OMEN by HP Laptop 16-b0016nu (661V6EA)

Overview

Lift your play up. Way up.

Go beyond with OMEN by HP 16.1 inch Gaming Laptop. Powered by an Intel® Core™ processor[1] and powerful NVIDIA® graphics, play at your best from anywhere. Expand your gaming world with sharper and smoother visual experiences courtesy of a high resolution and a fast refresh rate display. Stay cool under pressure with OMEN Tempest Cooling Technology[2] that prevents overheating even when your game heats up.

Stay cool under pressure

With 3-sided venting and 5-way airflow, OMEN Tempest Cooling Technology[2] prevents overheating even when your game heats up.

Customize with OMEN Gaming Hub

Your one-stop shop to elevate gameplay, from controlling every little performance to lighting options and more.

Fast refresh rate during gaming

Play at your best with tear-free gameplay at a fast refresh rate and eliminate screen flickering with HP Flicker-free.[3]

Features

Get a fresh perspective

Windows 11 provides a calm and creative space where you can pursue your passions through a fresh experience. 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]

Exceptional experience, anywhere

11th Gen Intel® Core™ processors bring the perfect combination of features to make you unstoppable. Get things done fast with high performance, instant responsiveness and best-in-class connectivity.[5]

144Hz

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.[6]

Keyboard keycaps contain post-consumer recycled plastic

We're bringing a more sustainable design to our keyboards by using keycaps made with post-consumer recycled plastic.[18]

Effortlessly connected

Enjoy a smoother wireless experience with Wi-Fi 6 (2x2) and Bluetooth® 5.0 combo, all your connections are solid and up to 3x faster file transfer speeds than Wi-Fi 5.[7]

MU-MIMO supported

If you have several MU-MIMO devices in your home, MU-MIMO support works in combination with a MU-MIMO router to maximize network traffic for a smoother online experience.

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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, branding and/or naming is not a measurement of higher performance.

[2] Thermal solution varies by configuration.

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

[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] 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.

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

[7] Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs. The specifications for Wi-Fi 6 are draft and are not final. If the final specifications differ from the draft specifications, it may affect

the ability of the notebook to communicate with other Wi-Fi 6 devices. Only available in countries where 802.11ax is supported. Wi-Fi 6 (802.11ax) is not supported in Ukraine, Russia, and Indonesia where the Wi-Fi 6 (802.11ax) will be disabled and downgraded to 802.11ac by the Intel's DRS solution.

[18] Percentage of post-consumer recycled plastic contained in keycap varies by product.

Specifications

Operating system	Windows 11 Home
Product color	Shadow black cover and base, shadow black aluminum keyboard frame
Processor family	11th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-11800H (up to 4.6 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 8 cores, 16 threads)[6,7]
Chipset	Intel® HM570
Memory	16 GB DDR4-3200 MHz RAM (2 x 8 GB)
Internal Storage	1 TB PCIe® NVMe™ TLC M.2 SSD
Product design	Paint finish cover and base, sandblasted anodized keyboard frame
Optical drive	Optical drive not included
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics
Display	40.9 cm (16.1") diagonal, FHD (1920 x 1080), 144 Hz, 7 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 300 nits, 100% sRGB
Display	16.1" diagonal, FHD (1920 x 1080), 144 Hz, 7 ms response time, IPS, micro-edge, anti-glare, Low Blue Light, 300 nits, 100% sRGB
Display size (diagonal)	40.9 cm (16.1")
Display size (diagonal)	16.1"
Audio	Audio by Bang & Olufsen; DTS:X® Ultra; Dual speakers; HP Audio Boost
Minimum dimensions (W x D x H)	36.92 x 24.8 x 2.3 cm *(Dimensions vary by configuration)*
Minimum dimensions (W x D x H)	14.54 x 9.76 x 0.91 in
Weight	Starting at 2.3 kg *(Weight varies by configuration)*
Weight	Starting at 5.09 lb
Keyboard	Full-size, 1-zone white backlit, shadow black keyboard and 26-Key Rollover Anti-Ghosting Key technology
Pointing device	HP Imagepad with multi-touch gesture support; Precision Touchpad Support
Input devices	IR Thermal sensor
Camera	HP Wide Vision 720p HD camera with integrated dual array digital microphones
Ports	1 SuperSpeed USB Type-C® 10Gbps signaling rate (DisplayPort™ 1.4, HP Sleep and Charge); 1 SuperSpeed USB Type-A 5Gbps signaling rate (HP Sleep and Charge); 2 SuperSpeed USB Type-A 5Gbps signaling rate; 1 HDMI 2.1; 1 mini DisplayPort™; 1 RJ-45; 1 AC smart pin; 1 headphone/microphone combo[19]
Expansion slots	1 multi-format SD media card reader

