



Microsoft Surface

Copilot+ PC Surface Pro for Business (Qualcomm)

Product FAQ

11th Edition

Microsoft Internal & Partner Use Only

Although the information contained in this document is considered public and may be used in discussions with customers, please do not share this document in its entirety.

Last updated: February 19, 2025

This documentation is confidential and proprietary information of Microsoft Corporation, provided for internal and/or partner use, for informational purposes only. Microsoft makes no warranties, either express or implied, in this document. Although the information contained in this document is considered public and may be used in discussions with customers, please do not share this document in its entirety.

© 2025 Microsoft Corporation. All rights reserved.

Contents

- The most flexible laptop, reimagined 1
 - Unlock true flexibility 1
 - Power up with the most powerful Pro 1
 - Accelerate your productivity and creativity 1
 - Best in class security, built for trust..... 1
- Surface Pro technical specifications 2
- Introduction 9
 - What’s the difference between Surface Pro and the new Surface AI PCs announced in March? 9
 - How can I compare Surface Pro Editions? 9
 - When will the Recall feature be available?..... 9
 - What is Microsoft’s definition of an AI PC and a Copilot+ PC?..... 9
 - How are you positioning this release for commercial customers? 9
 - Who is Surface Pro for? 10
- What’s new for Surface Pro? 10
 - Productivity and creativity 10
 - Display technology 11
 - Keyboard innovation 11
 - Pen innovation..... 12
 - Security 12
 - App compatibility 13
 - Camera..... 14
 - Sustainability 14
 - Accessibility..... 15
- Performance & specifications..... 16
 - Does Surface Pro come with new system requirements or are they the same as Windows 11? 16
- 5G information 16
 - When will 5G be available to purchase? 16
 - What’s the difference between Surface Pro 10 5G and Surface Pro (11th Edition with 5G)? 16
 - What’s the difference between Surface Pro 11 5G & Surface Pro 11 Wi-Fi? 17

How does Surface Pro (11th Edition) compare with MacBook Air?	18
What are the specifications and capabilities of the X Elite and X Plus processors?	18
Do you recommend running Surface Pro at the 120 Hz refresh rate?	18
Will we be offering a Surface Pro device with an AMD processor?	18
Does Surface Pro feature a microSD slot for expandable storage?	18
Has the RAM been updated as well?	18
How does the latest RAM improve performance?	18
Do all Surface Pro SKUs have fans?	19
What's the brightness range?	19
What is the new anti-fingerprint technology on Graphite models?	19
AI and Copilot	19
Does Copilot use the NPU?	19
What's new for Windows Studio Effects?	19
What's the new Recall feature?	20
What's the Out of the Box Experience (OOBE) for a Copilot+ PC?	20
Will Recall always be running or can customers turn it off?	20
What is Microsoft's response to the negative feedback on the Recall feature and security/privacy concerns in the new Copilot + PC devices?	20
If I enable Recall, what safeguards are in place to protect my personal information?	21
Copilot Progressive Web App (PWA)	21
Why move the Copilot icon from the taskbar to a PWA?	21
What differentiates the Copilot PWA from the current Copilot in Windows experience?	21
Is the device available without the Copilot key?	21
What other AI features can I use with Surface Pro?	22
Regional availability	22
Is the Copilot PWA preinstalled?	22
When will the Copilot experience be available in China?	22
In which markets will Recall be released? Will Recall launch in Europe and China?	22
Windows on ARM/App emulation	22
Where can I find the latest information for Surface on Arm?	22
Cost & value	23
SKUs and availability	23
When are commercial SKUs available?	23
How will these PCs show up in retail when customers go to the store?	23

Will Copilot+ PCs be available globally at launch?	23
Will these new Surface devices go to more markets beyond that?	23
Will these devices with the Copilot key be available in China?	23
Why the delay between Consumer and Commercial availability?	24
When will Wi-Fi+ 5G models be available to purchase?	24
Which configurations of Surface Pro have OLED displays?	24
Security	25
Are the security features for Surface Pro (11th Edition) the same as Windows 11?	25
What advantages do Secured-Core PCs offer for handling sensitive data?	25
Does Surface Pro support Dynamic USB-C disablement?	25
Near Field Communication (NFC)	25
What NFC functionality is available with Surface Pro?	25
What NFC chip is included?	25
How does Surface Pro enable NFC wayfinding?	26
Does NFC login have the same 10-user limit as Windows Hello for Business?	26
Why doesn't Surface Pro support NFC payments?	26
TPM	27
What TPM is supported on Surface Pro?	27
Why is a discrete TPM 2.0 chip important for security in a commercial environment?	27
Pluton	27
Is the Pluton processor enabled on Surface Pro?	27
Does Pluton provide TPM functionality on Surface Pro like it did on Surface Pro 9 5G?	27
What value does Pluton provide Commercial customers if it's not being used as a TPM?	27
SSD retention	27
What's the primary purpose of having a removable SSD for commercial enterprises?	27
When will the Surface Drive Retention service plan offer be available for purchase?	28
Manageability & integration	29
Will Surface Pro (11th Edition) be offered with Windows 10? Is an N-1 OS supported?	29
Are there restrictions to managing Surface Pro (e.g. Intune only)?	29
Can Surface Pro (11th Edition) be deployed via traditional image-based deployment?	29
What's new with Windows Autopatch?	29
What's the complete list of UEFI settings that can be managed with SEMM?	29
What's new with the Surface Management Portal + Intune?	29

What's the Surface IT Toolkit?.....	30
How are you applying AI to Windows 365 to make Cloud PC management easier for IT teams?	30
Is support for DFCI the same as Surface Pro 9?	30
Are there new DFCI settings?	30
App Assure	30
Where can customers get help with app compatibility?	30
Is App Assure just for Microsoft software?	31
Durability & service.....	31
Serviceability.....	31
What do you mean by serviceability?	31
What are the serviceable components?	31
Where is the SSD located?	32
What type of SSD is in Surface Pro?	32
When and where will replaceable components be available to purchase?	32
Will a commercial customer's warranty be voided if they upgrade their SSD?	32
Is it possible to install third-party, off-the-shelf SSDs?.....	32
When will the Surface Drive Retention service plan offer be available for purchase?	32
How will customer IT Pros learn to make repairs? Do they need to be certified by Microsoft?	32
What comes in the box when I purchase a commercial spare? Are there installation instructions?	33
Is there a software tool to erase the content of my old SSD?	33
Does the commercial spare SSD need to be imaged?	33
What is the support process for returning a device after removing the SSD?	33
Sustainability considerations	33
Are Surface Pro and Surface Laptop more energy efficient?.....	33
What are you doing to reduce the environmental impact of your devices?.....	34
What's Microsoft's stance on the Right to Repair?.....	34
Power and battery	34
What power supply is included?	34
Is Fast charging supported?	34
Can you recommend a 65W power supply to purchase for this device?	34
Can I charge this device with another Surface Charger?	35
Will inbox PSUs continue to have Surface Connect?	35
Will it harm the battery to have the device plugged in and on all the time?	35

