

OMEN by HP 45L Gaming Desktop GT22-3090



Patented cooling, extreme performance.

Define the cutting edge with the OMEN 45L Desktop PC. Extreme power from an Intel® Core™ processor, dazzling graphics, and revolutionary cooling from the patented OMEN CRYO CHAMBER™ cooling system.

Product overview

- **Behold, the chilliest machine in gaming.** The OMEN 45L takes cooling way up, with the OMEN CRYO CHAMBER. This patented system uses the ambient air to create extreme cooling.⁽⁵⁷⁾
- **Beauty, meet Beast.** Tempered glass panels, a full-metal frame with toolless entry, and complete RGB control. Its one nifty spaceship.
- **Optimize and customize:** Step aboard the one-stop spec shop command center that is OMEN Gaming Hub. Tweak every last detail from intelligent overclocking, to SW-based fan control, BIOS access, RAM frequency and RGB.⁽⁵⁷⁾
- **Sustainability in action:** Innovating with purpose and intention to go beyond short-term impact to drive positive, lasting change.
- **Adaptation, battle station.** Built for easy toolless upgradeability. The OMEN 45L is a one stop, can't stop, shop for DIY performance mastery.⁽⁵⁷⁾

Key specifications

- **Operating system:** Windows 11 Pro⁽¹⁾
- **Processor:** Intel® Core™ Ultra 9 285K processor^(2b)
- **NPU:** Intel® AI Boost (13 NPU TOPS)^(5c)
- **Memory:** Kingston FURY 64 GB DDR5-5600 MT/s XMP RGB Heatsink RAM memory (4x16 GB)
- **Internal Storage:** 2 TB PCIe® Gen4 NVMe™ M.2 Solid State Drive⁽¹⁵⁾
- **Graphics:** NVIDIA® GeForce RTX™ 5090 graphics card with 32 GB GDDR7 dedicated memory⁽¹³⁾
- **USB ports:** Top I/O: 2 USB 2.0 Type-A, 2 USB Type-A 5Gbps signaling rate
Rear: 4 USB 2.0 Type-A, 2 USB Type-A 5Gbps signaling rate, 1 USB Type-C® 10Gbps signaling rate⁽⁴²⁾, 1 Thunderbolt™ 4 with USB4™ Type-C 40Gbps signaling rate⁽⁵¹⁾⁽⁵⁹⁾ (USB Power Delivery, DisplayPort™ 1.4)⁽⁵⁰⁾
- **Wireless:** Wi-Fi 6E (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate)⁽⁷⁾⁽¹⁹⁾⁽²⁵⁾⁽²⁶⁾
- **Warranty:** 1-year limited hardware warranty

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:** Microsoft Copilot is always on hand to boost your productivity, accelerate your creativity, and help you communicate with maximum clarity. No matter what you set out to do, it can help you do it like a pro.⁽⁴¹⁾
- **Intel® Core™ Ultra Processors (Series 2):** Experience powerful and efficient AI performance with Intel® Core Ultra Processors. Unlock optimized gaming, creation and AI capabilities for desktops and workstations like never before.
- **Game Changer:** Powered by NVIDIA® Blackwell, GeForce RTX™ 5090 GPU brings game-changing AI capabilities to gamers and creators.
- **OMEN Components:** Play with OMEN Components which have been designed, engineered and tested to upgrade your machine.
- **OMEN CRYO CHAMBER™:** Experience revolutionary cooling from the patented OMEN CRYO CHAMBER™ cooling system that enables the liquid cooler radiator to channel fresh, cold air from the surrounding environment to cool down the CPU.
- **Industry Standard Form Factor:** Built with ease of upgrading and customization in mind, this chassis adheres to the industry standard form factor.
- **Tool-less access:** Easily access and swap out components and parts without any tools or equipment.
- **360 mm LCD liquid cooler:** Refine your PC's cooling system with optimal heat dissipation and dynamic LCD lighting effects through OGH.
- **PCIe® Gen4 NVMe™ M.2 SSD:** With high-speed data transfer, the PCIe® Gen4 NVMe™ M.2 SSD offers fast speed and efficient storage.
- **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.

