

# OMEN 16.1 inch Gaming Laptop PC 16-ae0100nr



## Start Your Gaming Journey

Stop throttling your gaming potential and give your games the max graphics settings they yearn for with the new Intel® Core™ processor and NVIDIA® graphics.

### Product overview

- **Performance On The Go:** With the firepower of the latest Intel® Core™ processor and NVIDIA® graphics card, you'll no longer have to reluctantly navigate to video settings and select the lowest graphics settings every time you boot up a new game. Live your best uninhibited gaming life with the new OMEN 16.
- **It's How You Use It:** It's not all about what's under the hood...okay, it technically is, fair, but our free optimization software, OMEN Gaming Hub, makes everything under the hood that much better. Experience Dynamic Power and Graphics Switcher, two features that automatically optimize your performance and push your machine beyond its limits, and Voice Enhancer so the calls are crystal clear.
- **Play Your Way:** Alright, quick exercise. Look at the computer you're currently using and ask yourself this question: Does this PC really represent who I am as a gamer? If your answer is no, my perfect PC has a crisp high refresh rate screen with an immersive micro-edge bezel, congratulations! The new OMEN 16 was made just for you.
- **We're In This Together:** Using recycled materials both in our packaging and laptops, in addition to increased power efficacy, we are helping to build a better future for play.

### Key specifications

- **Operating system:** Windows 11 Home<sup>(1)</sup>
- **Processor:** 14th Generation Intel® Core™ i7-14650HX<sup>(2b)</sup>
- **Display:** 16.1-inch diagonal, FHD (1920 x 1080), 144 Hz, IPS, micro-edge, anti-glare<sup>(39)</sup>
- **Memory:** 16 GB DDR5-5600 MHz RAM (2 x 8 GB)
- **Internal storage:** 512 GB PCIe® Gen4 NVMe™ M.2 SSD<sup>(15)(58b)</sup>
- **Graphics:** NVIDIA® GeForce RTX™ 4060 Laptop GPU (8 GB GDDR6 dedicated)<sup>(13)</sup>
- **Sound:** HyperX with dual speakers
- **Battery life:**
  - Up to 5 hours and 15 minutes (mixed usage)<sup>(85a)</sup>
  - Up to 7 hours (video playback)<sup>(75)</sup>
  - Up to 4 hours (wireless streaming)<sup>(80)</sup>
- **Wireless:** Wi-Fi 6E (2x2)<sup>(19d)</sup> and Bluetooth® 5.3 wireless card<sup>(25)(26)</sup> (supporting gigabit data rate)<sup>(7e)</sup>
- **Security:** Camera privacy shutter
- **Camera:** HP True Vision 1080p FHD camera with temporal noise reduction and integrated dual array digital microphones<sup>(89)(89b)</sup>
- **Product weight:** 5.11 lb<sup>(76)</sup>
- **Keyboard:** Full-size, backlit, shadow black keyboard with numeric keypad

### Product features

- **Get a fresh perspective with Windows 11:** 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.<sup>(1)</sup>
- **14th Gen Intel® Core™ processor:** The Intel® Core™ HX-series processor delivers the ultimate immersive experience for intense gaming and creating with extended core technology, enhanced immersive experiences, and accelerated platform innovations.
- **NVIDIA® GeForce RTX™ 4060:** The NVIDIA® GeForce RTX™ 4060 graphics are beyond fast for gamers and creators. Experience lifelike virtual worlds, ultra-high FPS gaming, revolutionary new ways to create, and unprecedented workflow acceleration.
- **144Hz FHD anti-glare display:** Reduce frustrating lag and image ghosting with a display that combines a 144Hz refresh rate and 1080p Full High Definition resolution for smooth, crisp gameplay.<sup>(20)(39)</sup>
- **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.<sup>(61)</sup>
- **HP Fast Charge:** Go from 0 to 50% charge in approximately 30 minutes.<sup>(72)</sup>
- **Effortlessly connected:** Enjoy faster speeds, improved performance, greater capacity and lower latencies than earlier iterations with Wi-Fi 6E and Bluetooth® 5.3 wireless card.<sup>(19d)(25)(26)</sup>

### Additional product features

- **HP True Vision FHD camera:** 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.<sup>(89)</sup>
- **PCIe® NVMe™ SSD storage:** Get up to 15x faster performance than a traditional hard drive.<sup>(58b)</sup>
- **HyperX Audio with dual speakers:** HyperX Audio gives a pristine audio experience that accents the dynamic sounds of gaming and beyond.
- **Backlit keyboard with integrated numeric pad:** Keep going comfortably even in darker environments.
- **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.<sup>(60)</sup>

### Product design

- **Camera Shutter:** Stay secure with a physical camera shutter. Video chat with peace of mind with a privacy camera you can close when not in use.
- **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.
- **Micro-edge display:** See more of your screen with a micro-edge display that maximizes your viewing area.