How are you measuring battery life?	35
Why did Surface change the metric of battery life measurement?	35
What are the Smart Charging features?	35
Connectivity and expansion	36
What's the difference between USB-C and USB4?	36
What's the external monitor support?	36
How has Bluetooth improved in Surface Pro?	37
Does Surface Pro have an audio jack?	37
Tested peripherals	38
What peripherals have you tested for Surface Pro?	38
What if a peripheral is not included in your testing? Will it still work?	38
Will previous generation type covers -- without a Copilot key -- also be compatible?	38
Audio and camera	38
What new camera capabilities are included with Surface Pro?	38
Accessories	39
Microsoft adaptive accessories	39
What are Microsoft adaptive accessories?	39
What are the components of the Microsoft adaptive accessories?	39
What's new about the Microsoft adaptive accessories?	39
Who are Microsoft adaptive accessories for?	40
Are the Microsoft adaptive accessories one product or separate products?	40
Surface accessories	40
What additional accessories are recommended for Surface Pro?	40
Appendix A: Compare Surface Pro Editions	41
Learn more	52

List of Tables

Table 1. Surface Pro (11th Edition) commercial tech specs 2

Table 2. Processor & graphics tech specs..... 8

Table 3: Comparing 5G models.....17

Table 4. Surface device retailers.....23

Table 5. Surface Pro (11th Edition) Wi-Fi Commercial SKUs All-in-one (single unit)24

Table 6. Surface Pro Wi-Fi+5G models - commercial SKUs All-in-one (single unit).....24

Table 7. Smart charging features.....35

Table 8. External monitor support.....37

Table 9. Comparing commercial versions of Surface Pro41

List of Figures

Figure 1. Gen-3 AFP helps fingerprints fade into the background 19

Figure 2. NFC lockscreen example26

The most flexible laptop, reimagined

The new Surface Pro (11th Edition) unlocks a new way to think about a laptop. Get the most out of your day with lightning-fast performance, AI accelerated power, and battery life¹ to keep you going through your workday, all wrapped up in an ultra-portable design that can replace your tablet, your laptop, and makes you smarter, faster, and more creative.



Unlock true flexibility

Surface Pro delivers lightning-fast performance in an ultra-flexible design that can replace your tablet, your laptop, and does more than you could ever imagine. Pair with the new Surface Pro Flex Keyboard² to unlock a new era of flexibility – on your desk, on your lap, or supporting your team’s creative workflow. The eye-catching optional 13" OLED display offers crisp visuals in varied conditions with HDR,³ adaptive color, and outstanding contrast and brightness. Interacting with the display feels natural and intuitive using the haptic Surface Slim Pen (2nd Edition),² designed for the best experience with Windows 11 including new anywhere inking capabilities.

Power up with the most powerful Pro

Lightning-fast speeds and AI accelerated power come in one package with an all-new processor for the ultimate multitasking. Snapdragon X Series processors deliver fast performance ultra-efficiently. Introducing industry leading AI acceleration designed to unlock powerful new features to make your Surface Pro smarter, faster, and more creative, all while protecting your business data.

Accelerate your productivity and creativity

Surface Pro unlocks a new, unique set of features to help you stay one step ahead with Copilot. Surface Pro is a smarter PC. The most powerful NPU available for a Windows PC. Accelerate your mission-critical business applications and best ideas with 45 trillion operations (TOPS) per second.

Best in class security, built for trust

Offering ultimate protection from chip-to-cloud, Surface Pro with the Microsoft Pluton security processor is a Secured-core PC for the highest level of Windows PC protection. With Windows 11 and Windows Hello Enhanced Sign-in Security (ESS) Surface Pro provides unparalleled biometrics security you can trust.

1. Based on local video playback test. Battery life varies significantly based on device configuration, usage, network and feature configuration, signal strength, settings and other factors. See aka.ms/SurfaceBatteryPerformance for details.

2. Surface Pro Flex Keyboard and Surface Pro Keyboard with optional bold keyset available only in US English.

3. HDR requires HDR content and enabling HDR in device settings.

Surface Pro technical specifications

Table 1. Surface Pro (11th Edition) commercial tech specs

Feature	Description
Processor	<ul style="list-style-type: none"> – Snapdragon® X Plus (10 core) Model number: X1P64100 – Snapdragon X Elite (12 core) Model number: X1E80100
NPU	<ul style="list-style-type: none"> – Qualcomm® Hexagon™ with 45 TOPS
Graphics	<ul style="list-style-type: none"> – Qualcomm Adreno™ GPU
Memory	<ul style="list-style-type: none"> – 16 GB, 32 GB⁵ LPDDR5x RAM
Storage ⁴	<ul style="list-style-type: none"> – Removable solid-state drive (Gen 4 SSD): 256 GB, 512 GB, 1 TB⁵
Display	<p>Surface Pro with OLED display:</p> <ul style="list-style-type: none"> – Touchscreen: 13" PixelSense™ Flow display⁶ – Resolution: 2880 x 1920 (267 PPI) – Aspect ratio: 3:2 – Contrast ratio: 1M:1 – Dynamic refresh rate: up to 120Hz – Color profile: sRGB and Vivid – Individually color-calibrated display – Adaptive color – Adaptive contrast – Auto color management – Touch: 10-point multi-touch – Dolby Vision IQ™⁷ – Corning® Gorilla® Glass 5 – Brightness: <ul style="list-style-type: none"> – SDR: 600 nits maximum (typical) – HDR: 900 nits peak luminance³ <p>Surface Pro with LCD display:</p> <ul style="list-style-type: none"> – Touchscreen: 13" PixelSense™ Flow display⁶ – Resolution: 2880 x 1920 (267 PPI) – Aspect ratio: 3:2 – Contrast ratio: 1100:1 – Dynamic refresh rate: up to 120Hz

4. System software and updates use significant storage space. Available storage is subject to change based on system software and updates and apps usage. 1 GB = 1 billion bytes. 1 TB = 1,000 GB. See [Surface Storage](#) for more details.

5. 32GB memory and 1TB storage option available for Surface Pro Wi-Fi only models.

6. Surface Pro display has rounded corners within a standard rectangle. When measured as a standard rectangular shape the screen is 13" diagonally (actual viewable area is less).

