

# HP Z2 Mini G1i Workstation Desktop PC

**Powers large workflows. Fits a tiny space.**



**Get incredible high performance packed into an insanely petite Z2 Mini G1i AI workstation to tackle 3D design, real-time rendering, and basic model development. Fitting on a desk or behind a monitor, conveniently access ports. When your demands change, you have impressive expandability to upgrade.**

## **Impressive Z mini power. Extraordinary expandability.**

Get pro-level performance on a sleek, tiny AI workstation with low-profile NVIDIA RTX graphics and up to an Intel® Core™ Ultra 9 processor<sup>1</sup>, including K-Series. Easily upgrade memory and storage<sup>2</sup> as work evolves with tool-less access

## **Slim design. Fits any space.**

Create your ideal workspace with a versatile, modern design that can be positioned horizontally or vertically. Set it on a desk, mount it behind a monitor or attach it under a desk. Perfectly suited for rack environments, fit 6 units in a 5U rack.<sup>3</sup>

## **Power AI-accelerated workflows.**

Accelerate AI workflows with the Z2 Mini G1i AI workstation. Iterate and problem solve faster locally with up to an NVIDIA RTX™ 4000 SFF Ada Generation GPU that delivers up to 307 AI TOPS. A built-in NPU<sup>4</sup> 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 plastics<sup>5</sup>, 8% recycled steel<sup>6</sup>, 100% sustainably sourced outer box packaging<sup>7</sup>, and is EPEAT® Gold with Climate+.<sup>8</sup>



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## Operating System

Support your unique user needs with a choice of Windows 11 Pro, WSL2 or Linux® operating systems.<sup>9</sup>

## Intel® Core™ Ultra Processors

Unleash power-efficient performance with up to an Intel® Core™ Ultra 9 CPU, including K-Series. This CPU unlocks performance for the next era of AI-enhanced software, and the dedicated NPU greatly increases efficiency for productivity tasks.<sup>1</sup>

## Graphics

Design, real-time ray trace and simulate with up to NVIDIA RTX™ 4000 SFF Ada Generation graphics with PCIe G5 high speed bandwidth.<sup>10</sup>

## Memory

High speed memory for near real-time responsiveness with fast data transfer speeds of up to 6400 MT/s and up to 128 GB DDR5 memory.<sup>2,11</sup>

## Storage

Make storage simple with up to 8TB with 2 M.2 storage slots and RAID for added performance and reliability.<sup>12</sup>

## Flexible I/O Modules

Configure to the needs of today with flexibility for the future with up to one flexible I/O port and 15 I/O options.<sup>13</sup>

## Tool-less Access

Evolve your work. Evolve your rig. With tool-less access to the interior, you can customize your Z to fit your needs.

## Rackable Design

Ideally designed to fit in a rack, you can maximize density with support for 6 Minis in 5U, for a total of 48 HP Minis in a standard 42U rack.<sup>14</sup>

## Independent Software Vendor Certifications

Work with confidence knowing your workstation is certified by leading software vendors to ensure peak performance even on complex projects.<sup>15</sup>

## 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.

## Custom Performance Modes

Take on the toughest workflows with High Performance Mode set as the default and experience up to 34% performance improvement for multi-threaded workflows. Easily change to Quiet Mode with a BIOS setting.<sup>16</sup>

