

OMEN Gaming Laptop 16-wf1004na

Enjoy powerful fun anywhere.

The OMEN by HP 16 inch gaming laptop is ready to go wherever you are. Enjoy desktop-level power with a 14th Gen Intel® Core™ processor¹ and a modern NVIDIA® graphics card, both regulated by enhanced internal cooling. The screen is equally impressive with high resolution, smooth framerates, and anti-glare features.



*Product image may differ from actual product



Desktop levels of power anywhere

The processor, graphics card, and memory to handle the neediest of games wherever you may be.



Laptop cooling excellence

Performance doesn't matter if your laptop sounds like a jet engine, so choose OMEN's enhanced thermal design.



Buttery smooth 16.1" display

Expect immersion with a massive 3-sided bezel edge, high resolution 16.1" display with anti-glare features.

Sustainability in action

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EPEAT® Gold² and ENERGY STAR® certified.

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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.³

Game without compromise. Go beyond performance with Intel Core and Intel Core Ultra Processors

Be everything you want to be, in-game and out with optimized performance and new features. Play harder and work smarter with Intel Core Processors.⁴

Beyond Fast

NVIDIA® GeForce RTX™ 40 Series GPUs are beyond fast. Powered by the NVIDIA Ada Lovelace architecture which delivers a leap in both performance and AI-powered graphics. Experience lifelike virtual worlds with ray tracing and ultra-high FPS gaming.⁵

NVIDIA® G-SYNC™

By synchronizing the refresh rates of your GPU and display, NVIDIA® G-SYNC™ technology delivers gameplay that's sharp, fluid, and stutter-free with minimal input lag.

165Hz Display

Reduce frustrating lag and image ghosting with a 165Hz display.⁶

Eyesafe® Certified Display

Eyesafe® certified displays meet TÜV low blue light requirements and Eyesafe® standards for protecting your eyes from harmful blue light without distorting colors to reduce eyestrain when working for long periods of time.

7ms response time

How fast your display's pixels respond is crucial for a smooth picture. With a 7-millisecond response time, your action-filled content will look crisp and fluid without motion blur.⁶

Flicker-free

Using DC Dimming technology that controls brightness by adjusting direct current rather than cycling the backlight, we can eliminate screen flickering for more comfortable viewing.⁷

16:9 aspect ratio

A 16:9 aspect ratio lets you see all of your game.

100% sRGB

Showcase your creations in all their colors on the 100% sRGB display for maximum color broadness and accuracy.

Ocean-bound plastic

Built with the environment in mind, our laptop design includes sustainable materials like ocean-bound plastic in the speaker enclosure.⁸

Keyboard keycaps contain post-consumer recycled plastic

We're bringing a more sustainable design to our keyboards by using keycaps made with post-consumer recycled plastic.⁹

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 30 minutes.¹⁰

Enjoy a smooth wireless experience with a Wi-Fi 7 (2x2) and Bluetooth® 5.4 combo.

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HP True Vision FHD

Video chat in vibrant clarity with Full HD resolution, even in low light, and make every conversation a face-to-face experience for a better way to stay in touch.¹²

USB Type-A 5Gbps signaling data rate

Plug in your external storage with this USB Type-A port, featuring 5Gbps signaling data rate.¹³

McAfee® LiveSafe™

Free 12-month subscription of McAfee® LiveSafe™ service included. McAfee® LiveSafe™ service enriches your digital life by protecting your data, identity and all your devices so you can connect with confidence.¹⁴

HP Audio Boost

Take your audio experience to the next level with smart amplification technology giving you loud, clear and dynamic sound.

Dual speakers

Pump up the volume to your favorite music, movie or game with dual-stereo speakers.

Dual channel memory

With dual channel technology, two channels work simultaneously to double the communication speed between the memory controller and the RAM increasing system performance.

HP Imagepad with multi-touch gesture

This true multi-touch touchpad supports four finger gestures and lets you scroll, zoom, and navigate with a simple touch.

