HP OmniBook Ultra Laptop Next Gen AI 14-kg0502nax

Ultra-thin, durable[2] performance designed for the AI era.

The HP OmniBook Ultra redefines productivity and creativity in an ultra-sleek and strong aluminum chassis. Military-grade durability[2] meets your everyday hustle. Powered by premium-tier Snapdragon X2 processors[6] and built with a vivid OLED[4] touchscreen[3], a compact vapor chamber, and up to 44 hours of battery[5], it delivers cool, smart, immersive performance for the AI era.



*Product image may differ from actual product

Slim enough to go. Strong enough to go further.

Take high performance anywhere with an ultra-thin, ultra-light design proven tough through 20 MIL-STD tests[2].

Uncompromised efficiency. Powered by you.

Take productivity further with Snapdragon X2 processor[6] delivering up to 85 trillion NPU operations per second[7].

Smarter tools. Sharper you.

Unlock your potential with AI tools like adaptive intelligence, 3K OLED[4], an AI-powered camera[8], and immersive audio.

Sustainability in action

Innovation that respects the planet.

Designed using 80% recycled aluminum[11] and 40% post-consumer recycled plastics[10]. The EPEAT® Gold with Climate+[9] and ENERGY STAR® certified design[12].

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Featuring

Get a fresh perspective
From a rejuvenated Start menu, to new ways to connect to your favorite people, news, games, and content–Windows 11 is the place to think, express, and create in a natural way.[13]

Snapdragon® X2 Elite Processor
Enjoy premium performance and multi-day battery life. Effortlessly multitask, browse, stream, and run next-gen AI apps. Provides for a thin and light PC design built for powerful productivity and immersive entertainment.[14]

Qualcomm® Adreno™ GPU
Experience high performance graphics and rich user experiences while optimizing power consumption. Elevate your mobile UI, games and advanced graphics applications with fast responsiveness and superior mobile connectivity.[15]

2.8K OLED display
2880 x 1800 resolution delivers stunning details and lifelike colors.[16]

Corning® Gorilla® Glass 3
Enhance your device's endurance with Corning® Gorilla® Glass 3, engineered for unparalleled scratch resistance. Helps reduce accidental damage with strong, more durable protection than most displays.

DCI-P3 color space
Get deeper hues and more accurate colors with a wider color gamut than sRGB. DCI-P3 100% closely represents colors on displays as they are in the real world.[4]

Xbox Game Pass Premium 2-month trial
Enjoy 2 months of Xbox Game Pass Premium. Free with your new HP device. Access a library of legendary, high-quality games, get exclusive in-game perks, partner discounts, and earn points annually with Xbox Rewards.[17]

McAfee Premium Individual 30-day trial
Secure your device with award winning antivirus and online protection. Free trial includes secure VPN for privacy and data protection when browsing on public Wi-Fi[18]

Keyboard contains post-consumer recycled materials
We're bringing a more thoughtful design to our keyboards by using post-consumer recycled materials in the design.[19]

Utilizing recycled metals
HP incorporates increasing amounts of recycled, renewable, and non-virgin raw materials. Because little things make a big difference, this product includes a percentage of recycled metals in the design.[11]

Incorporating ocean-bound plastics
HP incorporates increasing amounts of recycled, renewable, and non-virgin raw materials. Built with the environment in mind, this product includes a percentage of ocean-bound plastic in the design.[10]

EPEAT® Gold with Climate+
With EPEAT® Gold with Climate+, you're choosing a movement towards responsibility and climate action.[20]

ENERGY STAR® certified
Save energy and money with ENERGY STAR®, certified by the EPA so you will use less energy and save money where it counts most.[12]

HP Fast Charge
When your laptop is low on power, no one has time to wait hours to recharge. Power down your device and go from 0 to 50% charge in approximately 45 minutes.[21]

Qualcomm™ FastConnect ™ 7800 Wi-Fi 7 High Band Simultaneous
Unleash lightning fast wireless connectivity with Qualcomm Wi-Fi 7 chips & technology, delivering next generation speeds and seamless connectivity for a superior internet experience.[22]

Camera Shutter
No more unsightly tape and tacky gum to hide your private moments. Ensure your privacy and security with a visible, physical shutter that turns off your PC's camera when not in use.

