

OMEN Laptop 17-cb1080nr



Big rig power. Compact design.

Stunning desktop-grade power in a laptop keeps you playing your best wherever your gaming takes you. Game on with NVIDIA® graphics and an Intel® Core™ processor on a sleek, upgradable machine with advanced thermal cooling.

Product overview

- **Desktop-grade performance:** With an Intel® Core™ processor, NVIDIA® graphics, and accelerated storage, nothing holds you back.
- **Fast, fluid gameplay:** Crisp gameplay is crucial if you want to play at your best. With high resolution at 144Hz refresh rate, on-screen visuals are swift and smooth. A narrow bezel display delivers edge-to-edge immersion.
- **Designed for power:** With an advanced thermal cooling solution and single-panel access to internals for easy upgradeability, nothing stops you from playing at your best.

Key specifications

- **Operating system:** Windows 10 Home⁽¹⁾
- **Processor:** 10th Generation Intel® Core™ i7-10750H^(2b)
- **Display:** 17.3-inch diagonal FHD, 144 Hz, IPS, anti-glare, WLED-backlit⁽³⁹⁾
- **Memory:** 16 GB DDR4-2933 SDRAM (2 x 8 GB)
- **Internal storage:** 512 GB PCIe® NVMe™ M.2 SSD^{(15)(58a)}
- **Graphics:** NVIDIA® GeForce® RTX™ 2070 (8 GB GDDR6 dedicated)⁽¹³⁾
- **Sound:** Audio by Bang & Olufsen with dual speakers
- **Battery life:**
 - Up to 6 hours (mixed usage)⁽⁷⁰⁾
 - Up to 3 hours and 45 minutes (video playback)⁽⁷⁵⁾
 - Up to 3 hours (wireless streaming)⁽⁸⁰⁾
- **Wireless:** Intel® Wi-Fi 6 AX 201 (2x2)^(19e) and Bluetooth® 5 combo⁽²⁶⁾ (Supporting Gigabit file transfer speeds)⁽⁷⁾
- **Camera:** HP Wide Vision HD Camera with integrated dual array digital microphone⁽⁶⁹⁾
- **Product weight:** 7.12 lb⁽⁷⁶⁾
- **Keyboard:** Full-size, island-style, 4-zone RGB backlit, shadow black keyboard, numeric keypad

Product features

- **Windows 10 Home:** Do great things confidently with the familiar feel of Windows - only better.⁽¹⁾
- **NVIDIA® GeForce® RTX™ 2070 graphics:** The all-new NVIDIA® Turing™ architecture with breakthrough ray tracing technology brings the future of gaming with incredible realism and performance.
- **10th Generation Intel® Core™ processor:** Take mobile gaming and content creation to the next-level with breakthrough performance, fast downloads and smooth streaming.
- **Advanced thermal management:** Optimized thermal design and IR sensor keeps your laptop cool to touch, without affecting acoustics.
- **144Hz Full HD anti-glare display:** Power the latest games in 1080p and up to 144fps for fast, smooth gameplay.⁽²⁰⁾⁽³⁹⁾
- **Narrow bezel display:** The narrow bezel optimizes your display by letting a larger screen fit into a smaller frame.
- **Four-zone island-style backlit keyboard:** Backlight 4 independent zones with different RGB lighting. WASD keys are outlined to highlight key controls.
- **OMEN Command Center:** Up your game with Performance Control, Network Booster, 4-zone RGB lighting, and Game Stream.
- **DTS:X® Ultra Technology:** Authentic, spatially accurate 3D sound to provide the best entertainment experience.⁽⁴⁷⁾

Additional product features

- **An exceptionally rich audio experience:** HP Dual Speakers, HP Audio Boost, and expert tuning by Bang & Olufsen bring audio perfection to your PC.
- **Single access panel:** Easy access to your PC's internals make upgrades and maintenance simple.
- **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.^{(19e)(19f)(26)}
- **Gigabit Wi-Fi:** Ultra-fast Wi-Fi supporting gigabit speeds.⁽⁷⁾
- **MU-MIMO supported:** Pair with a MU-MIMO router for a smoother online experience in multi-device homes.
- **DDR4 RAM:** With its higher bandwidth, everything from multi-tasking to playing games gets a performance boost.
- **PCIe® NVMe™ SSD storage:** Get up to 30x faster performance than a traditional hard drive.^(58a)
- **McAfee LiveSafe™:** Protect your operating system with a free 30-day McAfee LiveSafe™ trial.⁽⁸⁾

Energy efficiency your way

HP is committed to global citizenship and environmental responsibility. Do the environment—and your wallet—a favor when you use the OMEN Laptop that meets strict energy-efficiency and helps reduce your carbon footprint.

