹ or Linux® operating systems.³

AMD Processor

Power the most demanding professional workloads with a next-gen AMD Ryzen™ Threadripper™ PRO CPU, delivering incredible performance for increased productivity and to get more done in less time.¹

Professional Grade Graphics

Tackle virtual production, visual effects, advanced 3D modeling, or AI and machine learning projects with up to 3 NVIDIA RTX™ 6000 Ada or 1 AMD Radeon™ Pro W7900 GPU.¹⁸

Ultra-Fast Memory Configurations

Accelerate your workflow. Power through memory-intensive workloads with up to 1 TB DDR5 memory¹³ at 5200Mhz for fast visual effects, compositing, and rendering performance.

Storage

Flexible storage options include 4 onboard, tool-less M.2 connections and 4 front-accessible, hot-swappable NVMe devices with status information via external LED and email notifications.⁵

World Class Design & Acoustics

Keep quiet, cool, and focused even at peak performance. Smart fan control keeps the system whisper-quiet by tuning fan speeds in real-time using over 20 temperature sensors.

ISV Certified

Work with confidence knowing your AMD-based workstation is certified by leading software vendors to ensure peak performance even on complex projects.

Fast Data Transfer and Network Connectivity

Available with Thunderbolt™ 4 technology,¹⁴ a USB 3.2 SuperSpeed Type-C® 20 Gbps signaling rate port, and/or two 10 GbE network ports for fast data transfer and network connectivity.

HP Anyware software

Access the power of the Z6 G5 A from any device with HP Anyware software,¹⁵ delivering fast responsiveness and image quality, even under varying network connections.

HP Anyware Remote System Controller

When paired with Z by HP desktops IT managers can perform out-of-band management tasks such as pre-boot access, BIOS updates, and re-imaging —from anywhere.¹⁶

Smart Support with HP TechPulse

Get enhanced support and reduce downtime. HP Smart Support¹⁷ provides support agents, secure access to device health insights, and configuration data for faster troubleshooting.

HP Wolf Security for Business

Get a hardware-enforced, always-on defense. From the BIOS to the browser - above, in, and below the OS - these constantly evolving solutions help protect from modern threats.⁷



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Specifications Table

Available Operating Systems	Windows 11 Pro ^{1,2} Ubuntu 22.04 LTS ³ Linux® Ready ³ Red Hat® Enterprise Linux® ³
Processor family	AMD Ryzen™ Threadripper™ PRO processor
Available Processors	AMD Ryzen™ Threadripper™ Pro 7995WX (2.5 GHz base clock, up to 5.1 GHz max boost clock, 384 MB L3 cache, 96 cores, 192 threads) AMD Ryzen™ Threadripper™ Pro 7985WX (3.2 GHz base clock, up to 5.1 GHz max boost clock, 256 MB L3 cache, 64 cores, 128 threads) AMD Ryzen™ Threadripper™ Pro 7975WX (4.0 GHz base clock, up to 5.3 GHz max boost clock, 128 MB L3 cache, 32 cores, 64 threads) AMD Ryzen™ Threadripper™ Pro 7965WX (4.2 GHz base clock, up to 5.3 GHz max boost clock, 128 MB L3 cache, 24 cores, 48 threads) AMD Ryzen™ Threadripper™ Pro 7955WX (4.5 GHz base clock, up to 5.3 GHz max boost clock, 64 MB L3 cache, 16 cores, 32 threads) AMD Ryzen™ Threadripper™ Pro 7945WX (4.7 GHz base clock, up to 5.3 GHz max boost clock, 64 MB L3 cache, 12 cores, 24 threads)
Form factor	Tower
Maximum memory	1 TB DDR5-5600 ECC SDRAM ³⁰ Transfer rates up to 5200 MT/s.
Internal storage	1 TB up to 12 TB 7200 rpm SATA Enterprise HDD ⁵ 512 GB up to 4 TB HP Z Turbo Drive NVMe™ M.2 SSD ⁵ 512 GB up to 4 TB HP Z Turbo Drive PCIe® SSD M.2 ⁵ 512 GB up to 4 TB HP Z Turbo Drive PCIe® SED Opal 2 M.2 SSD ⁵ 512 GB up to 4 TB HP Z Turbo Drive Dual Pro PCIe® SSD ⁵ 512 GB up to 4 TB HP Z Turbo Drive Quad Pro PCIe® SSD ⁵
Optical drive	HP Slim DVD-ROM; HP Slim Blu-ray Writer; HP Slim DVD-Writer ^{6,7}
Available Graphics	Ultra High-End: NVIDIA RTX™ 6000 Ada Generation (48 GB GDDR6 dedicated) NVIDIA RTX™ 5000 Ada Generation (24 GB GDDR6 dedicated) AMD Radeon™ Pro W7900 (48 GB GDDR6 dedicated) High-End: NVIDIA RTX™ A4500 (20 GB GDDR6 dedicated) NVIDIA RTX™ A4000 (16 GB GDDR6 dedicated) NVIDIA RTX™ A2000 (12 GB GDDR6 dedicated) NVIDIA RTX™ 4500 Ada Generation (20 GB GDDR6 dedicated) NVIDIA RTX™ 4000 Ada Generation (16 GB GDDR6 dedicated) ⁴⁰ Mid-Range: NVIDIA® T1000 (8 GB GDDR6 dedicated) Entry: NVIDIA® T400 (4 GB GDDR6 dedicated) AMD Radeon™ RX 6400 (4 GB GDDR6 dedicated)
Audio	Realtek ALC3205-CG
Expansion slots	4 PCIe 5 x16; 2 PCIe 5 x4; 1 PCIe 4 x16; 3 PCIe 4 x4 (Rear bulkhead access can be achieved through all slots, but 2 PCIe 5 x4 and 2 PCIe 4 x4 are internal access only for M.2.)
Memory card device	1 SD card reader (optional)
Ports and connectors	Front (Premium version): 1 USB Type-C® 20Gbps signaling rate; 2 USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo ; Front (Entry version): 4 USB Type-A 5Gbps signaling rate (1 charging); 1 headphone/microphone combo ; Rear: 1 audio-in/out; 6 USB Type-A 5Gbps signaling rate; 1 RJ-45 (1 GbE) ; Optional Ports: 2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4); Flex IO – choose one of the following options: 2 USB Type-A 5Gbps signaling rate, 1 USB Type-C® 10Gbps signaling rate, 1 serial, 1 HP 1 GbE LC fiber NIC, 1 HP 10 GBase-T NIC, 1 HP 1 GbE single-port NIC, 1 HP 2.5 GbE NIC ⁴²