Additional product features

- **1 input for your microphone and headphone:** One jack to plug in your headphone and microphone.
- **USB Type-C® 10Gbps signaling data rate:** Plug in your external storage with this USB Type-C® port, featuring 10Gbps signaling data rate. And it's reversible, so you never have to worry about plugging in upside down.⁽⁴²⁾⁽⁴³⁾
- **USB Type-A 5Gbps signaling data rate:** Plug in your external storage with this USB Type-A port, featuring 5Gbps signaling data rate.⁽⁴³⁾
- **Thunderbolt™ 4 with USB Type-C®:** The latest Thunderbolt™ solution lets you power your device or connect up to two 4K displays with a single cable and blazing 40Gbps signaling rate.⁽¹⁾⁽²⁾⁽⁴³⁾
- **Kingston FURY DDR5 Memory:** With its high performance, everything from multi-tasking to playing games gets a boost.
- **Dual channel memory:** Two channels work simultaneously to double the communication speed between the memory controller and the RAM increasing system performance.
- **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.⁽¹⁹⁾⁽²⁵⁾⁽²⁶⁾
- **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⁾

Designed 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.

The OMEN by HP 45L Gaming Desktop is built with the future in mind, using environmentally conscious and recycled materials.

- Water based paint
- Up to 10% post-consumer recycled plastic
- ENERGY STAR® certified⁽⁶²⁾
- EPEAT® Gold with Climate+^(27a)

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>.⁽¹⁰⁾
- **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.⁽¹⁰⁾

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 to learn more or call toll-free 1.844.814.1800 to get started.⁽⁹⁵⁾
- **Care Packs, part of HP Care:** Extend protection beyond the standard limited warranty. For more info, visit www.hp.com/go/carepack-services or call toll-free at 1.877.232.8009.⁽⁶³⁾



Specifications

Operating system	• Windows 11 Pro ⁽¹⁾
Processor	• Intel® Core™ Ultra 9 285K processor ^(2b) • 24-core • Intel® AI Boost (13 NPU TOPS) ^(6c)
Cooling	• 360 mm LCD liquid cooler
Processor speed	• Up to 5.7 GHz with Intel® Turbo Boost Technology ^(2g)
Cache	• 36 MB L3 cache
Memory	• Kingston FURY 64 GB DDR5-5600 MT/s XMP RGB Heatsink RAM memory (4x16 GB) (expandable to 128 GB unbuffered with 32 GB DIMMs) ^{(3a)(3c)}
Internal storage	• 2 TB PCIe® Gen4 NVMe™ M.2 Solid State Drive ⁽¹⁵⁾
Finish	• Tempered glass front bezel and side panel with EMC protection
Video graphics	• NVIDIA® GeForce RTX™ 5090 graphics card with 32 GB GDDR7 dedicated memory ⁽¹³⁾
Network interface	• 10/100/1000/2500 GbE NIC ⁽²⁹⁾
Wireless connectivity	• Wi-Fi 6E (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate) ^{(7)(19c)(25)(26)}
Sound	• 5.1 surround sound
Memory slots	• 4 DIMM (288-pin) (occupied)
Expansion slots	• 1 PCI-E Gen 5 (Gen 5 ready) x16 (occupied) • 1 PCI-E Gen 4 x4 (available) • 3 M.2 (2 for SSD, 1 for WLAN) (one available)
Expansion bays	• HDD: 2 internal 3.5" (two available)
External ports	• Headphone/Microphone Combo, Headphone Jack, Microphone Jack • Top I/O: 2 USB 2.0 Type-A, 2 USB Type-A 5Gbps signaling rate • Rear: 4 USB 2.0 Type-A, 2 USB Type-A 5Gbps signaling rate, 1 USB Type-C® 10Gbps signaling rate ⁽⁴²⁾ , 1 Thunderbolt™ 4 with USB4™ Type-C 40Gbps signaling rate ⁽⁵¹⁾⁽⁵⁹⁾ (USB Power Delivery, DisplayPort™ 1.4) ⁽⁵⁰⁾ , 1 RJ-45 • HDMI • 3 DisplayPort™ ⁽⁵⁰⁾
Multi-display capable	• DisplayPort and HDMI capabilities, NVIDIA® Surround™ multi-display technology, support for Microsoft® DirectX® 12 ⁽¹³⁾
Security	• Chassis side cover lock
Power supply	• 1200 W 80 Plus Gold certified ATX power supply
Dimensions	• Unpackaged: 8.03 in (W) x 18.50 in (D) x 21.85 in (H) approx. • Packaged: 23.31 in (L/D) x 12.91 in (W) x 26.46 in (H) approx.
Weight	• Unpackaged: 49.82 lb approx. ⁽⁷⁶⁾ • Packaged: 55.56 lb approx.
Warranty and support	• 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) ⁽⁵³⁾