7. Requires Dolby Vision® encoded content and video.

Feature	Description
	<ul style="list-style-type: none"> Color profile: sRGB and Vivid Individually color-calibrated display Adaptive color Adaptive contrast Auto color management Touch: 10-point multi-touch Dolby Vision IQ™ support⁷ Corning Gorilla Glass 5 Brightness: <ul style="list-style-type: none"> SDR: 600 nits maximum (typical) HDR: 600 nits peak luminance³
Size ⁸ and weight ⁹	<ul style="list-style-type: none"> Length: 11.3" (287 mm) Width: 8.2" (209 mm) Height: 0.37" (9.3 mm) Weight: 1.97 lbs. (895 g)
Battery Life	<p>Wi-Fi only models-connected using Wi-Fi</p> <ul style="list-style-type: none"> Up to 14 hours of local video playback¹⁰ Up to 10 hours of active web usage¹¹ <p>Wi-Fi+5G models-connected using cellular</p> <ul style="list-style-type: none"> Up to 9 hours of active web usage¹²
Security	<ul style="list-style-type: none"> Enterprise grade security with TPM 2.0 chip and BitLocker support Windows 11 Secured-core PC Microsoft Pluton security processor Windows Hello face authentication with Enhanced Sign-in Security

8. Might vary depending on manufacturing processes.

9. Weight not including Type Cover.

10. Wi-Fi only models. Based on local video playback test. Testing conducted by Microsoft in April 2024 using preproduction software and preproduction Surface Pro Snapdragon® X Plus C10 256GB and 512GB, 16GB RAM (LCD), Wi-Fi only devices and Surface Pro Snapdragon® X Elite C12 1TB 32GB RAM (OLED), Wi-Fi only devices. Testing consisted of full battery discharge during video playback of a .mov file through the Windows Media Player application in 1080p at 24 FPS. All settings were default except screen brightness set to 150 nits with Auto-brightness disabled. Wi-Fi was connected to a network. Battery life varies significantly with settings, usage, and other factors.

11. Wi-Fi only models. Based on a web browsing test. Testing conducted by Microsoft in April 2024 using preproduction software and preproduction Surface Pro Snapdragon® X Plus C10 256GB and 512GB, 16GB RAM (LCD), Wi-Fi only devices and Surface Pro Snapdragon® X Elite C12 1TB 32GB RAM (OLED), Wi-Fi only devices. Testing consisted of full battery discharge while accessing eight popular websites over multiple open tabs through the browser. All settings were default except screen brightness set to 150 nits with Auto-Brightness disabled. Wi-Fi was connected to a network. Battery life varies significantly with settings, usage, and other factors.

12. Wi-Fi+5G models. Based on a web browsing test. Testing conducted by Microsoft in August 2024 using preproduction software and preproduction Surface Pro Snapdragon® X Plus C10 256GB, 16GB RAM (LCD) and Surface Pro Snapdragon® X Elite C12 512GB, 16GB RAM (OLED) devices. Testing consisted of full battery discharge while accessing eight popular websites over multiple open tabs through the browser. All settings were default except screen brightness set to 150 nits with Auto-Brightness disabled. Cellular enabled and device connected to a cellular network. Battery life varies significantly with settings, usage, and other factors.

Feature	Description
Cameras	<ul style="list-style-type: none"> – Quad HD front-facing Surface Studio Camera <ul style="list-style-type: none"> – 1440p Quad HD camera with ultrawide field of view – Windows Studio Effects with automatic framing, Portrait Blur, Creative filters, (illustrated, animated, watercolor), Eye Contact, and Portrait light – 10 MP Ultra HD rear-facing camera – Windows Hello face authentication camera
Audio	<ul style="list-style-type: none"> – Dual Studio Mics with voice focus¹³ – 2 W stereo speakers with Dolby® Atmos^{®14} – Support for Bluetooth® LE Audio
Ports & charging	<ul style="list-style-type: none"> – 2 x USB-C®/ USB4® ports with support for: <ul style="list-style-type: none"> – Charging & Data transfer – DisplayPort 1.4a – Surface Thunderbolt™ 4 Dock and other accessories – Supports fast charging with min. 65W power supply via Surface Connect or USB-C¹⁵ – Surface Pro Keyboard port – Surface Connect port – NanoSIM¹⁶
Network & connectivity	<p>Wi-Fi only models</p> <ul style="list-style-type: none"> – Wi-Fi 7¹⁷ – Bluetooth® Core 5.4 technology <p>Wi-Fi+ 5G models¹⁸</p> <ul style="list-style-type: none"> – Wi-Fi 7: 802.11be compatible – Bluetooth® Core 5.4 technology – Location: GPS, Glonass, Galileo, GNSS L1, BDS, QZSS – NanoSIM and eSIM support¹⁹

13. Voice focus requires activation, requires Windows 11 and is available in apps which use integrated device microphones and use certain Windows audio processing modes.

14. Requires Dolby® Atmos® encoded content/audio.

15. In select markets, only specific configurations come with 39 W Surface power supply. Fast Charging (from 5% to 80%) is supported with minimum 65W Surface power supply or USB Type-C PD charger rated at 60W or higher, sold separately. Testing was conducted at Microsoft in March 2024, using pre-production devices, software, and minimum of 60W USB-C® charger under controlled conditions. The device was powered on to the desktop screen with default display brightness settings. Actual charge time will vary based on operating conditions. Measured at typical office ambient temperature of 23C.

16. Surface Pro with Wi-Fi+5G models only.

17. 6 GHz band not available in all regions.

18. Options with 5G coming September 26, 2024. 5G not available in all areas; compatibility and performance depends on carrier network, plan and other factors. See carrier for details and pricing.

19. eSIM support may vary by carrier.

Feature	Description
	<p>Cellular</p> <ul style="list-style-type: none"> – 5G-NR SA/NSA, Release 15, DL 256 QAM up to 2.9 Gbps, 4x4 MIMO, UL 256 QAM – 4G Gigabit LTE – Advanced Pro, Release 15, DL Cat 19 up to 1.6 Gbps, 256QAM, 4x4 MIMO, 5x DL CA, UL Cat 18, 256 QAM, Contiguous 2x ULCA <p>5G-NR Bands</p> <ul style="list-style-type: none"> – n1, n2, n3, n5, n7, n8, n12, n14, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79 <p>LTE Bands</p> <ul style="list-style-type: none"> – 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 19, 20, 25, 26, 28, 29, 30, 38, 39, 40, 41, 42, 48, 66, 71 <p>WCDMA Bands</p> <ul style="list-style-type: none"> – 1, 2, 4, 5, 8
Pen compatibility	<ul style="list-style-type: none"> – Designed for Surface Slim Pen (2nd Edition) – Integrated storage and wireless charging for Surface Slim Pen (2nd Edition) with Surface Pro Keyboard²⁰ – Supports tactile signals with Surface Slim Pen (2nd Edition) – Supports Microsoft Pen Protocol (MPP)
Keyboard ²¹ compatibility	<ul style="list-style-type: none"> – Surface Pro Flex Keyboard – Surface Pro Keyboard with pen storage – Surface Pro Signature Keyboard – Surface Pro Keyboard – Surface Pro X Signature Keyboard – Surface Pro X Keyboard
Software	<ul style="list-style-type: none"> – Windows 11 Pro 24H2 – Preloaded Microsoft 365 Apps²² – Microsoft 365 Business Standard, Microsoft 365 Business Premium, or Microsoft 365 Apps 30-day trial²³
Accessibility	<ul style="list-style-type: none"> – Compatible with the optional bold keyset version of Surface Pro Flex Keyboard, and Surface Pro Keyboard²⁴ – Compatible with Surface precision haptic touchpad built into Surface Pro Flex Keyboard²⁵ – Compatible with Surface Adaptive Kit

