

OMEN Gaming Laptop 16-wf0097nr



Enjoy powerful fun anywhere.

Bring powerful fun anywhere.



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.



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Featuring

Get a fresh perspective

Windows 11 provides a calm and creative space where you can pursue your passions through a fresh experience. 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.²

Extend beyond performance to let your PC do even more at once

Going beyond just raw processor speed. With 13th Gen Intel® Core™ Processors, Intel advanced its hybrid design and made it even better. A faster performance core means getting dedicated tasks done faster and easier. More efficiency cores mean better multi-tasking. The same great graphics and best in-class connectivity means a fully immersive display and ultra-responsive wired and wireless connections.³

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.⁴

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.

QHD IPS antiglare display

Get lost in the captivating QHD resolution with IPS technology. Coupled with an antiglare screen to reduce light reflection, this display provides a remarkable entertainment experience.⁵

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. Laptops with integrated Eyesafe® displays help reduce eyestrain and improve eye comfort when working for long periods of time.

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.⁶

HP QuickDrop

Wirelessly transfer photos, videos, documents and more between your PC and mobile device.

Enjoy 1-month of high-quality games

Use the Xbox App to play hundreds of high-quality PC games with friends including new day one titles and get an EA Play membership. With games added all the time, you always have something new to play. Xbox Game Pass Ultimate also enables you to play console games on your Windows PC with cloud gaming, and chat with friends across PC, mobile, and Xbox console.⁷

DTS: X® Ultra Technology

By producing authentic, spatially accurate 3D sound through any headset, this technology offers specially tuned audio modes for different game types to provide immersion for the best entertainment experience possible.⁸

An exceptionally rich audio experience

With HP Dual Speakers, HP Audio Boost, and custom tuning by the experts at Bang & Olufsen, entertainment comes to life with sound you can feel. Awaken your senses with PC audio perfection.

Ocean-bound plastic

Built with the environment in mind, our laptop design includes sustainable materials like ocean-bound plastic in the speaker enclosure and recycled aluminum.⁹

Wi-Fi 6E

Enjoy faster speeds, improved performance, greater capacity and lower latencies than earlier iterations with Wi-Fi 6E technology.¹⁰

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.¹¹

USB Type-A 5Gbps signaling data rate

Plug in your external storage with this USB Type-A port, featuring 5Gbps signaling data rate.¹²

McAfee® LiveSafe™

Protect your operating system with a free 30-day McAfee® LiveSafe™ subscription.¹³

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.

Four Zone RGB Keyboard

Allows you to backlight 4 independent zones with different RGB keyboard lighting. WASD keys are outlined to highlight key controls. It's all easily controlled through the OMEN Gaming Hub.

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.

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Specifications

Performance

Operating system

Windows 11 Home

Processor family

13th Generation Intel® Core™ i7 processor

Processor

Intel® Core™ i7-13700HX (up to 5.0 GHz with Intel® Turbo Boost Technology, 30 MB L3 cache, 16 cores, 24 threads)^{6,7}

Chipset

Intel® HM770

Memory

16 GB DDR5-4800 MHz RAM (2 x 8 GB)

Number of user-accessible slots

2

Storage

1 TB PCIe® Gen4 NVMe™ TLC M.2 SSD ²¹

Graphics

Integrated: Intel® UHD Graphics ⁸

Discrete: NVIDIA® GeForce RTX™ 4070 Laptop GPU (8 GB GDDR6 dedicated)

Audio

Audio by Bang & Olufsen; DTS:X® Ultra; Dual speakers; HP Audio Boost²⁸

Display

16.1" diagonal, QHD (2560 x 1440), 240 Hz, 3 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 300 nits, 100% sRGB^{17,35}

Flicker free

Yes⁴⁵

Screen-to-body ratio

83.17%¹⁸

Power supply

280 W Smart AC power adapter

Battery type

6-cell, 83 Wh Li-ion polymer ²³

Battery and Power

Up to 4 hours and 45 minutes³

Maximum battery life video playback

Up to 6 hours and 15 minutes¹⁰

Battery recharge time

Supports battery fast charge: approximately 50% in 30 minutes⁵

Connectivity

Network interface

Integrated 10/100/1000 GbE LAN

Wireless connectivity

Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate)^{11,12,13}
Modern Standby (Connected)

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 microphones³⁰

Design

Product color

Shadow black cover and base, shadow black aluminum keyboard frame, black chrome logo
Paint finish cover and base, anodized keyboard frame

Software

HP apps

HP Support Assistant; HP Connection Optimizer; HP BIOS Protection; HP QuickDrop; MyHP; OMEN Gaming Hub ³²

Software

25 GB Dropbox storage for 12 months¹; 1 month trial for new Microsoft 365 customers²⁴; McAfee LiveSafe™²

Additional information

Part Number

P/N: 7L981UA

UPC/EAN code: 197192649824

Energy efficiency compliance

ENERGY STAR® certified; EPEAT® Silver registered ²⁷

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}

Weight

Unpackaged: Starting at 5.19 lb

Packaged: 9.44 lb

Dimensions (Width x Depth x Height)

Unpackaged: 14.53 x 10.21 x 0.93 in

Packaged: 2.71 x 21.73 x 13.58 in

Manufacturer Warranty

1-year limited hardware warranty. Additional information available at www.support.hp.com; 1-year limited technical support for software and initial setup (from date of purchase)¹⁴

Input devices

Full-size, 4-zone 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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Key Selling Points 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.