### Created with the planet in mind

HP is dedicated to driving progress toward a more sustainable future and making responsible choices for the environment and our customers. We are innovating new ways to reduce the amount of materials in our products and packaging—and to use more recycled materials in their design. Together we can make a difference.

- Built with the environment in mind, this laptop is designed using sustainable materials like:
  - Ocean-bound plastic in bezel<sup>(63d)</sup>
  - Keycaps and scissors contain post-consumer recycled plastic<sup>(63f)</sup>
  - HP's outer boxes and fiber cushions used in packaging are 100% sustainably sourced and recyclable.<sup>(63a)</sup>
- ENERGY STAR® certified<sup>(62)</sup>
- EPEAT® Gold with Climate+<sup>(27a)</sup>

### Warranty and support

Our Customer Support Team consistently provides quick, responsive assistance in the U.S., Canada and Latin America.

#### Included with your product:

- **HP's Hardware Limited Warranty:** Full warranty details are included with your product.
- **Technical Support for Software & initial set-up:** Warranty details are included with your product.

#### Support Options:

- **HP Support Assistant - HPSA:** Optimized to enhance your support experience. Help for your PC and HP printers whenever you need it.<sup>(56)</sup>
- **Online Support:** For technical support with this product, visit HP Customer Support <http://support.hp.com>.<sup>(9)</sup>
- **Social Media Support:** To find solutions, ask questions, and share tips, join us on the HP Support Community at [community.hp.com](http://community.hp.com), on Twitter at [twitter.com/HPSupport](https://twitter.com/HPSupport), and Facebook at [facebook.com/HPSupport](https://facebook.com/HPSupport).<sup>(9)</sup>

#### Extend your coverage:

- **SmartFriend, part of HP Care:** Experts are available 24/7 to handle any tech issue, on any device, from any brand. Visit [www.hp.com/go/smartfriend](http://www.hp.com/go/smartfriend) to learn more or call toll-free 1-844-814-1800 to get started.<sup>(95)</sup>
- **Care Packs, part of HP Care:** Extend protection beyond the standard limited warranty. For more info, visit [www.hp.com/go/carepack-services](http://www.hp.com/go/carepack-services) or call toll-free at 1-877-232-8009.<sup>(83)</sup>



Specifications

Operating system	Windows 11 Home <sup>(1)</sup>
Processor	<ul style="list-style-type: none"><li>14th Generation Intel® Core™ i7-14650HX<sup>(2a)</sup></li><li>16-Core</li></ul>
Processor speed	Up to 5.2 GHz with Intel® Turbo Boost Technology <sup>(2g)</sup>
Processor cache	30 MB L3 cache
Memory	16 GB DDR5-5600 MHz RAM (2 x 8 GB)
Accessible memory slots	2
Video graphics	NVIDIA® GeForce RTX™ 4060 Laptop GPU (8 GB GDDR6 dedicated) <sup>(13)</sup>
Internal storage	512 GB PCIe® Gen4 NVMe™ M.2 SSD <sup>(15)(58b)</sup>
Finish and features	<ul style="list-style-type: none"><li>Top cover: meteor silver</li><li>Keyboard deck: meteor silver</li><li>Logo: black chrome</li></ul>
Camera	HP True Vision 1080p FHD camera with temporal noise reduction and integrated dual array digital microphones <sup>(89)(89b)</sup>
Display	16.1-inch diagonal, FHD (1920 x 1080), 144 Hz, IPS, micro-edge, anti-glare, 300 nits, 62.5% sRGB <sup>(49)(39)</sup>
Screen to body ratio	83.4% <sup>(40)</sup>
Network card	Integrated 10/100/1000 GbE LAN <sup>(29)</sup>
Wireless connectivity	Wi-Fi 6E (2x2) <sup>(19c)</sup> and Bluetooth® 5.3 wireless card <sup>(23)(20)</sup> (supporting gigabit data rate) <sup>(74)</sup>
Sound	HyperX with dual speakers
Integrated keyboard	<ul style="list-style-type: none"><li>Full-size, backlit, shadow black keyboard with numeric keypad</li><li>HP Imagepad</li></ul>
External notebook ports	<ul style="list-style-type: none"><li>1 USB Type-C® 5Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge)<sup>(42)</sup> <sup>(48)(50)(64)</sup></li><li>1 USB Type-A 5Gbps signaling rate (HP Sleep and Charge)<sup>(64)</sup></li><li>2 USB Type-A 5Gbps signaling rate</li><li>1 RJ-45</li><li>1 Headphone/microphone combo</li><li>1 AC Smart pin</li><li>1 HDMI 2.1</li></ul>
Dimensions	<ul style="list-style-type: none"><li><b>Unpackaged:</b> 14.53 in (W) x 10.21 in (D) x 0.90 in (front) - 0.94 in (hinge) (H)</li><li><b>Packaged:</b> 23.54 in (L) x 2.72 in (W) x 13.58 in (H)</li></ul>
Weight	<ul style="list-style-type: none"><li><b>Unpackaged:</b> 5.11 lb<sup>(76)</sup></li><li><b>Packaged:</b> 9.02 lb</li></ul>
Security	Camera privacy shutter
Power	<ul style="list-style-type: none"><li>4-cell, 70 Wh Li-ion polymer battery<sup>(21)</sup></li><li>230 W Smart AC power adapter</li></ul>
Battery life	<ul style="list-style-type: none"><li>Up to 5 hours and 15 minutes (mixed usage)<sup>(85a)</sup></li><li>Up to 7 hours (video playback)<sup>(75)</sup></li><li>Up to 4 hours (wireless streaming)<sup>(80)</sup></li></ul>