20. Applies to Surface Pro Keyboard with pen storage, Surface Pro Flex Keyboard, and Surface Pro Signature Keyboard.

21. Pen and keyboard sold separately.

22. Requires license or subscription (sold separately) to activate and use.

23. Activation required. If your device is managed by your organization's IT department, contact your IT administrator for activation. After 30 days, you will be charged the applicable monthly or annual subscription fee. Credit card required. Cancel any time to stop future charges. See <https://aka.ms/m365businesstrialinfo>.

24. Surface Pro Flex Keyboard and Surface Pro Keyboard with bold keyset available only in US English.

25. Requires Windows 11.

Feature	Description
	<ul style="list-style-type: none"> Compatible with Microsoft Adaptive Accessories Supports Microsoft Accessibility Features – Accessible Technology, Products & Innovation Microsoft Accessibility Discover more Microsoft Accessible Devices & Products - Accessible Devices & Products for PC & Gaming Assistive Tech Accessories - Microsoft Store
Sustainability	<p>Surface Pro is designed with sustainability in mind—see more on the Surface Pro Eco Profile</p> <p>More recycled materials</p> <ul style="list-style-type: none"> Enclosure is made with a minimum of 72% recycled content, including 100% recycled aluminum alloy and 100% recycled rare earth metals.²⁶ <p>Thoughtful packaging</p> <ul style="list-style-type: none"> 78% recycled content in wood-based fiber packaging.²⁷ Paper-based, minimizing plastic use. 100% of our virgin paper sourced is FSC certified to be responsibly forested. <p>More energy efficient</p> <ul style="list-style-type: none"> ENERGY STAR® certified. Registered EPEAT® Gold²⁸ <p>More repairable</p> <ul style="list-style-type: none"> Easier to repair, with clear visual icons and built-in access to repair instructions.²⁹ <p>Surface Trade-in</p> <ul style="list-style-type: none"> We make trade-in convenient and secure for our commercial customers in the USA at Microsoft Trade In Program

26. Enclosure includes Bucket and Kickstand. 100% recycled aluminum alloy in Bucket and Kickstand. 100% recycled rare earth metals in magnets. Based on validation performed by Underwriter Laboratories, Inc. using Environmental Claim Validation Procedure, UL 2809-2, Second Edition, November 7, 2023.

27. For Surface Pro for Business (11th Edition) options with power supply included. For options without a power supply, packaging is UL Validated to contain a minimum of 72% recycled content. Based on Environmental Claim Validation Procedure (ECVP) for Recycled Content, UL ECVP 2809-2, Second Edition, dated November 7, 2023. Recycled Content is defined in accordance with ISO 14021

28. Please refer to the [EPEAT registry](#) for current ratings. Ratings can vary by country, may change over time, and products are eventually archived.

29. Replacement components available through Surface Commercial authorized device resellers. Components can be replaced on-site by a skilled technician following Microsoft's Service Guide. Microsoft tools (sold separately) may also be required. Availability of replacement components and service options may vary by product, market and over time. See [Surface service options - Surface | Microsoft Learn](#). Opening and/or repairing your device can present electric shock, fire and personal injury risks and other hazards. Use caution if undertaking do-it-yourself repairs. Unless required by law, device damage caused during repair will not be covered under Microsoft's Hardware Warranty or protection plans.

Feature	Description
	<p>Microsoft is committed to be carbon negative, water positive, and achieve zero waste by 2030. Learn more about how we design with sustainability in mind:</p> <ul style="list-style-type: none"> – Environmental Sustainability Microsoft CSR – Microsoft Surface Sustainability - Microsoft Sustainability
Serviceability	<p>Replaceable components²⁹ include:</p> <ul style="list-style-type: none"> – Display module – Removable solid-state drive – Battery – Motherboard (including main processor and main memory) – Surface Connect – Thermal module – Microphone module – Solid-state drive door – Speakers – Enclosure (bucket) – Front camera – Rear camera – Power and volume buttons – Kickstand – Device entry kit – SIM card connector³⁰
Exterior	<ul style="list-style-type: none"> – Casing: Anodized aluminum – Colors:³¹ Platinum, Black – Physical Buttons: Volume, Power
Kickstand	<ul style="list-style-type: none"> – Kickstand with 165 degrees full friction hinge
Sensors	<ul style="list-style-type: none"> – Accelerometer – Gyroscope – Magnetometer – Ambient color sensor – NFC³²
What's in the box	<ul style="list-style-type: none"> – Surface Pro (11th Edition) – Quick Start Guide – Safety and warranty documents – 39 W Power Supply¹⁴ (In select markets, available only with specific configurations) – SIM card access tool³⁰

30. Surface Pro with Wi-Fi+5G models only.

31. Colors available on selected models only. Available colors, sizes, finishes, and processors may vary by store, market, and configuration.

32. Available for Surface Pro Wi-Fi only models.

Feature	Description
Warranty ³³	<ul style="list-style-type: none"> – 1-year Microsoft limited hardware warranty
Battery Capacities ³⁴	<p>Surface Pro with LCD display</p> <ul style="list-style-type: none"> – Nominal (Wh) 47 – Min (Wh) 46 <p>Surface Pro with OLED display</p> <ul style="list-style-type: none"> – Nominal (Wh) 53 – Min (Wh) 51

Table 2. Processor & graphics tech specs

Component	Qualcomm Snapdragon X Plus	Qualcomm Snapdragon X Elite
SOC	Snapdragon X Plus Model number: X1P64100	Snapdragon X Elite Model number: X1E80100
CPU processor	Qualcomm Oryon 10-core CPU with integrated NPU	Qualcomm Oryon 12-core CPU with integrated NPU
CPU speed (GHz)	X1P64100 SKU: 3.4 GHz (MT/ST)	X1E80100 SKU: 3.4 GHz (MT/ST)
Processor count	10 performance cores	12 performance cores
Processor cache	System Cache (6MB)	System Cache (6MB)
Integrated graphics	Snapdragon X Elite - X1P64100 Qualcomm Adreno GPU	Snapdragon X Elite - X1E80100 Qualcomm Adreno GPU
Integrated (NPU) AI accelerator	45 TOPS	45 TOPS

33. Microsoft's Limited Warranty is in addition to your consumer law rights. See also: [Surface Warranty, Service Offerings & Support Plans – Microsoft Surface for Business Warranties](#).

