



HP Pavilion Gaming Laptop 16-a0156ng (2F2F6EA)



Overview

Big screen, small laptop

A 40.9 cm (16.1") display in a 39.6 cm (15.6") footprint, the Pavilion Gaming 16 Laptop PC is here to play. With a powerful Intel® processor and NVIDIA® graphics for dynamic gameplay and Audio by B&O for full immersion. Plus Wi-Fi 6[2], upgradeable storage and memory and the full range of I/O ports, you've got the ultimate on-the-go gaming experience at your fingertips.[1]



Powered for every move

The power to master any game. With a powerful Intel® processor and NVIDIA® graphics, this gaming laptop will tackle everything you throw at it. The enhanced thermals keep everything cool, so you can game harder, better, faster and longer.



Designed with the gamer in mind

Stay connected from anywhere thanks to fast wireless connectivity. The large PCIe SSD makes stashing files a snap. Plus there is a full range of I/O ports, so you've also got plenty of room for accessories.

144Hz

Get lost in play

Make every level mesmerizing with a fast 40.9 cm (16.1") micro-edge display in a 39.6 cm (15.6") body. Along with enhanced Audio by B&O, you can see, do, hear and play more without carrying more.

Features



10th Generation Intel® Core™ processor

Experience power and responsive performance to boost your productivity. Enjoy immersive entertainment and game, stream and create content with accelerated performance.^[3]



FHD IPS display

Enjoy crystal-clear images from any angle. With 178° wide-viewing angles and a vibrant 1920 x 1080 resolution, you'll always have a great view of your favorite content.^[4]



Highly accurate color

With the 72% NTSC color space, this HP display provides ideal color reproduction with minimal effort. Perfect for photos, videos—all your creative projects.^[5]



NVIDIA® GeForce® GTX 1650 graphics

With the all-new NVIDIA Turing™ architecture, gaming and streaming will never be the same. Get all the power you need for fast, smooth, power-efficient performance from NVIDIA® GeForce® GTX 1650.



144 Hz FHD anti-glare display

Reduce frustrating lag and image ghosting with a display that combines a 144 Hz refresh rate, G-Sync support, and a 1080p resolution for smooth, crisp gameplay.^[5]



Visibly brilliant detail

With 300 nits of brightness, view beautiful details, enhanced image quality, and distinct shades of color—even in bright lighting conditions.^[5]

[1] This device has been engineered for optimal performance. Upgrading PC may affect warranty coverage.

[2] Wi-Fi 6 (802.11ax) is not supported in Ukraine, Russia, and Indonesia where Wi-Fi settings will be optimized to local regulatory requirements (802.11ac).

[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. Intel's numbering, branding and/or naming is not a measurement of higher performance. Internet service required and not included. 4K content required to view full 4K images. Graphics output may be limited based on the maximum resolution of the display.

[4] Full high-definition (FHD) content is required to view FHD images.

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

Specifications

Operating system	FreeDOS
Product color	Shadow black, acid green chrome logo
Processor family	10th Generation Intel® Core™ i5 processor
Processor	Intel® Core™ i5-10300H (2.5 GHz base frequency, up to 4.5 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores) ^[6,7]
Chipset	Intel® HM470
Memory	16 GB DDR4-2933 SDRAM (2 x 8 GB)
Internal Storage	512 GB PCIe® NVMe™ M.2 SSD
Product design	Paint finish
Optical drive	Optical drive not included
Display	40.9 cm (16.1") diagonal, FHD (1920 x 1080), 144 Hz, IPS, micro-edge, anti-glare, 300 nits, 72% NTSC
Display size (diagonal)	40.9 cm (16.1")
Audio features	Audio by B&O; Dual speakers; HP Audio Boost 1.0
Minimum dimensions (W x D x H)	37 x 26.25 x 2.35 cm (Dimensions vary by configuration)
Weight	Starting at 2.35 kg (Weight varies by configuration)
Keyboard	Full-size, acid green backlit, shadow black keyboard with numeric keypad
Pointing device	HP Imagepad with multi-touch gesture support; Precision Touchpad Support
Input devices	Accelerometer
Webcam	HP True Vision 720p HD camera with integrated dual array digital microphones
Ports	1 SuperSpeed USB Type-C® 5Gbps signaling rate (DisplayPort™ 1.4); 1 SuperSpeed USB Type-A 5Gbps signaling rate (HP Sleep and Charge); 1 SuperSpeed USB Type-A 5Gbps signaling rate; 1 HDMI 2.0; 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	3.07 kg
Network interface	Integrated 10/100/1000 GbE LAN
Wireless	Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 5 combo ^[14]
Power supply type	150 W Smart AC power adapter
Battery type	3-cell, 52.5 Wh Li-ion polymer
Battery life	Up to 5 hours and 45 minutes ^[3]

Battery recharge time	Supports battery fast charge: approximately 50% in 45 minutes ^[5]
Battery weight	210 g
UPC number	195161359941
Warranty	1 year limited parts, labour, and pickup and return service
Limited warranty coverage and exceptions	You can expand the warranty coverage of your product to reach up to 3 years in total; for more information go to the "Options and accessories" web section on hp.com product pages.