Package dimensions (W x D x H)	6.9 x 55.2 x 34.5 cm
Package weight	4.01 kg
Network interface	Integrated 10/100/1000 GbE LAN
Wireless	Intel® Wi-Fi 6E AX210 (2x2) and Bluetooth® 5.2 combo (Supporting Gigabit data rate)
Power supply type	200 W Smart AC power adapter
Battery type	6-cell, 83 Wh Li-ion polymer
Battery life	Up to 6 hours and 45 minutes[3]
Battery recharge time	Supports battery fast charge: approximately 50% in 45 minutes[5]
Battery weight	0.69 lb
Battery weight	315 g
Ecolabels	EPEAT® registered
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure; Contains recycled metal; Keyboard keycaps made with post-consumer recycled plastic
Software included	McAfee LiveSafe™
Software – Productivity & finance	1 month trial for new Microsoft 365 customers[24]
Cloud service	25 GB Dropbox storage for 12 months[1]
UPC number	196548235889

Additional specifications

Battery capacity	83
Battery capacity uom	Wh
Battery cells number	6
Battery life	Long Life
Battery life video playback	Up to 8 hours and 15 minutes
Battery type	Li-ion polymer
Bluetooth version	Bluetooth® 5.2
Brightness	300 nits
Camera brand	HP Wide Vision
Camera microphone	integrated dual array digital microphones
Camera resolution (vertical)	720p
Camera resolution standard	HD
Color	Shadow black
Color gamut	100% sRGB
Display	40.9 cm (16.1") diagonal FHD display
Display	16.1" diagonal FHD display
Display bezel	micro-edge
Display brightness	300
Display brightness uom	nits
Display panel technology	IPS
Display refresh rate	144
Display refresh rate uom	Hz
Display resolution (pixels)	1920 x 1080
Display resolution standard	FHD
Display response time	7
Display response time uom	ms
Display size (diagonal) uom	"
Display size (diagonal, imperial)	16.1
Display size (diagonal, metric)	40.9
Display size (diagonal, metric) uom	cm
Display surface treatment	anti-glare
ECC memory	non-ECC
Fingerprint reader	Fingerprint reader not available

Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 3050 Ti Laptop GPU (4 GB GDDR6 dedicated)
Graphics card brand	NVIDIA®
Graphics card family	GeForce
Graphics card memory size	4
Graphics card memory size uom	GB
Graphics card memory type	GDDR6
Keyboard backlight	white backlit
Keyboard backlit zone	1-zone
Keyboard color	shadow black
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	DIMM
Memory size	16
Memory size uom	GB
Memory speed	3200
Memory speed uom	MHz
Memory type	DDR4
Model Number	RTX™ 3050 Ti
Number of User-accessible Memory Slots	2
Number of memory slots	2
Package depth, imperial (most common size)	21.73
Package depth, metric (most common size)	55.2
Package dimensions (W x D x H)	2.71 x 21.73 x 13.58 in
Package height, imperial (most common size)	13.58
Package height, metric (most common size)	34.5
Package weight	8.86 lb
Package width, imperial (most common size)	2.71
Package width, metric (most common size)	6.9

Packaging unit of measure (imperial)	in
Packaging unit of measure (metric)	cm
Processor Brand	Intel®
Processor cache	24 MB L3
Processor core	8
Processor family	Core™ i7
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	11th Generation
Processor maximum frequency	4.6
Processor maximum frequency uom	GHz
Processor model	11800H
Processor threads	16
Product brand name	HP
Product long name specifications	OMEN by HP Laptop 16-b0016nu, 16.1", Windows 11 Home, Intel® Core™ i7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 3050 Ti, FHD, Shadow black
Screen-to-body ratio (without speakers)	80.69%[18]
Storage capacity	1
Storage capacity uom 01	TB
Storage form factor 01	M.2
Storage interface 01	PCIe®
Storage interface protocol 01	NVMe™
Storage memory technology 01	TLC
Storage type	SSD
Storage type 01	SSD
Touchscreen	No
UNSPSC code	43211503
Wireless Model	Wi-Fi 6E AX210
Wireless antenna	2x2
Wireless standard	Wi-Fi 6E
Wireless supplier	Intel®
Wireless transfer speeds	Supporting Gigabit data rate
vPro enabled	non-vPro®