Learn more at hp.com

<sup>(1)</sup> 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>. <sup>(2a)</sup> 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, Pentium, Intel Core, Celeron, Iris Xe, Intel logo and the Intel Inside logo are trademarks of Intel Corporation in the U.S. and other countries. <sup>(2g)</sup> Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See [intel.com/technology/turboboost](https://www.intel.com/technology/turboboost) for more information. GHz refers to internal clock speed of the processor. Other factors besides clock speed may impact system and application performance. <sup>(74)</sup> 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. <sup>(80)</sup> McAfee is preinstalled 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 and the McAfee logo are trademarks or registered trademarks of McAfee, Inc. in the United States and other countries. <sup>(8)</sup> Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. <sup>(13)</sup> ©2022 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. <sup>(15)</sup> Actual formatted capacity is less. Portion of internal storage is reserved for preloaded content. <sup>(19c)</sup> 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 6GHz is supported. <sup>(20)</sup> All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. <sup>(21)</sup> 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. <sup>(22)</sup> 100GB of free online storage for one year from date of registration. For complete details and terms of use, including cancellation policies, visit the website at [dropbox.com](https://www.dropbox.com). Internet service required and not included. <sup>(23)</sup> HP BIOS Protection works with Windows 11 that ships with your PC. <sup>(25)</sup> 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. <sup>(26)</sup> Bluetooth® is a trademark owned by its proprietor and used by HP Inc. under license. <sup>(27a)</sup> See [www.epet.net](https://www.epet.net) for registration status and tier levels by country. <sup>(29)</sup> Actual speeds may vary. <sup>(39)</sup> Full High Definition (FHD) content is required to view FHD images. <sup>(40)</sup> Percent of active plus nonactive viewing area to active viewing area plus border. Measure with lid vertical to the desk. <sup>(42)</sup> USB Type-C® and USB-C® are trademarks of USB Implementers Forum. <sup>(48)</sup> 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. <sup>(50)</sup> DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. <sup>(53)</sup> Call 1.800.474.6836 or [support.hp.com](https://support.hp.com) for more information on Care Packs available after standard warranty expires. After standard warranty expires, an incident fee may apply. <sup>(54)</sup> For more information visit [hp.com/go/hpsupportassistant](https://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. <sup>(58a)</sup> Based on HP internal testing using CrystalDiskMark benchmarking software. Performance is sequentially faster (read only) compared to traditional 5,400 rpm HDD. <sup>(60)</sup> 1 month trial offer - Promotional offers may be for new members only and/or not be valid for all members and are only available for a limited time. 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](https://account.microsoft.com/services)) or on your Xbox console, before the next billing date. For more details, see [support.xbox.com/help/subscriptions-billing/manage-subscriptions/cancel-recurring-billing-or-subscription](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 [xbox.com/gamepass](https://xbox.com/gamepass). See Microsoft [www.microsoft.com/en-us/legal/privacy/privacy-policy](https://www.microsoft.com/en-us/legal/privacy/privacy-policy) for more details. <sup>(61)</sup> 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. <sup>(62)</sup> ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency. <sup>(63a)</sup> Percentage of ocean-bound plastic contained in each component varies by product. <sup>(63b)</sup> 100% outer box/corrugate cushion packaging made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100% recycled wool fiber and organic material. Excludes plastic bags and plastic foam sheeting. <sup>(63b)</sup> Percentage of post-consumer recycled plastic varies by product. Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard. <sup>(64)</sup> For best results with HP Sleep and Charge, use a USB charging protocol standard cable or cable adapter with an external device. <sup>(72)</sup> 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. <sup>(75)</sup> 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. <sup>(76)</sup> Weight and system dimensions may fluctuate due to configuration and manufacturing variances. <sup>(80)</sup> Battery life tested by HP using continuous Netflix video playback, Microsoft Edge Browser, 200 nits brightness, system audio level as image default, headphone attached or through speaker (if no audio jack port), played full-screen, wireless on. Actual battery life will vary depending on configuration and maximum capacity will naturally decrease with time and usage. <sup>(83)</sup> Service levels and response times for Care Packs may vary depending on your geographic location. Restrictions and limitations apply. Service starts at date of hardware purchase. HP Care Packs are sold separately. For details, visit [hp.com/go/carepack-services](https://hp.com/go/carepack-services). <sup>(85a)</sup> 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 [bapco.com/products/mobilemark-25/](https://www.bapco.com/products/mobilemark-25/) for additional details. <sup>(89)</sup> Features may require software or other 3rd party applications to provide the described functionality. Internet service required and not included. <sup>(89b)</sup> Camera resolution refers to the image sensor active pixels. The actual image capture pixels and aspect ratio depend on the app selected. <sup>(93)</sup> HP SmartFriend will support any major brand of computer and tablet running Microsoft Windows, OSX, iOS, Android, and Chrome OS. 24x7 support is available in English and in the US & Canada (excluding the Province of Quebec) only. Service availability varies by country/region. Internet connection required for remote support. Remote support not available for tablets. Not all service plans cover support for tablets. HP SmartFriend sold separately or as an add-on feature. Actual product may vary from image shown on datasheet. © Copyright 2024 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing shall be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are property of their respective owners.