Additional specifications

Additional information about HP	http://www.hp.com
Battery capacity	52.5
Battery capacity uom	Wh
Battery cells number	3
Battery life video playback	Up to 7 hours and 30 minutes
Battery type	Li-ion polymer
Bluetooth version	Bluetooth® 5
Brightness	300 nits
Color gamut	72% NTSC
Datasheet photo 1	AHID/b297ecc80fabb24ebda9ca7111bb4bfdcd2b1892
Datasheet photo 2	AHID/294ab29fd7dd2f5f0363316443215bc8b2bc033c
Datasheet photo 3	AHID/6f8a4e59c0f5d285012d7449fef2851eeddc00c9
Datasheet photo 4	AHID/71d72f4b12f0f4ace971a097a811a40c1739980a
Datasheet photo 5	Publication logos/pc-carepack-logo.jpg
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 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	No
Fingerprint reader	Fingerprint reader not available
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce® GTX 1650 Ti (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
MDA key selling point	Windows 10 Home or other operating systems available
Memory and storage	16 GB memory; 512 GB SSD storage
Memory layout (slots & size)	2 x 8 GB
Memory module type	DIMM
Memory size	16
Memory size uom	GB
Memory speed	2933
Memory speed uom	MHz
Memory type	DDR4
Model Number	GTX 1650 Ti
Number of User-accessible Memory Slots	2
Number of memory slots	2
Package depth, imperial (extended size)	23.54
Package depth, imperial (most common size)	21.73
Package depth, metric (extended size)	59.8
Package depth, metric (most common size)	55.2
Package height, imperial (extended size)	13.58
Package height, imperial (most common size)	13.58
Package height, metric (extended size)	34.5
Package height, metric (most common size)	34.5
Package width, imperial (extended size)	2.71
Package width, imperial (most common size)	2.71
Package width, metric (extended size)	6.9
Package width, metric (most common size)	6.9

Packaging unit of measure (imperial)	in
Packaging unit of measure (metric)	cm
Processor Brand	Intel®
Processor base frequency	2.5
Processor base frequency uom	GHz
Processor cache	8 MB L3
Processor core	4
Processor family	Core™ i5
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	10th Generation
Processor maximum frequency	4.5
Processor maximum frequency uom	GHz
Processor model	10300H
Processor speed	2.5 GHz
Processor threads	8
Product brand name	HP
Product language options	#ABD
Service description	3-year pickup and return
Storage capacity 01	512
Storage capacity uom 01	GB
Storage form factor 01	M.2
Storage interface 01	PCIe®
Storage interface protocol 01	NVMe™
Storage type	SSD
Storage type 01	SSD
Technology logo, print 7	Publication logos/Nvidia_Geforce_GTX_icon_new.jpg
Touchscreen	No
Wireless Model	RTL8822CE
Wireless antenna	2x2
Wireless standard	802.11a/b/g/n/ac
Wireless supplier	Realtek

[3] Windows 10 MobileMark 18 Battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The

maximum capacity of the battery will naturally decrease with time and usage. See <https://bapco.com/products/mobilemark-2018/> for additional details.

[5] Recharges your battery up to 50% within 45 minutes when the system is off (using "shut down" command). Recommended for use with the HP adapter provided with the notebook, not recommended with a smaller capacity battery charger. 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. See <http://store.hp.com> for a full list of product features.

[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.

[14] Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 5 (802.11ac) is backwards compatible with prior Wi-Fi 5 specs.

[19] HP Sleep and Charge requires USB Type-A/Type-C charging protocol standard cable or dongle with external device for full functionality.

