



HyperX OMEN 16 inch Gaming Laptop PC 16-ap1066AX (DK0H9PA)



Overview

Quickness beyond power, victory beyond doubt

The new HyperX 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.



Unleash your performance

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



Claim the competitive advantage

New faster and sharper display options, so your game looks and plays exactly like it was meant to.



Maximized airflow, maximized wins

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



Designed with purpose

Our laptop design includes ocean-bound plastics[2].

Features



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.^[2]



Game Changer

Powered by NVIDIA Blackwell, GeForce RTX™ 50 Series Laptop GPUs bring game-changing AI capabilities to gamers and creators. Multiply performance with NVIDIA DLSS 4, generate images at unprecedented speed, and unleash your creativity with NVIDIA Studio.^[4]

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.^[6]



Top Tier Performance for Serious Workloads

The AMD Ryzen 8000 HX series is built off AMD's "Zen 4" processor architecture to deliver the ultimate in performance and power efficiency for notebook users^[3]

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.^[5]

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.^[7]

[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. Max Boost clock frequency performance varies depending on hardware, software and overall system configuration. 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.

[2] Percentage of ocean-bound plastic contained in each component varies by product.

[2] 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>.

[3] 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. Max Boost clock frequency performance varies depending on hardware, software and overall system configuration.

[4] ©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.

[5] 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

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

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

Specifications

Operating system	Windows 11 Home Single Language
Product color	RIOT blue (VALORANT Limited Edition) with warm red logo on cover
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	16 GB DDR5-5200 MT/s (1 x 16 GB)
Internal Storage	512 GB PCIe® Gen4 NVMe™ M.2 SSD
Product design	RIOT Valorant paint finish with warm red
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 5060 Laptop GPU (8 GB GDDR7 dedicated)
Display	40.6 cm (16") diagonal, 2.5K (2560 x 1600), up to 240 Hz, 3 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 500 nits, 100% sRGB
Display	16" diagonal, 2.5K (2560 x 1600), up to 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	Dual speakers; HP Audio Boost; HyperX; DTS:X Ultra™
Dimensions (W x D x H)	35.75 x 26.9 x 2.7 cm (front); 35.75 x 26.9 x 3 cm (rear)
Weight	2.47 kg
Keyboard	Full-size, 4-zone RGB backlit, Pantone Black C, VALORANT Limited Edition keyboard with numeric keypad and 26-Key Rollover Anti-Ghosting Key technology
Pointing device	HP Imagepad
Input devices	IR thermal sensor
Camera	1080p FHD camera with HDR auto switch, 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]
Expansion slots	2 M.2 (SSD)
Package dimensions (W x D x H)	6.3 x 50.4 x 30.5 cm
Package weight	3.82 kg
Network interface	Integrated 10/100/1000/2500 GbE LAN
Wireless	MediaTek Wi-Fi 7 MT7925 (2x2) and Bluetooth® 6.0 wireless card ^[12,46]
Power supply type	280 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]
Sustainability specifications	Ocean-bound plastic in bezel; Keyboard keycaps, scissors and keyboard plate contain post-consumer recycled materials
Security management	Camera privacy shutter; Trusted Platform Module (Firmware TPM) support
Cloud service	100 GB Dropbox storage for 3 months ^[1]
UPC number	826581162391
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.
Support service included	HP 3 years 3 day Onsite Notebook Service. For terms and conditions, please visit https://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8282EEAP & https://www8.hp.com/h20195/v2/getpdf.aspx/4AA5-7123EETH.pdf

Additional specifications

Additional information about HP	https://www.hp.com
Aspect ratio	16:10
Battery capacity	83
Battery capacity uom	Wh
Battery cells number	6
Battery type	Li-ion polymer
Bluetooth version	Bluetooth® 6.0
Brightness	500 nits
Camera microphone	integrated dual array digital microphones
Camera resolution (vertical)	1080p
Camera resolution standard	FHD
Color	RIOT blue (VALORANT Limited Edition)
Color gamut	100% sRGB
Display	40.6 cm (16") diagonal 2.5K display
Display	16" diagonal 2.5K display
Display backlight	OLED
Display bezel	Micro-edge
Display brightness	500
Display brightness uom	nits
Display panel technology	IPS
Display refresh rate	240
Display refresh rate uom	Hz
Display resolution (pixels)	2560 x 1600
Display resolution standard	2.5K
Display response time	3
Display response time uom	ms
Display size (diagonal) uom	"
Display size (diagonal, imperial)	16
Display size (diagonal, metric)	40.6
Display size (diagonal, metric) uom	cm
Display surface treatment	Anti-glare
ECC memory	non-ECC
Ethernet (RJ-45)	1

