HP ZBook Ultra G1a 14 inch Mobile Workstation PC

Transformative AI performance. Redefining workflows.

Unleash groundbreaking performance to take on complex AI workflows. Defy what's possible on the go with a sleek, thin, battery efficient, AI PC mobile workstation. Simultaneously render and visualize graphic-intensive projects. Work with LLMs locally like never before. This is power redefined.

Next level performance to defy what's possible.

Tackle workflows previously not possible on a laptop with an AMD Ryzen™ AI Max PRO processor.[1] With up to 16 desktop-class CPU cores, discrete-like integrated graphics, and game-changing 128GB unified memory,[2] simultaneously 3D model and render.

Ultra-portable to work anywhere.

Take previously desk bound workflows from the office to on-site with the thinnest ZBook ever. Assign up to 96GB RAM[2] exclusively to the GPU to run graphics heavy projects on the go or work locally with LLMs—with ultra long battery life.[3]

Supercharged AI PC mobile workstation.

Hardware AI accelerators deliver power to propel advanced workloads. Offload and run productivity tasks locally on up to 50 TOPS NPU while also tackling new and more demanding AI enhanced professional workflows.[4]

Designed with the planet in mind.

At HP, we care about the impact our products have on our people, communities, and planet. That's why this device is EPEAT® Gold[5] with Climate + and the outer box packaging is 100% sustainably sourced.[6]

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HP Recommends Windows 11 Pro for business with Microsoft Copilot
Work anywhere without compromising on performance with Windows 11 and HP collaboration, security, and connectivity technology. Summarize and rewrite content, get relevant content recommendations, and stay organized with Microsoft Copilot.[7,8]

AMD Ryzen™ AI Max PRO – ultimate performance
Unlock new possibilities with up to an AMD Ryzen™ AI Max+ PRO 395 processor delivering cutting-edge CPU capabilities, unified memory, and powerful ISV-certified graphics to power through demanding AI workflows.[9]

Unified Memory Architecture
Accelerate your workflow with up to 128GB of memory. The unified memory architecture allows you to assign up to 96GB of memory exclusively to the GPU to tackle complex 3D projects with multiple applications running at the same time.[10]

Lightning-fast Storage
Blitz through multiple tasks and ditch external drives with up to 4 TB local NVMe storage.[11]

HP Vaporforce Thermals
Keep cool under any workload with HP Vaporforce Thermals. The vapor chamber vaporizes liquid and efficiently dissipates heat for improved cooling to help protect your workstation from overheating, so you can cut through your heaviest workloads with peak processing power.

HP Smart Sense
HP Smart Sense intelligently optimizes your PC's thermal and power management based on your usage. Select full performance mode when completing demanding tasks to maximize performance.[12]

Eyesafe® Certified Display
The optional OLED touch Eyesafe® certified display* meets TÜV low blue light standards for eye comfort without distorting colors. Eyesafe® displays help improve eye comfort when working for long periods of time.[13]

HP AI Companion
Elevate your everyday tasks with a collection of AI tools and solutions that can increase your productivity and keep you running at your best.[14]

Poly Camera Pro
Look your best on video calls and save some power too. Manage your video controls for internal and external cameras with Poly Camera Pro. Now Auto Frame, Spotlight, Background Blur, and virtual backgrounds save power running on the NPU.[15]

Copilot+ PC
Feel the power of a turbocharged NPU, capable of 50 trillion operations per second (TOPS), and accelerate your productivity and creative workflows with unique Copilot+ PC experiences from HP.[16]

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.[17]