34. Might vary depending on manufacturing processes.

Introduction

What's the difference between Surface Pro and the new Surface AI PCs announced in March?

- We're meeting our customers' needs by offering choice and the best experiences that are available on both Intel and Qualcomm powered devices. With Surface Pro 10 and Surface Laptop 6, we've introduced new features that are tailor-made specifically for our commercial customers like anti-reflective displays and smart card readers. Surface Pro 10 and Surface Laptop 6 also feature the latest in Intel Core Ultra processors, providing powerful performance on a chip platform that is well adopted by organizations globally. These devices help our business customers embrace AI at scale and maximize their exploration and investment in Copilot.

How can I compare Surface Pro Editions?

- See [Appendix A: Compare Surface Pro Editions](#).

When will the Recall feature be available?

- With a commitment to delivering a trustworthy and secure Recall (preview) experience on Copilot+ PCs for customers, we've announced that Recall will be available to Windows Insiders starting in October. As previously shared on June 13, we have adjusted our release approach to leverage the valuable expertise of our Windows Insider community prior to making Recall available for all Copilot+ PCs. Security continues to be our top priority and when Recall is available for Windows Insiders in October we will publish a blog with more details.

What is Microsoft's definition of an AI PC and a Copilot+ PC?

- An AI PC is a PC with new NPU silicon that brings new AI experiences in productivity, creativity, and security through a combination of the CPU, GPU, and the new NPU that run on Intel Core Ultra, AMD Ryzen AI or Qualcomm 8cx silicon with 10-20 TOPS). The AI PCs out now are the best at what they do and accelerate everything you do today.
- A Copilot+ PC takes what you can do on an AI PC to a whole new level with optional new Copilot+ PC experiences such as Recall and Live captions. Copilot+ PCs are a new class of AI PCs that are the most performant AI PCs and have an NPU with 40+ TOPS (trillions of operations per second) and running unique AI experiences on the client. There is a 256GB storage and 16GB memory minimum requirement for Copilot+ PCs.
- Both are great choices; however it depends on what you want to use your device for.

How are you positioning this release for commercial customers?

- At Microsoft, we understand the importance of staying ahead in a rapidly evolving technological landscape. Our current Surface Pro 10 and Surface Laptop 6 are not just powerful machines but are designed with today's business needs in mind, featuring the latest Intel Core Ultra processors and dedicated NPUs for enhanced AI capabilities. These devices are robust, secure, and compatible with a vast array of enterprise applications, ensuring seamless integration into your existing infrastructure.
- As we look to the future, our Copilot+ PCs with Qualcomm Snapdragon X Series processors

represent a leap forward, offering groundbreaking enhancements in AI performance—a critical asset for any forward-thinking enterprise. These devices are tailored to accelerate AI applications locally, without relying on cloud computing. This means faster processing, enhanced security, and the ability to innovate at the edge.

- We encourage you to view these Copilot+ PCs as a testbed for future technologies. By integrating these into your current tech ecosystem, you can begin to develop and refine your own AI-driven applications and workflows, ensuring your business remains at the cutting edge. Investing in our current products ensures reliability and immediate enhancement of your productivity and capabilities, while starting to engage with our Copilot+ PCs prepares your business for the next wave of technological innovation. Let Microsoft be your partner in not just meeting today's demands but pioneering tomorrow's successes.

Who is Surface Pro for?

- We've designed Surface Pro (11th Edition) to meet the needs of our productivity users. These customers are using their PCs to run complex workloads, often using multiple monitors and applications to get things done. They buy premium hardware and want devices that are thin and light with all day battery life. They are AI enthusiasts and looking for help saving time, working more effectively and improving their abilities. In fullness of time, we'll continue expanding our capabilities and experiences to serve all our customers' needs, including gamers, professional creators and more.
- We recommend this PC for anyone who is looking for a device that will help them save time, work more effectively and up level their abilities. Some may choose a different PC based on their needs; however, we will continue expanding our capabilities and experiences to serve all our customer needs.

What's new for Surface Pro?

Productivity and creativity

Accelerate productivity and creativity with Surface Pro:

- **Advanced NPU:** Surface Pro features the most powerful NPU for a Windows PC, accelerating mission-critical applications and innovative ideas with 45 trillion operations per second (TOPS).
- **Insightful answers with Copilot:** Quickly uncover solutions and gain insights. Copilot³⁵ summarizes information, compares, analyzes, and visualizes data in charts and graphs.
- **Quick project resumption:** Search across apps, documents, communications, and services on your personal timeline to quickly find and predict relevant content.
- **Multilingual support:** Use Live Captions³⁶ for real-time translation of calls, conversations, or recordings from 44 languages into English, enhancing understanding.

35. Optimized for select languages (English, Chinese (simplified), French, German, Japanese, and Spanish). Content-based and storage limitations apply. See <https://aka.ms/copilotpluspcs>.

36. Currently supports translation for video and audio subtitles into English from 40+ languages. See <https://aka.ms/copilotpluspcs>.

- **Harness AI to boost your productivity:**
 - **Microsoft 365 Copilot³⁷ in Word:** Jumpstart your creative processes in Word by transforming your writing with efficiency and creativity, helping you create a draft from other docs, rewrite sections and summarize text.
 - **Microsoft 365 Copilot³⁴ in PowerPoint:** Transform documents into presentations complete with notes and sources, or start new decks from simple prompts, using either typing or voice commands.
 - **Microsoft 365 Copilot³⁴ in Excel:** Copilot improves data analysis, comprehension, trend identification, and visualization.

Display technology

Introducing OLED on Snapdragon X Elite models:

- **Enhanced viewing options:** Optional OLED and HDR technology offer new levels of peak brightness, enhancing visibility during both day and night.
- **Sharper details:** Experience every detail with a greater pixel density and a 1M:1 contrast ratio exclusive to OLED.
- **Improved color and contrast:** HDR enhances brightness, color range, and contrast, providing whiter whites, deeper blacks, and a more vibrant color spectrum across both OLED and LCD screens.
- **Accurate color representation:** Adaptive color technology ensures greater color accuracy on both LCD and OLED displays.
- **Multi-display capability:** Support for up to three³⁸ external 4K displays at 60Hz (in addition to the Surface display), available on both LCD and OLED models.

Keyboard innovation

All-new Surface Pro Flex Keyboard enhances flexibility:

- **Versatile design:** The Surface Pro Flex Keyboard² is designed for new experiences, functioning both attached and detached.
- **Seamless transition:** Effortlessly pair and switch throughout your day. Use it attached to your Pro for the ultimate laptop setup or detach³⁹ it to serve as a standalone keyboard for greater flexibility.
- **Ergonomic workspaces:** Dock Surface Pro to a monitor to create an optimal productivity setup.
- **Creative workflows:** Enhance your creativity by using your pen with Surface Pro in one hand and accessing essential Adobe shortcuts with Surface Pro Flex Keyboard in the other.

