ProductSheet
OMEN Gaming Laptop 16-ap0002nc (C2JG5EA)

Bold performance that doesn't burn out

The new OMEN 16 not only has the power of the latest next-gen AMD[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 NVIDA® GPUs and AMD 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]

This Changes Everything
Welcome to the new era of performance. AMD Ryzen 8000 Series ushers in the speed for gamers and creators with the power to tackle any game or workflow. An advanced processor for everyone that extends AMD performance to power your PC. [5]

Wide Quad Extended Graphics Array Display
Get lost in the captivating definition with 2560 × 1600 pixels. [7]

Eyesafe® Certified Display
Eyesafe® certified displays meet TÜV low blue light requirements and Eyesafe® standards for protecting your eyes from harmful blue light without distorting colors to reduce eyestrain when working for long periods of time. [8]

3ms response time
How fast your display's pixels respond is crucial for a smooth picture. With a 3-millisecond response time, your action-filled content will look crisp and fluid without motion blur. [9]

Windows 11

Specifications

Operating system	Windows 11 Home
Product color	Shadow black, black chrome logo
Processor family	AMD Ryzen™ 9 processor
Processor	AMD Ryzen™ 9 8940HX (up to 5.3 GHz max boost clock, 64 MB L3 cache, 16 cores, 32 threads)[6,7]
Chipset	AMD integrated SoC
Memory	32 GB DDR5-5200 MT/s (2 x 16 GB)
Internal Storage	2 TB PCIe® Gen4 NVMe™ M.2 SSD
Product design	Paint finish
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 5070 Laptop GPU (8 GB GDDR7 dedicated)
Graphics	Integrated
Graphics (integrated)	AMD Radeon™ 610M Graphics
Display	40.6 cm (16") diagonal, WQXGA (2560 x 1600), 60-240 Hz, 3 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 500 nits, 100% sRGB
Display	16" diagonal, WQXGA (2560 x 1600), 60-240 Hz, 3 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 500 nits, 100% sRGB
Display size (diagonal)	40.6 cm (16")
Display size (diagonal)	16"
Audio	DTS:X® Ultra; Dual speakers; HP Audio Boost; HyperX
Dimensions (W x D x H)	35.75 x 26.9 x 2.37 cm (front); 35.75 x 26.9 x 2.84 cm (rear)
Dimensions (W x D x H)	14.07 x 10.59 x 0.94 in (front); 14.07 x 10.59 x 1.12 in (rear)
Weight	2.44 kg
Weight	5.4 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
Input devices	IR thermal sensor
Camera	HP True Vision 1080p FHD camera with temporal noise reduction and integrated dual array digital microphones
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]
Package dimensions (W x D x H)	6.3 x 56.7 x 30.5 cm
Package weight	3.7 kg
Network interface	Integrated 10/100/1000 GbE LAN
Wireless	MediaTek Wi-Fi 6E MT7922 (2x2) and Bluetooth® 5.3 wireless card
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
Sustainable impact specifications	Ocean-bound plastic in 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	25 GB Dropbox storage for 12 months[1]
UPC number	199485351360

Top Recommended Displays, Accessories and Services

No Top Recommended Displays, Accessories and Services

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. AMD's numbering is not a measurement of clock speed.

[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] AMD Ryzen 8000 Series ushers in the speed for gamers and creators with the power to tackle anything.

[7] WQXGA content is required to view WQXGA images.

[8] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. Eyesafe® Display for Low Blue Light is the Display Compliance Test Specification quality. See https://eyesafe.com for more details. Display measured diagonally

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

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.

[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. 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.

[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.