ProductSheet

OMEN by HP Laptop 17-ck2001ns (7Z1T3EA)

Powerful gaming, anytime, anywhere

Step up your game with the OMEN by HP 17.3" Gaming Laptop PC, powered by a 13th Gen Intel® Core™ Processor[1] and NVIDIA® GeForce RTX™ Graphics. The floating hinge design and high-res, fast refresh rate display lets you play at your best from anywhere. Customize game play with the OMEN Gaming Hub and stay cool with OMEN Tempest Cooling technology[2].



Stay cool under pressure
With OMEN Tempest Cooling technology[2] that prevents overheating, even when your game play heats up.

Fast refresh rate during gaming
Play from anywhere with a 17.3" high-res display with a fast refresh rate, plus optical mechanical keyboard.

Customize your experience with OMEN Gaming Hub
Your one-stop shop to elevate gameplay, from controlling every little performance to lighting options and more.

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. [3]

Extend beyond performance to let your PC do even more at once
Offering more than just a performance score. 13th Gen Intel® Core™ Processors advance real-world computing and deliver more ultra-efficient multi-tasking. [4]

Beyond Fast
NVIDIA® GeForce RTX™ 40 Series GPUs are beyond fast. Powered by the NVIDIA Ada Lovelace architecture which delivers a leap in both performance and AI-powered graphics. Experience lifelike virtual worlds with ray tracing and ultra-high FPS gaming. [5]

NVIDIA® G-SYNC™
By synchronizing the refresh rates of your GPU and display, NVIDIA® G-SYNC™ technology delivers gameplay that's sharp, fluid, and stutter-free with minimal input lag.

QHD IPS antiglare display
Get lost in the captivating QHD resolution with IPS technology. Coupled with an antiglare screen to reduce light reflection, this display provides a remarkable entertainment experience. [6]

Specifications

Operating system	Windows 11 Home
Product color	Shadow black cover and base, shadow black aluminum keyboard frame
Product design	Paint finish cover and base, sandblasted keyboard frame
Processor family	13th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-13700HX (up to 5.0 GHz with Intel® Turbo Boost Technology, 30 MB L3 cache, 16 cores, 24 threads) [6,7]
Chipset	Intel® HM770
Memory	32 GB DDR5-4800 MHz RAM (2 x 16 GB)
Internal Storage	1 TB PCIe® Gen4 NVMe™ TLC M.2 SSD
Display	43.9 cm (17.3") diagonal, QHD (2560 x 1440), 240 Hz, 3 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 300 nits, 100% sRGB
Screen-to-body ratio (without speakers)	84.65%[18]
Audio	Audio by Bang & Olufsen; Dual speakers; HP Audio Boost; DTS:X Ultra™
Dimensions (W x D x H)	39.71 x 26.2 x 2.7 cm
Weight	2.78 kg
Package dimensions (W x D x H)	6.9 x 62.4 x 34.5 cm
Package weight	5.45 kg
Keyboard	Full-size, per key RGB backlit, shadow black keyboard with NKRO Anti-Ghosting Key technology and optical switch
Pointing device	HP Imagepad
Input devices	IR thermal sensor
Camera	HP Wide Vision 720p HD camera with temporal noise reduction and integrated dual array digital microphones
Ports	1 USB Type-A 5Gbps signaling rate (HP Sleep and Charge); 1 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 2 USB Type-A 5Gbps signaling rate; 1 HDMI 2.1; 1 mini DisplayPort™; 1 RJ-45; 1 AC smart pin; 1 headphone/microphone combo[19,42]
Expansion slots	1 multi-format SD media card reader
Network interface	Integrated 10/100/1000 GbE LAN
Wireless	Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate)[11,12]
Power supply type	330 W Smart AC power adapter
Battery type	6-cell, 83 Wh Li-ion polymer *([23])*
Battery life	Up to 5 hours and 30 minutes[3]
Battery recharge time	Supports battery fast charge: approximately 50% in 30 minutes[5]
Battery life local videoplayback	Up to 6 hours and 30 minutes
Battery weight	0.69 lb
Battery weight	315 g
Special features	NVIDIA® G-SYNC® support
Sustainability specifications	Ocean-bound plastic in speaker enclosure(s); Recycled metal in keyboard frame and hinge cap(s); Keyboard keycaps made with post-consumer recycled plastic
Security management	Trusted Platform Module (Firmware TPM) support
Pre-installed software	ExpressVPN (30 day free trial); LastPass Premium (30 day free trial)[22]
Software included	PC Game Pass 3-month trial
Software - Productivity & finance	1 month trial for new Microsoft 365 customers[24]
HP apps	HP Support Assistant; HP Connection Optimizer; OMEN Gaming Hub; myHP
Cloud service	25 GB Dropbox storage for 12 months[1]
UPC number	197497077704
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.

Top Recommended Displays, Accessories and Services

OMEN by HP Displays	
OMEN by HP 27 inch UHD 144Hz Gaming Monitor - OMEN 27k	780G8AA
OMEN by HP 31.5 inch QHD 165Hz Curved Gaming Monitor - OMEN 32c	780K6AA
HyperX Cloud Wireless Headset SC	
HyperX Cloud III Wireless - Gaming Headset	77Z46AA
HyperX Cloud III Wireless - Gaming Headset	77Z45AA
HyperX Cloud Headsets SC	
HyperX Cloud III - Gaming Headset (Black/Red)	727A9AA
HyperX Cloud Earbuds SC	
HyperX Cloud Earbuds II RED	705L8AA
HyperX Cloud Earbuds II Black	70N24AA
HyperX USB Microphones	
HyperX QuadCast S - USB Microphone (Black-Grey) - RGB Lighting	4P5P7AA
HyperX QuadCast - USB Microphone (Black-Red) - Red Lighting	4P5P6AA
HyperX QuadCast S - USB Microphone (White-Grey) - RGB Lighting	519P0AA
HyperX Pulsefire Haste Mice SC	
HyperX Pulsefire Haste 2 - Wireless Gaming Mouse (Black)	6N0B0AA
HyperX Pulsefire Haste 2 - Wireless Gaming Mouse (White)	6N0A9AA
HyperX Pulsefire Haste 2 - Gaming Mouse (Black)	6N0A7AA
HyperX Alloy Origins Keyboards SC	
HyperX Alloy Origins 60 - Mechanical Gaming Keyboard - HX Red (US Layout)	4P5N4AA
HyperX Alloy Rise SC	
HyperX Alloy Rise 75 - Gaming Keyboards	7G7A4AA
HyperX Alloy Rise - Gaming Keyboards	7G7A3AA

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. Intel and the Intel logo are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

[2] Thermal solution varies by configuration.

[3] 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.

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[5] ©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.

[6] Quad high-definition (QHD) content is required to view QHD images.

Technical Specifications Footnotes

[1] 25 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.

[3] Windows MobileMark 18 Battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See https://bapco.com/products/mobilemark-2018/ for additional details.

[5] Recharges your battery up to 50% within 30 minutes when the system is off (using "shut down" command). Recommended for use with the HP adapter provided with the notebook, not recommended with a smaller capacity battery charger. 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. See http://store.hp.com for a full list of product features.

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[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 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.

[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.

[22] Reverting to LastPass basic after 30 days.

[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.

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