Learn more at hp.com

⁽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>. ^(2a) 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 X®, Intel logo and the Intel Inside logo are trademarks of Intel Corporation in the U.S. and other countries. ^(2b) Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See 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. ^(3a) Based on system capability, actual spec offering may be different. Maximum upgradeability will vary by model. ^(3c) Installed memory is actually DDR5 6000 MT/s but may run as DDR5 4800 MT/s depending on memory support capability of Intel. Max memory overclocking speed can be achieved up-to 5600 MT/s via BIOS. ^(6c) Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Potential NPU inferencing performance varies by use, configuration, software and other factors. ⁽⁷⁾ Wi-Fi 5 or 6 is designed to support Gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels. ⁽⁸⁾ 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. ⁽¹⁰⁾ Internet service required and not included. ⁽¹²⁾ Graphics output may be limited based on the maximum resolution of the display. ⁽¹³⁾ ©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. ⁽¹⁵⁾ Actual formatted capacity is less. Portion of internal storage is reserved for preloaded content. ^(19a) 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. ⁽²²⁾ 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. Internet service required and not included. ⁽²³⁾ HP BIOS Protection works with Windows 11 that ships with your PC. ⁽²⁵⁾ 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. ⁽²⁶⁾ Bluetooth® is a trademark owned by its proprietor and used by HP Inc. under license. ^(27a) See www.epeat.net for registration status and tier levels by country. ⁽²⁹⁾ Actual speeds may vary. ⁽⁴¹⁾ Requires Windows 11. Some features require an NPU. Timing of feature delivery and availability varies by market and device. Requires Microsoft account to log in. Where Copilot is not available, the Copilot key will lead to the Bing search engine. See <http://aka.ms/WindowsAIFeatures>. ⁽⁴²⁾ USB Type-C® and USB-C® are trademarks of USB Implementers Forum. ⁽⁴³⁾ Actual throughput may vary. ⁽⁵⁰⁾ DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. ⁽⁵¹⁾ Thunderbolt is a trademark of Intel Corporation or its subsidiaries in the U.S. and/or other countries. ⁽⁵³⁾ 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. ⁽⁵⁹⁾ 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. ⁽⁵⁷⁾ This device has been engineered for optimal performance. Upgrading PC may affect warranty coverage. ⁽⁵⁹⁾ USB 20Gbps is not available. ⁽⁶⁰⁾ 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 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. PC Game Pass: Subscription continues automatically at regular monthly price unless cancelled. Subject to xbox.com/subscriptionterms. ⁽⁶²⁾ ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency. ⁽⁷⁶⁾ Weight and system dimensions may fluctuate due to configuration and manufacturing variances. ⁽⁸³⁾ 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. ^(89a) Offer available worldwide (excluding China and embargoed countries or other countries identified as restricted by applicable law or regulation) to new and existing subscribers who are 18+. Click on the Adobe icon in the start menu to redeem a 1-month free trial membership for select Adobe software. The software is tied to the device and is not transferrable. If you would like to sign up for an auto-renewing subscription, you can provide your payment method at sign-up. By adding a payment method, your subscription will automatically renew at the then current rate on your renewal date until you cancel. If you cancel before the end of the one-month free trial, you won't be charged. You can cancel your subscription anytime via your Adobe Account page or by contacting Customer Support. Please see current prices for Adobe products available in this offer. Offer not available to Education, OEM, or volume licensing customers. Subject to availability where the recipient resides. Additional terms and conditions may apply. VOID WHERE PROHIBITED OR RESTRICTED BY LAW. ⁽⁹⁵⁾ 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 2025 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. 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Software and technology

Help and support	• HP Support Assistant: Help with your HP PC and printers whenever you need it. ⁽⁵⁶⁾
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	• 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. ⁽¹⁰⁾⁽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⁾⁽¹⁰⁾ • 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) • 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. ⁽¹⁰⁾
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 is always on hand to boost your productivity, accelerate your creativity, and help you communicate with maximum clarity. ⁽⁴¹⁾
Gaming and entertainment	• 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. • DTS: X® Ultra technology: Authentic, spatially accurate 3D sound to provide the best entertainment experience.

Additional information

Product number	• B91WJAA#ABA
Ad embargo date	• 04/01/2025
UPC code	• 198990612317
Country of origin	• Mexico
Pallet information	• Dimensions: 47.24 in (L/D) x 39.37 in (W) x 84.69 in (H) approx. • Total weight: 1032.96 lb approx. • Layers: 3 • Products per layer: 6 • Total products per pallet: 18