Accessories

Cases and Covers

Cases

OMEN Transceptor 17 Duffel Bag	**7MT82AA ★**
HP Prelude 17.3-inch Laptop Bag	34Y64AA

Covers

OMEN Transceptor 17 Sleeve	**3J045AA ★**

Backpacks

HP 17.3 in OMEN Gaming Backpack	K5Q03AA
HP Pavilion Gaming Backpack 300	6EU56AA
HP Pavilion Gaming Backpack 500	6EU58AA
OMEN by HP Gaming Backpack	4YJ80AA

Keyboards/Mice and Input Devices

Mice

OMEN by HP Hard Mouse Pad 200	**2VP01AA ★**
OMEN by HP Outpost Mousepad	**6CM14AA ★**
OMEN by HP Photon Wireless Mouse	**6CL96AA ★**
OMEN by HP Mouse Pad 300	**1MY15AA ★**
OMEN by HP Reactor Mouse	**2VP02AA ★**
OMEN Vector Mouse	**8BC53AA ★**
OMEN by HP Mouse Pad 100	**1MY14AA ★**
HP 150 Wired Mouse	240J6AA
HP 150 Wireless Mouse	2S9L1AA
HP 220 Silent Wireless Mouse	391R4AA
HP 220 Wireless Mouse	258A1AA
HP 220 Wireless Mouse	3FV66AA
HP 220 Wireless Mouse	7KX10AA
HP 220 Wireless Mouse	7KX11AA
HP 220 Wireless Mouse	7KX12AA
HP 280 Silent Wireless Mouse	19U64AA

HP 930 Creator Wireless Mouse	1D0K9AA	
HP Bluetooth Travel Mouse	6SP25AA	
HP Bluetooth® Mouse 250	6CR73AA	
HP Bluetooth® Mouse Z5000	2HW67AA	
HP Dual Mode Mouse	6CR71AA	
HP Dual Mode Mouse	6CR72AA	
HP ENVY Rechargeable Mouse 500	2LX92AA	
HP Elite Presenter Mouse	3YF38AA	
HP Pavilion Gaming Mouse 200	5JS07AA	
HP Pavilion Gaming Mouse 300	4PH30AA	
HP Pavilion Gaming Mouse 300	4PH31AA	
HP Spectre Rechargeable Mouse 700	3NZ70AA	
HP Spectre Rechargeable Mouse 700	3NZ71AA	
HP Wired Mouse 100	6VY96AA	
HP Wired Mouse 1000	4QM14AA	
HP Wireless Mouse 200	2HU82AA	
HP Wireless Mouse 200	2HU83AA	
HP Wireless Mouse 200	2HU84AA	
HP Wireless Mouse 200	2HU85AA	
HP Wireless Mouse 200	2VY31AA	
HP Wireless Mouse 200	X6W31AA	
HP Wireless Mouse 220 with Pouch	6JA61AA	
HP Wireless Mouse 250	3FV67AA	
HP Wireless Mouse X200	6VY95AA	
HP Wireless Mouse Z3700	4VY82AA	
HP Wireless Mouse Z3700	7UH87AA	
HP Wireless Mouse Z3700	7UH88AA	
HP Wireless Mouse Z4000	H5N61AA	
HP X1000 Mouse	H2C21AA	
HP X220 Backlit Gaming Mouse	8DX48AA	
HP X3000 G2 Wireless Mouse	28Y30AA	
HP X3000 G2 Wireless Mouse	2C3M3AA	
HP X4500 Wireless (Black) Mouse	H2W16AA	
HP X500 Wired Mouse	E5C12AA	obsolete
HP X500 Wired Mouse	E5E76AA	
HP Z3700 Black Wireless Mouse	26V63AA	

HP Z3700 Black Wireless Mouse	V0L79AA
HP Z3700 Blue Wireless Mouse	V0L81AA
HP Z3700 Camo Wireless Mouse	171D7AA
HP Z3700 Ceramic White Wireless Mouse	171D8AA
HP Z3700 Forest Teal Wireless Mouse	171D9AA
HP Z3700 Gold Wireless Mouse	X7Q43AA
HP Z3700 Red Wireless Mouse	V0L82AA
HP Z3700 Silver Wireless Mouse	X7Q44AA
HP Z3700 White Wireless Mouse	V0L80AA
HP Z5000 Bluetooth Mouse	E5C13AA
HP Z5000 Dark Ash Silver Wireless Mouse	W2Q00AA
OMEN Vector Essential Mouse	8BC52AA
OMEN Vector Wireless Mouse	2B349AA

