Datasheet

OMEN Gaming Laptop 16-wf0008na

Enjoy powerful fun anywhere.

The OMEN 16 inch gaming laptop is ready to go wherever you are. Enjoy desktop-level power with a 13th Gen Intel® Core™ processor[1] 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.

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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.[2]

Extend beyond performance to let your PC do even more at once
Offering more than just a performance score. 13th Gen Intel® Core™ Processors advance real-world computing and deliver more ultra-efficient multi-tasking.[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 to reduce eyestrain 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
Enjoy 1-month of unlimited access to over 100 high quality PC games. With games added all the time, you'll always have something new to play.[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]

ExpressVPN
Hide your IP address and encrypt your network data so no one can see what you're doing. Reduce the threat of hacking even when browsing on public Wi-Fi.[13]

McAfee® LiveSafe™
Protect your operating system with a free 30-day McAfee® LiveSafe™ subscription.[14]

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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*Product image may differ from actual product

Specifications

Performance

Operating system
Windows 11 Home

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]
Processor family: 13th Generation Intel® Core™ i7 processor

Chipset
Intel® HM770

Memory
32 GB DDR5-4800 MHz RAM (2 x 16 GB)
Transfer rates up to 4800 MT/s.
Number of User-accessible Memory Slots: 2

Storage
1 TB PCIe® Gen4 NVMe™ TLC M.2 SSD
25 GB Dropbox storage for 12 months[1]

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

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

Display
40.9 cm (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[17,21,28]

Screen-to-body ratio
83.17%[18]

Aspect ratio
16:9

Power
280 W Smart AC power adapter;

Battery type
6-cell, 83 Wh Li-ion polymer[23]

Battery and Power
Up to 4 hours and 30 minutes[3];
Supports battery fast charge: approximately 50% in 30 minutes[5]

Maximum battery life video playback
Up to 4 hours and 30 minutes[10]

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]

Modern Standby (Connected); HP Dynamic Range Technology

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

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 QuickDrop; MyHP; OMEN Gaming Hub

Software
ExpressVPN (30 day free trial); LastPass Premium (30 day free trial)[22];
1 month trial for new Microsoft 365 customers[24]

Service & support
McAfee LiveSafe™; Xbox Game Pass 1-month free trial [2,43]

Additional information

Part Number
P/N: 87D84EA #ABU
UPC/EAN code: 197497709001

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
2.44 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.

Included accessories
HyperX Cloud II Core Wireless Gaming Headset

Keyboard
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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Recommended accessories

* Not included.



HP Travel USB-C Multi Port Hub
1C1Y5AA



HP 960 4K Streaming Webcam
695J6AA



HP Creator 16.1-inch Laptop Backpack
6M5S3AA

Warranty services*



3-year pickup and return
UM963E

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] Free 30-day trial, switch to a paid service at the end of the trial period. Each paid subscription grants you one (1) license to use on three (3) different devices at any given time. See www.expressvpn.com for more details.
[14] 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.
[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.
[11] 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.
[12] Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported.
[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] TUV Low Blue Light is the Display Compliance Test Specification quality. See https://www.certipedia.com/?locale=en#search for more details.
[22] Reverting to LastPass basic after 30 days.
[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] 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.
[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.

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