

HP Z1 Tower G1i Desktop PC

The most affordable Z desktop workstation



Workstation performance is now within reach with a tower built for designing, editing, and gaming. Go beyond a commercial PC with the Z1 Tower, delivering pro-level, expandable performance certified for pro-apps, with support for both NVIDIA RTX™ and NVIDIA GeForce RTX™³ graphics.

Workstation performance. Impressive expandability.

Effortlessly multitask with up to an Intel® Core™ Ultra 9 CPU¹ and 128GB memory². Choose from NVIDIA GeForce RTX™³, NVIDIA RTX™, or AMD Radeon RX™ GPUs. Easily upgrade memory and storage as work evolves with tool-less access.

Certified for your workflow

Work confidently knowing your Z1 Tower is tested and certified for select professional apps. We've worked closely with software providers on apps like AutoCAD®, SOLIDWORKS® and Siemens NX® for seamless workstation performance across your workflow.⁴

Powers AI-accelerated workflows

Accelerate AI workflows with the Z1 Tower. Iterate and problem solve faster on your local device with up to an NVIDIA GeForce RTX™³ 4070 Super GPU delivering up to 567 AI TOPS. A built-in NPU⁵ efficiently takes on productivity tasks.

Help protect our shared future.

HP cares about the impact our products have on our people, communities, and planet. That's why this device contains 60% recycled plastics⁶, 20% recycled steel⁷, 100% sustainably sourced outer box packaging⁸, and is EPEAT® Gold with Climate+.⁹



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Windows 11 Pro

Support your unique user needs with the Windows 11 Pro operating system.¹⁰

Intel® Core™ Ultra Processors

Unleash power-efficient performance with up to an Intel® Core™ Ultra 9 CPU. This CPU not only unlocks performance for the next era of AI-enhanced software, but the dedicated NPU greatly increases efficiency for productivity tasks.¹

Graphics

Work seamlessly with choice of graphics: NVIDIA GeForce RTX™, NVIDIA RTX™, or AMD Radeon RX™ GPUs.¹¹

Memory

High speed memory for near real-time responsiveness with up to fast data transfer speeds of up to 5600 MT/s and up to 128 GB DDR5 memory.²

Storage

Make storage simple with up to 10TB with 3 M.2 storage slots and RAID for added performance and reliability.¹²

Flexible I/O Modules

Configure to the needs of today with flexibility for the future with up to two flexible I/O ports and nine I/O options.¹³

Fast and efficient Wi-Fi 7

The portability of your PC and the reliability of a fast connection determines where you can work. Get a fast and reliable connection in dense wireless environments with gigabit data rate Wi-Fi 7.^{14,15}

Independent Software Vendor Certifications

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

Protected by HP Wolf Security

HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense. From the BIOS to the browser, above, in, and below the OS, these constantly evolving solutions help protect your PC from modern threats.¹⁶

Network Connectivity

Connect and collaborate quickly with up to 2.5Gb Ethernet interface.¹⁷

Reliability

Rely on a PC that gives its all, all day long. Experience optimized performance for pro-apps and 360K hours of testing — reliability that gives your workstation the power to cool components so it can keep running.

Thermal Management

Innovatively designed with hardware components like smart fan control and new lattice design venting to keep your PC cool and quiet no matter how hard you push it. Have confidence to run your system at max load.