37. Microsoft 365 Copilot sold separately and requires a qualifying volume license or subscription. [Microsoft 365 Copilot | Microsoft 365](#).

38. Supporting three external displays requires either two displays connected to a compatible dock or connected through daisy chain.

39. Requires Windows 11 for detached use.

- **Adaptable to any space:** Surface Pro Flex Keyboard excels even in cramped spaces, like an airplane seat. Detach and continue working comfortably, maintaining your workflow wherever you are.
- **Encrypted:** 128-bit encryption technology encrypts your data and only allows your Surface Pro to decrypt it, making it difficult for a cyber-thief to intercept your keystrokes.

Pen innovation

Our most advanced pen², enhanced by AI

- **Unlock new levels of creativity, productivity, and collaboration** with the enhanced capabilities of our most advanced pen on Surface Pro. Whether writing notes, marking up plans, or brainstorming on a virtual whiteboard, this pen transforms your ideas into reality with innovative AI-powered tools.
- **More natural inking experience:** Equipped with haptic feedback, the pen mimics the feel of pencils, pens, or brushes, enhancing the tactile response to include natural gestures such as circling to select and crossing out to delete.
- **Wireless charging and storage:** Enjoy up to 15 hours¹ of use without charging, thanks to wireless charging capabilities with the Surface Pro Keyboard and Surface Pro Flex Keyboard. The pen also includes magnetic, secure storage within the Surface Pro Keyboard,² ensuring it's always at hand and never lost.
- **Universal ink support:** Ink is now supported everywhere on the Surface, enabling seamless interaction in multiple languages.

AI-enhanced capabilities

Continuous creativity: Once you pick up the Surface Slim Pen (2nd Edition), you might never want to put it down. From writing detailed notes to engaging in extensive whiteboard sessions or marking up complex plans, the pen keeps up with your flow.

- **Handwritten note summaries:** Get assistance from Copilot to summarize your handwritten notes in OneNote,² streamlining your documentation process.
- **Idea visualization:** Turn your concepts into visuals with Cocreator. Simply describe or sketch your idea and watch as it generates a corresponding image. This dual-input capability (drawing and text prompts) allows for a co-creative experience with your device.

Security

Best in Class Security, Built for Trust:

- **Ultimate protection:** Surface Pro (11th Edition) incorporates the Microsoft Pluton security processor, making it a Secured-core PC that offers top-tier protection from chip to cloud. With Windows 11 and Windows Hello Enhanced Sign-in Security (ESS), it delivers unparalleled biometric security you can trust.
- **Advanced authentication:** Increase security with multiple sign-in options. Use the built-in NFC reader²⁷ to sign in instantly and securely, either with an NFC card or through Windows Hello facial recognition.

- **Comprehensive security:** From chip to cloud, remotely manage Surface devices down to the firmware layer via Microsoft Intune and DFCI. IT can control essential hardware components like cameras and Bluetooth at hyper-secure locations for heightened security.
- **Proactive defense with Windows 11 Pro:** Windows 11 Pro is designed with layers of security enabled by default, so you can focus on your work, not your security settings. Compared with Windows 10, features such as credential safeguards, malware shields, and application protection led to a reported 58% drop in security incidents, including a 3.1x reduction in firmware attacks.⁴⁰
- **Enhanced USB security with granular control:** Protect your organization's data from unauthorized USB access. Granular USB-C disablement allows IT admins to manage USB-C port functionality on Surface Pro. For example, you can prevent data connectivity to stop users from copying data from USB storage but retain the ability to extend displays and charge the device via a USB-C dock.
- **Data protection:** With Copilot in Windows, ensure commercial data confidentiality. Data is not saved, Microsoft cannot access it, and it is not used for training AI models.
- **Policy management:** Manage the rollout of AI experiences with Microsoft Intune or other management solutions in compliance with your organizational policies.

App compatibility

Use Your Enterprise software with confidence:

- **Optimized software compatibility:** Surface Pro is fully optimized for top enterprise applications including Microsoft 365, Teams, Slack, and Adobe Creative Cloud. Microsoft commits to ensuring app compatibility with our latest software versions. Should any compatibility issues arise, Microsoft engineers will collaborate with you to resolve them and identify the root cause at no extra cost through App Assure.
- **Flexible device deployment:** Deploy Surface Pro quickly using modern tools such as Windows Autopilot, which simplifies cloud-based device deployment and management. Traditional imaging methods and custom image deployments via Configuration Manager are also supported.
- **Comprehensive control with Surface Tools for IT:** This unified application allows for easy troubleshooting of hardware and software issues, hardware component lockdowns, secure data erasure, digital asset tagging, and more, enhancing control over your devices.
- **Efficient remote management:** The Surface Management Portal integrated with Microsoft Intune enables effective management of Surface devices and accessories. This includes administering warranties, troubleshooting, and gaining valuable insights—all from one central location.
- **Advanced 5G capabilities:** Manage team cellular connectivity effortlessly with Surface Pro's 5G technology. Utilize Intune to deploy and manage eSIMs in bulk, eliminating the need for physical SIM cards and enhancing security and manageability.

40. Windows 11 results are in comparison with Windows 10 devices. "Windows 11 Survey Report," Techaisle, February 2022.

Camera

AI-enhanced Surface studio camera:

- **Ultra-wide Quad HD front-facing camera:** Enjoy an ultra-wide field of view for video calls -- the widest field of view camera on a Windows device⁴¹ -- offering more space to move and a more ergonomic setup that adapts to you, not the other way around.
- **Widest Field of View:** Offers the broadest field of view available on a Windows device, ensuring comprehensive visibility.
- **High-Resolution rear-facing camera:** Securely capture whiteboard notes, scan documents, or take photos on-site with the 10.5MP Ultra HD rear-facing camera, and edit them directly on the device.

Advanced AI-powered features:

- **Automatic framing:** Keeps you or your entire team in focus, automatically adjusting as you move around your space.
- **Windows Studio Effects:** Enhance your presence in video calls with intelligent lighting corrections, background noise reduction, and improvements to existing effects:
 - **Voice Focus:** Keeps noises from interfering with your voice. Isolate background noise and let the built-in Studio Mics focus on your voice.
 - **Portrait Blur:** Tunes the background blur effect to your surroundings, with depth-based sensing, to bring focus to you in a cinematic-like image.
 - **Creative Filters:** Appearing on camera all day can be exhausting. Instead, get creative—and reduce video fatigue—with creative filters that help you express how you look and feel.
 - **Eye Contact:** Keeps your eyes focused as you present (even if you're looking at your notes).
 - **Portrait Light:** Helps your lighting appear natural to reduce any odd color tones or unnatural lighting caused by your ambient light or device screen. It's like having a ring light set up with you.