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Keyboard	HP 125 Wired Keyboard; HP USB 320K Keyboard; HP USB Business Slim Wired SmartCard CCID Keyboard ¹⁰
Mouse	HP Wired Desktop 128 Laser Mouse; HP Wired 320M Mouse ¹⁰
Communications	LAN: Intel® Ethernet Network Adapter I225-T1; HP dual-port 10GBase-T NIC; Intel® X550-T2 dual-port 10GbE NIC; NVIDIA® Mellanox ConnectX-6 DX Dual Port 10/25GbE SFP28 NIC; Allied Telesis AT-2911T/2-901 dual-port 1GbE NIC; Allied Telesis AT-2914S/LC PCIe Fiber NIC; HP 1 GbE LC Fiber Flex IO port; HP 10 GBASE-T Flex IO port; HP Flex IO 1 GbE single-port NIC; HP 2.5 GbE Flex IO port; Integrated Realtek 1 GbE LAN; WLAN: Intel® Wi-Fi 6E AX210 (2x2) and Bluetooth® 5.3 wireless card, non-vPro® with external antenna; MediaTek Wi-Fi 6 RZ616 (2x2) and Bluetooth® 5.3 wireless card with internal antenna ^{8,9} ;
Drive Bays	External: Four NVMe™ M.2 SSD; One 9.5 mm ODD; Internal: Two 3.5" HDD; Four PCIe® M.2 SSD
Software ^{18,19,20,31}	HP PC Hardware Diagnostics UEFI HP Performance Advisor HP Support Assistant HP PC Hardware Diagnostics Windows HP Image Assistant HP Manageability Integration Kit HP Anyware HP Services Scan HP Data Science Stack Manager
Security management ^{21,22,23,24,25,26,27,28}	Full volume encryption HP Secure Erase Kensington lock slot Secure authentication TPM 2.0 certified HP BIOSphere HP Sure Run HP Sure Click HP Sure Sense HP Sure Admin HP Platform Certificate HP Sure Start HP Sure Recover Self-Encrypted Drives
Security Software Licenses	HP Wolf Pro Security Edition ²⁹
Management features	HP Driver Packs; HP System Software Manager (download); HP BIOS Configuration Utility (download); HP Smart Support
Power	1450 W internal power supply, up to 90% efficiency, active PFC; 1125 W internal power supply, up to 90% efficiency, active PFC; 775 W internal power supply, up to 90% efficiency, active PFC
Dimensions	6.65 x 18.3 x 17.5 in; 16.9 x 46.5 x 44.5 cm
Weight	Starting at 29.1 lb; Starting at 13.2 kg; (Exact weight depends on configuration.)
Ecolabels	EPEAT® registered configurations available; TCO Certified configurations available ^{11,12}
Energy star certified	ENERGY STAR® certified (configurations available)
Sustainable impact specifications	40% post-consumer recycled plastic; 25% ITE-derived closed loop plastic; Bulk packaging available; Plastic cushion inserts contain 80% recycled content; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; 10% post-consumer recycled plastic; Internal power supply 90% efficiency; Ocean-bound plastic in system and CPU fans ^{13,14,15,16,17}



