

OMEN by HP Laptop 16-b0014nr (450C8UA)



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.

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]

Customize with OMEN Gaming Hub

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

Featuring

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]

NVIDIA® GeForce RTX™ 3060

The GeForce RTX™ 3060 lets you take on the latest games using the power of Ampere—NVIDIA's 2nd generation RTX architecture. Get incredible performance with enhanced Ray Tracing Cores and Tensor Cores, new streaming multiprocessors, and high-speed G6 memory. [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. [7]

HP QuickDrop

Wirelessly transfer photos, videos, documents and more between your PC and mobile device.



144Hz

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	512 GB Intel® PCIe® NVMe™ M.2 SSD
Product design	Paint finish cover and base, sandblasted keyboard frame
Optical drive	Optical drive not included
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 3060 Laptop GPU (6 GB GDDR6 dedicated)
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics
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 ^[17]
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, 4-zone RGB 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 Thunderbolt™ 4 with USB4™ Type-C® 40Gbps 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 ^[19,20]
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	230 W AC power adapter
Battery type	4-cell, 70 Wh Li-ion polymer (^[21])
Battery life	Up to 5 hours and 15 minutes ^[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® registered
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure(s); Recycled metal in keyboard frame and hinge cap(s); Keyboard keycaps made with post-consumer recycled plastic
Security management	Trusted Platform Module (Firmware TPM) support
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	195908956730

Manufacturer Warranty	1-year limited hardware warranty. Additional information available at www.support.hp.com ; 1-year limited technical support for software and initial setup (from date of purchase) ^[4.14]
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Top Recommended Displays, Accessories and Services

OMEN by HP Displays

OMEN 27u 4K Gaming Monitors	3G6W0AA
OMEN 27c QHD Curved 240Hz Gaming Monitor	35D67AA
OMEN 25i Gaming FHD Monitor	22J05AA

Port Replicators

HP Universal USB-C Multiport Hub	50H55AA
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Mice

OMEN Vector Wireless Mouse	2B349AA
OMEN by HP Outpost Mousepad	6CM14AA
OMEN Vector Mouse	8BC53AA

Keyboards

OMEN by HP Encoder Keyboard	6YW76AA
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Speakers

HP Gaming Speakers X1000	8PB07AA
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Headsets

OMEN Blast Headset	1A858AA
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Personal Systems Consumer Care Pack Services

HP 2 year Pickup and Return with Accidental Damage Protection for Consumer Notebooks	U9YT9E
HP 3 year Pickup and Return for Consumer Notebooks	U9YU0E
HP 3 year Pickup and Return with Accidental Damage Protection for Consumer Notebooks	U9YU1E

Messaging Footnotes

[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] ©2022 NVIDIA Corporation. NVIDIA, the NVIDIA logo, GeForce, and GeForce RTX are registered trademarks and/or trademarks of NVIDIA Corporation in the United States and other countries. All other trademarks and copyrights are the property of their respective owners.

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

Technical Specifications Footnotes

[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.

[4] Wireless access point and internet service required and sold separately. Availability of public wireless access points limited.

[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.

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

[19] For best results with HP Sleep and Charge, use a USB charging protocol standard cable or cable adapter with an external device.

[20] SuperSpeed USB 20Gbps is not available.

[24] Must activate within 180 days of Windows activation.

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Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows functionality. See <http://www.microsoft.com>.

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