Sustainability

More recycled materials:

- **Innovative design:** Surface Pro contains a minimum of 21% recycled content.⁴²
- **Recycled aluminum and recycled rare earth metals:** Surface Pro's enclosure is made with a minimum of 72% recycled content, including 100% recycled aluminum alloy and 100% recycled rare earth metals.²⁵

Thoughtful packaging:

- **Reduced plastic waste:** Our packaging is paper based, minimizing plastic use.

41. Based on a comparison of published tech specs for Windows laptops and 2:1s as of February 20, 2024.

42. Excludes power supply. Based on validation performed by Underwriter Laboratories, Inc. using Environmental Claim Validation Procedure for Recycled Content, UL 2809-2, Second Edition, November 7, 2023.

- **Lighter, smaller packaging:** Uses less material than previous versions, making our boxes lighter.
- **Responsibly sourced:** 100% of our virgin paper sourced is FSC certified.
- **Recycled content:** Our packaging contains 76% recycled content from wood-based fibers.

More energy efficient:

- **ENERGY STAR® certification:** Surface Pro is ENERGY STAR certified and operates at 64% greater efficiency⁴³ than the ENERGY STAR standards, delivering higher performance while using less energy than Surface Pro 9 (Wi-Fi only models).
- **Power-saving features:** Windows settings are optimized for energy efficiency, extending battery life through fewer charging cycles.
- **Windows Carbon Aware:** This feature optimizes Windows Update scheduling to coincide with times when the electricity grid is using lower-carbon energy sources, thus helping reduce carbon emissions. This functionality is activated when devices are plugged in, powered on, connected to the internet, and when regional carbon intensity data from [WattTime](#) is available. See [site](#) for details.
- **Energy Saver mode:** A simple toggle feature built into Windows to further extend battery life.

Serviceable by design:

- **Enhanced repairability:** Surface Pro is easier to service with multiple replaceable components²⁷ such as motherboards, batteries, and cameras and service options that maximize the life of your device.
- **Durability and repair:** Surface Pro (11th Edition) features improved repairability²⁷ with a built-in QR code that provides convenient access to repair instructions. Clear icons in Surface Pro identify the number of screws and driver types needed for key components.

Accessibility

Flexibility designed for everyone:

- **Adaptive design:** Surface Pro is a versatile 2-in-1 device that conforms to your preferred usage style rather than dictating it. Paired with the Surface Pro Flex Keyboard, it introduces innovative features for greater inclusivity.
- **Precision haptic touchpad:** Equipped with a Precision Haptic touchpad, this device supports interaction using various parts of your limbs—like palms, feet, edges of the hand, or residual limbs. The software and haptic motors provide realistic feedback for precise control, even with imprecise contact. Haptic settings are easily adjustable via a simple toggle in the Surface app.
- **Ergonomic keyboard options:** Surface Pro Flex Keyboard² allows for comfortable positioning of your keyboard independently from your device. The Bold Keyset version enhances accessibility with large, bold font on keys, making them more visible and easier to use.
- **Customizable accessories:** Pair your Surface Pro with a variety of accessible accessories to tailor your

43. Based on comparison of ENERGY STAR® ratings.

setup to your specific needs, ensuring maximum personalization and comfort.

Inclusive features:

- **Versatile setup:** The lightweight design and adjustable kickstand make Surface Pro easy to position for comfort and convenience in various settings, such as being mounted to a wheelchair.
- **Tablet adaptability:** Use Surface Pro as a tablet with touch or pen inputs, offering a more accessible alternative to traditional keyboard or mouse interactions.
- **Accessible technology:** Designed with inclusivity at its core, Surface Pro features high-quality microphones for clear dictation and a multi-touch screen with digital ink. These features enhance the tactile and natural interaction capabilities provided in Windows 10 and Windows 11, broadening accessibility.

Performance & specifications

- Lightning-fast CPU performance, up to 90% faster than Surface Pro 9.
- Surface Pro (11th Edition) delivers higher performance while using less energy than Surface Pro 9 (Wi-Fi only models).⁴⁴

Does Surface Pro come with new system requirements or are they the same as Windows 11?

- Copilot+ PCs, like Surface Pro, must meet minimum hardware requirements and have Windows 11, version 24H2 pre-installed. Copilot+ PCs have minimum system requirements to work with our experience (silicon with an NPU capable of 40+ TOPS can be submitted for evaluation), at least 16GB of RAM and at least 256GB of storage.
- For more information, see [Copilot+ PC hardware requirements](#)

5G information

When will 5G be available to purchase?

- Surface Pro Wi-Fi+5G models are now available in select markets.

What's the difference between Surface Pro 10 5G and Surface Pro (11th Edition with 5G)?

As shown below, the biggest difference between the Surface Pro 10 (5G models) and the Surface Pro (11th Edition) 5G revolves around the processor architecture and its implications for application compatibility and enterprise management.

44. Based on comparison of ENERGY STAR® ratings.

Table 3: Comparing 5G models

Feature	Surface Pro 10 (5G models)	Surface Pro (11th Edition) 5G
Processors	Intel Core Ultra Series (x86)	Qualcomm Snapdragon X Series (ARM)
Windows floor	Windows 11 Pro 24H2	Windows 11 Pro 24H2
App compatibility	Runs x86 apps natively	Runs ARM64 natively and x86 through emulation
Enterprise Management	Works out of the box with most management tools, on-premises & cloud, including Microsoft Intune and Endpoint Configuration Manager.	Works with Intune (excluding Endpoint Protection Manager). Requires some configuration to work with Endpoint Configuration Manager
Security	Secured Core PC, TPM 2.0	Secured Core PC, TPM 2.0, Pluton

Processor Architecture

- Surface Pro 10 uses **Intel Core Ultra Series (x86)** processors, which means it supports x86 applications natively. This is typical of traditional Windows environments and ensures broad compatibility with most enterprise software without the need for any modifications or additional considerations.
- Surface Pro (11th Edition) is powered by **Qualcomm Snapdragon X Series (ARM)** processors. While it can run ARM64 applications natively, it supports x86 applications through emulation. This emulation can potentially affect performance and compatibility, particularly with older or more complex x86 applications that haven't been optimized for ARM-based systems.

Enterprise Management

- Surface Pro 10 works out of the box with most management tools available both on-premises and in the cloud, including Microsoft Intune and Endpoint Configuration Manager, facilitating seamless integration into existing IT infrastructure.
- Surface Pro (11th Edition) also supports management through Microsoft Intune but excludes Endpoint Protection Manager (EPM). It may require some configuration to work effectively with Endpoint Configuration Manager due to its ARM-based architecture. This need for additional configuration can introduce complexities in deployment and maintenance, particularly in environments heavily reliant on legacy x86 applications.