Audio/Multimedia and Communication Devices

★ : Recommended

Speakers

HP Gaming Speakers X1000	8PB07AA ★
HP Black Bluetooth Speaker 350	2D802AA
HP Blue Bluetooth Speaker 350	2D803AA
HP Silver Bluetooth Speaker 350	2D804AA

Headphones

OMEN Dyad Earbuds	8JE67AA ★
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Headsets

HP X1000 Wireless Gaming Headset	7HC43AA ★	
HP Bluetooth Headset 500	2J875AA	
HP Earbuds Black Headset 150	X7B04AA	
HP In-Ear Headset 150 (Marine Blue)	2AP91AA	
HP Stereo Headset H2800 (Black w. Silk Gold)	2AP94AA	
HP Stereo Headset H2800 (White w. Pike Silver)	2AP95AA	
HP X1000 Wireless Gaming Headset	7HC42AA	
OMEN Blast Headset	1A858AA	
OMEN Frequency Wireless Headset	9FL60AA	obsolete
OMEN by HP Headset 800	1KF76AA	
OMEN by HP Mindframe Prime Headset	6MF35AA	
OMEN by HP Mindframe Prime Headset	6MF36AA	
Omen X by HP Mindframe Headset	3XT27AA	obsolete

Cases and Covers

Backpacks

HP Pavilion Gaming Backpack 500	6EU58AA ★
HP Pavilion Gaming Backpack 400	6EU57AA ★
OMEN Transceptor 15 Backpack	7MT84AA ★
HP 15.6 Odyssey Backpack	7XG61AA
HP 15.6 Odyssey Backpack	7XG62AA

HP 15.6 Odyssey Sport Backpack - Facets Grey	5WK93AA
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HP 15.6 Odyssey Sport Backpack - Facets White	5WK92AA
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HP 17.3 in OMEN Gaming Backpack	K5Q03AA
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HP 39.62 cm (15.6") Pavilion Accent Backpack Black/Gold	4QF96AA
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HP 39.62 cm (15.6") Pavilion Accent Backpack Black/Silver	4QF97AA
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HP ENVY Urban 15 Backpack	7XG56AA
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HP ENVY Urban 39.62 cm (15.6") Backpack	3KJ72AA
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HP Renew 15 Grey Backpack	1A211AA
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HP Renew 15 Navy Backpack	1A212AA
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HP Spectre Folio Backpack	8GF06AA
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OMEN by HP Gaming Backpack	4YJ80AA
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Cases

HP 39.62 cm(15.6") Pavilion Accent Black/Gold	4QF94AA
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HP 39.62 cm(15.6") Pavilion Accent Black/Silver	4QF95AA
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HP 43.94 cm (17.3") Signature Slim Topload Case	T0E19AA
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HP 43.94 cm (17.3") Value Topload Case	T0E18AA
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HP Renew 14 Grey Slim Briefcase	1A214AA
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HP Renew 14 Navy Slim Briefcase	1A215AA
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OMEN Transceptor 17 Duffel Bag	7MT82AA
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Covers

HP 43.94 cm (17.3") Carry Sleeve Black/Gold	3XD37AA
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HP ENVY Urban 39.62 cm (15.6") Sleeve	3KJ70AA
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HP Envy Urban 15.6 Sleeve	7XG60AA
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Keyboards/Mice and Input Devices

Keyboards

HP Pavilion Gaming Keyboard 800	5JS06AA ★
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HP Pavilion Gaming Keyboard 550	9LY71AA ★
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OMEN by HP Encoder Keyboard	6YW75AA ★
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HP K1500 Keyboard	H3C52AA
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HP K2500 Wireless Keyboard	E5E78AA
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HP Keyboard 100	2UN30AA
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HP Pavilion Wired Keyboard 300	4CE96AA
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HP Pavilion Wireless Keyboard 600 Black	4CE98AA
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HP Pavilion Wireless Keyboard 600 White	4CF02AA	
OMEN Spacer Wireless TKL Keyboard	9BU31AA	
OMEN by HP Encoder Keyboard	6YW76AA	
OMEN by HP Keyboard 1100	1MY13AA	obsolete
OMEN by HP Sequencer Keyboard	2VN99AA	