- ENERGY STAR® certified⁽⁶²⁾
- EPEAT® Silver registered⁽²⁷⁾
- Low Halogen⁽⁶¹⁾
- Mercury-free display backlights
- Arsenic-free display glass

Warranty and support

Our Customer Support Team consistently provides quick, responsive assistance in the U.S., Canada and Latin America.

Included with your product:

- **HP's Hardware Limited Warranty:** Full warranty details are included with your product.
- **Technical Support for Software & initial set-up:** Warranty details are included with your product.

Support Options:

- **HP Support Assistant - HPSA:** Optimized to enhance your support experience. Help for your PC and HP printers whenever you need it.⁽⁵⁶⁾
- **Online Support:** For technical support with this product, visit HP Customer Support <http://support.hp.com>.⁽⁹⁾
- **Social Media Support:** To find solutions, ask questions, and share tips, join us on the HP Support Community at community.hp.com, on Twitter at twitter.com/HPSupport, and Facebook at facebook.com/HPSupport.⁽⁹⁾

Extend your coverage:

- **SmartFriend, part of HP Care:** Experts are available 24/7 to handle any tech issue, on any device, from any brand. Visit www.hp.com/go/smartfriend to learn more or call toll-free 1-844-814-1800 to get started.⁽⁹⁵⁾
- **Care Packs, part of HP Care:** Extend protection beyond the standard limited warranty. For more info, visit www.hp.com/go/carepack-services or call toll-free at 1-877-232-8009.⁽⁸³⁾



Audio by BANG & OLUFSEN

Specifications

Operating system	• Windows 10 Home ⁽¹⁾
Processor	• 10th Generation Intel® Core™ i7-10750H ^(2a) • 6-core
Processor speed	• 2.6 GHz base frequency, up to 5 GHz with Intel® Turbo Boost Technology ^(2a)
Processor cache	• 12 MB cache
Memory	• 16 GB DDR4-2933 SDRAM (2 x 8 GB)
Accessible memory slots	• 2
Video graphics	• NVIDIA® GeForce® RTX™ 2070 (8 GB GDDR6 dedicated) ⁽¹³⁾
Internal storage	• 512 GB PCIe® NVMe™ M.2 SSD ^{(15)(58a)}
Finish and features	• Top cover: Shadow black • Keyboard deck: Shadow black aluminum with a sandblasted hairline brush finish
Camera	• HP Wide Vision HD Camera with integrated dual array digital microphone ⁽⁶⁹⁾
Display	• 17.3-inch diagonal FHD, 144 Hz, IPS, anti-glare, WLED-backlit, 300 nits, 100% sRGB (1920 x 1080) ⁽²⁰⁾⁽³⁹⁾
Screen to body ratio	• 80% ⁽⁴⁰⁾
Network card	• Integrated 10/100/1000 GbE LAN ⁽²⁹⁾
Wireless connectivity	• Intel® Wi-Fi 6 AX 201 (2x2) ^(19a) and Bluetooth® 5 combo ⁽²⁶⁾ (Supporting Gigabit file transfer speeds) ⁽⁷⁾ • MU-MIMO supported
Digital media	• Multi-format SD media card reader
Sound	• Audio by Bang & Olufsen with dual speakers
Integrated keyboard	• Full-size, island-style, 4-zone RGB backlit, shadow black keyboard, numeric keypad, and 26-Key Rollover Anti-Ghosting Key technology • Touchpad with multi-touch gesture support
External notebook ports	• 1 Thunderbolt™ 3 (40Gbps signaling rate) with SuperSpeed USB Type-C® 10Gbps signaling rate (DisplayPort™ 1.4, HP Sleep and Charge) ⁽⁴²⁾⁽⁵⁰⁾⁽⁵¹⁾ • 1 SuperSpeed USB Type-A 5Gbps signaling rate (HP Sleep and Charge) • 2 SuperSpeed USB Type-A 5Gbps signaling rate • 1 HDMI 2.0a • 1 Mini DisplayPort™ • 1 AC Smart pin • 1 RJ-45 • 1 Headphone/microphone combo (DTS: X® Ultra) ⁽⁴⁷⁾ • 1 Microphone
Dimensions	• Unpackaged: 15.94 in (L) x 11.22 in (D) x 1.18 in (H) • Packaged: 21.73 in (L) x 2.72 in (W) x 13.58 in (H)
Weight	• Unpackaged: 7.12 lb ⁽⁷⁵⁾ • Packaged: 10.91 lb
Power	• 4-cell, 70 Wh Li-ion polymer battery • 230 W Smart AC power adapter
Battery life	• Up to 6 hours (mixed usage) ⁽⁷⁰⁾ • Up to 3 hours and 45 minutes (video playback) ⁽⁷⁵⁾ • Up to 3 hours (wireless streaming) ⁽⁸⁰⁾
Warranty and support	• 1-year limited hardware warranty. Additional information available at www.support.hp.com ⁽⁹⁾ • 90 days limited technical support for software and initial setup (from date of purchase) ⁽⁵³⁾

