OMEN MAX 16 inch Gaming Laptop PC 16-ah0043dx

Built to break limits

Throttle less and carry more with the latest Intel® Core™ Ultra processor, next-gen NVIDIA® graphics, and a thermal architecture that can actually keep up with your gameplay.

Product overview

- **Performance you control:** Push your new Intel® Core™ Ultra processor and next-gen NVIDIA® RTX™ graphics farther and longer than ever before with our new Unleashed Mode, which allows you to manually overclock your device. We also have OMEN AI that provides personalized settings improvements so you can maximize your FPS without all the hassle.
- **Put your throttling on ice:** Introducing OMEN Tempest Cooling Pro, a thermal architecture that actually keeps up with your laptop's power potential. A vapor chamber and liquid metal coating on both the CPU and GPU help maintain maximum performance, while our new OMEN Fan Cleaner keeps your internals dust-free without any maintenance on your part.
- **Instant Pair with HyperX:** Free up your ports. Seamlessly connect up to three different compatible HyperX products without the need of a dongle.
- **Light the way you play:** With an RGB per-key lattice-less keyboard and our first ever RGB light bar, this is the most customizable OMEN laptop yet. Whether you want to match your lighting to your key bindings or just want to create a cool vibe, you can personalize it all in Light Studio through OMEN Gaming Hub.

Key specifications

- **Operating system: Windows 11 Home**[1]
- **Processor:** Intel® Core™ Ultra 9 275HX[2b]
- **NPU:** Intel® AI Boost (13 NPU TOPS)[6c]
- **Display:** 16-inch diagonal, WQXGA (2560 x 1600), OLED, 48-240 Hz, 0.2 ms response time, UWVA, edge-to-edge glass, micro-edge, Low Blue Light
- **Memory:** 32 GB DDR5-5600 MT/s (2 x 16 GB)
- **Internal storage:** 2 TB PCIe® Gen4 NVMe™ Performance M.2 SSD[15]
- **Graphics:** NVIDIA® GeForce RTX™ 5080 Laptop GPU[13]
- **Sound:** HyperX with dual speakers; DTS: X® Ultra
- **Battery life:**
  Up to 4 hours and 45 minutes (mixed usage)[85a]
  Up to 8 hours and 30 minutes (video playback)[75]
  Up to 5 hours (wireless streaming)[80]
- **Wireless:** Wi-Fi 7 (2x2)[19d] and Bluetooth® 5.4 wireless card[25a][26]
- **Security:** Camera privacy shutter
- **Camera:** HP True Vision 1080p FHD IR camera with temporal noise reduction and integrated dual array digital microphones[89b][89b]
- **Product weight:** 6.1 lb[76]
- **Keyboard:** Full-size, per key RGB backlit, shadow black keyboard with numeric keypad and NKRO Anti-Ghosting Key technology

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.[1]
- **Microsoft Copilot:** Kickstart your creativity and productivity with Microsoft Copilot. Complements your capabilities and creativity with intelligent assistance and relevant answers. And now with the Copilot key, you can access this AI-powered intelligent assistant with a single press of a button.[41]
- **Desktop-level performance, anywhere:** Level up your PC with advanced performance, enhanced AI, and a CPU designed to defy expectations.
- **NVIDIA® G-SYNC™:** This technology synchronizes GPU and display refresh rates for sharp, stutter-free gameplay.
- **Game changer:** Powered by NVIDIA® Blackwell, GeForce RTX™ 5080 Laptop GPU brings game-changing AI capabilities to gamers and creators.
- **WQXGA resolution display:** Wide Quad Extended Graphics Array is a display resolution of 2560×1600 pixels with a 16:10 aspect ratio.[20]
- **VESA DisplayHDR 400 True Black Certification:** A VESA DisplayHDR True Black certified display with pixel dimming that presents true black color, high contrast, and low blue light that's easier on your eyes.
- **OLED display:** Get richer contrast and enhanced color depth while consuming less power.