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Messaging Footnotes

¹ 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. AMD's numbering is not a measurement of clock speed.

² Graphics are sold separately or as an optional feature.

³ Graphics are sold separately or as an optional feature.

⁴ Optional, configurable feature.

⁵ Optional, configurable features. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB is reserved for system recovery software.

⁶ Testing is not intended to demonstrate fitness of U.S. Department of Defense (DoD) contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

⁸ Applies to HP PCs, Workstations and Displays manufactured after January 2019. Based on most Gold and Silver EPEAT® registrations by meeting all required criteria and achieving 50-74% of the optional points for EPEAT® Silver and 75-100% of the optional points for EPEAT® Gold according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

⁷ HP Wolf Security for Business requires Windows 10 Pro or higher, includes various HP security features and is available on HP Pro, Elite and Workstation products. See product details for included security features and OS requirement.

⁹ Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 EPEAT standard.

¹⁰ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

¹¹ 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 is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply, and additional requirements may apply over time for updates. See <http://www.windows.com>.

¹² Graphics are sold separately or as an optional feature. Three NVIDIA RTX™ 6000 Ada GPUs are only configurable on the 1450W power supply (in 200V countries, which does not include USA).

¹³ Optional, configurable feature. 128GB DIMMs available early 2024.

¹⁴ SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4. 20Gbps is available with USB 3.2 SuperSpeed Type-C. Thunderbolt™ 4 not planned to be available until mid-2024.

¹⁵ Network access required. HP Anyware software and licensing are available through a 1- or 3-year subscription. Renewal is required after the subscription term. HP Anyware subscriptions are based on the number of concurrent PCoIP connections used (pay for the number of host connections, not the software) with a minimum order quantity of 5. For a limited time, an HP Anyware Professional subscription also includes access and support for ZCentral Remote Boost and ZCentral Connect and is available for purchase through an HP reseller or contact sales at hp.com/Anyware. ZCentral Remote Boost Sender requires Windows 10 and 11, RHEL/CentOS (7 or 8), or UBUNTU 18.04 or 20.04 LTS operating systems. macOS (10.14 or newer) operating system and ThinPro 7.2 are only supported on the receiver side. ZCentral Connect requires Windows (10 or 11) or Windows Server (2016 or 2019) operating system, Microsoft Active Directory, and Intel Active Management Technology for select features. For system requirements and to install HP Anyware and Anyware Manager, refer to the Admin Guides at: <https://docs.teradici.com/find/product/hp-anyware>.

¹⁶ HP Anyware Remote System Controller is sold separately and requires internet access. Automation of tasks and viewing system information only available with select Z desktop workstations, see datasheet for details. HP Anyware Integrated Remote System Controller not compatible with Z2 Mini platforms and not recommended for non-Z devices. HP service and support not available for non-Z devices. Full suite of hardware alerts available with select Z desktop workstations. See datasheet for details. HP Anyware Remote System Management must be purchased separately and is required for fleet management and viewing of consolidated reports from all devices. Planned to be available 2H of 2023.

¹⁷ HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, or it can be downloaded. For more information about how to enable HP Smart Support or to download, please visit <http://www.hp.com/smart-support>.

¹⁸ Graphics are sold separately or as an optional feature. Three NVIDIA RTX™ 6000 Ada GPUs is compatible with up to a 16C AMD Ryzen™ Threadripper™ PRO 7000 WX-Series CPU and requires 1450W power supply in 220V/230V/240V outlets. AMD Radeon™ Pro W7900 GPU planned to be available 1H 2024.

