Datasheet

HyperX OMEN 15 inch Gaming Laptop PC 15-ga0406na

Play past ordinary

The HyperX OMEN 15 delivers fast performance that pushes your gaming farther than ever. With NVIDIA® GeForce RTX™ 50 Series GPUs and Intel® Core™ CPUs [2], Unleashed Mode for manual overclocking, and with a single click on OMEN AI, you can maximize your FPS without the hassle.



*Product image may differ from actual product

Performance on your terms

Performance made to keep you playing with NVIDIA® GeForce RTX™ GPUs and the latest Intel® Core™ CPUs [2].

Never slow down

OMEN Tempest Cooling keeps you strong all day with dust-free internals and optimized airflow.

Faster moves for when it matters

React fast in the heat of the game on a bigger screen that pulls you into the action.

Sustainability in action

Your style in RGB Colors

Effortlessly personalize, tune, and optimize your laptop with OMEN Gaming Hub.

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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.[1]

For every gamer, everywhere
Newly improved performance hybrid architecture will push your gaming experience beyond expectations. Intel® Core processors feature performance hybrid architecture that makes it easy to game, stream, and create at the same time[3]

Game Changer
Powered by NVIDIA Blackwell, GeForce RTX™ 50 Series Laptop GPUs bring game-changing AI capabilities to gamers and creators.[4]

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.[5]

3ms response time
How fast your display's pixels respond is crucial for a smooth picture. With a 3-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]

16:10 aspect ratio
A 16:10 aspect ratio lets you see more of your content with less scrolling.

100% sRGB
From creation to entertainment, 100% sRGB color coverage brings vivid colors and lifelike detail to everything you see.[8]

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.[9]

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.[10]

Effortlessly connected
Enjoy a smoother wireless experience with a Wi-Fi 7 and Bluetooth® 6.0 combo.[11]

DisplayPort™
This robust digital video and audio port transmits up to 8K performance or allows you to connect multiple displays together.[12]

DDR5 RAM
Designed to run efficiently and reliably at faster speeds, DDR5 is the latest RAM standard. With higher bandwidth, you get more of a boost in performance.

1TB PCIe® Gen4 NVMe™ M.2 SSD
With high-speed data transfer, the 1 TB PCIe Gen4 NVMe M.2 SSD offers lightning fast speed and efficient storage.[13]

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.[14]

Audio tuned by HyperX
Immerse yourself in the sweet sounds of audio mixed and tuned by HyperX.

Recommended accessories and services (not included)



HyperX Cloud III - Gaming Headset (Black/Red)
727A9AA



HyperX Delta Backpack
8C524AA



HyperX Pulsefire Fuse Wireless Gaming Mouse (Black)
A1KY6AA



3-year pickup and return
UM963E

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Specifications







Performance

Operating system
Windows 11 Home
Processor
Intel® Core™ i7-14650HX (up to 5.2 GHz with Intel® Turbo Boost Technology, 30 MB L3 cache, 16 cores, 24 threads)[6,7]
Processor family: Intel® Core™ i7 14th generation processor
Chipset
Intel® integrated SoC
Memory
16 GB DDR5-5600 MT/s (1 x 16 GB)
Transfer rates up to 5600 MT/s.
Number of User-accessible Memory Slots: 2
Storage
1 TB PCIe® Gen4 NVMe™ M.2 SSD
100 GB Dropbox storage for 3 months[1]
Graphics
Discrete: NVIDIA® GeForce RTX™ 5070 Laptop GPU (8 GB GDDR7 dedicated) ;
Audio
Dual speakers; HP Audio Boost; HyperX; DTS:X Ultra™
Display
38.9 cm (15.3") diagonal, 2.5K (2560 x 1600), up to 180 Hz, 3 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 500 nits, 100% sRGB[17,21,28]
Screen-to-body ratio
91%[18]
Power
280 W AC power adapter;
Battery type
4-cell, 70 Wh Li-ion polymer[23]
Battery and Power
Supports battery fast charge: approximately 50% in 30 minutes[5]

Connectivity

Network interface
Integrated 10/100/1000 GbE LAN
Wireless connectivity
MediaTek Wi-Fi 7 MT7925 (2x2) and Bluetooth® 6.0 wireless card [12,46]
Ports
2 USB Type-A 10Gbps signaling rate; 1 AC smart pin; 1 HDMI-out 2.1; 1 headphone/microphone combo; 1 RJ-45; 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery 3.1, DisplayPort™ 1.4, HP Sleep and Charge)[19,42]
Expansion slots
2 M.2 (SSD)
Webcam
1080p FHD camera with HDR auto switch, temporal noise reduction and integrated dual array digital microphones

Sustainability

Sustainable impact specifications
Keyboard keycaps, scissors and keyboard plate contain post-consumer recycled plastic[41]

Design

Product color
Shadow black
Polished paint finish

Software

HP apps
HP Connection Optimizer; OMEN Gaming Hub
Software
Otter.ai;
1 month trial for new Microsoft 365 customers[24]
Service & support
McAfee Online Protection 30-day trial; Xbox Game Pass Premium 2-month trial [2]

Additional information

Part Number
P/N: E41T6EA #ABU
UPC/EAN code: 885981137781
Weight
Starting at 2.21 kg;
Packed: 3.77 kg
Dimensions
Starting at 34.3 x 25.3 x 2.25 cm (front); Starting at 34.3 x 25.3 x 2.36 cm (rear);
Packed: 6.3 x 56.7 x 33 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, 4-zone RGB backlit, shadow black keyboard with numeric keypad and 26-Key Rollover Anti-Ghosting Key technology
HP Imagepad
Security management
Trusted Platform Module (Firmware TPM) support

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Footnotes

Messaging Footnotes

[2] 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. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost/ for more information.
[1] 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. Intel and Core are trademarks of Intel Corporation in the U.S. and other countries.
[4] ©2025 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] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. Eyesafe® Display for Low Blue Light is the Display Compliance Test Specification quality. See https://eyesafe.com for more details. Display measured diagonally
[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] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[9] 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.
[10] Keyboard components contain post-consumer recycled materials. Percentage of post consumer recycled contained in each component varies by product.
[11] Wi-Fi 7: 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 OS, compatible processor, and separately purchased Wi-Fi 7 router to support backwards compatibility 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. Bluetooth® 6.0 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 6.0 will function as Bluetooth® 5.4 or lower.
[12] 8K content required to view 8K images. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. Display measured diagonally
[13] For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 35GB of system disk is reserved for system recovery software.
[14] 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.

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 30 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. 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.
[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] TUV 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.
[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.
[41] Keyboard components 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.
[46] Bluetooth® 6.0 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 6.0 will function as Bluetooth® 5.4 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.
[51] 1 supports Gen4 SSD, 1 supports Gen5 SSD.
[52] Front height measurement is near the front edge where the chassis bottom cover taper begins. Back height measurement is near the back edge where the chassis bottom cover taper ends, excluding transition area to rubber feet and hinge cap.
[53] 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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