Datasheet

HP OmniStudio X All-in-One Desktop Next Gen AI 27-cx0004na PC

Elevate your workspace with AI-driven power

Bring beauty and power to your workspace with the HP OmniStudio X 27-inch All-in-One Desktop, powered by Intel® Core™ Ultra processors[1]. Enjoy a stunning 27" Neo:LED display[2] and AI-driven performance that makes every project, call, and creative task feel effortless and inspiring.



*Product image may differ from actual product

A work of art that works like a machine

Tackle creative work, multitasking, and everything in between with ease with the best desktop computer for working from home.

Your front-row seat to every pixel

See every detail come alive on the 27" Neo:LED display[2], perfect for working from home or video editing.

A design you'd be proud to show off

Experience stylish comfort and effortless viewing from any angle with this HP all-in-one 4-sided borderless, tiltable design.

Sustainability in action

Built with our shared future in mind

This thoughtfully designed All-in-One is EPEAT® Gold with Climate+[3] and ENERGY STAR® certified[4].

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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.[5]

Intel® Core™ Ultra 7 Series 3 processor
No tradeoffs. Intel® Core™ Ultra Series 3 processors deliver what matters: powerful performance and built-in graphics and AI to revolutionize how you create, game, and work. Feel the power of Intel Inside®.[6]

Game Changer
Powered by NVIDIA Blackwell, GeForce RTX™ 50 Series GPUs bring game-changing AI capabilities to gamers and creators. Multiply performance with NVIDIA DLSS 4, generate images at unprecedented speed, and unleash your creativity with NVIDIA Studio.[7]

QHD Neo:LED display
Be immersed in true-to-life visuals with a QHD Neo:LED that supports 100% dual color coverage with DCI-P3 and Adobe RGB. Discover striking brightness, deep blacks, and rich colors for all your creative and entertainment needs.

Low Blue Light
Protect your eyes from harmful blue light with a low blue light display.

Visibly brilliant detail
With 450 nits of brightness, view beautiful details, enhanced image quality, and distinct shades of color—even in bright lighting conditions.[8]

Screen to body ratio
Revolutionize your display and see more of what you love with this slim bezel design. Enjoy an immersive multimedia experience with a maximized viewing area.

Xbox Game Pass Premium 2-month trial
Enjoy 2 months of Xbox Game Pass Premium. Free with your new HP device. Access a library of legendary, high-quality games, get exclusive in-game perks, partner discounts, and earn points annually with Xbox Rewards.[9]

EPEAT® Gold with Climate+
With EPEAT® Gold with Climate+, you're choosing a movement towards responsibility and climate action.[10]

ENERGY STAR® certified
Save energy and money with ENERGY STAR®, certified by the EPA so you will use less energy and save money where it counts most.[11]

Design contains recycled metals and post-consumer recycled plastics
Built for a better tomorrow. Designed using recycled metals and post-consumer recycled plastics to reduce environmental impact and promote super energy efficiency.[12]

Poly Camera Pro
Poly Camera Pro elevates your video calls with AI to enjoy crystal clear video, customizable settings and professional grade features for a truly immersive video conferencing and collaboration experience.

PCIe SSD storage
Boot up in seconds with lightning fast speed with up to 1 TB PCIe SSD storage.

Thunderbolt™ 4 with USB™ Type-C®
The latest Thunderbolt™ solution lets you power your device or connect up to two 4K displays with a single cable and blazing 40Gbps signaling rate.

DDR5 RAM
Designed to run efficiently and reliably at faster speeds, DDR5 is the latest RAM standard. With higher bandwidth, you get more of a boost in performance.

Realtek Wi-Fi 7 and Bluetooth® 6.0 wireless card
Take a leap in wireless performance with new levels of increased speed and reduced latency with Wi-Fi 7. Paired with Bluetooth® 6.0.[13]

5MP IR camera with HDR auto switch, temporal noise reduction and integrated dual array digital microphones
Deliver professional-quality video with HDR auto-switch to optimize contrast and color, even in challenging backlight conditions. While the infrared sensor supports facial recognition log-in with Windows Hello.[14]

Recommended accessories and services (not included)



HP 200 Sanitizable Desk Mat
8X596AA



Poly Blackwire 5220 Stereo USB-C Headset +3.5mm Plug +USB-C/A Adapter
93S88AA



HP Ultra-Fast-Scroll Wireless Mouse 780M
B8YX3AA



3-year pickup and return
UC994E

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Specifications





Performance

Operating system
Windows 11 Home
Processor
Intel® Core™ Ultra 7 356H (up to 4.7 GHz with Intel® Turbo Boost Technology, 18 MB L3 cache, 16 cores, 16 threads)[6,7]
Processor family: Intel® Core™ Ultra 7 processor
Neural Processing Unit (NPU): Intel® AI Boost (50 NPU TOPS)
Chipset
Intel® integrated SoC
Memory
32 GB DDR5-5600 MT/s (1 x 32 GB)
Transfer rates up to 5600 MT/s.
Memory slots: 2 SODIMM
Storage
1 TB PCIe® NVMe™ M.2 SSD
100 GB Dropbox storage for 3 months[1]
Graphics
Integrated: Intel® Graphics;
Discrete: NVIDIA® GeForce RTX™ 5050 (8 GB GDDR6 dedicated) ;
Audio
Quad 3 W speakers
Display
68.6 cm (27") diagonal, QHD (2560 x 1440), Neo:LED, 120 Hz, UWVA, IPS, anti-glare, Low Blue Light, 450 nits, 100% Adobe RGB and 100% DCI-P3[15]
Screen-to-body ratio
98%[5]
Power
200 W Smart AC power adapter;