Mice

HP Pavilion Gaming Mouse 300	4PH30AA ★	
HP Pavilion Gaming Mouse Pad 300	4PZ84AA ★	
HP Pavilion Gaming Mouse 200	5JS07AA ★	
HP Pavilion Gaming Mouse Pad 400	5JH72AA ★	
OMEN Vector Mouse	8BC53AA ★	
OMEN by HP Mouse Pad 300	1MY15AA ★	
HP Bluetooth Travel Mouse	6SP25AA	
HP Bluetooth® Mouse Z5000	2HW67AA	
HP Bluetooth® Mouse Z5000	E5C13AA	
HP Dual Mode Black Mouse 300	6CR71AA	
HP ENVY Rechargeable Mouse 500	2LX92AA	
HP Elite Presenter Mouse	3YF38AA	
HP Spectre Rechargeable Mouse 700	4YH34AA	
HP Spectre Rechargeable Mouse 700 (Bordeaux Burgundy)	5VD59AA	
HP Spectre Rechargeable Mouse 700 (Luxe Cooper)	3NZ70AA	
HP Spectre Rechargeable Mouse 700 (Turbo Silver)	3NZ71AA	
HP Wired Mouse 100	6VY96AA	
HP Wired Mouse 1000	4QM14AA	
HP Wireless Mouse 200	X6W31AA	
HP Wireless Mouse 200 (Empress Red)	2HU82AA	
HP Wireless Mouse 200 (Pike Silver)	2HU84AA	
HP Wireless Mouse 200 (Silk Gold)	2HU83AA	
HP Wireless Mouse 220	3FV66AA	
HP Wireless Mouse 220 (Lumiere Blue)	7KX11AA	
HP Wireless Mouse 220 (Snow White)	7KX12AA	
HP Wireless Mouse 220 (Sunset Red)	7KX10AA	
HP Wireless Mouse 250	3FV67AA	
HP Wireless Mouse X200	6VY95AA	
HP Wireless Mouse Z3700	7UH85AA	

HP Wireless Mouse Z3700	7UH86AA	obsolete
HP Wireless Mouse Z3700	7UH88AA	
HP Wireless Mouse Z3700	7UH89AA	
HP Wireless Mouse Z3700 - White/Pink	4VY82AA	
HP Wireless Mouse Z4000	H5N61AA	
HP X1500 Mouse	H4K66AA	
HP X220 Backlit Gaming Mouse	8DX48AA	
HP X4500 Wireless (Metal Black) Mouse	H2W26AA	
HP X500 Wired Mouse	E5E76AA	
HP X900 Wired Mouse	V1S46AA	obsolete
HP Z3700 Black Wireless Mouse	V0L79AA	
HP Z3700 Blue Wireless Mouse	V0L81AA	
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 Dark Ash Silver Wireless Mouse	W2Q00AA	
OMEN Vector Essential Mouse	8BC52AA	
OMEN Vector Wireless Mouse	2B349AA	
OMEN by HP Hard Mouse Pad 200	2VP01AA	
OMEN by HP Mouse 400	3ML38AA	obsolete
OMEN by HP Mouse 600	1KF75AA	obsolete
OMEN by HP Mouse Pad 100	1MY14AA	
OMEN by HP Mouse Pad 200	3ML37AA	
OMEN by HP Outpost Mousepad	6CM14AA	
OMEN by HP Photon Wireless Mouse	6CL96AA	
OMEN by HP Reactor Mouse	2VP02AA	
OMEN by HP Reactor Mouse	7ZF19AA	obsolete

Keyboard and Mouse Kits

HP C2710 Combo Keyboard	M7P30AA
HP Pavilion Keyboard and Mouse 200	9DF28AA
HP Pavilion Wired Keyboard and Mouse 400	4CE97AA
HP Pavilion Wireless Keyboard and Mouse 800	4CF00AA

HP Pavilion Wireless Keyboard and Mouse 800 (Black)	4CE99AA
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HP Wired Combo C2500	H3C53AA
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HP Wired Keyboard and Mouse 160	6HD76AA
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HP Wireless Keyboard and Mouse 300	3ML04AA
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Networking Products

Switches/Hubs/Routers/Converters/Repeaters

HP ENVY USB-C Hub	5LX63AA
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Graphics Cards

Graphics Connectors/Adapters

HP HDMI to VGA Cable Adapter	X1B84AA
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Batteries/Chargers/Adapters

Power Adapters

HP Pavilion USB-C™ to HDMI 2.0 Adapter	2PC54AA
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PC Drives and Storage

PC DVD+RW Drives

HP USB External DVDRW Drive	F6V97AA
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Cables/Cable Kits/Cable Adapters

Cable Adapters

HP USB Type-C to RJ45 Adapter	V8Y76AA	
HP USB-C to USB-A Hub	Z8W90AA	obsolete
HP USB-C to VGA Display Adapter	P7Z54AA	

Application Software

★ : Recommended

Desktop Application Software

Microsoft Office 2016 Home and Business Software	X7Q47AA	obsolete
Microsoft Office 2016 Home and Student Software	X7Q46AA	obsolete

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