## Power Supply

The 280W PSU supports the high power CPU and GPU rich configurations



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## Specifications Table

Available Operating Systems	Windows 11 Pro <sup>1</sup> Windows 11 Home – HP recommends Windows 11 Pro for business <sup>1</sup> Linux® Ready <sup>3</sup> Ubuntu 24.04 LTS <sup>2</sup>
Processor family <sup>4,5</sup>	Intel® Core™ Ultra 9 processor; Intel® Core™ Ultra 7 processor; Intel® Core™ Ultra 5 processor
Available Processors <sup>4,5,6</sup>	Intel® Core™ Ultra 9 285K with Intel® Graphics (3.2 GHz E-core base frequency, 3.7 GHz P-core base frequency, up to 4.6 GHz E-core Max Turbo frequency, up to 5.5 GHz P-core Max Turbo frequency, 36 MB L3 cache, 8 P-cores and 16 E-cores, 24 threads) Intel® Core™ Ultra 9 285 with Intel® Graphics (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) Intel® Core™ Ultra 7 265K with Intel® Graphics (3.3 GHz E-core base frequency, 3.9 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, 30 MB L3 cache, 8 P-cores and 12 E-cores, 20 threads) Intel® Core™ Ultra 7 265 with Intel® Graphics (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) Intel® Core™ Ultra 5 245K with Intel® Graphics (3.6 GHz E-core base frequency, 4.2 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, 24 MB L3 cache, 6 P-cores and 8 E-cores, 14 threads) Intel® Core™ Ultra 5 245 with Intel® Graphics (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) Intel® Core™ Ultra 5 235 with Intel® Graphics (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) Intel® Core™ Ultra 5 225 with Intel® Graphics (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)
Chipset	Intel® W880
Product colour	Black
Form factor	Mini
Maximum memory	32 GB DDR5-6400 MT/s ECC; 128 GB DDR5-6400 MT/s non-ECC <sup>35</sup> Transfer rates up to 6400 MT/s.
Memory slots	2 SODIMM
Internal storage	512 GB up to 4 TB HP Z Turbo Drive PCIe® NVMe™ M.2 SSD <sup>7</sup> 512 GB up to 4 TB HP Z Turbo Drive PCIe® NVMe™ Opal 2 M.2 SSD <sup>7</sup> 1 TB up to 2 TB HP Z Turbo Drive PCIe® Gen5 NVMe™ M.2 SSD <sup>7</sup> 1 TB up to 2 TB HP Z Turbo Drive PCIe® Gen5 NVMe™ Opal 2 M.2 SSD <sup>7</sup> 512 GB up to 2 TB Citadel PCIe® NVMe™ SSD M.2 <sup>7</sup> 512 GB up to 2 TB PCIe® NVMe™ FIPS 140-2 SED SSD <sup>7</sup> 256 GB up to 1 TB PCIe® NVMe™ Value M.2 SSD <sup>7</sup>
Available Graphics	Integrated: Intel® Graphics Discrete: NVIDIA RTX™ 4000 Ada Generation (16 GB GDDR6 dedicated) NVIDIA RTX™ 2000 Ada Generation (12 GB GDDR6 dedicated) NVIDIA RTX™ A1000 (8 GB GDDR6 dedicated) NVIDIA® A400 ( 4 GB GDDR6 dedicated)
Audio	Realtek ALC3205 codec, universal audio jack with CTIA and OMTP headset support
Expansion slots	1 M.2 2230 for WLAN; 2 M.2 2280 PCIe 5 x4; 1 PCIe® 5 x8 electrical (x16 mechanical, low profile connector)
Ports and connectors	Side: 2 USB Type-C® 20Gbps signaling rate; 1 headphone/microphone combo; 1 USB Type-A 10Gbps signaling rate (1 charging) ; Rear: 3 USB Type-A 10Gbps signaling rate; 2 DisplayPort™ 1.4; 1 RJ-45 ; Optional Ports: Flex IO left side – choose one of the following options: 1 DisplayPort™ 2.1 UHBR20 , 1 HDMI 2.1, 1 VGA, 1 Dual SuperSpeed USB Type-A 5Gbps signaling rate, 1 Dual USB Type-C® 10Gbps signaling rate, 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery, Alt Mode DisplayPort™1.4), 1 GbE LAN, 1 Thunderbolt™ 4 (40Gbps signaling rate), 2.5 GbE LAN, 10GbE LAN (10GBase-T), USB-based Serial port option, 1GbE Fiber LC NIC. Flex IO right side (Optional cards with PCIe bracket) - choose one of the following options: 1 Dual USB Type-A 10Gbps signaling rate, 1 Serial port.



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## Specifications Table

Keyboard	HP USB Business Slim SmartCard CCID Keyboard; HP 655 Wireless Keyboard and mouse combo; HP 455 Programmable Wireless Keyboard; HP USB 320K Keyboard; HP 125 Black Wired Keyboard
Mouse	HP Wired Desktop 128 Laser Mouse; HP Wired 320M Mouse; HP 125 Wired Mouse
Communications	LAN: Integrated Intel® I219-LM PCIe® GbE; WLAN: Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card; Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card, non-vPro® <sup>8,24</sup> ;
Software	HP Support Assistant <sup>34</sup> ; HP UEFI BIOS Certification Level 2.7B; HP PC Hardware Diagnostics Windows; HP Manageability Integration Kit <sup>10</sup> ; HP Notifications; HP Desktop Support Utilities; HP Documentation; myHP <sup>25</sup> ; WPS Office
Security management	HP Secure Erase <sup>11</sup> ; HP Sure Click <sup>12</sup> ; HP BIOSphere Gen6 <sup>13</sup> ; HP Sure Admin <sup>14</sup> ; Hood Sensor Optional Kit; HP Client Security Manager Gen6 <sup>15</sup> ; HP Sure Start <sup>16</sup> ; HP Sure Recover <sup>17</sup> ; HP Sure Sense <sup>18</sup> ; HP Sure Run <sup>22</sup> ; HP Tamper Lock <sup>27</sup>
Security Software Licenses	HP Wolf Pro Security Edition <sup>56</sup>
Management features	HP Client Catalog (download) <sup>30</sup> ; HP Cloud Recovery <sup>26</sup> ; HP Driver Packs <sup>31</sup> ; HP Client Management Script Library (download) <sup>32</sup> ; HP System Software Manager (download); HP BIOS Configuration Utility (download); HP Image Assistant (download) <sup>33</sup>
Power	280 W external power adapter, up to 89% average efficiency, active PFC
Dimensions	21.1 x 21.8 x 6.9 cm; (Standard desktop orientation.); 19.6 x 6.7 x 11.7 in; 49.9 x 16.9 x 29.7 cm (Package)
Weight	Starting at 2.4 kg; Starting at 11.9 lb; Starting at 5.4 kg (Package) ; (Exact weights depend upon configuration (System weight only))
Ecolabels	CECP; TCO Certified configurations available; SEPA; Taiwan Green Mark; Japan PC Green Label; FEMP; EPEAT® Gold with Climate+; Korea MEPS <sup>23,29</sup>
Sustainable impact specifications	Low halogen; Bulk packaging available; 10% ITE-derived closed loop plastic; 25% ocean-bound plastic in system fans; Product Carbon Footprint; Contains at least 65% post-consumer recycled plastic; System has a QR code enabled experience where the user has access to a product portal – beginning December 2025, this is complete with product feature highlights, sustainability information, getting started guides, and direct setup and support options; New Energy Consumption dashboard available to customers providing timely carbon usage including recommended actions users can take to decrease carbon footprint <sup>19,20,21,28</sup>