Connectivity

Network interface
Realtek RTL8125BGH-CG 10/100/1000/2500 GbE NIC
Wireless connectivity
Realtek Wi-Fi 7 (2x2) and Bluetooth® 6.0 wireless card [12,46]
Ports
Rear:
2 Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate; 3 USB Type-A 10Gbps signaling rate; 1 headphone/microphone combo; 1 RJ-45
Bottom:
1 USB 2.0 Type-A (keyboard and mouse dongle)
Video connectors
1 HDMI 2.1;3 DisplayPort™ 2.1b
Expansion slots
2 M.2 (1 for SSD loaded, 1 for WLAN loaded)
Webcam
5MP IR camera with HDR auto switch, temporal noise reduction and integrated dual array digital microphones

Sustainability

Ecolabels
EPEAT® Gold with Climate+[27]
Energy star certified
ENERGY STAR® certified
Sustainable impact specifications
65% post-consumer recycled plastic; 30% recycled metal[40,41]

Design

Product color
Eclipse gray
Paint finish

Software

HP apps
HP Connection Optimizer; HP Support Assistant; OMEN Gaming Hub
Software
Intel Thunderbolt Share; Poly Camera Pro with Surface View;
1 month trial for new Microsoft 365 customers[24]
Service & support
McAfee Online Protection 30-day trial; 1-month Adobe free trial offer; Xbox Game Pass Premium 2-month trial [2,25]

Additional information

Part Number
P/N: D77B7EA #ABU
UPC/EAN code: 821844263426
Weight
Starting at 6.38 kg;
Packed: 12.23 kg
Dimensions
61.39 x 18.5 x 51.96 cm (height adjustable stand max); 61.39 x 18.5 x 41.96 cm (height adjustable stand min);
Packed: 73 x 18 x 52 cm
Manufacturer Warranty
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.
Keyboard
HP 675C USB Gray Wireless Keyboard and Mouse Combo
Security management
Camera privacy shutter; Microsoft Pluton

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Footnotes

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. Potential NPU inferencing performance varies by use, configuration, and other factors.
[2] The Neo:LED display features a wide color gamut (Adobe RGB and Display P3) and enhanced contrast performance. Actual color reproduction, black levels, brightness, and image quality may vary depending on system configuration, content, and ambient lighting.
[3] Based on U.S. EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.
[4] ENERGY STAR and the ENERGY STAR logo are registered U.S. marks.
[5] 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.
[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 is not a measurement of higher performance.
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[8] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[9] Subscription continues automatically at regular monthly price unless cancelled. Subject to https://www.xbox.com/legal/subscription-terms. Benefits vary by Xbox Game Pass plan. Game library varies over time, by region, device, and Xbox Game Pass plan. xbox.com/gamepass. In-game benefits vary by game, region, and over time. Game must be installed to access in-game benefits. For a list of cloud and non-cloud markets and supported regions, visit: xbox.com/regions. Terms apply, see xbox.com/gamepass for more. Excludes HP Chromebooks.
[10] EPEAT® Gold with Climate+ registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.
[11] ENERGY STAR and the ENERGY STAR logo are registered trademarks of the U.S. Environmental Protection Agency.
[12] Laptops manufactured with recycled ocean-bound plastic material in product speaker enclosures, recycled aluminum material in product cover and post-consumer recycled plastic in keycaps. Percentage of material contained in each component varies by product.
[13] Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 is backwards compatible with prior Wi-Fi 6E specs. Bluetooth® is a trademark owned by Bluetooth SIG inc. and used by HP Inc. under license.
[14] Features may require software or other 3rd party applications to provide the described functionality. Internet service required and not included.

Technical Specifications Footnotes

[1] 100 GB of free Dropbox storage for 3 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.
[2] Internet access required and not included. McAfee is pre-installed on your PC and an account is required for activation. Subscription renewal required after trial period. VPN feature is not available in India, China, Syria or North Korea. McAfee is not compatible with Windows 11 in S mode. You'll need to permanently switch out of S mode. There's no charge to switch out of S mode, but you won't be able to turn it back on.
[5] Percent of active and nonactive viewing area to chassis
[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.
[15] All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
[24] Must activate within 180 days of Windows activation.
[25] Offer available worldwide (excluding China and embargoed countries or other countries identified as restricted by applicable law or regulation) to new and existing subscribers who are 18+. Click on the Adobe icon in the start menu to redeem a 1-month free trial membership for select Adobe software. The software is tied to the device and is not transferrable. If you would like to sign up for an auto-renewing subscription, you can provide your payment method at sign-up. By adding a payment method, your subscription will automatically renew at the then current rate on your renewal date until you cancel. If you cancel before the end of the one-month free trial, you won't be charged. You can cancel your subscription anytime via your Adobe Account page or by contacting Customer Support. Please see current prices for Adobe products available in this offer. Offer not available to Education, OEM, or volume licensing customers. Subject to availability where the recipient resides. Additional terms and conditions may apply. VOID WHERE PROHIBITED OR RESTRICTED BY LAW.
[27] Based on U.S. EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.
[40] Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams.
[41] Percentage of post-consumer recycled plastic varies by product. Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.
[46] Bluetooth® 6.0 operation requires Microsoft OS/Chrome OS support. Until Microsoft OS/Chrome OS support is available, Bluetooth® 6.0 will function as Bluetooth® 5.4 or lower.

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