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Specifications Table

Available Operating Systems	Windows 11 Pro[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] Windows 11 Pro (Windows 11 Enterprise or Windows 10 Enterprise available with a Volume Licensing Agreement)[1] FreeDOS[2] Ubuntu 24.04 LTS Red Hat Enterprise Linux 10
Processor family[3,14]	AMD Ryzen™ AI MAX PRO processor
Available Processors[3,4,5,6,9,14]	AMD Ryzen™ AI Max+ 395 (3 GHz base clock, up to 5.1 GHz max boost clock, 64 MB L3 cache, 16 cores, 32 threads) with AMD Radeon™ 8060S Graphics and AMD Ryzen™ AI (50 NPU TOPS) AMD Ryzen™ AI Max 390 (3.2 GHz base clock, up to 5.0 GHz max boost clock, 64 MB L3 cache, 12 cores, 24 threads) with AMD Radeon™ 8050S Graphics and AMD Ryzen™ AI (50 NPU TOPS) AMD Ryzen™ AI Max 385 (3.6 GHz base clock, up to 5.0 GHz max boost clock, 32 MB L3 cache, 8 cores, 16 threads) with AMD Radeon™ 8050S Graphics and AMD Ryzen™ AI (50 NPU TOPS) AMD Ryzen™ AI Max+ PRO 395 (up to 5.1 GHz max boost clock, 64 MB L3 cache, 16 cores, 32 threads) with AMD Radeon™ 8060S Graphics and AMD Ryzen™ AI (50 NPU TOPS) AMD Ryzen™ AI Max PRO 390 (up to 5.0 GHz max boost clock, 64 MB L3 cache, 12 cores, 24 threads) with AMD Radeon™ 8050S Graphics and AMD Ryzen™ AI (50 NPU TOPS) AMD Ryzen™ AI Max PRO 385 (up to 5.0 GHz max boost clock, 32 MB L3 cache, 8 cores, 16 threads) with AMD Radeon™ 8050S Graphics and AMD Ryzen™ AI (50 NPU TOPS) AMD Ryzen™ AI Max PRO 380 (up to 4.9 GHz max boost clock, 16 MB L3 cache, 6 cores, 12 threads) with AMD Radeon™ 8040S Graphics and AMD Ryzen™ AI (50 NPU TOPS)
Neural Processing Unit	AMD Ryzen™ AI
Chipset	AMD integrated APU
Product colour	Meteor silver
Maximum memory	128 GB LPDDR5X-8533 MT/s non-ECC [12] Transfer rates up to 8000 MT/s.
Internal storage	512 GB up to 4 TB PCIe® Gen4 x4 NVMe™ M.2 2280 TLC SSD[7]
Display size (diagonal, metric)	35.6 cm (14")
Display	14" diagonal, WUXGA (1920 x 1200), UWVA, anti-glare, 400 nits, 100% sRGB 14" diagonal, 2.8K (2880 x 1800), OLED, UWVA, touch, 48-120 Hz, BrightView, Low Blue Light, 400 nits, 100% DCI-P3
Available Graphics	Integrated: AMD Radeon™ 8060S Graphics AMD Radeon™ 8050S Graphics AMD Radeon™ 8040S Graphics
Audio	Audio by Poly Studio, 4 integrated stereo speakers (1W/8 ohm per speaker), discrete amplifiers, 2 integrated dual array digital microphones
Ports and connectors	Left side: 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1); 1 HDMI 2.1; 1 headphone/microphone combo; 1 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) ; Right side: 1 USB Type-A 10Gbps signaling rate (charging); 1 security lock slot; 1 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1)[11]

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Keyboard	HP Premium Keyboard – spill resistant, backlit keyboard
Mouse	Microsoft Precision Touchpad with gesture support; Clickpad with multi-touch gesture support, taps enabled as default with image sensor and glass surface
Communications	WLAN: MediaTek Wi-Fi 7 MT7925 (2x2) and Bluetooth® 5.4 wireless card[8]; NFC Mirage WNC XRAV-1
Camera	IR Camera (optional); 5 MP camera[10]
Software	HP UEFI BIOS Certification level 2.7B; HP PC Hardware Diagnostics Windows; HP Privacy Settings; HP Touchpoint Customizer; HP Services Scan[24]; Buy Microsoft Office (sold separately)[25]; Battery Health Manager[35]; HP Support Assistant[28]; HP Connection Optimizer[26]; HPX; HP Hotkey support
Security management	HP Tamper Lock (select models)[27] ; HP TPM Configuration Utility; HP Sure Run Gen4[29]; HP Client Security Manager[30]; HP Sure Recover Gen4 with Embedded Reimaging[34]; Secured-core PC capable; TPM 2.0 embedded security chip; Camera privacy shutter; HP Manageability Integration Kit[31]; HP Sure Sense[32]; HP Sure Start Gen6[33]; Nano Security Lock Slot; HP Image Assistant Gen4.6
Security Software Licenses	HP Wolf Pro Security Edition[56]
Fingerprint reader	Fingerprint reader (select models)
Management features	HP Power Manager[22]; HP Connect for Microsoft Endpoint Manager[23]; HP Manageability Integration Kit; HP Image Assistant
Power	140 W USB Type-C® slim adapter
Battery type	HP XL-Long Life 4 -cell, 74.5 Wh polymer[36]
Battery life	Up to 14 hours and 30 minutes
Battery recharge time	Supports battery HP fast charge: approximately 50% in 30 minutes[37]
Dimensions	31.22 x 21.46 x 1.81 cm; (Dimensions vary by configuration)
Weight	1.57 kg; (Weight varies by configuration and components.)
Ecolabels	EPEAT® Gold with Climate+[13]
Sustainable impact specifications	Bulk packaging available; External power supply 90% efficiency; 60% post-consumer recycled plastic; Low Halogen17; 100% of HP paper-based packaging is from recycled or certified sustainable sources[38,39,40,41]

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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. 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] Battery life will vary depending on the product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See MobileMark18 battery benchmark https://bapco.com/products/mobilemark-2018/ for additional details.

