



HP OMEN Gaming 16-ap0002na Copilot+ PC AMD Ryzen™ AI 7 350 Laptop 40.6 cm (16") WQXGA 16 GB DDR5-SDRAM 512 GB SSD NVIDIA GeForce RTX 5060 Wi-Fi 6E (802.11ax) Windows 11 Home Black



Brand : HP

Product family: OMEN Gaming **Product code:** BN8D2EA

Product name : OMEN Gaming
16-ap0002na

- AMD Ryzen AI 7 350 (up to 5.0 GHz max boost clock, 16 MB L3 cache, 8 cores, 16 threads)
- Windows 11 Home
- 40.6 cm (16") diagonal WQXGA display
- NVIDIA GeForce RTX 5060 Laptop GPU (8 GB GDDR7 dedicated)
- 16 GB DDR5-5600 MT/s (2 x 8 GB), 512 GB PCIe Gen4 NVMe M.2 SSD

OMEN Gaming Laptop 16-ap0002na, Windows 11 Home, 16", AMD Ryzen AI 7, 16GB RAM, 512GB SSD, NVIDIA GeForce RTX 5060, WQXGA, Shadow black

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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.

Design		Ports & interfaces	
Colour name	Shadow black	USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2
Product type *	Laptop	USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity	1
Product colour *	Black	USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1
Form factor *	Clamshell	Ethernet LAN (RJ-45) ports	1
Market positioning	Gaming	HDMI ports quantity *	1
Introduction year	2025	HDMI version	2.1
Country of origin	China, Thailand	Microphone in	✓
Original brand name	HP	Combo headphone/mic port	✓
Display		USB Type-C DisplayPort Alternate Mode	✓
Display diagonal *	40.6 cm (16")	USB Sleep-and-Charge	✓
Display resolution *	2560 x 1600 pixels	USB Sleep-and-Charge ports	1
Touchscreen *	✗	Performance	
HD type	WQXGA	Motherboard chipset	AMD SoC
Panel type	IPS	Temperature sensor	✓
Native aspect ratio	16:10	Keyboard	
Anti-glare screen	✓	Pointing device	Touchpad
Display bezel technology	Micro-Edge	Numeric keypad *	✓
Display brightness	500 cd/m²	Keyboard backlit	✓
Display diagonal (metric)	40.6 cm	Keyboard backlit colour	RGB
RGB colour space	sRGB	Keyboard backlit zone	4-zone RGB
Colour gamut	100%	Full-size keyboard	✓
Display response rise/fall	3 ms	Keyboard colour name	Shadow black
sRGB coverage (typical)	100%		
Processor			
Processor manufacturer *	AMD		
Processor family *	AMD Ryzen™ AI 7		
Processor generation	AMD Ryzen AI 300 Series		
Processor model *	350		
Processor cores	8		
Processor threads	16		
Processor boost frequency	5 GHz		

Processor		Software	
Processor frequency *	2 GHz	Pre-installed software	Otter.ai, 1 month trial for new Microsoft 365 customers, McAfee Online Protection 30-day trial; 1-month Adobe free trial offer; PC Game Pass 3-month trial
Processor cache	16 MB		
Processor cache type	L3		
Neural processor unit (NPU)		Trial software	100 GB Dropbox storage for 3 months
Copilot+ PC	✓		
Neural processor unit (NPU)	AMD Ryzen AI		
NPU performance up to	50 TOPs	Operating system installed *	Windows 11 Home
Memory		Brand-specific features	
Internal memory *	16 GB	HP Audio Boost	✓
Internal memory type	DDR5-SDRAM	HP speaker type	HP Dual Speakers
Memory clock speed	5600 MHz	HP Imagepad	✓
Memory form factor	SO-DIMM	HP Security tools	Camera privacy shutter; Trusted Platform Module (Firmware TPM) support
Memory layout (slots x size)	2 x 8 GB		
Memory slots (available)	2	HP Software provided	HP Support Assistant; HP Connection Optimizer; OMEN Gaming Hub
Maximum internal memory *	16 GB		
Memory data transfer rate	5600 MT/s	HP segment	Home
Non-ECC	✓	HP GTIN (EAN/UPC)	199251354427
Storage		Battery	
Total storage capacity *	512 GB	Battery technology	Lithium Polymer (LiPo)
Storage media *	SSD	Number of battery cells	6
Total SSDs capacity	512 GB	Battery capacity *	83 Wh
Number of SSDs installed	1	Fast charging	✓
SSD capacity	512 GB	Fast charging time (50%)	30 min
SSD interface	PCI Express 4.0	Power	
NVMe	✓	AC adapter power	230 W
SSD form factor	M.2	AC adapter frequency	50 - 60 Hz
Optical drive type *	✗	AC adapter input voltage	100 - 240 V
Graphics		USB Type-C charging port *	✓
Discrete GPU manufacturer	NVIDIA	USB Power Delivery (USB PD)	✓
Discrete graphics card model *	NVIDIA GeForce RTX 5060	Security	
Discrete graphics card memory	8 GB	Trusted Platform Module (TPM)	✓
Discrete graphics memory type	GDDR7	Password protection	✓
On-board graphics card *	✓	Password protection type	BIOS, Power on
On-board GPU manufacturer	AMD	Sustainability	
Discrete graphics card *	✓	Sustainability compliance	✓
On-board graphics card family	AMD Radeon	Sustainability certificates	ENERGY STAR, EPEAT, EPEAT Gold
On-board graphics card model *	AMD Radeon 860M	Sustainable technologies and materials	Ocean-bound plastic in bezel; Keyboard keycaps, scissors and keyboard plate contain post-consumer recycled plastic
AMD FreeSync	✓		
Audio		Weight & dimensions	
Audio system	DTS:X Ultra	Width	357.5 mm
Built-in speaker(s)	✓	Depth	269 mm
Number of built-in speakers	2	Height (front)	2.37 cm
Built-in microphone	✓	Height (rear)	2.54 cm
Number of microphones	2	Weight *	2.44 kg
Camera		Packaging data	
Front camera	✓	Package width	63 mm
Front camera resolution	1920 x 1080 pixels	Package depth	567 mm
Front camera HD type	Full HD	Package height	305 mm
Network		Package weight	3.19 kg
Wi-Fi	✓	Carbon footprint	
Top Wi-Fi standard *	Wi-Fi 6E (802.11ax)	Total carbon footprint (kg of CO2e)	197.646
Wi-Fi standards	Wi-Fi 6E (802.11ax)	Carbon emissions, manufacturing (kg of CO2e)	171.507
Mobile network connection *	✗		
Antenna type	2x2		
WLAN controller model	MediaTek MT7922		

Network		Carbon footprint	
WLAN controller manufacturer	MediaTek	Carbon emissions, logistics (kg of CO2e)	6.46
Ethernet LAN	✓	Carbon emissions, end-of-life (kg of CO2e)	0.879
Ethernet LAN data rates	10,100,1000 Mbit/s	Total carbon emissions, w/o use phase (kg of CO2e)	18.8
Bluetooth	✓		
Bluetooth version	5.3		
Cabling technology	10/100/1000Base-T(X)		
Packaging content			
AC adapter included *		✓	
Keyboard included		✓	
Technical details			
General Product Safety Regulation (GPSR) URL		https://support.hp.com/us-en/document/ish_6126692-6126777-16?openCLC=true ; HP REG 23010, 08028 Barcelona, Spain ; reg@hp.com	
Other features			
UNSPSC-code		43211503	
Memory module type		SODIMM	
Supplied AC adapter type		Paint finish	
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.	



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