Recommended accessories and services (not included)



3-year pickup and return
UM963E



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Specifications



Performance

Operating system

Windows 11 Home

Processor

Intel® Core™ i9-14900HX (up to 5.8 GHz with Intel® Turbo Boost Technology, 36 MB L3 cache, 24 cores, 32 threads)^{6,7}

Processor family: Intel® Core™ i9 14th generation processor

Chipset

Intel® HM770

Memory

32 GB DDR5-5600 MHz RAM (2 x 16 GB)

Transfer rates up to 5600 MT/s.

Number of User-accessible Memory Slots: 2

Storage

1 TB PCIe® Gen4 NVMe™ Performance M.2 SSD

25 GB Dropbox storage for 12 months¹

Graphics

Discrete: NVIDIA® GeForce RTX™ 4080 Laptop GPU (12 GB GDDR6 dedicated);

Advanced Optimus

Audio

DTS:X® Ultra; Dual speakers; HP Audio Boost; HyperX

Display

40.9 cm (16.1") diagonal, FHD (1920 x 1080), 165 Hz, 7 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 300 nits, 100% sRGB^{17,21,28}

Screen-to-body ratio

83.17%¹⁸

Power

280 W Smart AC power adapter;

Battery type

6-cell, 83 Wh Li-ion polymer²³

Battery and Power

Up to 5 hours³;

Supports battery fast charge: approximately 50% in 30 minutes⁵

Maximum battery life video playback

Up to 6 hours and 30 minutes¹⁰

Connectivity

Network interface

Integrated 10/100/1000 GbE LAN

Wireless connectivity

Intel® Wi-Fi 7 BE200 (2x2) and Bluetooth® 5.4 wireless card^{12,46}

Modern Standby (Connected); HP Extended Range Wireless LAN

Ports

1 USB Type-A 5Gbps signaling rate; 1 USB Type-A 5Gbps signaling rate (HP Sleep and Charge); 2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 1 HDMI 2.1; 1 RJ-45; 1 AC smart pin; 1 headphone/microphone combo^{19,42}

Webcam

HP True Vision 1080p FHD camera with temporal noise reduction and integrated dual array digital microphones

Sustainability

Sustainable impact specifications

Ocean-bound plastic in speaker enclosure(s) and bezel; Keyboard mechanism made from agriculture waste; Recycled metal in keyboard frame; Keyboard keycaps and scissors contain post-consumer recycled plastic^{39,40,41}

Design

Product color

Shadow black aluminum

Paint finish cover and base, anodized keyboard frame

Software

HP apps

HP Support Assistant; HP Connection Optimizer; OMEN Gaming Hub; myHP

Software

Intel® Unison™;

1 month trial for new Microsoft 365 customers²⁴

Service & support

McAfee Online Protection 30-day trial; 1-month Adobe free trial offer; Xbox Game Pass 1-month free trial^{2,25,43}

Additional information

Part Number

P/N: A2DG2EA #ABU

UPC/EAN code: 198122989577

Weight

2.39 kg;

Packed: 4.28 kg

Dimensions

36.9 x 25.94 x 2.35 cm;

Packed: 6.9 x 55.2 x 34.5 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, per key RGB backlit, shadow black keyboard and 26-Key Rollover Anti-Ghosting Key technology

