OMEN Gaming Laptop 16-am0010ca (B81JWUA)

Overview

Bold performance without the burnout

The new OMEN 16 not only has the power of the latest next-gen Intel®[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.

Next generation of performance

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

Instantly raise your game

Get maximum possible FPS with OMEN AI and boost your power beyond its base limits with Unleashed Mode.

Steady connection, even steadier aim

Never miss a call or headshot with a high refresh rate display[2] and built-in FHD webcam[3].

Features

Windows 11

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]

Intel® Core™ Processors

Boost your mobile productivity with Intel® Core™ Processors, featuring a performance hybrid architecture that makes it easy to game, stream, and create at the same time.[1]

IPS

144 Hz FHD anti-glare display

Reduce frustrating lag and image ghosting with a display that combines a 144 Hz refresh rate and a 1080p resolution for smooth, crisp gameplay.[2]

Anti-glare panel

Enjoy the sun and your favorite content with this anti-glare panel. Non-reflective and low gloss means you'll get less glare while you're outside.

16:10

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.[5]

16:10 aspect ratio

A 16:10 aspect ratio lets you see more of your content with less scrolling.

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[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 is not a measurement of higher performance.

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

[3] Camera resolution refers to the image sensor active pixels. The actual image capture pixels and aspect ratio depend on the app selected.

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

Specifications

Operating system	Windows 11 Home
Product color	Shadow black, black chrome logo
Processor family	Intel® Core™ 7 processor
Processor	Intel® Core™ 7 240H (up to 5.2 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 10 cores, 16 threads)[6,7]
Chipset	Intel® integrated SoC
Memory	16 GB DDR5-5600 MT/s (2 x 8 GB)
Internal Storage	1 TB PCIe® Gen4 NVMe™ M.2 SSD
Product design	Paint finish
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 5060 Laptop GPU (8 GB GDDR7 dedicated)
Graphics	Integrated
Graphics (integrated)	Intel® Graphics
Display	40.6 cm (16") diagonal, 2K (1920 x 1200), 60-144 Hz, IPS, micro-edge, anti-glare, 300 nits, 62.5% sRGB
Display	16" diagonal, 2K (1920 x 1200), 60-144 Hz, IPS, micro-edge, anti-glare, 300 nits, 62.5% 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 2.54 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 in (rear)
Weight	2.43 kg
Weight	5.36 lb
Keyboard	Full-size, 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]
Expansion slots	2 M.2 (SSD)
Package dimensions (W x D x H)	6.3 x 56.7 x 30.5 cm

Package weight	3.77 kg
Network interface	Integrated 10/100/1000 GbE LAN
Wireless	Realtek Wi-Fi 6 (2x2) and Bluetooth® 5.4 wireless card[11,12,13,46]
Power supply type	230 W AC power adapter
Battery type	4-cell, 70 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 speaker enclosure(s) and 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	198990364421

Additional specifications

Aspect ratio	16:10
Battery capacity	70
Battery capacity uom	Wh
Battery cells number	4
Battery type	Li-ion polymer
Bluetooth version	Bluetooth® 5.4
Brightness	300 nits
Camera brand	HP True Vision
Camera microphone	integrated dual array digital microphones
Camera resolution (vertical)	1080p
Camera resolution standard	FHD
Color	Shadow black
Color gamut	62.5% sRGB
Display	16" diagonal 2K display
Display	40.6 cm (16") diagonal 2K display
Display bezel	Micro-edge
Display brightness	400
Display brightness uom	nits
Display panel technology	IPS
Display refresh rate	144
Display refresh rate uom	Hz
Display resolution (pixels)	1920 x 1200
Display resolution standard	2K
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[45]
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	Backlit
Keyboard color	Shadow black
Keyboard keypad	Numeric keypad
Keyboard size	Full-size
Keyboard technology	26-Key Rollover Anti-Ghosting Key technology
Memory and storage	16 GB memory;1 TB SSD storage
Memory layout (slots & size)	2 x 8 GB
Memory module type	SODIMM
Memory size	16
Memory size uom	GB
Memory speed	5600
Memory speed uom	MT/s
Memory type	DDR5
Model Number	RTX™ 5060
Number of User-accessible Memory Slots	2
Number of memory slots	2
Package depth, imperial (most common size)	22.32
Package depth, metric (most common size)	56.7
Package dimensions (W x D x H)	2.48 x 22.32 x 12 in
Package height, imperial (most common size)	12
Package height, metric (most common size)	30.5
Package weight	8.33 lb
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	Intel®
Processor cache	24 MB L3
Processor core	10
Processor family	Core™ 7
Processor frequency technology	Intel® Turbo Boost Technology
Processor maximum frequency	5.2
Processor maximum frequency uom	GHz
Processor model	240H
Processor threads	16
Product brand name	HP
Product long name specifications	OMEN Gaming Laptop 16-am0010ca, Windows 11 Home, 16", Intel® Core™ 7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 5060, 2K, Shadow black
Product long name specifications V2	OMEN Gaming Laptop 16, Windows 11 Home, 16", Intel® Core™ 7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 5060, 2K, Shadow black
Product short name specifications	OMEN Gaming Laptop 16-am0010ca, 16", Intel® Core™ 7, 16GB RAM, 1TB SSD
Screen-to-body ratio (without speakers)	87.49%[18]
Storage capacity	1
Storage capacity uom 01	TB
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 standard	Wi-Fi 6
Wireless supplier	Realtek