Feature Messaging Footnotes

² 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>.

³ 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 is not a measurement of higher performance.

⁴ ©2023 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.

⁵ Quad high-definition (QHD) content is required to view QHD images.

⁶ The flicker-free capability eliminates screen flickering through integrating DC-dimming LED backlights.

⁷ 1 month trial offer for \$1.00 - Promotional offers may be for new members only and/or not be valid for all members and are only available for a limited time. Offers not valid in Russia and Turkey; other geographic restrictions may apply. Credit card and Xbox account required. After promotional period, subscription automatically continues at the then-current regular price (subject to change), unless cancelled, plus applicable taxes. To stop being charged, cancel your subscription or turn off recurring billing in your Microsoft account (account.microsoft.com/services) or on your Xbox console, before the next billing date. For more details, see <https://support.xbox.com/help/subscriptions-billing/manage-subscriptions/cancel-recurring-billing-or-subscription>. Purchase of Xbox Game Pass Ultimate automatically upgrades your existing Xbox Live Gold, Xbox Game Pass (PC or Console), and/or EA Play membership(s) to Xbox Game Pass Ultimate at a conversion ratio each based on days remaining. Learn how this works at www.xbox.com/gamepass. See Microsoft <https://www.xbox.com/en-US/legal/subscription-terms> for more details.

⁸ Listening to personal stereo equipment at full volume for long periods can damage the user's hearing. To reduce the risk of hearing damage, lower the volume and amount of time listening at full volume.

⁹ Percentage of ocean-bound plastic contained in each component varies by product. Laptops manufactured with recycled aluminum material in product cover. Percent of recycled aluminum varies by product.

¹⁰ Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6E (802.11ax) is backwards compatible with prior 802.11 specs. Wi-Fi 6E is part of Wi-Fi Certified. Only available in countries where Wi-Fi 6E (Tri-band - 2.4Ghz/5Ghz/6Ghz) is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately. The specifications for Wi-Fi 6E are draft and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other Wi-Fi 6E devices.

¹¹ Features may require software or other 3rd party applications to provide the described functionality.

¹² Actual throughput may vary.

¹³ Internet service required and not included. Subscription required after 30 days.

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 Free 30 day subscription of McAfee LiveSafe service included. Internet access required and not included. Subscription required after expiration.

³ Windows MobileMark 18 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-2018/> for additional details.

⁵ 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.

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. 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.

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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 6 is backwards compatible with prior 802.11 specs. Only available in countries where Wi-Fi 6 is supported.

¹³ Bluetooth® is a trademark owned by its proprietor and used by HP Inc. under license; Bluetooth® 5.3 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 5.3 will function as Bluetooth® 5.2 or lower.

¹⁴ Wireless access point and internet service required and sold separately. Availability of public wireless access points limited; Call 1.800.474.6836 or support.hp.com for more information on Care Packs available after standard warranty expires. After standard warranty expires, an incident fee may apply.

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 Actual formatted capacity is less. Portion of internal storage is reserved for preloaded content; Based on HP internal testing using CrystalDiskMark benchmarking software. Performance is sequentially read compared to SATA SSD.

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.

²⁷ ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency. EPEAT® Silver registered where applicable. EPEAT registration varies by country. See epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at hp.com/go/options.

²⁸ Listening to personal stereo equipment at full volume for long periods can damage the user's hearing. To reduce the risk of hearing damage, lower the volume and amount of time listening at full volume.

³⁰ Features may require software or other 3rd party applications to provide the described functionality. Internet service required and not included; Camera resolution refers to the image sensor active pixels. The actual image capture pixels depend on the app and/or aspect ratio selected.

³² HP BIOS Protection works with Windows 10 or 11 that ships with your PC; For more information visit hp.com/go/hpsupportassistant. (Link will vary outside of the U.S.) HP Support Assistant is only available on Windows-based PCs. Internet connection required for updating and connecting to HP Support; HP QuickDrop is preinstalled on this PC. Unlock use on secondary devices by downloading the app from iOS or Google Play store and connect to your PC. Limited to sharing to one device at a time. Must be linked to an HP PC. Not applicable to sharing content between two mobile devices.

³⁵ Quad High-definition (QHD) content required to view QHD images.

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 scissiors 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.

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.

