



# OMEN by HP Laptop 16-b0001nj (4T9K7EA)



## 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



### 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.<sup>[4]</sup>



### 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.



### SuperSpeed USB Type-A 5Gbps signaling data rate

Plug in your external storage with this SuperSpeed USB Type-A port, featuring 5Gbps signaling data rate.<sup>[7]</sup>

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.<sup>[5]</sup>



### HP Wide Vision HD Camera

The 88-degree, wide-angle field of view lets you video chat with the entire family or group of friends in crystal clear detail.<sup>[6]</sup>

SSD

### PCIe NVMe™ M.2 SSD storage

Boot up in seconds with lightning fast speed with up to 1 TB PCIe NVMe™ M.2 SSD storage.

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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] 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.*

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

*[6] Features may require software or other 3rd party applications to provide the described functionality.*

*[7] Actual throughput may vary.*

## Specifications

<b>Operating system</b>	FreeDOS
<b>Product color</b>	Shadow black cover and base, shadow black aluminum keyboard frame
<b>Processor family</b>	11th Generation Intel® Core™ i7 processor
<b>Processor</b>	Intel® Core™ i7-11800H (up to 4.6 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 8 cores, 16 threads) <sup>[6,7]</sup>
<b>Chipset</b>	Intel® HM570
<b>Memory</b>	16 GB DDR4-3200 MHz RAM (2 x 8 GB)
<b>Internal Storage</b>	1 TB PCIe® NVMe™ TLC M.2 SSD
<b>Product design</b>	Paint finish cover and base, sandblasted keyboard frame
<b>Display</b>	40.9 cm (16.1") diagonal, FHD (1920 x 1080), 144 Hz, IPS, micro-edge, anti-glare, 250 nits, 45% NTSC
<b>Display size (diagonal)</b>	40.9 cm (16.1")
<b>Audio</b>	Audio by Bang & Olufsen; DTS:X® Ultra; Dual speakers; HP Audio Boost
<b>Minimum dimensions (W x D x H)</b>	36.92 x 24.8 x 2.25 cm <i>(Dimensions vary by configuration)</i>
<b>Weight</b>	2.3 kg <i>(Weight varies by configuration)</i>
<b>Keyboard</b>	Full-size, 1-zone white backlit, shadow black keyboard and 26-Key Rollover Anti-Ghosting Key technology
<b>Pointing device</b>	HP Imagepad with multi-touch gesture support; Precision Touchpad support
<b>Input devices</b>	IR Thermal sensor
<b>Camera</b>	HP Wide Vision 720p HD camera with integrated dual array digital microphones
<b>Ports</b>	1 SuperSpeed USB Type-C® 10Gbps signaling rate (USB Power Delivery, 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 RJ-45; 1 AC smart pin; 1 headphone/microphone combo; 1 mini DisplayPort™ <sup>[19]</sup>
<b>Expansion slots</b>	1 multi-format SD media card reader
<b>Package dimensions (W x D x H)</b>	6.9 x 55.2 x 34.5 cm
<b>Package weight</b>	4.01 kg
<b>Network interface</b>	Integrated 10/100/1000 GbE LAN
<b>Wireless</b>	Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5.2 wireless card (supporting gigabit data rate) <sup>[11,12,13]</sup>
<b>Power supply type</b>	200 W Smart AC power adapter
<b>Battery type</b>	4-cell, 70 Wh Li-ion polymer <i>([23])</i>

<b>Battery life</b>	Up to 6 hours and 45 minutes <sup>[3]</sup>
<b>Battery recharge time</b>	Supports battery fast charge: approximately 50% in 30 minutes <sup>[5]</sup>
<b>Battery weight</b>	0.63 lb
<b>Battery weight</b>	290 g
<b>Sustainable impact specifications</b>	Ocean-bound plastic in speaker enclosure(s); Recycled metal in keyboard frame and hinge cap(s); Keyboard keycaps made with post-consumer recycled plastic
<b>Security management</b>	Trusted Platform Module (Firmware TPM) support
<b>UPC number</b>	196188287088
<b>Manufacturer Warranty</b>	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.