[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. 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.

[11] Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.

[12] Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs.

[13] Wi-Fi 6 (802.11ax) is not supported in Belarus where Wi-Fi settings will be optimized to local regulatory requirements (802.11ac).

[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.

[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.

[45] 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.

[46] Bluetooth® 5.4 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 5.4 will function as Bluetooth® 5.3 or lower.

Accessories for PC

Power

Power Adapters

HP 140W USB-C Laptop Charger	B7NK0AA
HP 140W USB-C Laptop Charger	B7NM4AA

Bags

Topload Bags

HP Travel Plus 22 Liter 16 Laptop Bag	A2CD0AA
HP Travel Plus 22 Liter 16 Laptop Bag	A2CE1AA

HyperX Gaming Peripherals

HyperX Gaming Headsets

★ : Recommended

HyperX Cloud Wireless Headset SC

HyperX Cloud III S Wireless Black Gaming Headset	A59YZAA
HyperX Cloud III S Wireless Black-Red Gaming Headset	A59Z0AA
HyperX Cloud III S Wireless White Gaming Headset	AX6G1AA

Monitors

HP Home Monitors

OMEN by HP Displays

OMEN 27 inch FHD 180Hz Gaming Monitor - OMEN 27 G2	AV4K1AA
OMEN 27 inch FHD 180Hz Gaming Monitor - OMEN 27 G2	AV4K1AS
OMEN 27 inch FHD 180Hz Gaming Monitor - OMEN 27 G2	AV4K1E9
OMEN 27 inch FHD 180Hz Gaming Monitor - OMEN 27 G2	AV4K2A6
OMEN 27 inch FHD 180Hz Gaming Monitor - OMEN 27 G2	AV4K2AA
OMEN 27 inch QHD 180Hz Gaming Monitor - OMEN 27q G2	AV4H6AA
OMEN 27 inch QHD 180Hz Gaming Monitor - OMEN 27q G2	AV4H6AS
OMEN 27 inch QHD 180Hz Gaming Monitor - OMEN 27q G2	AV4H6E9
OMEN 27 inch QHD 180Hz Gaming Monitor - OMEN 27q G2	AV4H7A6
OMEN 27 inch QHD 180Hz Gaming Monitor - OMEN 27q G2	AV4H7AA
OMEN 27 inch QHD 280Hz Gaming Monitor - OMEN 27qs G2	AW3V0AA
OMEN 27 inch QHD 280Hz Gaming Monitor - OMEN 27qs G2	AW3V0AS
OMEN 27 inch QHD 280Hz Gaming Monitor - OMEN 27qs G2	AW3V0E9
OMEN 27 inch QHD 280Hz Gaming Monitor - OMEN 27qs G2	AW3V1A6
OMEN 27 inch QHD 280Hz Gaming Monitor - OMEN 27qs G2	AW3V1AA
OMEN 31.5 inch UHD 144Hz Smart Gaming Monitor - OMEN 32x	99Z68AA
OMEN 31.5 inch UHD 144Hz Smart Gaming Monitor - OMEN 32x	99Z68AS
OMEN 31.5 inch UHD 144Hz Smart Gaming Monitor - OMEN 32x	99Z68E9
OMEN 31.5 inch UHD 144Hz Smart Gaming Monitor - OMEN 32x	99Z69AA
OMEN 34 inch WQHD 180Hz Curved Gaming Monitor - OMEN 34c G2	AV4C1AA
OMEN 34 inch WQHD 180Hz Curved Gaming Monitor - OMEN 34c G2	AV4C1AS
OMEN 34 inch WQHD 180Hz Curved Gaming Monitor - OMEN 34c G2	AV4C1E9
OMEN 34 inch WQHD 180Hz Curved Gaming Monitor - OMEN 34c G2	AV4E7A6
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 Transcend 31.5 inch UHD 240Hz OLED Gaming Monitor - OMEN Transcend 32	9R181E9
OMEN by HP 23.8 inch FHD 165Hz Gaming Monitor - OMEN 24	780D9AA
OMEN by HP 23.8 inch FHD 165Hz Gaming Monitor - OMEN 24	780D9AS
OMEN by HP 23.8 inch FHD 165Hz Gaming Monitor - OMEN 24	780D9E9