Learn more at hp.com

⁽¹⁾ 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 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.microsoft.com> ^(2a) 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. Intel, Pentium, Intel Core, Celeron, Intel logo and the Intel Inside logo are trademarks of Intel Corporation in the U.S. and other countries. ^(2b) Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information. GHz refers to internal clock speed of the processor. Other factors besides clock speed may impact system and application performance. ⁽⁷⁾ Wi-Fi supporting gigabit speeds is achievable when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels. ⁽⁸⁾ Internet access required and not included. Subscription required after 30 days trial period. McAfee, LiveSafe and the McAfee logo are trademarks or registered trademarks of McAfee, Inc. in the United States and other countries. ⁽⁹⁾ Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. ⁽¹³⁾ NVIDIA, GeForce, Surround, and the NVIDIA logo are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. ⁽¹⁵⁾ Actual formatted capacity is less. Portion of internal storage is reserved for preloaded content. ^(19a) 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. ^(19b) Based on Wi-Fi 5 80MHz and Wi-Fi 6 160MHz minimum requirements when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 802.11ax (Wi-Fi 6). Only available in countries where 802.11ax is supported. ⁽²⁰⁾ All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower. ⁽²²⁾ New Dropbox users are eligible to get 25 GB of Dropbox space free for 12 months from date of registration. For complete details and terms of use, including cancellation policies, visit the Dropbox website at www.dropbox.com. ⁽²³⁾ Detects BIOS damage and recovers last settings. ⁽²⁴⁾ Bluetooth® is a trademark owned by its proprietor and used by Hewlett-Packard Company under license. ⁽²⁷⁾ EPEAT® Silver registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at www.hp.com/go/options. ⁽²⁹⁾ Actual speeds may vary. ⁽³⁹⁾ Full High Definition (FHD) content is required to view FHD images. ⁽⁴⁰⁾ Percent of active plus nonactive viewing area to active viewing area plus border. Measure with lid vertical to the desk. ⁽⁴²⁾ USB Type-C® and USB-C® are trademarks of USB Implementers Forum. ⁽⁴⁷⁾ Listening to personal stereo equipment at full volume for long periods can damage the user's hearing. To reduce the risk of hearing damage, lower the volume and amount of time listening at full volume. ⁽⁵⁰⁾ DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. ⁽⁵¹⁾ Thunderbolt is a trademark of Intel Corporation or its subsidiaries in the U.S. and/or other countries. ⁽⁵³⁾ Call 1.800.474.6836 or www.support.hp.com for more information on Care Packs available after 90 days. After 90 days, an incident fee may apply. ⁽⁵⁴⁾ For more information visit <http://www.hp.com/go/hpsupportassistant>. (Link will vary outside of the U.S.) HP Support Assistant is only available on Windows-based PCs. Internet connection required for updating and connecting to HP Support. ^(58a) Based on HP internal testing using CrystalDiskMark benchmarking software. Performance is sequentially faster (read only) compared to traditional 5,400 rpm HDD. ⁽⁶¹⁾ External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen. ⁽⁶²⁾ ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the U.S. Environmental Protection Agency. ⁽⁷⁰⁾ Windows 10 MM14 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-2014/> for additional details. ⁽⁷⁵⁾ Battery life tested by HP using continuous FHD video playback, 1080p (1920x1080) resolution, 150 nits brightness, system audio level at 17%, player audio level at 100%, played full-screen from local storage, headphone attached, wireless on but not connected. Actual battery life will vary depending on configuration and maximum capacity will naturally decrease with time and usage. ⁽⁷⁶⁾ Weight and system dimensions may fluctuate due to configuration and manufacturing variances. ⁽⁸⁰⁾ Battery life tested by HP using continuous Netflix video playback, Windows 10 Netflix app, 150 nits brightness, system audio level 17%, headphone attached, played full-screen, wireless on. Actual battery life will vary depending on configuration and maximum capacity will naturally decrease with time and usage. ⁽⁸³⁾ Service levels and response times for Care Packs may vary depending on your geographic location. Restrictions and limitations apply. Service starts at date of hardware purchase. HP Care Packs are sold separately. For details, visit www.hp.com/go/carepack-services. ⁽⁸⁹⁾ Features may require software or other 3rd party applications to provide the described functionality. Internet service required and not included. ⁽⁹³⁾ HP SmartFriend will support any major brand of computer and tablet running Microsoft Windows, OSX, iOS, Android, and Chrome OS. 24x7 support is available in English and in the US & Canada (excluding the Province of Quebec) only. Service availability varies by country/region. Internet connection required for remote support. Remote support not available for tablets. Not all service plans cover support for tablets. HP SmartFriend sold separately or as an add-on feature. Actual product may vary from image shown on datasheet. © Copyright 2020 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing shall be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. All other trademarks are property of their respective owners. 04/24/2020_1 k1