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## Messaging Footnotes

<sup>1</sup> 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.

<sup>2</sup> Memory and storage are optional features that must be configured at purchase.

<sup>3</sup> Rack mounting hardware sold separately.

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> 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.

<sup>7</sup> 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.

<sup>8</sup> Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit [www.epeat.net](http://www.epeat.net) for more information.

<sup>9</sup> 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>.

<sup>10</sup> Sold separately or as an optional feature.

<sup>11</sup> Up to 96 GB memory is available at launch. Up to 128 GB memory is planned to be available in the second half of 2025.

<sup>12</sup> 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.

<sup>13</sup> Optional features that must be configured at purchase or are sold separately.

<sup>14</sup> Rack mounting hardware sold separately.

<sup>15</sup> Third party software sold separately.

<sup>16</sup> Compared to Performance Mode. Performance increase based on Z2 Tower G9 with 64GB of memory, 1TB NVMe, Windows 11 22H2 OS, RTX A4000, i9-13900 CPU using SPECworkstation 3.1.

## Technical Specifications Footnotes

<sup>1</sup> 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>.

<sup>2</sup> Not all features are available in all editions or versions of Ubuntu. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS to take full advantage of Ubuntu functionality. Ubuntu may be automatically updated. ISP fees may apply and additional requirements may apply over time for updates.

<sup>3</sup> For detailed OS/hardware support information for Linux, see: [http://www.hp.com/support/linux\\_hardware\\_matrix](http://www.hp.com/support/linux_hardware_matrix).

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> 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>.

<sup>7</sup> Supports dual channel memory.

<sup>8</sup> 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.

<sup>9</sup> HP Performance Advisor Software - HP Performance Advisor is ready to help you get the most out of your HP Workstation from day one—and every day after. Learn more or download at: <http://hp.com/PerformanceAdvisor>.

<sup>10</sup> HP Manageability Integration Kit can be downloaded from <http://www6.hp.com/us/en/ads/clientmanagement/overview.html>.

<sup>11</sup> HP Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.

<sup>12</sup> HP Sure Click requires Windows 10 Pro or higher or Enterprise. See [https://bit.ly/2PrLT6A\\_SureClick](https://bit.ly/2PrLT6A_SureClick) for complete details.

<sup>13</sup> HP BIOSphere Gen6 features may vary depending on the platform and configuration.

<sup>14</sup> 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.

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

<sup>16</sup> HP Sure Start is available on select HP PCs and requires Windows 10 and higher.

<sup>17</sup> 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.

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

<sup>19</sup> 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.

<sup>20</sup> 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.

<sup>21</sup> 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.

<sup>22</sup> HP Sure Run is available on select HP PCs and requires Windows 10 and higher.

<sup>23</sup> Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit [www.epeat.net](http://www.epeat.net) for more information.

<sup>24</sup> Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. The availability of public wireless access points is limited. Wi-Fi 6E is backward compatible with prior 802.11 specs and available in countries where Wi-Fi 6E is supported.

<sup>25</sup> myHP requires Windows OS.

<sup>26</sup> 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>.

<sup>27</sup> HP Tamper Lock must be enabled by the customer or your administrator.

<sup>28</sup> 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.

<sup>29</sup> 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.

<sup>30</sup> HP Client Catalog not preinstalled, however available for download at <https://www.hp.com/us-en/solutions/client-managementsolutions.html>.

<sup>31</sup> HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.

<sup>32</sup> HP Client Management Script Library <https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>.

<sup>33</sup> HP Image Assistant not preinstalled, however available for download at <https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html>.

<sup>34</sup> HP Support Assistant is available on Windows. For more information, please visit [www.support.hp.com/help/hp-support-assistant](http://www.support.hp.com/help/hp-support-assistant).

<sup>35</sup> 32 GB DDR5-6400 MT/s ECC will be available in August 2025.

<sup>36</sup> 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](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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