OMEN by HP 23.8 inch FHD 165Hz Gaming Monitor - OMEN 24	780F0A6
OMEN by HP 23.8 inch FHD 165Hz Gaming Monitor - OMEN 24	780F0AA
OMEN by HP 27 inch FHD 165Hz Gaming Monitor - OMEN 27	780F9AA
OMEN by HP 27 inch FHD 165Hz Gaming Monitor - OMEN 27	780F9AS
OMEN by HP 27 inch FHD 165Hz Gaming Monitor - OMEN 27	780F9E9
OMEN by HP 27 inch FHD 165Hz Gaming Monitor - OMEN 27	780G0AA
OMEN by HP 27 inch FHD 240Hz Gaming Monitor - OMEN 27s	780G5AA
OMEN by HP 27 inch FHD 240Hz Gaming Monitor - OMEN 27s	780G5AS
OMEN by HP 27 inch FHD 240Hz Gaming Monitor - OMEN 27s	780G5E9
OMEN by HP 27 inch FHD 240Hz Gaming Monitor - OMEN 27s	780G6AA
OMEN by HP 27 inch QHD 165Hz Gaming Monitor - OMEN 27q	780H4AA
OMEN by HP 27 inch QHD 165Hz Gaming Monitor - OMEN 27q	780H4AS
OMEN by HP 27 inch QHD 165Hz Gaming Monitor - OMEN 27q	780H4E9
OMEN by HP 27 inch QHD 165Hz Gaming Monitor - OMEN 27q	780H5AA
OMEN by HP 27 inch QHD 240Hz Gaming Monitor - OMEN 27qs	780J4AA
OMEN by HP 27 inch QHD 240Hz Gaming Monitor - OMEN 27qs	780J4AS
OMEN by HP 27 inch QHD 240Hz Gaming Monitor - OMEN 27qs	780J4E9
OMEN by HP 27 inch QHD 240Hz Gaming Monitor - OMEN 27qs	780J5AA
OMEN by HP 27 inch UHD 144Hz Gaming Monitor - OMEN 27k	780G8AA
OMEN by HP 27 inch UHD 144Hz Gaming Monitor - OMEN 27k	780G8AS
OMEN by HP 27 inch UHD 144Hz Gaming Monitor - OMEN 27k	780G8E9
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	780K6AA
OMEN by HP 31.5 inch QHD 165Hz Curved Gaming Monitor - OMEN 32c	780K6AS
OMEN by HP 31.5 inch QHD 165Hz Curved Gaming Monitor - OMEN 32c	780K6E9
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	780K0AA
OMEN by HP 31.5 inch QHD 165Hz Gaming Monitor - OMEN 32q	780K0AS
OMEN by HP 31.5 inch QHD 165Hz Gaming Monitor - OMEN 32q	780K0E9
OMEN by HP 31.5 inch QHD 165Hz Gaming Monitor - OMEN 32q	780K1AA
OMEN by HP 34 inch WQHD 165Hz Curved Gaming Monitor - OMEN 34c	780K8AA
OMEN by HP 34 inch WQHD 165Hz Curved Gaming Monitor - OMEN 34c	780K8AS
OMEN by HP 34 inch WQHD 165Hz Curved Gaming Monitor - OMEN 34c	780K8E9
OMEN by HP 34 inch WQHD 165Hz Curved Gaming Monitor - OMEN 34c	780K9AA

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