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Specifications Table

Available Operating Systems	Windows 11 Pro ¹ Windows 11 Pro Education ¹ Windows 11 Home – HP recommends Windows 11 Pro for business ¹ Windows 11 Home Single Language – HP recommends Windows 11 Pro for business ¹ FreeDOS
Processor family^{4,5}	Intel® Core™ Ultra 9 processor (Series 2); Intel® Core™ Ultra 7 processor (Series 2); Intel® Core™ Ultra 5 processor (Series 2)
Available Processors^{3,4,5,36}	Intel® Core™ Ultra 9 285 (1.9 GHz E-core base frequency, 2.5 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.4 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads) with Intel® Graphics Intel® Core™ Ultra 7 265 (1.8 GHz E-core base frequency, 2.4 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.2 GHz P-core Max Turbo frequency, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads) with Intel® Graphics Intel® Core™ Ultra 5 245 (3.0 GHz E-core base frequency, 3.5 GHz P-core base frequency, up to 4.5 GHz E-core Max Turbo frequency, up to 5.1 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) with Intel® Graphics Intel® Core™ Ultra 5 235 (2.9 GHz E-core base frequency, 3.4 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 5.0 GHz P-core Max Turbo frequency, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) with Intel® Graphics Intel® Core™ Ultra 5 225 (2.7 GHz E-core base frequency, 3.3 GHz P-core base frequency, up to 4.4 GHz E-core Max Turbo frequency, up to 4.9 GHz P-core Max Turbo frequency, 20 MB L3 cache, 6 P-cores and 4 E-cores, 10 threads) with Intel® Graphics
Chipset	Intel® Q870
Product colour	Black
Form factor	Tower
Maximum memory	128 GB DDR5-5600 MT/s ECC Transfer rates up to 5600 MT/s.
Memory slots	4 DIMM
Internal storage	1 TB up to 2 TB SATA HDD ⁷ 256 GB up to 1 TB PCIe® NVMe™ M.2 SSD ⁷ 256 GB up to 2 TB PCIe® NVMe™ TLC M.2 SSD ⁷ up to 512 GB PCIe® NVMe™ SED Opal 2 TLC M.2 SSD ⁷ up to 256 GB PCIe® NVMe™ OPAL 2 M.2 SSD ⁷
Optical drive	HP 9.5 mm Slim DVD-Writer; HP 9.5 mm Slim DVD-ROM
Available Graphics	Integrated: Intel® UHD Graphics 4Xe Intel® UHD Graphics 3Xe Intel® UHD Graphics 2Xe ³⁵ Discrete: NVIDIA® GeForce RTX™ 3050 (8 GB GDDR6 dedicated) Intel® Arc™ A380 Graphics (6 GB GDDR6 dedicated) AMD Radeon™ RX 6300 Graphics (2 GB GDDR6 dedicated) NVIDIA® GeForce RTX™ 4070 (12 GB GDDR6X dedicated) NVIDIA® GeForce RTX™ 4060 (8 GB GDDR6 dedicated) NVIDIA RTX™ A1000 (8 GB GDDR6 dedicated) NVIDIA RTX™ A400 (4 GB GDDR6 dedicated)
Audio	Realtek ALC3252 codec, universal audio jack with CTIA and OMTP headset support
Expansion slots	1 M.2 2230; 2 PCIe 3 x1; 1 PCIe 5 x16; 1 PCIe 4 x16; 3 M.2 2280 (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage)
Ports and connectors	Front: 2 USB Type-C® 20Gbps signaling rate; 4 USB Type-A 10Gbps signaling rate; 1 headphone/microphone combo ; Rear: 2 USB Type-A 5Gbps signaling rate; 1 HDMI 2.1; 1 RJ-45; 1 audio line-in/line-out; 3 USB 2.0 Type-A; 2 DisplayPort™ 2.1 ; Optional Ports: Add-on port: 1 serial. Flex IO port 1st – choose one of the following options: 1 DisplayPort™ 2.1, 1 HDMI 2.1, 1 VGA, 1 serial, 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate, 1 SuperSpeed USB Type-C® 10Gbps signaling rate (15W output, DisplayPort™ 1.4), 1 Thunderbolt™ 4., 1 Dual SuperSpeed USB Type-C 10Gbps signaling rate port with 15W power out, 1 1Gbps FiberNIC. Flex IO port 2nd -1 Dual Type-A SuperSpeed USB 5Gbps signaling rate port, 1 Serial.



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Keyboard	HP 125 Wired Keyboard; HP 655 Wireless Keyboard and mouse combo; HP USB 320K Keyboard; HP USB Business Slim Wired SmartCard CCID Keyboard; HP 125 Black Wired Keyboard; HP 725 Multi-Device Rechargeable Wireless Keyboard and Mouse combo
Mouse	HP Wired Desktop 128 Laser Mouse; HP Wired 320M Mouse; HP 125 Wired Mouse
Communications	LAN: Integrated Intel® I219-LM GbE; Intel® I226-T1 PCIe® 2.5 GbE; WLAN: Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, vPro®; Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, non-vPro®; Realtek Wi-Fi 6 RTL8852CE 802.11a/b/g/n/ax (2x2) and Bluetooth® 5.3 wireless card;
Drive Bays	External: One slim ODD; Internal: Two 3.5" HDD
Software	Buy Microsoft Office (sold separately); Edge Customization; HP Connection Optimizer ³⁴ ; HP Desktop Support Utilities; HP Documentation; HP Hotkey support; HP UEFI BIOS Certification level 2.7B; HP PC Hardware Diagnostics Windows; HP Privacy Settings; HP Services Scan ³⁰ ; HP Setup Integrated OOBE; HP Smart Support ³¹ ; HP Support Assistant ³² ; HSA Fusion for Commercial; HSA Telemetry for Commercial; myHP ²⁵ ; Poly Lens ³³
Security management	HP Sure Admin ¹⁴ ; HP Sure Click ¹² ; HP Sure Run; HP Sure Sense ¹⁸ ; HP Sure Recover ¹⁷ ; HP Sure Start ¹⁶ ; HP Tamper Lock ²⁷ ; Secured-Core PC Enable
Security Software Licenses	HP Wolf Pro Security Edition ⁵⁶
Management features	HP Client Catalog (download); HP Client Management Script Library (download) ¹¹ ; HP Cloud Recovery ²⁶ ; HP Connect for Microsoft Endpoint Manager ⁹ ; HP Driver Packs (download) ⁶ ; HP Image Assistant (download) ²⁴ ; HP Manageability Integration Kit (download) ¹⁰ ; HP Patch Assistant (download)
Power	280 W internal power adapter, up to 92% efficiency, active PFC; 400 W external power adapter, up to 92% efficiency, active PFC; 550 W internal power adapter, up to 92% efficiency, active PFC
Dimensions	13.3 x 12.1 x 6.1 in; 33.7 x 30.8 x 15.5 cm; (Standard tower orientation.); 11.3 x 15.75 x 19.65 in; 28.7 x 40 x 49.9 cm (Package)
Weight	Starting at 12.15 lb; Starting at 5.51 kg; Starting at 16.9 lb; Starting at 7.67 kg (Package) ; (Exact weight depends on configuration.)
Ecolabels	EPEAT® registered with Climate+
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	Bulk packaging available; Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; 10% ITE-derived closed loop plastic; 80 Plus® Platinum power supplies available; Contains at least 60% post-consumer recycled plastic; Outside box and corrugated cushions are 100% sustainably sourced or recyclable ^{19,20,21,29}