Keyboards

OMEN by HP Sequencer Keyboard	**2VN99AA ★**
OMEN by HP Encoder Keyboard	**6YW76AA ★**
HP Dual Mode Keyboard 1000	18J71AA
HP K2500 Wireless Keyboard	E5E78AA
HP Keyboard 100	2UN30AA
HP Pavilion Gaming Keyboard 550	9LY71AA
HP Pavilion Gaming Keyboard 800	5JS06AA
HP Pavilion Wired Keyboard 300	4CE96AA
HP Pavilion Wireless Keyboard 600	4CE98AA
HP Pavilion Wireless Keyboard 600	4CF02AA
OMEN Spacer Wireless TKL Keyboard	9BU31AA
OMEN by HP Encoder Keyboard	6YW75AA

Keyboard and Mouse Kits

HP 150 Wired Mouse and Keyboard	240J7AA
HP 230 Wireless Mouse and Keyboard Combo	18H24AA
HP 330 Wireless Mouse and Keyboard Combination	2V9E6AA
HP C2500 Desktop	J8F15AA
HP Pavilion Keyboard and Mouse 200	9DF28AA
HP Pavilion Wired Keyboard and Mouse 400	4CE97AA
HP Pavilion Wireless Keyboard and Mouse 800	4CE99AA

HP Pavilion Wireless Keyboard and Mouse 800	4CF00AA
HP Wired Keyboard and Mouse 160	6HD76AA
HP Wireless Keyboard and Mouse 250	6JU16AA
HP Wireless Keyboard and Mouse 300	3ML04AA

Audio/Multimedia and Communication Devices

Headsets

OMEN Blast Headset	**1A858AA ★**
HP Bluetooth Headset 500	2J875AA
HP Boom Mic Headset 150	2EM62AA
HP Earbuds Black Headset 150	X7B04AA
HP H2800 Black Headset	J8F10AA
HP In-Ear Headphone 100	1KF54AA
HP In-Ear Headset 150	2AP91AA
HP Pavilion Gaming Headset 400	4BX31AA
HP Pavilion Gaming Headset 600	4BX33AA
HP Stereo Headset H2800	2AP94AA
HP X1000 Wireless Gaming Headset	7HC43AA
OMEN by HP Mindframe Prime Headset	6MF35AA
OMEN by HP Mindframe Prime Headset	6MF36AA

Headphones

OMEN Dyad Earbuds	**8JE67AA ★**
HP Wireless Earbuds G2	169H9AA

Speakers

HP Black Bluetooth Speaker 350	2D802AA
HP Black Bluetooth Speaker 360	2D799AA
HP Blue Bluetooth Speaker 350	2D803AA
HP Blue Bluetooth Speaker 360	2D800AA
HP Gaming Speakers X1000	8PB07AA
HP Silver Bluetooth Speaker 350	2D804AA
HP Silver Bluetooth Speaker 360	2D801AA

Networking Products

Switches/Hubs/Routers/Converters/Repeaters

HP ENVY USB-C Hub	5LX63AA

Graphics Cards

Graphics Connectors/Adapters

HP HDMI to VGA Cable Adapter	X1B84AA

Batteries/Chargers/Adapters

Power Adapters

HP Pavilion USB-C to HDMI 2.0 Adapter	2PC54AA

Docking and Port Replicators

Docking Stations

HP Thunderbolt Dock 120W with HDMI Adapter	6HP48AA
HP Travel USB-C Multi Port Hub	1C1Y5AA
HP USB-C Dock G5	26D32AA
HP USB-C Travel Hub G2	235N8AA

PC Drives and Storage

PC DVD+RW Drives

HP USB External DVDRW Drive	F6V97AA

Cables/Cable Kits/Cable Adapters

Cable Adapters

HP USB Type-C to RJ45 Adapter	V8Y76AA
HP USB-C to HDMI 2.0	1WC36AA
HP USB-C to HDMI 2.0	1WC36UT
HP USB-C to RJ45 Adapter	V7W66AA
HP USB-C to RJ45 Adapter	V7W66UT
HP USB-C to USB-A Hub	Z6A00AA
HP USB-C to USB-A Hub	Z6A00UT
HP USB-C to VGA Adapter	N9K76AA
HP USB-C to VGA Adapter	N9K76UT

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