Additional product features

- **DCI-P3 color space:** Get deeper hues and more accurate colors with a wider color gamut than sRGB and that more closely represents colors as they are in the real world.
- **Eyesafe® Certified display:** Protects your eyes from harmful blue light without distorting colors to reduce eyestrain when working for long periods of time.
- **LPDDR5x RAM:** Experience speedy and responsive performance with the power efficient LPDDR5X memory. Designed to support higher data rates with less latency, plus faster file transfers and application load.
- **HP Fast Charge:** Go from 0 to 50% charge in approximately 30 minutes.[72]
- **Wi-Fi 7 and Bluetooth® 5.4 wireless card:** Stay connected on the go at warp speed. Quantum leap in wireless performance - all-new levels of increased speed and reduced latency with Wi-Fi 7. [19d][25a][26]
- **HP True Vision FHD IR camera:** Video chat in vibrant clarity with Full HD resolution, even in low light, with the added security of Windows Hello for a safer login experience.[89]
- **PCIe® NVMe™ Performance M.2 SSD:** With high-speed data transfer, the PCIe® Gen4 NVMe™ Performance M.2 SSD offers lightning fast speed and efficient storage.
- **Audio tuned by HyperX:** Immerse yourself in the sweet sounds of audio mixed and tuned by HyperX.
- **HP Audio Boost:** Smart Amp technology reaches the full performance while preserving sound quality.
- **Try PC Game Pass for free:** Play hundreds of high-quality PC games on your new HP device with 3 free months of PC Game Pass – including EA play. With new games being added all the time, there's always something new to play.[60]

Product design

- **New OMEN Cryo Compound:** Our upgraded hybrid material, which is applied to both the CPU and GPU, includes all the heat dissipation benefits of traditional liquid metal with increased viscosity for improved device longevity
- **Camera shutter:** Ensure your privacy with a visible shutter that turns off your PC's camera.
- **88.8% screen to body ratio:** Revolutionize your display and see more of what you love with this slim bezel design. Enjoy an immersive multimedia experience with a maximized viewing area.
- **Per-key RGB keyboard:** RGB per-key LED backlighting customization and N-key rollover anti-ghosting technology to never miss a key.

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[63c]
  · Top cover and base contain recycled metal[63d]
- HP's outer boxes and fiber cushions used in packaging are 100% sustainably sourced and recyclable[63e]

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.[56]
- **Online Support:** For technical support with this product, visit HP Customer Support http://support.hp.com.[9]
- **Social Media Support:** To find solutions, ask questions, and share tips, join us on the HP Support Community at community.hp.com, on Twitter at twitter.com/HPSupport, and Facebook at facebook.com/HPSupport.[9]