[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. Potential NPU inferencing performance varies by use, configuration, and other factors.

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

[6] 100% outer box packaging made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100% recycled wood fiber and organic material. Any plastic cushions are made from >90% recycled plastic.

[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 11 is automatically updated, which is always 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 .

[8] Microsoft Copilot requires Windows 11. Some features require an NPU. Timing and availability will be dependent on Microsoft and varies by market and device. Requires Microsoft account to log in. Where Copilot is not available, the Copilot key will lead to the Bing search engine. See http://aka.ms/WindowsAIFeatures .

[9] 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. 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.

[10] Memory is an optional feature that must be configured at purchase.

[11] For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30GB (for Windows 10) of system disk is reserved for system recovery software.

[12] HP Smart Sense requires Windows 10 or higher.

[13] Optional feature must be configured at time of purchase.

[14] HP AI Companion is available preloaded on select HP next gen AI PCs or is available for download from the Microsoft store and requires a HP next gen AI PC with a NPU supporting 40-60 TOPS and requires Windows 11. Perform requires account set up within 30 days of PC boot or enrollment through the HP AI Companion app. Some features require customer upload of local data. Five (5) library 100MB limit each, supported files may vary and at launch include pdf, .txt., .docx files.

[15] Requires Windows OS.

[16] On some devices, Copilot+ PC experiences require free updates available starting later this year and continuing into 2025. Timing varies by device and region. See aka.ms/copilotpluspcs .

[17] 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.

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 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] Web-only Support.

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

[4] Max Boost clock frequency performance varies depending on hardware, software and overall system configuration.

[5] AMD Max Burst frequency performance varies depending on hardware, software and overall system configuration.

[6] Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

[7] 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.

[8] 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.

[9] In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com .

[10] HD content required to view HD images.

[11] Thunderbolt™ 4 and USB4™ maximum speed of 40Gbps will be divided between the different data workstreams.

[12] Memory soldered down. Supports dual channel memory.

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

[14] 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. Potential NPU inferencing performance varies by use, configuration, and other factors.

[22] Manage and monitor your battery's performance and condition and customize charging options with the easy-to-use HP Power Manager dashboard.

[23] 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. HP Sure Admin requires Windows 10 or newer, and HP BIOS.

[24] 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.

[25] Microsoft Office sold separately and requires Internet access for activation.

[26] HP Connection Optimizer requires Windows 10.

[27] HP Tamper Lock is an optional feature that must be configured at the factory and requires a supervisor password be established prior to use.

[28] HP Support Assistant - Requires Windows and Internet Access.

[29] HP Sure Run is available on select HP PCs and requires Windows 10 and higher.

[30] HP Client Security Manager Gen7 requires Windows and is available on the select HP Elite and Pro PCs.

[31] HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement .

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

[45] HP Sure Start is available on select HP PCs and requires Windows 10 and higher.

[34] 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.

[35] Depending on the version available for your device and the setting you select, HP Battery Health Manager (BHM) will use a proprietary set of algorithms to optimize battery health during the life of the battery. New Commercial Notebooks come equipped with BHM set to "Let HP Manage My Battery Health" as the default. This setting will reduce charge capacity over time to optimize battery health and mitigate factors that can accelerate battery degradation. As a result of this reduction, battery runtime will decrease over time as available charge capacity is reduced. HP may, at any time, update HP Battery Health Manger to improve available settings, functionality, and performance. Refurbished products may have customized default settings to optimize user experience. For additional information on updating or modifying HP Battery Health Manager settings, please go to HP.COM/SUPPORT/BATTERY .

[36] For new batteries, actual battery Watt-hours (Wh) may differ from the design capacity and may have a full charge capacity that differs by up to 10, which is typical for lithium-ion batteries. Battery capacity naturally decreases over time and with use, depending on several factors such as battery health management settings, shelf life, temperature, environment, loaded apps, features, system configuration, and power settings.

[37] Recharges up to 50% within 30 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. Power adapter minimum of 65 watts required for battery capacities 56Whr or less. Power adapter minimum of 100 watts required for battery capacities greater than 56Whr and less than 83Whr. Power adapter minimum of 120 watts required for battery capacities greater than 83Whr and less than 100Whr. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.

[38] External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.

[39] Percentage of ocean-bound plastic contained in each component varies by product.

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

[41] 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.

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

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