512 GB PCIe® Gen5 NVMe™ M.2 SSD
Experience next-gen speed with PCIe Gen5, up to 2x faster than PCIe Gen4. Fast load times, smooth data transfers, and dependable performance for work, play, and everything in between.[23]

Poly Studio Audio
HP + Poly together will continuously accelerate innovation across our hybrid solutions, including AI-generated technology. With pitch perfect audio, you'll get the best experience to collaborate anywhere with audio tuned by Poly Studio.

USB Type-C® + Display + 40Gbps signaling rate
Power your device or connect an external display with a blazing 40Gbps signaling data rate from one impressive USB-C® port. And it's reversible, so you never have to worry about plugging in upside down.[24]

LPDDR5X RAM
Experience speedy and responsive performance with the power efficient LPDDR5X memory. Designed to support higher data rates with less latency, plus faster file transfers and application load.

Recommended accessories and services (not included)



HP 510 Ultra-Fast Rechargeable Wireless Mouse
9C2F6AA



HP 65W GaN Wall Charger
C90MRAA



HP Modern 14-inch Laptop Briefcase
CJ8D1AA

3-year pickup and return
UM963E

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Specifications





Performance

Operating system
Windows 11 Home
Processor
Snapdragon® X2 Plus X2P-64-100 (up to 4.04 GHz, 10 cores)[6,7]
Processor family: Snapdragon® X2 Plus processor
Neural Processing Unit (NPU): Qualcomm® Hexagon™ NPU (80 NPU TOPS)
Chipset
Qualcomm® integrated SoC
Memory
16 GB LPDDR5x-9523 MT/s (onboard)
Transfer rates up to 9523 MT/s.
Storage
512 GB PCIe® Gen5 NVMe™ M.2 SSD
512 GB PCIe® Gen5 NVMe™ M.2 SSD
100 GB Dropbox storage for 3 months[1]
Graphics
Integrated: Qualcomm® Adreno™ GPU;
Audio
Quad speakers; HP Audio Boost; Poly Studio
Display
35.6 cm (14") diagonal, 2K (1920 x 1200), OLED, multitouch-enabled, 0.2 ms response time, UWVA, edge-to-edge glass, micro-edge, Corning® Gorilla® Glass 3, Low Blue Light, 300 nits, 100% DCI-P3[17]
Screen-to-body ratio
91%[18]
Power
65 W AC power adapter (recommended, sold separately);
Battery type
4-cell, 70 Wh Li-ion polymer[23]
Battery and Power
Supports battery fast charge: approximately 50% in 45 minutes[5]

Connectivity

Wireless connectivity
Qualcomm® FastConnect™ 7800 Wi-Fi 7 (2x2) and Bluetooth® 5.4 wireless card [11,46]
Ports
1 headphone/microphone combo; 3 USB Type-C® 40Gbps signaling rate (USB Power Delivery 3.1, DisplayPort™ 1.4, HP Sleep and Charge)[19]
Webcam
5MP IR camera with HDR auto switch, temporal noise reduction and integrated dual array digital microphones

Sustainability

Ecolabels
EPEAT® Gold with Climate+[27]
Energy star certified
ENERGY STAR® certified
Sustainable impact specifications
Ocean-bound plastic in speaker enclosure(s) and bezel; Recycled metal in cover, keyboard frame and base; Keyboard keycaps, scissors and keyboard plate contain post-consumer recycled materials[39,40,41]

Design

Product color
Stone blue aluminum
Sandblasted finish

Software

HP apps
HP Support Assistant; HP Connection Optimizer; OMEN Gaming Hub
Software
1 month trial for new Microsoft 365 customers[24]
Service & support
McAfee Online Protection 30-day trial; 1-month Adobe free trial offer; Xbox Game Pass Premium 2-month trial [2,25]