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Specifications

Operating system	• Windows 11 Home(1)
Processor	• Intel® Core™ Ultra 9 275HX(2b) • 24-Core • Intel® AI Boost (13 NPU TOPS)(6c)
Processor speed	• Up to 5.4 GHz with Intel® Turbo Boost Technology(2g)
Processor cache	• 36 MB L3 cache
Memory	• 32 GB DDR5-5600 MT/s (2 x 16 GB)
Accessible memory slots	• 2
Video graphics	• NVIDIA® GeForce RTX™ 5080 Laptop GPU (16 GB GDDR7 dedicated)(13)
Internal storage	• 2 TB PCIe® Gen4 NVMe™ Performance M.2 SSD(15)
Finish and features	• Top cover: shadow black metal with a sandblasted finish • Keyboard deck: shadow black • Logo: black chrome • Light bar: RGB
Camera	• HP True Vision 1080p FHD IR camera with temporal noise reduction and integrated dual array digital microphones(89)(89b)
Display	• 16-inch diagonal, WQXGA (2560 x 1600), OLED, 48-240 Hz, 0.2 ms response time, UWVA, edge-to-edge glass, micro-edge, Low Blue Light, SDR 400 nits, HDR 500 nits, 100% DCI-P3(20) • Variable Refresh Rate support • NVIDIA® G-SYNC® support
Screen to body ratio	• 88.8%(40)
Network card	• Integrated 10/100/1000/2500 GbE LAN(29)
Wireless	• Wi-Fi 7 (2x2)(19d) and Bluetooth® 5.4 wireless card(25a)(26)
Sound	• HyperX with dual speakers • DTS: X® Ultra
Integrated keyboard	• Full-size, per key RGB backlit, shadow black keyboard with numeric keypad and NKRO Anti-Ghosting Key technology • HP Imagepad
External notebook ports	• 2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1, HP Sleep and Charge)(42)(48)(50)(51)(64) • 2 USB Type-A 10Gbps signaling rate • 1 RJ-45 • 1 Headphone/microphone combo • 1 AC Smart pin • 1 HDMI 2.1
Dimensions	• **Unpackaged:** 14.04 in (W) x 10.59 in (D) x 0.9 in (front) - 0.98 in (rear) (H) • Disclaimer: Rear height is measured without the bump out (0.12 in) • **Packaged:** 16.85 in (L) x 3.70 in (W) x 13.07 in (H)
Weight	• **Unpackaged:** 6.1 lb(76) • **Packaged:** 10.45 lb
Security	• Camera privacy shutter
Power	• 6-cell, 83 Wh Li-ion polymer battery(21) • 330 W AC power adapter

Battery life	• Up to 4 hours and 45 minutes (mixed usage)(85a) • Up to 8 hours and 30 minutes (video playback)(75) • Up to 5 hours (wireless streaming)(80)
Warranty and support	• 1-year limited hardware warranty. Additional information available at www.support.hp.com(9) • 1-year limited technical support for software and initial setup (from date of purchase)(53)

Software and technology

Help and support	• **HP Support Assistant:** Included with your computer, this free self-help tool makes it easier than ever to get help with your HP PC and printers.(56) • **myHP:** 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.
Security and protection	• **HP BIOS Protection:** Get peace of mind knowing your PC BIOS is protected. HP BIOS Protection automatically checks its health and recovers itself.(23)
Partner offers	• **Adobe Offer:** Get a complimentary 1 month trial of the best creativity and productivity apps from Adobe with the purchase of a computer from HP. Create anything you can imagine – photos, videos, graphics, webpages, PDFs, and more. Get started with the app that best fits your need.(88a) • **Dropbox cloud storage:** 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.(9)(22) • **McAfee 30-day trial:** Secure your privacy and data when browsing on public Wi-Fi with VPN, included in your free McAfee 30-day trial.(8)(9) • **Try PC Game Pass for free:** Play hundreds of high-quality PC games on your new HP device with 3 free months of PC Game Pass.(60)
System performance	• **HP Connection Optimizer:** Get consistent and reliable Wi-Fi performance with software that automatically switches between the most efficient wireless access points.(9)
Work and lifestyle	• **Otter.ai:** With Otter.ai, an AI assistant can record audio, write notes, automatically capture slides, record, transcribe, and generate meeting summaries so that you can save time and stay organized. • **Microsoft Copilot:** Microsoft Copilot gives you intelligent answers. Access with just the touch of the Copilot key.(41)
Gaming and entertainment	• **OMEN AI:** Provides personalized settings recommendations to achieve the best possible FPS with minimum hassle. • **DTS: X® Ultra technology:** 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. • **OMEN Gaming Hub:** 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.

Additional information

Product number	• B7HV2UA#ABA
Ad embargo date	• 05/04/2025
UPC Code	• 198990306070
Country of origin	• China
Pallet information	• **Dimensions:** 47.24 in (L) x 39.37 in (W) x 45.71 in (H) • **Total weight:** 920 lb • **Layers:** 3 • **Products per layer:** 28

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