Flicker-free	Yes ^[53]
Graphics card brand	NVIDIA®
Graphics card family	GeForce
Graphics card memory size	8
Graphics card memory size uom	GB
Graphics card memory type	GDDR7
HDMI out – version	2.1
HDMI –out	1
Headphone/microphone combo	1
Keyboard backlight	RGB backlit
Keyboard backlit zone	4-zone
Keyboard color	Pantone Black C
Keyboard features	VALORANT Limited Edition
Keyboard keypad	Numeric keypad
Keyboard size	Full-size
Keyboard technology	26-Key Rollover Anti-Ghosting Key technology
Memory and storage	16 GB memory;512 GB SSD storage
Memory layout (slots & size)	1 x 16 GB
Memory module type	SODIMM
Memory size	16
Memory size uom	GB
Memory speed	5200
Memory speed uom	MT/s
Memory type	DDR5
Model Number	RTX™ 5060
Number of User-accessible Memory Slots	2
Number of memory slots	1
Package depth, imperial (most common size)	19.84
Package depth, metric (most common size)	50.4
Package height, imperial (most common size)	12
Package height, metric (most common size)	30.5
Package width, imperial (most common size)	2.48

Package width, metric (most common size)	6.3
Packaging unit of measure (imperial)	in
Packaging unit of measure (metric)	cm
Playbook TS icon OS	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905482.png
Playbook TS icon battery life	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905264.png
Playbook TS icon connectivity	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201987.png
Playbook TS icon dimensions NB	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08250394.png
Playbook TS icon display NB	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08205649.png
Playbook TS icon graphics	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08169202.png
Playbook TS icon memory	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267700.png
Playbook TS icon processor	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201972.png
Playbook TS icon storage	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08192819.png
Playbook TS icon weight imperial	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c05790117.png
Playbook TS icon weight metric	https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267650.png
Processor Brand	AMD
Processor cache	64 MB L3
Processor core	16
Processor family	Ryzen™ 9
Processor maximum frequency	5.3
Processor maximum frequency uom	GHz
Processor model	8940HX
Processor threads	32
Product brand name	HP
Product long name specifications	HyperX OMEN 16 inch Gaming Laptop PC 16-ap1066AX, Windows 11 Home Single Language, 16", AMD Ryzen™ 9, 16GB RAM, 512GB SSD, NVIDIA® GeForce RTX™ 5060, 2.5K, RIOT blue (VALORANT Limited Edition)
Product long name specifications V2	HyperX OMEN 16 inch Gaming Laptop PC 16, Windows 11 Home Single Language, 16", AMD Ryzen™ 9, 16GB RAM, 512GB SSD, NVIDIA® GeForce RTX™ 5060, 2.5K, RIOT blue (VALORANT Limited Edition)
Product short name specifications	HyperX OMEN 16 inch Gaming Laptop PC 16-ap1066AX, 16", AMD Ryzen™ 9, 16GB RAM, 512GB SSD
Screen-to-body ratio (without speakers)	87% ^[18]
Storage capacity	512
Storage capacity uom 01	GB

Storage form factor 01	M.2
Storage interface 01	PCIe® Gen 4
Storage interface protocol 01	NVMe™
Storage type	SSD
Storage type 01	SSD
Touchscreen	No
UNSPSC code	43211503
USB Type-A	3
USB Type-C	1
Wireless antenna	2x2
Wireless model	MT7925
Wireless standard	Wi-Fi 7
Wireless supplier	MediaTek

[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.

[12] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires Windows 11 2024, select Intel® Core™ or Intel® Core™ Ultra processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.

[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.

[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® 6.0 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 6.0 will function as Bluetooth® 5.4 or lower.

[53] The Flicker-free capability is eliminating screen flickering through integrating DC-dimming LED backlights or LED emissions. OLED panel is functional with DC-DIMMING when above 100nits.

Services

HP Care Pack Services

★ : Recommended

Personal Systems Consumer Care Pack Services

HP 3 year Next Business Day Onsite 2 year warranty Notebook Service	U0VR7E ★
HP 2 years Accidental Damage Protection with 3 day Onsite HW Support forNB with 2 years Warranty	UN084E ★
HP 1 Year Post Warranty Pickup and Return for Envy, OmniBook 7, OmniBook X Notebook	UN089PE
HP 1 year Post Warranty Next Business Day Onsite Notebook Service	UN082PE
HP 1 year Post Warranty Return to Depot Notebook Service	UM993PE
HP 2 year Pickup and Return Hardware Support w/Accidental DamageProtection for 2-year wty Notebook	U02F5E
HP 2 year Return to Depot Hardware Support w/Accidental DamageProtection for 2-year wty Notebook	U02F3E
HP 3 year 3 day Onsite 2 year warranty Notebook Service	U0VS0E
HP 3 year Next Business Day Onsite with Accidental Damage Protection 2 year wty Notebook Service	UN9G9E
HP 3 years Return to Depot Hardware Support for Notebooks with 2 yearsWarranty	UM933E

