



OMEN Gaming Laptop 16-k0001sa (734G1EA)



Overview

Maximum power meets maximum cool.

The OMEN Laptop is ready to go wherever you are. Enjoy desktop-level power with a 12th Gen Intel® Core™ processor[1] and a modern graphics card, both regulated by OMEN Tempest Cooling. The screen is equally impressive with high resolution and TUV Eyesafe Low Blue Light [2]. This gaming laptop even lets you expand with plenty of USB ports[3,4].



Desktop levels of power

Your processor[1] and graphics stay cool even when your gameplay heats up with OMEN Tempest Cooling.



Room for peripherals

Hook up an external drive, additional GPUs, or your smartphone with plenty of USB ports[4].



Immersive 16.1" screen

Escape into a massive screen with 3-sided bezel edges, high resolution, and TUV Eyesafe Low Blue Light[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.^[5]



NVIDIA® GeForce RTX™ 3060

Get incredible performance with enhanced Ray Tracing Cores and Tensor Cores, new streaming multiprocessors, and high-speed G6 memory.^[7]

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.



A dynamic processor that adapts to you for superior multi-tasking performance

12th Gen Intel® Core™ processors distributes performance where you need it the most — saving you time and increasing your ability to do the things you actually want.^[6]



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.^[8]

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.^[9]

[1] Multi-core is designed to improve the performance of certain software products. Not all customers or software applications will necessarily benefit from the 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] Eyesafe certified. See <https://www.tuv.com/world/en/eye-comfort.html> for more details.

[3] USB Type-C® and USB-C® are trademarks of USB Implementers Forum.

[4] 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.

[5] 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>.

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other trademarks and copyrights are the property of their respective owners.

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

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

Specifications

Operating system	Windows 11 Home
Product color	Shadow black cover and base, shadow black aluminum keyboard frame
Processor family	12th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-12700H (up to 4.7 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 14 cores, 20 threads) ^[6,7]
Chipset	Intel® Integrated SoC
Memory	16 GB DDR5-4800 MHz RAM (2 x 8 GB)
Internal Storage	1 TB PCIe® Gen4 NVMe™ TLC M.2 SSD
Product design	Paint finish cover and base, anodized keyboard frame
Graphics	Integrated
Graphics (integrated)	Intel® Iris® X ^e 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)	36.9 x 24.8 x 2.3 cm
Minimum dimensions (W x D x H)	14.53 x 9.76 x 0.89 in
Weight	Starting at 2.35 kg
Weight	Starting at 5.19 lb
Keyboard	Full-size, 4-zone RGB backlit, shadow black keyboard and 26-Key Rollover Anti-Ghosting Key technology
Pointing device	HP Imagepad with multi-touch gesture support
Input devices	IR Thermal sensor; Ambient light sensor
Camera	HP Wide Vision 720p HD camera with temporal noise reduction and integrated dual array digital microphones
Ports	2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4, HP Sleep and Charge); 1 USB Type-A 5Gbps signaling rate (HP Sleep and Charge); 2 USB Type-A 5Gbps signaling rate; 1 AC smart pin; 1 HDMI 2.1; 1 headphone/microphone combo; 1 RJ-45 ^[19,20,42]
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	3.9 kg
Network interface	Integrated 10/100/1000 GbE LAN

Wireless	Intel® Wi-Fi 6E AX211 (2x2) and Bluetooth® 5.3 wireless card (supporting gigabit data rate)
Power supply type	280 W Smart AC power adapter
Battery type	6-cell, 83 Wh Li-ion polymer
Battery life	Up to 7 hours ^[3]
Battery recharge time	Supports battery fast charge: approximately 50% in 30 minutes ^[5]
Battery weight	0.63 lb
Battery weight	290 g
Ecolabels	EPEAT® Gold registered
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure(s) and bezel; Recycled metal in keyboard frame; Keyboard keycaps and scissors contain post-consumer recycled plastic
Security management	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	197029077332

Additional specifications

Aspect ratio	16:9
Battery capacity	83
Battery capacity uom	Wh
Battery cells number	6
Battery life video playback	Up to 9 hours and 15 minutes
Battery type	Li-ion polymer
Bluetooth version	Bluetooth® 5.3
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
Ethernet (RJ-45)	1

Flicker-free	Yes ^[45]
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 3060 Laptop GPU (6 GB GDDR6 dedicated)
Graphics card brand	NVIDIA®
Graphics card family	GeForce
Graphics card memory size	6
Graphics card memory size uom	GB
Graphics card memory type	GDDR6
HDMI out – version	2.1
HDMI –out	1
Headphone/microphone combo	1
Keyboard backlight	RGB backlit
Keyboard backlit zone	4-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	4800
Memory speed uom	MHz
Memory type	DDR5
Model Number	RTX™ 3060
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	8.62 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
Playbook TS icon OS	http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905482.png
Playbook TS icon battery life	http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905264.png
Playbook TS icon connectivity	http://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	http://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	http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08192819.png
Playbook TS icon weight imperial	http://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	14
Processor family	Core™ i7
Processor frequency technology	Intel® Turbo Boost Technology
Processor generation	12th Generation
Processor maximum frequency	4.7
Processor maximum frequency uom	GHz
Processor model	12700H
Processor threads	20
Product brand name	HP
Product long name specifications	OMEN Gaming Laptop 16-k0001sa, Windows 11 Home, 16.1", Intel® Core™ i7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 3060, FHD, Shadow black
Product long name specifications V2	OMEN Gaming Laptop 16, Windows 11 Home, 16.1", Intel® Core™ i7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 3060, FHD, Shadow black
Product short name specifications	OMEN Gaming Laptop 16-k0001sa, 16.1", Intel® Core™ i7, 16GB RAM, 1TB SSD
Screen-to-body ratio (without speakers)	82.12% ^[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
Thunderbolt™ 4 ports	2
Touchscreen	No
UNSPSC code	43211503
USB Type-A	3
Wireless Model	Wi-Fi 6E AX211
Wireless antenna	2x2
Wireless standard	Wi-Fi 6E
Wireless supplier	Intel®
Wireless transfer speeds	Supporting Gigabit data rate

[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.

[3] Windows 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 30 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.

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[7] Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost/> for more information.

[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.

[20] USB 20Gbps is not available.

[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] Coverage and Throughput improvements with Dynamic Antenna Gain feature enabled based on outdoor free space environment using Friis formula. Dynamic Antenna Gain is a feature under HP Extended Range Wireless Lan. Dynamic Antenna Gain feature is available in EU Red Countries covered by EU and China approval.

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