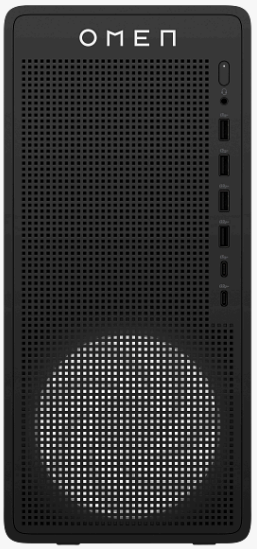
OMEN 16L Gaming Desktop PC TG03-0022na PC

Your new era of gaming

Step into the world of gaming with the OMEN 16L. Powered by an AMD Ryzen™ Processor[12] and high-performance graphics, it delivers elevated performance in a compact form. Great for unwinding after a busy day or gaming during your downtime.



*Product image may differ from actual product

Get set for gaming greatness

Enjoy smoother gameplay and enhanced cooling with CPU fans, boosting airflow and featuring customizable lighting.

Compact size, big plays

Refresh your space with a stylish, compact design that's perfect for relaxing and gaming.

Customize your gaming experience

Personalize setup with customizable RGB lighting and personalized setting recommendations for your game in OGH.

Sustainability in action

Sustainability in action

Innovating with purpose and intention[3,4], to make an impact to drive positive, lasting change [5,6].

with

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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.[7]

Everything You Need to Game, Work, and Create
AMD Ryzen 8000G Series processors; high-performance processing power, intense graphics capabilities, and the first neural processing unit (NPU) on an AMD desktop PC processor.[1]

Game Changer
Powered by NVIDIA Blackwell, GeForce RTX™ 50 Series GPUs bring game-changing AI capabilities to gamers and creators. Multiply performance with NVIDIA DLSS 4, generate images at unprecedented speed, and unleash your creativity with NVIDIA Studio.[8]

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.[9]

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.[10]

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.[11]

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.

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.[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.

Effortlessly connected
Enjoy a smooth wireless experience with a Wi-Fi 6E (2x2) and Bluetooth® 5.3 combo.[13]

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.

Recommended accessories and services (not included)



HyperX Cloud III Wireless - Gaming Headset
77Z46AA



HyperX Alloy Rise 75 - Gaming Keyboards
7G7A4AA



3-year pickup and return
UC994E



HyperX Pulsefire Haste 2 Pro - 4K Wireless Gaming Mouse
A1KY5AA

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Specifications





Performance

Operating system
Windows 11 Home
Processor
AMD Ryzen™ 5 8400F (up to 4.7 GHz max boost clock, 16 MB L3 cache, 6 cores, 12 threads)[6,7]
Processor family: AMD Ryzen™ 5 processor
Chipset
AMD B650
Memory
16 GB DDR5-5200 MT/s (1 x 16 GB)
Transfer rates up to 5200 MT/s.
Memory slots: 2 DIMM
Maximum memory: Supports up to 32 GB max system memory
Storage
1 TB PCIe® Gen4 NVMe™ M.2 SSD
100 GB Dropbox storage for 3 months[1]
Graphics
Integrated: AMD Radeon™ Graphics;
Discrete: NVIDIA® GeForce RTX™ 5050 (8 GB GDDR6 dedicated) ;
Audio
Omen Audio Control Support DTS:X Ultra
Power
500 W 80 Plus Platinum certified power supply;

Connectivity

Network interface
Realtek RTL8125BGH-CG 10/100/1000/2500 GbE NIC
Wireless connectivity
MediaTek Wi-Fi 6E RZ616 (2x2) and Bluetooth® 5.3 wireless card [11,12,46]
Ports
Front:
1 USB Type-C® 10Gbps signaling rate; 1 USB Type-C® 5Gbps signaling rate; 2 USB Type-A 10Gbps signaling rate; 2 USB Type-A 5Gbps signaling rate; 1 headphone/microphone combo[19]
Rear:
4 USB 2.0 Type-A; 1 RJ-45; 3 3.5 mm audio jack combo
Video connectors
1 HDMI 2.1b;3 DisplayPort™ 2.1b
Expansion slots
3 M.2 (2 for SSD, 1 for WLAN)

Sustainability

Sustainable impact specifications
55% post-consumer recycled plastic; 20% recycled metal[40,41]

Design

Product color
Shadow black
Textured finish

Software

HP apps
HP Connection Optimizer; HP Support Assistant; OMEN Gaming Hub; HP Enhanced Lighting
Software
Otter.ai;
1 month trial for new Microsoft 365 customers[24]
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: D18H8EA #ABU
UPC/EAN code: 199896117081
Weight
Packed: 8.81 kg
Dimensions
15.5 x 33.7 x 30.8 cm;
Packed: 40 x 49.9 x 28.7 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.
Security management
Kensington Security lock slot; Padlock

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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. AMD's numbering is not a measurement of clock speed.
[2] 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, and other factors.
[3] 100% outer box/corrugate cushion packaging made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100% recycled wood fiber and organic material. Any plastic cushions are made from >90% recycled plastic. Excludes plastic bags and plastic foam sheeting.
[4] Recycling facilities not available in all locations.
[5] Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.
[6] Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
[7] 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.
[8] ©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.
[9] 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.
[10] 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.
[11] Actual throughput may vary. USB Type-C® and USB-C® are trademarks of USB Implementers Forum.
[12] 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
[13] Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs. 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, that supports 80MHz and higher channels. Wi-Fi 6 (802.11ax) is not supported in Belarus where Wi-Fi settings will be optimized to local regulatory requirements (802.11ac).

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.
[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. AMD's numbering is not a measurement of clock speed.
[7] Max Boost clock frequency performance varies depending on hardware, software and overall system configuration.
[11] 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.
[12] 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.
[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.
[40] 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.
[41] Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
[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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