Technical Specifications Footnotes

¹ Windows 11 Pro can be preinstalled. 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.¹ 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 is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.

² Note: Windows 7 and Windows 8 operating systems are not supported on this product. No Windows 7 or Windows 8 drivers will be provided on <http://www.support.hp.com>.

³ Note: For detailed Linux® OS/hardware support information, see: http://www.hp.com/support/linux_hardware_matrix.

⁵ For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB (for Windows) is reserved for system recovery software.

⁶ Duplication of copyrighted material is strictly prohibited. Actual speeds may vary. Double Layer media compatibility will widely vary with some home DVD players and DVD-ROM drives. No support for DVD RAM.

⁷ With Blu-Ray, 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 Desktop PC.

⁸ Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.

⁹ Wi-Fi 6 is an optional feature that must be configured at the time of purchase. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.

¹⁰ Optional or add-on feature.

¹¹ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

¹² TCO Certified configurations available when ENERGY STAR configurations are selected with a USB Type-C® connector. ENERGY STAR available with a combination of high-performance CPU's, high-performance GPU's and select memory configurations.

¹³ This product is low halogen except for HP Z Turbo Quad Pro PCIe TLC SSD, power cords, cables, and peripherals. Service parts obtained after purchase may not be Low Halogen. CRU QX448 removable storage frames are not low halogen.

¹⁴ Percentage of ocean-bound plastic contained in each component varies by product.

¹⁵ Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.

¹⁶ Outside box and corrugated cushions are 100% sustainably sourced and recyclable 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.

¹⁷ Fiber cushions made from 100% recycled wood fiber and organic materials.

¹⁸ HP Performance Advisor Software - HP Performance Advisor is ready and waiting to help you get the most out of your HP Workstation from day one—and every day after. Learn more or download at: <https://www8.hp.com/us/en/workstations/performance-advisor.html>.

¹⁹ HP Support Assistant requires Windows and Internet access.

²⁰ HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.

²¹ HP Sure Click requires Windows 11 Pro or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.

²² HP Sure Start Gen7 is available on select HP PCs and Workstations. See product specifications for availability.

²³ HP Sure Recover Gen4 is available on select HP PCs and requires an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.

²⁴ HP Sure Sense requires Windows 11 Pro or Enterprise and supports Microsoft Internet Explorer, Google Chrome™, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

²⁵ HP Sure Run Gen5 is available on select HP PCs and requires Windows 10 and higher.

²⁶ HP Sure Admin requires Windows 10 or higher, HP BIOS, HP Manageability Integration Kit from

<http://www.hp.com/go/clientmanagement> and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.

²⁷ HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.

²⁸ HP BIOSphere Gen6 features may vary depending on the platform and configurations.

²⁹ HP Wolf Pro Security Edition (including HP Sure Click Pro and HP Sure Sense Pro) is available preloaded on select SKUs and, depending on the HP product purchased, includes a paid 1-year or 3-year license. The HP Wolf Pro Security Edition software is licensed under the license terms of the HP Wolf Security Software - End-User license Agreement (EULA) that can be found at:

https://support.hp.com/us-en/document/ish_3875769-3873014-16 as that EULA is modified by the following: *7. Term. Unless otherwise terminated earlier pursuant to the terms contained in this EULA, the license for the HP Wolf Pro Security Edition (HP Sure Sense Pro and HP Sure Click Pro) is effective upon activation and will continue for either a twelve (12) month or thirty-six (36) month license term ("Initial Term"). At the end of the Initial Term you may either (a) purchase a renewal license for the HP Wolf Pro Security Edition from HP.com, HP Sales or an HP Channel Partner, or (b) continue using the standard versions of HP Sure Click and HP Sure Sense at no additional cost with no future software updates or HP Support.

³⁰ Some components may not be available until early 2024.

³¹ HP Services Scan is provided with Windows Update on select products and will check entitlement on each hardware device to determine if an HP TechPulse-enabled service has been purchased, and will download applicable software automatically. HP TechPulse is a telemetry and analytics platform that provides critical data around devices and applications. For full system requirements or to disable this feature, please visit <http://www.hpdaas.com/requirements>. Not applicable in China.

⁴⁰ The following components will not be available at product launch. Availability differs by component, with a target availability of early 2024. Components include: NVIDIA RTX 4000 Ada, NVIDIA RTX 4500 Ada.

⁴² Thunderbolt™ 4 card will not be available until spring 2024.

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