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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. Intel's numbering is not a measurement of clock speed. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

² Memory is an optional feature that must be configured at purchase.

³ NVIDIA® GeForce RTX™ graphics are an add-on feature that must be configured at the time of purchase.

⁴ Third party software sold separately.

⁵ Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

⁶ Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.

⁷ Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.

⁸ HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for personal systems accessories and spare parts is not included.

⁹ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

¹⁰ 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 11 Pro is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>

¹¹ Sold separately or as an optional feature.

¹² For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of disk is reserved for system recovery software.

¹³ Optional features that must be configured at purchase or are sold separately.

¹⁴ Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.

¹⁵ Wi-Fi® supporting gigabit data rate is achievable with Wi-Fi 7 (802.11BE) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.

¹⁶ HP Wolf Security for Business requires Windows 10 or 11 Pro and higher, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPOS products. See product details for included security features.

¹⁷ Internet access required and not included. Optional networking card not included.

Technical Specifications Footnotes

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 11 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.

² Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See <http://intel.com/vpro>.

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, branding and/or naming is not a measurement of higher performance.

⁴ Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Performance varies by use, configuration, and other factors.

⁵ HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.

⁶ Supports dual channel memory.

⁷ Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows 11 24H2 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backward compatibility with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported.

⁸ HP Connect for Microsoft Endpoint Manager is available from the Azure Market Place for HP Pro, Elite, Z and Point-of-Sale PCs managed with Microsoft Endpoint Manager. Subscription to Microsoft Endpoint Manager required and sold separately. Network connection required.

⁹ HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.

¹¹ HP Client Management Script Library <https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>.

¹² HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.

¹³ BIOSphere Gen6 features may vary depending on the platform and configuration.

¹⁴ HP Sure Admin requires Windows 11, 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.

¹⁵ HP Client Security Manager Gen6 requires Windows and is available on the select HP PCs.

¹⁶ HP Sure Start is available on select HP PCs and requires Windows 10 and higher.

¹⁷ HP Sure Recover is available on select HP PCs and requires Windows 10 or Windows 11 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. Network based recovery using Wi-Fi is only available on select PCs.

¹⁸ HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.

¹⁹ Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.

²⁰ Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.

²¹ HP paper and fiber based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for commercial, personal systems accessories, and spare parts is not included.

²² HP Sure Run is available on select HP PCs and requires Windows 10 and higher.

²³ Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit www.epeat.net for more information.

²⁴ HP Image Assistant not preinstalled, however available for download at <https://ftp.ext.hp.com/pub/caps-software/cmit/HPIA.html>.

²⁵ myHP requires Windows OS.

²⁶ HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: <https://support.hp.com/us-en/document/c05115630>.

²⁷ HP Tamper Lock must be enabled by the customer or your administrator.

²⁸ HP Anyware software and licensing are available through a 1- or 3-year subscription. Network access required. 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>.

²⁹ Percentage of ocean-bound plastic contained in each component varies by product. Ocean Bound plastic is expressed as a percentage of the total weight plastic. Ocean Bound plastic is based on the definition set by the UL2809 standard.

³⁰ 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.

³¹ HP Smart Support requires the HP Insights agent to be installed. For more information about how to enable or to download HP Smart Support, please visit <http://www.hp.com/smart-support>.

³² HP Support Assistant is available on Windows. For more information, please visit www.support.hp.com/help/hp-support-assistant.

³³ Poly Lens Desktop requires Windows OS.

³⁴ HP Connection Optimizer requires Windows 10 and Windows 11.

³⁵ UHD content required to view UHD images.

³⁶ Intel vPro® requires Windows 10 Pro 64 bit or higher, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or Wi-Fi 6E WLAN and TPM 2.0. Some functionality requires additional 3rd party software in order to run. Features of vPro® Essentials and Enterprise vary. See <http://intel.com/vpro>.

³⁷ HP Wolf Pro Security Edition is available preloaded on select SKUs, and, depending on the HP product purchased, includes a license with a term length communicated to you at purchase and in your order confirmation email. 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 is effective upon 4 months after the date the HP Product was shipped by HP and will continue for the term communicated to you at purchase and in your order confirmation email ("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. Notwithstanding the foregoing, the license shall expire no later than one year after the fixed term of the subject license ends.

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