Extremely cool inside and out

Built for extreme performance, the OMEN 45L Gaming Desktop PC is designed for gaming from the ground up. Powered by the latest Intel® Processor, the OMEN by HP gaming desktop takes cooling to incredible heights with a unique cooling chamber. Created for easy tool-less upgradeability with industry standard components to meet your gaming needs.



*Product image may differ from actual product



OMEN Cryo Chamber™

Enables the liquid cooler radiator to pull-in cold air from the surrounding environment to cool down the CPU.



Crafted for expansion

Easily upgrade and expand the memory, storage drives, and interior expansion slots to fit your gaming needs.



OMEN Gaming Hub

The OMEN Gaming Hub elevates everything from software enhancements, hardware controls, to live services.

Sustainability in action

Sustainability in action

Made with Water based paint.















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

Take on any game and tasks with performance built for anything powered by Intel® Core™ Ultra Processors.

Improved performance for both gaming and productivity with enhanced cooling, quieter operation, and faster speeds with Intel® Core[™] Ultra Processors.³

Game Changer

Powered by NVIDIA Blackwell, GeForce RTX™ 50 Series GPUs bring game-changing Al capabilities to gamers and creators. Multiply performance with NVIDIA DLSS 4, generate images at unprecedented speed, and unleash your creativity with NVIDIA Studio.4

PCIe NVMe™ M.2 SSD storage

Boot up in seconds with lightning fast speed with up to 2 TB PCle NVMe™ M.2 SSD storage.

DTS: X^e 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.5

USB Type-A 5Gbps signaling data rate

Plug in your external storage with this USB Type-A port, featuring 5Gbps signaling data rate.6

Ethernet port

When you have a spotty wireless connection, you can quickly plug in your Ethernet cable to get a smooth, wired Internet experience that bypasses any wireless issue.

Kingston FURY DDR5 Memory

With up to 64GB of fast Kingston FURY DDR5 Heatsink RAM, everything from multitasking to playing games gets a performance hoost

Wi-Fi 6E (2x2) and Bluetooth® 5.3 wireless card

Enjoy faster speeds, improved performance, greater capacity and lower latencies than earlier iterations with Wi-Fi 6E and Bluetooth® 5.3 wireless card.⁷

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.

Liquid cooling

Hassle-free thermal management quietly and efficiently draws heat away from high-performance processors, helping to protect sensitive components from heat overload.

OMEN Gaming Hub

OMEN Gaming Hub is 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 easy and simple way.

Try PC Game Pass for free with your new HP device

Play hundreds of high-quality PC games with your new HP device and 3 free months of PC Game Pass - including EA play. With new games added all the time, there's always something new to play.⁸

Recommended accessories and services (not included)





HyperX Cloud III Wireless - Gaming Headset 77Z46AA





3-year pickup and return UC994E



HyperX Pulsefire Haste 2 Pro - 4K Wireless Gaming A1KY5AA



Specifications







Performance

Operating system

Windows 11 Home

Processor

Intel® Core™ Ultra 9 285K (up to 5.7 GHz with Intel® Turbo Boost Technology, 36 MB L3 cache, 24 cores, 24 threads)^{6,7}

Processor family: Intel® Core™ Ultra 9 processor

Neural Processing Unit (NPU): Intel® Al Boost (13 NPU TOPS)

Chipset

Intel® Z890

Memory

Kingston FURY 64 GB DDR5-5600 MT/s XMP RGB Heatsink (4 x 16 GB)

Transfer rates up to 5600 MT/s.

Memory slots: 4 DIMM

Maximum memory: Supports up to 128 GB max system memory

Storage

2 TB PCle® Gen4 NVMe™ M.2 SSD

2 TB PCle® Gen4 NVMe™ Performance M.2 SSD

25 GB Dropbox storage for 12 months¹

Graphics

Discrete: NVIDIA® GeForce RTX™ 5090 (32 GB GDDR7 dedicated);

Audio

5.1 surround sound; Omen Audio Control Support DTS:X® Ultra

Display description

Display monitors sold separately. For more information please visit www.hp.com/eur/home-monitors

Power

1200 W 80 Plus Gold certified ATX power supply;

System coolers

360 mm LCD liquid cooler;

System fans

3 x 120 mm aRGB front fans;

Connectivity

Network interface

Realtek RTL8125BGH-CG 10/100/1000/2500 GbE NIC

Wireless connectivity

Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate) 11,12,46

Ports

Top:

2 USB Type-A 5Gbps signaling rate (HP Sleep and Charge); 2 USB 2.0 Type-A; 1

headphone/microphone combo; 1 microphone 19

1 USB Type-C* 10Gbps signaling rate; 2 USB Type-A 5Gbps signaling rate; 4 USB 2.0 Type-A; 13.5 mm audio jack; 1 RJ-45; 1 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (DisplayPort™ 2.1)

Video connectors

1 HDMI 2.1b;3 DisplayPort™ 2.1b

Expansion slots

1 PCIe x16; 1 PCIe x4; 3 M.2 (2 PCIe x4 for SSD, 1 for WLAN)

Sustainability

Sustainable impact specifications

Molded paper pulp cushion inside box is 100% sustainably sourced and recyclable; 10% post-consumer recycled plastic; Water based paint⁴¹

Design

Product color

Black, glass side panel, dark chrome logo Paint coat

Software

HP apps

HP Connection Optimizer; HP Support Assistant; OMEN Gaming Hub; HP Enhanced Lighting; myHP

Software

Intel® Unison™; Otter.ai;

1 month trial for new Microsoft 365 customers²⁴

Service & support

McAfee Online Protection 30-day trial; 1-month Adobe free trial offer; PC Game Pass 3-month trial 2,25

Additional information

Part Number

P/N: B94HJEA #ABU

UPC/EAN code: 198990656281

Weight

22.6 kg;

Packed: 25.2 kg

Dimensions

20.4 x 47 x 55.5 cm;

Packed: 59.2 x 32.8 x 67.2 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.

Liquid cooling solution for processor

Security management

Chassis side cover lock



Footnotes

Messaging Footnotes

- ¹ 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.
- 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 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 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.
- ⁶ Actual throughput may vary.
- ⁷ 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. 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. 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.
- ⁸ PC Game Pass: Subscription continues automatically at regular monthly price unless cancelled. Subject to xbox.com/subscriptionterms. Terms and exclusions apply. Game catalog varies over time, by region, and by device. All rights reserved. Xbox.com/pcgamepass, ea.com/ea-play/terms. Three month trial for devices purchased after October 2024. Microsoft account required. Offers available in select regions only. Credit card required. After promotional period, subscription automatically continues at the then-current regular price (subject to change), unless cancelled, plus applicable taxes. For cancellation details, see xbox.com/cancel. For complete details see terms and conditions https://www.xbox.com/en-US/xbox-game-pass?msockid=3f8c879b624a6bb10ac4924e63d86a01

Technical Specifications Footnotes

- ¹25 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 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.
- 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.
- ¹¹ Wi-Fi* supporting gigabit speeds is achievable when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160 MHz channels.
- ¹² Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited.
- ¹⁹ For best results with HP Sleep and Charge, use a USB charging protocol standard cable or cable adapter with an external device.
- ²⁴ Must activate within 180 days of Windows activation.
- ²⁵ 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.
- 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.
- ⁴¹ Percentage of water based paint varies by product; 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.
- ⁴⁶ 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.

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