## Additional specifications

<b>Additional information about HP</b>	<a href="http://www.hp.com">http://www.hp.com</a>
<b>Battery capacity</b>	70
<b>Battery capacity uom</b>	Wh
<b>Battery cells number</b>	4
<b>Battery life</b>	Long Life
<b>Battery life video playback</b>	Up to 8 hours and 15 minutes
<b>Battery type</b>	Li-ion polymer
<b>Bluetooth version</b>	Bluetooth® 5.0
<b>Brightness</b>	250 nits
<b>Camera brand</b>	HP Wide Vision
<b>Camera microphone</b>	integrated dual array digital microphones
<b>Camera resolution (vertical)</b>	720p
<b>Camera resolution standard</b>	HD
<b>Color</b>	Shadow black
<b>Color gamut</b>	45% NTSC
<b>Datasheet photo 1</b>	AHID/55b899615ba3fa8398bf2f06ab3ef091e3741b5b
<b>Datasheet photo 2</b>	AHID/03cf74cc3922a848dae0aa39ef978332f7766afe
<b>Datasheet photo 3</b>	AHID/4c501a5e74e283664d7c5e4c6c90fc8322615513
<b>Datasheet photo 4</b>	AHID/ffa1691038f78afcd51efc2c557109d80b6ca295
<b>Display</b>	40.9 cm (16.1") diagonal FHD display
<b>Display bezel</b>	micro-edge
<b>Display brightness</b>	250
<b>Display brightness uom</b>	nits
<b>Display panel technology</b>	IPS
<b>Display refresh rate</b>	144
<b>Display refresh rate uom</b>	Hz
<b>Display resolution (pixels)</b>	1920 x 1080
<b>Display resolution standard</b>	FHD
<b>Display size (diagonal) uom</b>	"
<b>Display size (diagonal, imperial)</b>	16.1
<b>Display size (diagonal, metric)</b>	40.9
<b>Display size (diagonal, metric) uom</b>	cm
<b>Display surface treatment</b>	anti-glare

<b>ECC memory</b>	non-ECC
<b>Graphics</b>	Discrete
<b>Graphics (discrete)</b>	NVIDIA® GeForce RTX™ 3050 Ti Laptop GPU (4 GB GDDR6 dedicated)
<b>Graphics card brand</b>	NVIDIA®
<b>Graphics card family</b>	GeForce
<b>Graphics card memory size</b>	4
<b>Graphics card memory size uom</b>	GB
<b>Graphics card memory type</b>	GDDR6
<b>Keyboard backlight</b>	white backlit
<b>Keyboard backlit zone</b>	1-zone
<b>Keyboard color</b>	shadow black
<b>Keyboard size</b>	Full-size
<b>Keyboard technology</b>	26-Key Rollover Anti-Ghosting Key technology
<b>Memory and storage</b>	16 GB memory; 1 TB SSD storage
<b>Memory layout (slots &amp; size)</b>	2 x 8 GB
<b>Memory module type</b>	DIMM
<b>Memory size</b>	16
<b>Memory size uom</b>	GB
<b>Memory speed</b>	3200
<b>Memory speed uom</b>	MHz
<b>Memory type</b>	DDR4
<b>Model Number</b>	RTX™ 3050 Ti
<b>Number of User-accessible Memory Slots</b>	2
<b>Number of memory slots</b>	2
<b>Package depth, imperial (most common size)</b>	21.73
<b>Package depth, metric (most common size)</b>	55.2
<b>Package height, imperial (most common size)</b>	13.58
<b>Package height, metric (most common size)</b>	34.5
<b>Package weight</b>	8.86 lb
<b>Package width, imperial (most common size)</b>	2.71
<b>Package width, metric (most common size)</b>	6.9

