eDatasheet
OMEN Laptop – 17-cb1005nf (10C03EA)

Big rig power. Compact design.

Stunning desktop-grade power in a sleek, portable design keeps you playing your best wherever gaming takes you. Take on the most demanding AAA game titles with NVIDIA® graphics and an Intel® Core™ processor[1]. Immerse yourself in smooth gameplay on a narrow-bezel display with fast refresh rates.

Desktop-grade performance
Get the power of a desktop in your laptop. With an Intel® Core™ processor[1], 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 a high resolution and refresh rate, on-screen visuals are swift and smooth, while a narrow bezel display delivers edge-to-edge immersion.

Designed for power
The OMEN 17 Laptop's sleek, modern design is engineered to produce desktop-grade power. With an advanced thermal cooling solution and single-panel access to internals for easy upgradability, nothing stops you from playing at your best.

Featuring

Windows 10
Do great things confidently with the familiar feel of Windows - only better. [2]

NVIDIA® GeForce® RTX 2070 SUPER™ graphics
Experience the future of gaming with incredible realism. With breakthrough ray tracing technology powered by NVIDIA® Turing™ architecture, enjoy smooth gaming and incredible visuals.

10th Generation Intel® Core™ processor
Take mobile gaming and content creation to the next-level with breakthrough performance. Let your connectivity flow with fast downloads and smooth streaming with optional Wi-Fi 6 and optional lighting fast Thunderbolt™ 3 support. [3]

Full HD display
Sit back and enjoy crystal-clear visuals and images with the vibrant quality of 2 million pixels. The 1920 x 1080 resolution gives all your digital content a new dimension. [4]

Dual storage configurations
By including both an SSD drive for the operating system and a traditional hard drive you get the benefits of both worlds—fast boot up times, snappy responsiveness, and larger storage capacity.

Specifications

Operating system	Windows 10 Home 64
Product color	Shadow black
Processor family	10th Generation Intel® Core™ i7 processor
Processor	Intel® Core™ i7-10750H (2.6 GHz base frequency, up to 5 GHz with Intel® Turbo Boost Technology, 12 MB L3 cache, 6 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
Hard drive (2nd)	1 TB 7200 rpm SATA HDD
Product design	Sandblasted hairline finish
Optical drive	Optical drive not included
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 2070 (8 GB GDDR6 dedicated)
Graphics	Integrated
Graphics (integrated)	Intel® UHD Graphics
Display	43.9 cm (17.3") diagonal, FHD (1920 x 1080), 144 Hz, 7 ms response time, IPS, anti-glare, 300 nits, 100% sRGB
Display	17.3" diagonal, FHD (1920 x 1080), 144 Hz, 7 ms response time, IPS, anti-glare, 300 nits, 100% sRGB
Display size (diagonal)	43.9 cm (17.3")
Display size (diagonal)	17.3"
Audio features	Audio by Bang & Olufsen; DTS:X® Ultra; OMEN Audio Control Support DTS:X® Ultra; Dual speakers; HP Audio Boost 2.0
Minimum dimensions (W x D x H)	40.5 x 28.5 x 2.99 cm *(Dimensions vary by configuration)*
Minimum dimensions (W x D x H)	15.94 x 11.22 x 1.18 in
Weight	Starting at 3.23 kg *(Weight varies by configuration)*
Weight	Starting at 7.12 lb
Keyboard	Full-size, 4-zone RGB backlit, shadow black keyboard, numeric keypad, and 26-Key Rollover Anti-Ghosting Key technology
Pointing device	Touchpad with multi-touch gesture support; Precision Touchpad Support
Input devices	Accelerometer
Webcam	HP Wide Vision 720p HD camera with integrated dual array digital microphones
Ports	1 Thunderbolt™ 3 (40Gbps signaling rate) with SuperSpeed USB Type-C® 10Gbps 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 Mini DisplayPort™; 1 HDMI 2.0a; 1 RJ-45; 1 AC smart pin; 1 headphone/microphone combo; 1 microphone[19]
Expansion slots	1 multi-format SD media card reader
Package dimensions (W x D x H)	6.9 x 59.8 x 34.5 cm
Package weight	4.7 kg
Network interface	Integrated 10/100/1000 GbE LAN
Wireless	Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo (Supporting Gigabit file transfer speeds)
Power supply type	230 W Smart AC power adapter
Battery type	4-cell, 70 Wh Li-ion polymer
Battery life	Up to 3 hours and 15 minutes[3]
Battery recharge time	Supports battery fast charge: approximately 50% in 45 minutes[5]
Battery weight	10.12 oz
Battery weight	287 g
Energy efficiency	ENERGY STAR® certified; EPEAT® Silver registered
Pre-installed software	Netflix
Software included	McAfee LiveSafe™
Software - Productivity & finance	1 month trial for new Microsoft 365 customers[24]

Cloud service	Dropbox[1]
UPC number	194850876356

Top Recommended Displays, Accessories and Services

Cases

OMEN Transceptor 17 Duffel Bag	7MT82AA

Mice

OMEN by HP Outpost Mousepad	6CM14AA
OMEN by HP Photon Wireless Mouse	6CL96AA
OMEN by HP Mouse Pad 300	1MY15AA
OMEN by HP Reactor Mouse	2VP02AA
OMEN Vector Mouse	8BC53AA
OMEN by HP Hard Mouse Pad 200	2VP01AA

Keyboards

OMEN by HP Sequencer Keyboard	2VN99AA
OMEN by HP Encoder Keyboard	6YW76AA
OMEN by HP Keyboard 1100	1MY13AA

Headsets

OMEN by HP Mindframe Prime Headset	6MF35AA
OMEN by HP Headset 800	1KF76AA

Headphones

OMEN Dyad Earbuds	8JE67AA

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] 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.

[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.

Technical Specifications Footnotes

[1] 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 https://www.dropbox.com/help/space/hp-promotion. Internet service required and not included.

[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.

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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.

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

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