Warranty and support	<ul style="list-style-type: none"><li>1-year limited hardware warranty. Additional information available at <a href="https://www.support.hp.com">www.support.hp.com</a><sup>(9)</sup></li><li>1-year limited technical support for software and initial setup (from date of purchase)<sup>(53)</sup></li></ul>
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Software and technology

Help and support	<ul style="list-style-type: none"><li><b>HP Support Assistant:</b> Included with your computer, this free self-help tool makes it easier than ever to get help with your HP PC and printers.<sup>(56)</sup></li><li><b>myHP:</b> Customize, optimize, and secure your device with tips and tricks and easy-to-access settings, and receive helpful messages and information to keep things running smoothly.</li></ul>
Security and protection	<ul style="list-style-type: none"><li><b>HP BIOS Protection:</b> Get peace of mind knowing your PC BIOS is protected. HP BIOS Protection automatically checks its health and recovers itself.<sup>(23)</sup></li></ul>
Partner offers	<ul style="list-style-type: none"><li><b>Dropbox cloud storage:</b> Store and synchronize your content online with Dropbox. Get 100GB of storage for one year to access, manage, and share your photos, music, and files from anywhere with Internet access.<sup>(9)(22)</sup></li><li><b>1-month of Xbox Game Pass Ultimate included:</b> Unlimited access to over 100 high-quality PC games for 1-month.<sup>(60)</sup></li><li><b>McAfee 30-day trial:</b> Secure your privacy and data when browsing on public Wi-Fi with VPN, included in your free McAfee 30-day trial.<sup>(8)(9)</sup></li></ul>
System performance	<ul style="list-style-type: none"><li><b>HP Connection Optimizer:</b> Get consistent and reliable Wi-Fi performance with software that automatically switches between the most efficient wireless access points.<sup>(9)</sup></li></ul>
Work and lifestyle	<ul style="list-style-type: none"><li><b>AI Noise Removal:</b> Artificial intelligence technology automatically removes background noise for clearer than ever video chats, audio calls, and recordings.</li><li><b>Otter.ai:</b> Record, transcribe, and summarize your meetings with Otter.ai. With Otter.ai, an AI assistant can record audio, write notes, automatically capture slides, and generate meeting summaries so that you can save time and stay organized.</li><li><b>Intel® Unison™:</b> Unlock your connected world. Intel® Unison™ effortlessly connects your PC and choice of phone for a universal, easy to use experience. Now with UniFeed, Universal Control, and Device Support, Unison™ connects you further.</li></ul>
Gaming and entertainment	<ul style="list-style-type: none"><li><b>DTX: X® Ultra technology:</b> By producing authentic, spatially accurate 3D sound, this technology gives games, movies, and music a level of depth and immersion for the best entertainment experience possible.</li><li><b>OMEN Gaming Hub:</b> Your one place for everything to make your gaming experience better. From software enhancements to hardware control, and live services, OMEN Gaming Hub elevates play in an easy and simple way.</li></ul>

Additional information

Product number	A05XMUA#ABA
Ad embargo date	05/05/2024
UPC Code	198122591848
Country of origin	China
Pallet information	<ul style="list-style-type: none"><li><b>Dimensions:</b> 47.24 in (L) x 39.37 in (W) x 47.24 in (H)</li><li><b>Total weight:</b> 738 lb</li><li><b>Layers:</b> 3</li><li><b>Products per layer:</b> 26</li></ul>