Accessories for PC

Mice/Pens/Other Pointing Devices

★ : Recommended

Wireless Mice

HP Tilt Ergonomic Mouse 720M	BH0Z4AA
HP Tilt Ergonomic Pink Mouse 720M	BH7N4AA
HP Ultra-Fast-Scroll Wireless Mouse 780M	B8YX3AA

Port Replicators/Dongles/Docking

Docking

HP USB-C 100W G6 Dock	BS7S5AA
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HyperX Gaming Peripherals

HyperX Gaming Headsets

★ : Recommended

HyperX Cloud Alpha Headsets SC

HyperX Cloud Alpha Air Open-Back Gaming Headset	D14ZCAA
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HyperX Cloud Stinger Headsets SC

HyperX Cloud Stinger 3 Gaming Headset	BS1T5AA
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HyperX Earbuds

HyperX Cloud Earbuds SC

HyperX Cloud Earbuds III S Black	BN7S1AA
HyperX Cloud Earbuds III S Red	BN7S2AA

HyperX Gaming Controllers

HyperX Clutch Controllers SC

HyperX Clutch Tachi - Xbox	B11D9AA
HyperX Clutch Talon- Wireless Gaming Controller - Xbox	B11DBAA

HyperX Microphones

HyperX USB/XLR Microphones

HyperX FlipCast - USB/XLR Dynamic Microphone (Black)	B2CM1AA
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HyperX SoloCast Microphones SC

HyperX SoloCast 2 Pro Gaming USB Condenser Microphone	C96GRAA
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HyperX Gaming Keyboards

HyperX Origins 2 Keyboards SC

HyperX Origins 2 Pro 65	BN7S3AA
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Monitors

HP Home Monitors

★ : Recommended

OMEN by HP Displays

HyperX OMEN 23.8 inch FHD 144Hz Gaming Monitor - OMEN 24e	D5KB2AA	
HyperX OMEN 23.8 inch FHD 180Hz Gaming Monitor - OMEN 24 G2	C2JP4AA	
HyperX OMEN 23.8 inch FHD 240Hz Gaming Monitor - OMEN 24 G3	DL2G0AA	
HyperX OMEN 27 inch FHD 144Hz Gaming Monitor - OMEN 27e	D5KB3AA	
HyperX OMEN 27 inch FHD 240Hz Gaming Monitor - OMEN 27 G3	DL2G1AA	
HyperX OMEN 27 inch QHD 240Hz Gaming Monitor - OMEN 27q G3	DL2G2AA	
HyperX OMEN 27 inch QHD 320Hz Gaming Monitor - OMEN 27qs G3	DL2G3AA	
HyperX OMEN 31.5 inch QHD 200Hz Gaming Monitor - OMEN 32q G3	DL2G5AA	
HyperX OMEN 34 inch WQHD 200Hz Curved Gaming Monitor - OMEN 34c G3	DL2G6AA	
HyperX OMEN OLED 27 inch QHD 240Hz Gaming Monitor - OMEN OLED 27q	CH0R2AA	
HyperX OMEN OLED 27 inch QHD 500Hz Gaming Monitor - OMEN OLED 27qs	BY8Z1AA	
HyperX OMEN OLED 34 inch WQHD 360Hz Gaming Monitor - OMEN OLED 34	C49PPAA	
OMEN 24.5inch FHD 360Hz Gaming Monitor - OMEN 25	BG1M4AA	
OMEN 27 inch FHD 180Hz Gaming Monitor - OMEN 27 G2	AV4K2AA	
OMEN 27 inch QHD 180Hz Gaming Monitor - OMEN 27q G2	AV4H7AA	
OMEN 27 inch QHD 280Hz Gaming Monitor - OMEN 27qs G2	AW3V1AA	
OMEN 34 inch WQHD 180Hz Curved Gaming Monitor - OMEN 34c G2	AV4E7AA	
OMEN Transcend 31.5 inch UHD 240Hz OLED Gaming Monitor - OMEN Transcend 32	9R181AA	
OMEN by HP 23.8 inch FHD 165Hz Gaming Monitor - OMEN 24	780F0AA	obsolete
OMEN by HP 27 inch UHD 144Hz Gaming Monitor - OMEN 27k	780G9AA	
OMEN by HP 31.5 inch QHD 165Hz Curved Gaming Monitor - OMEN 32c	780K7AA	
OMEN by HP 31.5 inch QHD 165Hz Gaming Monitor - OMEN 32q	780K1AA	obsolete
OMEN by HP 31.5 inch UHD 144Hz Smart Gaming Monitor - OMEN 32x	99Z69AA	

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