Software

HP help and support	<ul style="list-style-type: none"> • HP BIOS Protection: Get peace of mind knowing your PC BIOS is protected. HP BIOS Protection automatically checks its health and recovers itself.⁽²³⁾ • HP Jumpstarts: Get access to great HP solutions and learn about valuable features that come with your new HP PC. • HP Support Assistant: Included with your computer, this free self-help tool makes it easier than ever to get help with your HP PC and printers.⁽⁵⁴⁾
Books, music, photos and videos	<ul style="list-style-type: none"> • DTS: X® Ultra Technology: By producing authentic, spatially accurate 3D sound through any headset, this technology offers specially tuned audio modes for different game types to provide immersion for the best entertainment experience possible.⁽⁴⁷⁾ • Netflix: Watch movies and TV on your PC with subscription.⁽⁵⁹⁾
Productivity and tools	<ul style="list-style-type: none"> • HP Audio Switch: Easily switch between speaker and microphone sources with intuitive controls and a consistent app experience. • HP Connection Optimizer: Get consistent and reliable Wi-Fi performance with software that automatically switches between the most efficient wireless access points.⁽⁹⁾ • Dropbox cloud storage: Store and synchronize your content online with Dropbox. Get 25GB of storage for one year to access, manage, and share your photos, music, and files from anywhere with Internet access.⁽⁹⁾⁽²²⁾ • OMEN Command Center: Enhance and customize your gaming experience. Performance Control increases fan speeds during high-intensity gaming, while Network Booster sends gaming network traffic to the front of the line. Personalize the 4-zone keyboard with RGB lighting and take your action to the big screen with Game Stream.
Security and protection	<ul style="list-style-type: none"> • McAfee LiveSafe™: Protect your operating system with a free 30-day McAfee LiveSafe™ trial.⁽⁶⁾
Additional Information	
Product number	• 2L008UA#ABA
Ad embargo date	• 06/28/2020
UPC Code	• 194850516689
Country of origin	• China
Tariff number	• 8471300000
Pallet information	<ul style="list-style-type: none"> • Dimensions: 42.32 in (H) x 39.37 in (W) x 47.24 in (L) • Total weight: 884.20 lb • Layers: 3 • Products per layer: 26
Battery regulatory data	<ul style="list-style-type: none"> • Transportation or storage regulations: Y • UN# and proper shipping name: UN3481 - Lithium ion batteries packed with equipment • Number of batteries: 1 • Primary battery regulated material: 287g • Primary battery watt hours: 70 • Applicable CPSC regulations: N