HP Imagepad

Features

NVIDIA® G-SYNC® support

Security management

Camera privacy shutter; Trusted Platform Module (Firmware TPM) support

Sensors

IR thermal sensor



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Footnotes

Messaging Footnotes

- ¹ Multi-core is designed to improve the performance of certain software products. Not all customers or software applications will necessarily benefit from the 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 higher performance.
- ² 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.
- ³ 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>.
- ⁴ Intel and Core are trademarks of Intel Corporation in the U.S. and other countries.
- ⁵ ©2024 NVIDIA Corporation. NVIDIA, the NVIDIA logo, GeForce, and GeForce RTX are registered trademarks and/or trademarks of NVIDIA Corporation in the United States and other countries. All other trademarks and copyrights are the property of their respective owners.
- ⁶ All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary, either higher or lower.
- ⁷ The flicker-free capability eliminates screen flickering through integrating DC-dimming LED backlights.
- ⁸ Percentage of ocean-bound plastic contained in each component varies by product.
- ⁹ Percentage of post-consumer recycled plastic contained in keycap varies by product.
- ¹⁰ Recharges your battery up to 50% within 30 minutes when the system is off (using "shut down" command). Recommended for use with the HP adapter provided with the notebook, not recommended with a smaller capacity battery charger. 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. See <http://store.hp.com> for a full list of product features.
- ¹¹ Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. Wi-Fi 7 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels. Wi-Fi 7 (802.11ax) is not supported in Belarus where Wi-Fi settings will be optimized to local regulatory requirements (802.11ac).
- ¹² Features may require software or other 3rd party applications to provide the described functionality.
- ¹³ Actual throughput may vary.
- ¹⁴ Internet service required and not included. Subscription required after the 12 month.

Technical Specifications Footnotes

- ¹ 25 GB of free Dropbox storage for 12 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 don't be able to turn it back on.
- ³ MobileMark 25 Battery life will vary depending on various factors including 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 <https://bapco.com/products/mobilemark-25/> for additional details.
- ⁴ Recharges your battery up to 50% within 30 minutes when the system is off (using "shut down" command). Recommended for use with the HP adapter provided with the notebook, not recommended with a smaller capacity battery charger. 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. See <http://store.hp.com> for a full list of product features.
- ⁵ 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. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- ⁷ Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost/> for more information.
- ¹⁰ Battery life tested by HP using continuous FHD video playback, 1080p (1920x1080) resolution, 150 nits brightness, system audio level at 17% 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.
- 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.
- ¹⁹ For best results with HP Sleep and Charge, use a USB charging protocol standard cable or cable adapter with an external device.
- ²¹ TÜV Low Blue Light is the Display Compliance Test Specification quality. See <https://www.certipedia.com/?locale=en#search> for more details.
- 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.
- ²⁸ Eyesafe® Display for Low Blue Light is the Display Compliance Test Specification quality. See <https://eyesafe.com> for more details.
- 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 scissors contain natural, renewable feedstock based on mass balance approach.; Keyboard keycaps contain post-consumer recycled plastic. Percentage of post consumer recycled contained in each component varies by product.
- ⁴² For optimal performance and battery chargeability while gaming and rendering, use the power adapter that ships with the PC. You can use the 100W/20V Type-C adapter or power bank when running light loading tasks. System-off charging is only supported on 20V Type-C adapter or power bank.
- ⁴³ Xbox Game Pass sold separately. Credit card required. Unless you cancel, you will be charged the then-current regular membership rate when the promotional period ends. Terms, exclusions, and streaming limits apply. Xbox Cloud Gaming (Beta): select devices and regions. After term, active membership required to play games and online multiplayer. Game catalog varies over time, region, and by device. DLC sold separately; if a game is removed from catalog or your membership ends, you will need to purchase the game separately to use your DLC. If you're already an Xbox Live Gold and/or Game Pass for Console/PC member, any days remaining in your membership(s) will be converted to Ultimate using a conversion ratio. Future code redemptions also subject to conversion ratio. All conversions to Ultimate are final. Details and system requirements at www.xbox.com/gamepass. Offer valid in all Xbox Game Pass markets excluding Russia. Digital Direct: Your digital content will be delivered directly to your device during set-up; no codes required.
- ⁴⁵ The Flicker-free capability is eliminating screen flickering through integrating DC-dimming LED backlights or LED emissions. OLED panel is functional with DC-DIMMING when above 100nits.
- 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.

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