

OMEN Gaming Laptop 16-am0044np (D3ZN4EA)



Bold performance without the burnout

The new OMEN 16 not only has the power of the latest next-gen Intel®[1] and NVIDIA® components, but it also has the proper thermal innovations to keep them from burning out. Pair that with OMEN AI for maximum possible FPS at the click of a button and Unleashed Mode for that extra boost in performance, and you have our most reliably powerful laptop yet.



Cooling that keeps up

Handle the heat with high efficiency fans that reduce noise and keeps your laptop cool while you game on.

Instantly raise your game

Get maximum possible FPS with OMEN AI and boost your power beyond its base limits with Unleashed Mode.

Next generation of performance

Get the best possible performance with the latest next-gen NVIDIA® GPUs and Intel® Processors[1].

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. [4]

Smarter. Faster. Lighter

Gaming, creating, AI. Do it all on Intel® Core™ Ultra processors [5]

144 Hz FHD anti-glare display

Reduce frustrating lag and image ghosting with a display that combines a 144 Hz refresh rate and a 1080p resolution for smooth, crisp gameplay. [2]

Anti-glare panel

Enjoy the sun and your favorite content with this anti-glare panel. Non-reflective and low gloss means you'll get less glare while you're outside.

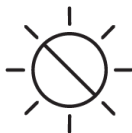
Flicker-free

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. [6]

 Windows 11



IPS



Specifications

Operating System Software	Windows 11 Home
Product Color Description (fixed)	Shadow black, black chrome logo
Product Design	Paint finish
Processor Family	Intel® Core™ Ultra 5 processor
Processor Name	Intel® Core™ Ultra 5 225H (up to 4.9 GHz with Intel® Turbo Boost Technology, 18 MB L3 cache, 14 cores, 14 threads) [6,7]
Chipset	Intel® integrated SoC
Standard Memory Description 01	24 GB DDR5-5600 MT/s (1 x 24 GB)
Hard Drive Description (01)	1 TB PCIe® Gen4 NVMe™ M.2 SSD
Graphics Card Segment 01	Integrated
GScardseg 01 Available Card 01	Intel® Arc™ 130T GPU
Display Description (metric)	40.6 cm (16") diagonal, 2K (1920 x 1200), 60-144 Hz, IPS, micro-edge, anti-glare, 300 nits, 62.5% sRGB
Display Description	16" diagonal, 2K (1920 x 1200), 60-144 Hz, IPS, micro-edge, anti-glare, 300 nits, 62.5% sRGB
Screen-To-Body Ratio (without speakers)	87.49% ^[18]
Audio Features	Dual speakers; HP Audio Boost; HyperX; DTS:X Ultra™
Product Dimensions (metric)	35.75 x 26.9 x 2.37 cm (front); 35.75 x 26.9 x 2.54 cm (rear)
Product Dimensions (imperial)	14.07 x 10.59 x 0.94 in (front); 14.07 x 10.59 x 1 in (rear)
Weight (metric)	2.43 kg
Weight (imperial)	5.36 lb
Package Dimensions (metric)	6.3 x 56.7 x 30.5 cm
Package Dimensions (imperial)	2.48 x 22.32 x 12 in
Package Weight (metric)	3.77 kg
Package Weight (imperial)	8.33 lb
Keyboard	Full-size, 4-zone RGB backlit, shadow black keyboard with numeric keypad and 26-Key Rollover Anti-Ghosting Key technology
Pointing Device	HP Imagepad
Sensors	IR thermal sensor
Camera	HP True Vision 1080p FHD camera with temporal noise reduction and integrated dual array digital microphones
External I/O Ports	1 USB Type-A 10Gbps signaling rate; 2 USB Type-A 5Gbps signaling rate; 1 AC smart pin; 1 HDMI 2.1; 1 headphone/microphone combo; 1 RJ-45; 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery 3.0, DisplayPort™ 1.4, HP Sleep and Charge) ^[19,42]
Expansion Slots	2 M.2 (SSD)
Network Interface	Integrated 10/100/1000 GbE LAN
Wireless Technologies	Realtek Wi-Fi 6 (2x2) and Bluetooth® 5.4 wireless card ^[11,12,13,46]
Power Supply Type	230 W AC power adapter
Battery Type	6-cell, 83 Wh Li-ion polymer ([23])
Battery Recharge Time	Supports battery fast charge: approximately 50% in 30 minutes ^[5]
Energy Star Certified	ENERGY STAR® certified
Sustainability Specifications	Ocean-bound plastic in speaker enclosure(s) and bezel; Keyboard keycaps and scissors contain post-consumer recycled plastic
Security Management	Camera privacy shutter; Trusted Platform Module (Firmware TPM) support
Software Included	McAfee Online Protection 30-day trial
Software - Productivity & Finance	1 month trial for new Microsoft 365 customers ^[24]
Cloud Service	100 GB Dropbox storage for 3 months ^[1]
UPC Number	199896583572

Top Recommended Displays, Accessories and Services

No Top Recommended Displays, Accessories and Services

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 is not a measurement of higher performance.

[2] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

[4] 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>.

[5] 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® Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost/> for more information. 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.

[6] The flicker-free capability eliminates screen flickering through integrating DC-dimming LED backlights.

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.

[5] Recharges your battery up to 50% within 30 minutes when the system is off using "shut down" command, using HP adapter provided with the notebook or recommended power adapter disclosed in specifications (see <http://store.hp.com>). After charging has reached 50% capacity, charging speed will return to normal speed. Charging time may vary +/-10% due to System tolerance. Available on select HP products.

[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 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.

[12] 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.

[13] Wi-Fi 6 (802.11ax) is not supported in Belarus where Wi-Fi settings will be optimized to local regulatory requirements (802.11ac).

[18] Percent of active plus nonactive viewing area to active viewing area plus border. Measure with lid vertical to the desk.

[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.

[42] 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.

[46] Bluetooth® 5.4 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 5.4 will function as Bluetooth® 5.3 or lower.

© Copyright 2026 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 herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Core, Optane, Celeron, Pentium, Iris, XMM, and Thunderbolt are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. AMD, Ryzen, Athlon, and Radeon are trademarks of Advanced Micro Devices, Inc. Qualcomm and Snapdragon are trademarks or registered trademarks of Qualcomm Technologies, Inc. and/or its subsidiaries. Bluetooth is a trademark owned by its proprietor and used by HP Inc. under license. NVIDIA and GeForce are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. McAfee and McAfee LiveSafe are trademarks or registered trademarks of McAfee LLC in the United States and other countries. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. All other trademarks are the property of their respective owners.

