

ProductSheet
HP OmniBook 7 Laptop AI 16-ay0003TX (BG2T5PA)



AI performance and portability with a brilliant 16" display[5].

Tough enough to meet demanding US military-grade standard testing[1], HP OmniBook 7 16 AI PC delivers durability, performance, and portability, powered by the latest AI-enhanced Intel® Core™ Ultra Processor[2] and a brilliant 16" display[5].



Military-grade-tested[1]. For the toughest tasks.

Engineered and tested to withstand drops, bumps, and extreme temperatures so you can work from anywhere.

Fits your need for power and speed.

Delivers AI power, an all-day, fast-charging battery, and all the ports you could want

Brilliant viewing

A 16" display[5] delivers brilliant viewing and ultra smooth visuals

Featuring

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. [6]

Smarter. Faster. Lighter

Gaming, creating, AI. Do it all on Intel® Core™ Ultra processors [7]

Intel® Arc™

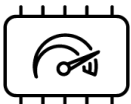
Unleash your imagination with new Intel® Arc™ graphics solutions, hardware, software, and services. All built to help you game, create, and stream—without limits.

Beyond Fast

NVIDIA® GeForce RTX™ 40 Series GPUs are beyond fast. Powered by the NVIDIA Ada Lovelace architecture which delivers a leap in both performance and AI-powered graphics. Experience lifelike virtual worlds with ray tracing and ultra-high FPS gaming. [8]

OLED display

With display technology that lights each pixel separately, you'll get deeper blacks for richer contrast, enhanced color depth, and more power efficiency than traditional LED screens.



Specifications

Operating system	Windows 11 Home
Product color	Meteor silver aluminum
Processor family	Intel® Core™ Ultra 7 processor
Processor	Intel® Core™ Ultra 7 255H (up to 5.1 GHz with Intel® Turbo Boost Technology, 24 MB L3 cache, 16 cores, 16 threads) [6,7]
Chipset	Intel® integrated SoC
Memory	32 GB DDR5-5600 MT/s (2 x 16 GB)
Internal Storage	1 TB PCIe® Gen4 NVMe™ M.2 SSD
Product design	Sandblasted anodized finish
Graphics	Discrete
Graphics (discrete)	NVIDIA® GeForce RTX™ 4050 Laptop GPU (6 GB GDDR6 dedicated)
Graphics	Integrated
Graphics (integrated)	Intel® Arc™ Graphics
Display	40.6 cm (16") diagonal, 2K (2048 x 1280), OLED, multitouch-enabled, 120 Hz, 0.2 ms response time, UWVA, edge-to-edge glass, micro-edge, Low Blue Light, SDR 400 nits, HDR 500 nits, 100% DCI-P3
Display	16" diagonal, 2K (2048 x 1280), OLED, multitouch-enabled, 120 Hz, 0.2 ms response time, UWVA, edge-to-edge glass, micro-edge, Low Blue Light, SDR 400 nits, HDR 500 nits, 100% DCI-P3
Display size (diagonal)	40.6 cm (16")
Display size (diagonal)	16"
Audio	DTS:X® Ultra; Dual speakers; HP Audio Boost; Poly Studio
Dimensions (W x D x H)	35.78 x 25.48 x 1.5 cm
Dimensions (W x D x H)	14.09 x 10.03 x 0.59 in
Weight	1.91 kg
Weight	4.23 lb
Keyboard	Full-size, backlit, soft gray keyboard with numeric keypad
Pointing device	HP Imagepad
Camera	5MP IR camera with temporal noise reduction and integrated dual array digital microphones
Ports	1 USB Type-A 10Gbps signaling rate; 1 USB Type-A 5Gbps signaling rate; 1 HDMI-out 2.1; 1 headphone/microphone combo; 1 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery 3.1, DisplayPort™ 2.1, HP Sleep and Charge); 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery 3.1, DisplayPort™ 1.4a, HP Sleep and Charge) ^[19]
Package dimensions (W x D x H)	8 x 42.3 x 30.3 cm
Package weight	3.42 kg
Wireless	Intel® Wi-Fi 7 BE201 (2x2) and Bluetooth® 5.4 wireless card ^[12,46]
Power supply type	100 W USB Type-C® power adapter
Battery type	4-cell, 70 Wh Li-ion polymer (^[23])
Battery life	Up to 14 hours and 15 minutes ^[3]
Battery recharge time	Supports battery fast charge: approximately 50% in 30 minutes ^[5]
Energy star certified	ENERGY STAR® certified
Sustainable impact specifications	Ocean-bound plastic in speaker enclosure(s) and bezel; Recycled metal in cover, keyboard frame, base and hinge cap(s); Keyboard keycaps and scissors contain post-consumer recycled plastic
Security management	Mic mute key; Camera privacy shutter; 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	199251064289

Top Recommended Displays, Accessories and Services

No Top Recommended Displays, Accessories and Services

Messaging Footnotes

[1] Testing is not intended to demonstrate fitness of U.S. Department of Defense (DoD) contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

[2] 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 clock speed. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Potential NPU inferencing performance varies by use, configuration, and other factors.

[5] Display measured diagonally.

[6] 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>.

[7] 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® Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost/> for more information. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third-party software may have specific configuration or compatibility requirements. Potential NPU inferencing performance varies by use, configuration, software and other factors.

[8] ©2024 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.

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] MobileMark 25 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-25/> 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.

[12] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires Windows 11 2024, select Intel® Core™ or Intel® Core™ Ultra processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.

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

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

[46] Bluetooth® 5.4 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 5.4 will function as Bluetooth® 5.3 or lower.

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