Additional information

Part Number
P/N: D8WA4EA #ABU
UPC/EAN code: 821844531358
Weight
1.27 kg;
Packed: 2.24 kg
Dimensions
31.11 x 21.56 x 1.07 cm;
Packed: 6.3 x 45.8 x 28 cm
Manufacturer Warranty
1 year (1/1/0) limited warranty includes 1 year of parts and labor. No on-site repair. Terms and conditions vary by country. Certain restrictions and exclusions apply.
Keyboard
Full-size, backlit, darker stone blue opaque keyboard
Haptic touchpad
Security management
Mic mute key; Camera privacy shutter; Trusted Platform Module (Firmware TPM) support
Sensors
Accelerometer; Gyroscope; IR thermal sensor

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Footnotes

Messaging Footnotes

[1] Weight and height vary by configuration.
[2] 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.
[3] Display measured diagonally.
[4] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[5] Up to 44.45 hours of local video playback requires unit configured with Snapdragon® X2 Plus 10-core (XG2-0104), 16GB RAM, 70Whr battery, 2K OLED touch display. Battery life tested by HP using continuous FHD video playback, 1080p (1920x1080) resolution, 200 nits brightness, system audio level as image default, player audio level at 100%, played full-screen from local storage, headphone attached or through speaker (if no audio jack port), wireless on but not connected. Actual battery life will vary depending on configuration and maximum capacity will naturally decrease with time and usage.
[6] Multi-core 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. Qualcomm's numbering is not a measurement of clock speed.
[7] 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, software and other factors.
[8] Camera resolution refers to the image sensor active pixels. The actual image capture pixels and aspect ratio depend on the app selected.
[9] Based on U.S. EPEAT® registration according to IEEE 1680.1-2018 EPEAT. EPEAT tier levels may vary by country. See www.epeat.net for registration status and tier levels by country.
[10] Percentage of ocean-bound plastic contained in each component varies by product.
[11] Laptops manufactured with recycled metal material in product cover. Percentage of recycled metal varies by product.
[12] ENERGY STAR and the ENERGY STAR logo are registered trademarks of the U.S. Environmental Protection Agency.
[13] 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.
[14] Multi-core 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. Qualcomm's numbering is not a measurement of clock speed. Based on up to 30+ hours of battery life tested by HP using continuous FHD video playback, 1080p (1920x1080) resolution, 200 nits brightness, system audio level as image default, player audio level at 100%, played full-screen from local storage, headphone attached or through speaker (if no audio jack port), wireless on but not connected. Actual battery life will vary depending on configuration and maximum capacity will naturally decrease with time and usage.
[15] Multi-core 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. Qualcomm's numbering is not a measurement of clock speed. 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 10S 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. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
[16] Display measured diagonally
[17] Subscription continues automatically at regular monthly price unless cancelled. Subject to https://www.xbox.com/legal/subscription-terms. Benefits vary by Xbox Game Pass plan. Game library varies over time, by region, device, and Xbox Game Pass plan. xbox.com/gamepass. In-game benefits vary by game, region, and over time. Game must be installed to access in-game benefits. For a list of cloud and non-cloud markets and supported regions, visit: xbox.com/regions. Terms apply, see xbox.com/gamepass for more. Excludes HP Chromebooks.
[18] Internet access required and not included. McAfee is pre-installed on your PC and an account is required for activation. Subscription renewal required after trial period. VPN feature is not available in India, China, Syria or North Korea. McAfee is not compatible with Windows 11 in S mode. You'll need to permanently switch out of S mode. There's no charge to switch out of S mode, but you won't be able to turn it back on.
[19] Keyboard components contain post-consumer recycled materials. Percentage of post consumer recycled contained in each component varies by product.
[20] EPEAT® Gold with Climate+ registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.
[21] Recharges your battery up to 50% within 45 minutes when the system is off using "shut down" command, using HP adapter provided with the notebook or recommended power adapter disclosed in specifications (see http://store.hp.com). After charging has reached 50% capacity, charging speed will return to normal speed. Charging time may vary +/- 10% due to System tolerance. Available on select HP products.
[22] 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 future OS. compatible processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible 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.
[23] For storage drives, GB = 1 billion bytes, TB = 1 trillion bytes. Actual formatted capacity is less. Portion of internal storage is reserved for preloaded content.
[24] Actual throughput may vary. USB Type-C® and USB-C® are trademarks of USB Implementers Forum. Display measured diagonally