<b>Packaging unit of measure (imperial)</b>	in
<b>Packaging unit of measure (metric)</b>	cm
<b>Playbook TS icon OS</b>	<a href="http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905482.png">http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905482.png</a>
<b>Playbook TS icon battery life</b>	<a href="http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905264.png">http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c03905264.png</a>
<b>Playbook TS icon connectivity</b>	<a href="http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201987.png">http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201987.png</a>
<b>Playbook TS icon dimensions NB</b>	<a href="https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08250394.png">https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08250394.png</a>
<b>Playbook TS icon display NB</b>	<a href="http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08205649.png">http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08205649.png</a>
<b>Playbook TS icon graphics</b>	<a href="https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08169202.png">https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08169202.png</a>
<b>Playbook TS icon memory</b>	<a href="https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267700.png">https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267700.png</a>
<b>Playbook TS icon processor</b>	<a href="https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201972.png">https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08201972.png</a>
<b>Playbook TS icon storage</b>	<a href="http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08192819.png">http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08192819.png</a>
<b>Playbook TS icon weight imperial</b>	<a href="http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c05790117.png">http://h10003.www1.hp.com/digmedialib/prodimg/lowres/c05790117.png</a>
<b>Playbook TS icon weight metric</b>	<a href="https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267650.png">https://h10003.www1.hp.com/digmedialib/prodimg/lowres/c08267650.png</a>
<b>Processor Brand</b>	Intel®
<b>Processor cache</b>	24 MB L3
<b>Processor core</b>	8
<b>Processor family</b>	Core™ i7
<b>Processor frequency technology</b>	Intel® Turbo Boost Technology
<b>Processor generation</b>	11th Generation
<b>Processor maximum frequency</b>	4.6
<b>Processor maximum frequency uom</b>	GHz
<b>Processor model</b>	11800H
<b>Processor threads</b>	16
<b>Product brand name</b>	HP
<b>Product language options</b>	#ABT
<b>Product long name specifications</b>	OMEN by HP Laptop 16-b0001nj, FreeDOS, 16.1", Intel® Core™ i7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 3050 Ti, FHD, Shadow black
<b>Product long name specifications V2</b>	OMEN by HP Laptop 16, FreeDOS, 16.1", Intel® Core™ i7, 16GB RAM, 1TB SSD, NVIDIA® GeForce RTX™ 3050 Ti, FHD, Shadow black
<b>Product short name specifications</b>	OMEN by HP Laptop 16-b0001nj, 16.1", Intel® Core™ i7, 16GB RAM, 1TB SSD
<b>Screen-to-body ratio (without speakers)</b>	80.69% <sup>[18]</sup>
<b>Storage capacity</b>	1
<b>Storage capacity uom 01</b>	TB

<b>Storage form factor 01</b>	M.2
<b>Storage interface 01</b>	PCIe®
<b>Storage interface protocol 01</b>	NVMe™
<b>Storage memory technology 01</b>	TLC
<b>Storage type</b>	SSD
<b>Storage type 01</b>	SSD
<b>Technology logo 1</b>	Publication logos/Artboard_3.jpg
<b>Technology logo 2</b>	Publication logos/HP_Fast_Charge_RGB_blue_NT.jpg
<b>Technology logo 7</b>	Publication logos/Nvidia_Geforce_RTX_icon.jpg
<b>Touchscreen</b>	No
<b>UNSPSC code</b>	43211503
<b>Wireless Model</b>	Wi-Fi 6 AX201
<b>Wireless antenna</b>	2x2
<b>Wireless standard</b>	Wi-Fi 6
<b>Wireless supplier</b>	Intel®
<b>Wireless transfer speeds</b>	Supporting Gigabit data rate

[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.

[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 CERTIFIED 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 CERTIFIED 6™ (802.11ax) is backwards compatible with prior 802.11 specs.

[13] Wi-Fi CERTIFIED 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.

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