



HP OMEN Gaming 16-ap0001na Copilot+ PC AMD Ryzen AI 9 365 Laptop 40.6 cm (16") 2K 16 GB DDR5-SDRAM 1 TB SSD NVIDIA GeForce RTX 5070 Wi-Fi 6E (802.11ax) Windows 11 Home Black

Brand : HP

Product family: OMEN Gaming **Product code:** BN8D1EA

Product name : OMEN Gaming
16-ap0001na



- AMD Ryzen AI 9 365 (up to 5.0 GHz max boost clock, 24 MB L3 cache, 10 cores, 20 threads)

- Windows 11 Home

- 40.6 cm (16") diagonal 2K display

- NVIDIA GeForce RTX 5070 Laptop GPU (8 GB GDDR7 dedicated)

- 16 GB DDR5-5600 MT/s (2 x 8 GB), 1 TB PCIe Gen4 NVMe M.2 SSD

OMEN Gaming Laptop 16-ap0001na, Windows 11 Home, 16", AMD Ryzen AI 9, 16GB RAM, 1TB SSD, NVIDIA GeForce RTX 5070, 2K, 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 *	1920 x 1200 pixels	USB Sleep-and-Charge ports	1
Touchscreen *	✗	Performance	
HD type	2K	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	300 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	62.5%	Full-size keyboard	✓
Maximum refresh rate	144 Hz	Keyboard colour name	Shadow black
sRGB coverage (typical)	62.5%	Software	
Processor		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 manufacturer *	AMD		
Processor family *	AMD Ryzen AI 9		
Processor generation	AMD Ryzen AI 300 Series		
Processor model *	365		
Processor cores	10		
Processor threads	20		
Processor boost frequency	5 GHz		

Processor		Software	
Processor frequency *	2 GHz	Trial software	100 GB Dropbox storage for 3 months
Processor cache	24 MB	Operating system installed *	Windows 11 Home
Processor cache type	L3		
Neural processor unit (NPU)		Brand-specific features	
Copilot+ PC	✓	HP Audio Boost	✓
Neural processor unit (NPU)	AMD Ryzen AI	HP speaker type	HP Dual Speakers
NPU performance up to	50 TOPs	HP Imagepad	✓
Memory		HP Security tools	Camera privacy shutter; Trusted Platform Module (Firmware TPM) support
Internal memory *	16 GB	HP Software provided	HP Support Assistant; HP Connection Optimizer; OMEN Gaming Hub
Internal memory type	DDR5-SDRAM	HP segment	Home
Memory clock speed	5600 MHz	HP GTIN (EAN/UPC)	199251354410
Memory form factor	SO-DIMM		
Memory layout (slots x size)	2 x 8 GB		
Memory slots (available)	2		
Maximum internal memory *	16 GB		
Memory data transfer rate	5600 MT/s		
Non-ECC	✓		
Storage		Battery	
Total storage capacity *	1 TB	Battery technology	Lithium Polymer (LiPo)
Storage media *	SSD	Number of battery cells	6
Total SSDs capacity	1 TB	Battery capacity *	83 Wh
Number of SSDs installed	1	Fast charging	✓
SSD capacity	1 TB	Fast charging time (50%)	30 min
SSD interface	PCI Express 4.0		
NVMe	✓		
SSD form factor	M.2		
Optical drive type *	✗		
Graphics		Power	
Discrete GPU manufacturer	NVIDIA	AC adapter power	230 W
Discrete graphics card model *	NVIDIA GeForce RTX 5070	AC adapter frequency	50 - 60 Hz
Discrete graphics card memory	8 GB	AC adapter input voltage	100 - 240 V
Discrete graphics memory type	GDDR7	USB Type-C charging port *	✓
On-board graphics card *	✓	USB Power Delivery (USB PD)	✓
On-board GPU manufacturer	AMD		
Discrete graphics card *	✓		
On-board graphics card family	AMD Radeon		
AMD FreeSync	✓		
Audio		Security	
Audio system	DTS:X Ultra	Trusted Platform Module (TPM)	✓
Built-in speaker(s)	✓	Password protection	✓
Number of built-in speakers	2	Password protection type	BIOS, Power on
Built-in microphone	✓		
Number of microphones	2		
Camera		Sustainability	
Front camera	✓	Sustainability compliance	✓
Front camera resolution	1920 x 1080 pixels	Sustainability certificates	ENERGY STAR, EPEAT, EPEAT Gold
Front camera HD type	Full HD	Sustainable technologies and materials	Ocean-bound plastic in bezel; Keyboard keycaps, scissors and keyboard plate contain post-consumer recycled plastic
Network		Weight & dimensions	
Wi-Fi	✓	Width	357.5 mm
Top Wi-Fi standard *	Wi-Fi 6E (802.11ax)	Depth	269 mm
Wi-Fi standards	Wi-Fi 6E (802.11ax)	Height (front)	2.37 cm
Mobile network connection *	✗	Height (rear)	2.54 cm
Antenna type	2x2	Weight *	2.44 kg
WLAN controller model	MediaTek MT7922		
WLAN controller manufacturer	MediaTek		
		Packaging data	
		Package width	63 mm
		Package depth	567 mm
		Package height	305 mm
		Package weight	3.19 kg
		Carbon footprint	
		Total carbon footprint (kg of CO2e)	252.765
		Carbon emissions, manufacturing (kg of CO2e)	226.626
		Carbon emissions, logistics (kg of CO2e)	6.46
		Carbon emissions, end-of-life (kg of CO2e)	0.879

Network		Carbon footprint	
Ethernet LAN	✓	Total carbon emissions, w/o use phase (kg of CO2e)	18.8
Ethernet LAN data rates	10,100,1000 Mbit/s	Packaging content	
Bluetooth	✓	AC adapter included *	✓
Bluetooth version	5.3	Keyboard included	✓
Cabling technology	10/100/1000Base-T(X)	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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