Technical Specifications Footnotes

[1] 100 GB of free Dropbox storage for 3 months from date of registration. For complete details and terms of use, including cancellation policies, visit the Dropbox website at https://www.dropbox.com/help/space/hp-promotion. Internet service required and not included.
[2] Internet access required and not included. McAfee is pre-installed on your PC and an account is required for activation. Subscription renewal required after trial period. VPN feature is not available in India, China, Syria or North Korea. McAfee is not compatible with Windows 11 in S mode. You'll need to permanently switch out of S mode. There's no charge to switch out of S mode, but you won't be able to turn it back on.
[5] Recharges your battery up to 50% within 45 minutes when the system is off using "shut down" command, using HP adapter provided with the notebook or recommended power adapter disclosed in specifications (see http://store.hp.com). After charging has reached 50% capacity, charging speed will return to normal speed. Charging time may vary +/-10% due to System tolerance. Available on select HP products.
[6] Multi-core 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. Qualcomm's numbering is not a measurement of clock speed.
[7] 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, software and other factors.
[12] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires Windows 11 2024, select Intel® Core™ or Intel® Core™ Ultra processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible 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.
[17] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[18] Percent of active plus nonactive viewing area to active viewing area plus border. Measure with lid vertical to the desk. Calculated to the nearest whole percent may vary +/-0.5%.
[19] For best results with HP Sleep and Charge, use a USB charging protocol standard cable or cable adapter with an external device.
[23] Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors.
[24] Must activate within 180 days of Windows activation.
[25] Offer available worldwide (excluding China and embargoed countries or other countries identified as restricted by applicable law or regulation) to new and existing subscribers who are 18+. Click on the Adobe icon in the start menu to redeem a 1-month free trial membership for select Adobe software. The software is tied to the device and is not transferrable. If you would like to sign up for an auto-renewing subscription, you can provide your payment method at sign-up. By adding a payment method, your subscription will automatically renew at the then current rate on your renewal date until you cancel. If you cancel before the end of the one-month free trial, you won't be charged. You can cancel your subscription anytime via your Adobe Account page or by contacting Customer Support. Please see current prices for Adobe products available in this offer. Offer not available to Education, OEM, or volume licensing customers. Subject to availability where the recipient resides. Additional terms and conditions may apply. VOID WHERE PROHIBITED OR RESTRICTED BY LAW.
[27] Based on U.S. EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.
[37] Weight and system dimensions may fluctuate due to configuration and manufacturing variances.
[39] Percentage of ocean-bound plastic contained in each component varies by product.
[40] Laptops manufactured with recycled metal material in product cover. Percentage of recycled metal varies by product.
[41] Keyboard components contain post-consumer recycled materials. Percentage of post consumer recycled contained in each component varies by product.
[46] Bluetooth® 5.4 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 5.4 will function as Bluetooth® 5.3 or lower.
[50] Copilot in Excel requires AutoSave to be enabled, meaning the file must be saved to OneDrive; it doesn't function with unsaved files. Copilot features in Outlook apply to accounts with @outlook.com, @hotmail.com, @live.com, or @msn.com email addresses and are available in Outlook.com, Outlook built into Windows, Outlook on Mac, and iOS and Android apps. AI features only available to Microsoft 365 Family subscription owner and cannot be shared; usage limits apply. Learn more Learn more Understanding AI credits - Microsoft Support . Microsoft Copilot features in Microsoft 365 are not available in China or Macao SAR.

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April 2026