IT admins should consider the type of applications their environment relies on and their readiness to manage potential complexities introduced by ARM architecture in enterprise settings.

What's the difference between Surface Pro 11 5G & Surface Pro 11 Wi-Fi?

- NFC is not included in Wi-Fi+5G models. A technical limitation prevents the inclusion of both NFC and 5G in the same device due to antenna placement constraints.

How does Surface Pro (11th Edition) compare with MacBook Air?

- Surface Pro (11th Edition) is faster than MacBook Air M3.⁴⁵
- Surface Pro (11th Edition) features Industry leading AI acceleration with up to 2 times faster NPU performance⁴⁶ than MacBook Air and MacBook Pro.
- Almost 20% more TOPS than Apple iPad Pro M4.⁴⁷

What are the specifications and capabilities of the X Elite and X Plus processors?

- See [Table 2. Processor & graphics tech specs](#).

Do you recommend running Surface Pro at the 120 Hz refresh rate?

- Surface Pro supports a dynamic refresh rate of up to 120 Hz. We built Surface Pro with an option to change the default 60 Hz refresh rate to 120 Hz, which means 120 frames per second are shown.
- When inking, the pen tip and ink flow together with near-zero latency. Upon inking on the display using a Surface Slim Pen (2nd Edition), the user will notice how natural the pen tip and ink flow together with near-zero latency.
- NOTE: Like turning up the brightness, a higher refresh rate will affect battery life.

Will we be offering a Surface Pro device with an AMD processor?

- Not currently.

Does Surface Pro feature a microSD slot for expandable storage?

- No, Surface Pro does not include a microSD slot. To accommodate storage needs, users are encouraged to explore cloud storage solutions or external USB storage options for additional space.

Has the RAM been updated as well?

- Yes, it uses LPDDR5x RAM.

How does the latest RAM improve performance?

- **Speed:** LPDDR5x is an enhanced version of LPDDR5, with speeds potentially up to 8,533 Mbps or higher, offering faster data rates.
- **Improved efficiency:** While maintaining low power consumption, LPDDR5x introduces refinements for better power efficiency.
- **Increased bandwidth:** LPDDR5x continues to push the boundaries of memory bandwidth to accommodate the needs of more data-intensive applications.

45. Based on Cinebench 2024 Multi-threaded conducted by Microsoft in April 2024 comparing pre-release build of Surface Pro with Snapdragon X Elite running pre-release Windows 11 26100 and Apple MacBook Air 13" with M3 running macOS 14 Sonoma.

46. Tested May 2024 using Procyon AI Overall Score comparing Copilot+ PCs with Snapdragon X Elite 12 core and Snapdragon X Plus 10 core configurations to MacBook Air 15" (M3, 8 core CPU/10 core GPU configuration) and MacBook Pro (M3 Pro, 12 core CPU/18 core GPU configuration).

47. Based on a comparison with published [specifications for Apple iPad Pro](#) with M4 as of May 7, 2024.

Do all Surface Pro SKUs have fans?

- Yes. All SKUs have active cooling.

What's the brightness range?

- Surface Pro supports brightness down to 2 nits and a maximum of 600 nits on LCD and 900 nits on OLED displays.

What is the new anti-fingerprint technology on Graphite models?

- Our Gen-3 Anti-Fingerprint (AFP) technology stands out due to its innovative, dual-layer system designed to enhance performance without compromises. Unlike single-layer coatings, the Gen-3 AFP system features a bottom layer that optimally controls optics on Graphite (Black) models of Surface Pro and Surface Laptop, while the top layer manages surface energy, effectively reducing fingerprint visibility and improving durability. This system is specifically tailored to complement our anodizing colors and textures, ensuring seamless integration with their device designs.

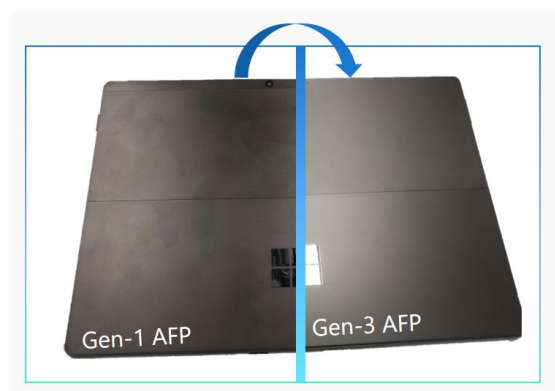


Figure 1. Gen-3 AFP helps fingerprints fade into the background

AI and Copilot

Does Copilot use the NPU?

- Copilot does **not** use the NPU.

What's new for Windows Studio Effects?

- **Voice Focus** Enhanced voice focus removes background noise for maximum clarity on video or audio calls.
- **Portrait Blur** Apply a light blur so you're always in focus.
- **Eye Contact** Maintain eye contact even when you're reading content on the screen, now enhanced.
- **Creative Filters** Activate three different artistic filters in any video platform and access them in Quick settings: Illustrated, Animated, Watercolor.

- **Portrait Light** Automatically adjust the lighting in video calls, in any app or video platform, to brighten yourself against the background.

What's the new Recall feature?

Surface Pro along with Surface Laptop are the first Surface devices that will have the option to enable the Recall feature when it becomes available in Preview builds via the Windows Insider Program:

- **Describe it to find it.** With just a few words for context, find what you've seen or heard on your device using Recall. ^{48 49}
- **Resume projects faster** by searching across your personal timeline, apps, documents, communications, and services to find and predict the most relevant content.
- **Create and transform.** Find the right content with Recall, and take quick action with helpful suggestions like copy, summarize, ask Copilot, translate, or start an email.

What's the Out of the Box Experience (OOBE) for a Copilot+ PC?

- We have a custom OOBE experience that introduces customers to the Copilot+ features and educates them on how to use them.
- Recall, when released, will be an optional feature during the Out of Box Experience (OOBE). If users choose not to enable snapshot saving at that time, they will be prompted to activate it during the first run experience (FRE) flow when selecting the Recall icon for the first time. Users can also enable or disable snapshot saving using the **Save Snapshot** toggle in Settings unless Recall is blocked by their IT department.

Will Recall always be running or can customers turn it off

- **Windows will not save snapshots by default.** Information workers must opt-in to allow Windows to save snapshots, and they can do so during the Out of Box Experience (OOBE) or after initial setup during their first-time use of the system. Users can toggle the **Save Snapshots** feature on or off in Settings, unless Recall is blocked by their IT department.
- IT admins will have a policy that allows them to centrally disable saving snapshots. If they do so, all previously saved snapshots on IW devices will be deleted. If IT admins do not configure the policy, information workers can toggle saving Snapshots on and off in Settings. If the information worker turns it off, previously saved snapshots can still be searched or found via timeline, but no new snapshots will be saved.

What is Microsoft's response to the negative feedback on the Recall feature and security/privacy concerns in the new Copilot + PC devices?

- As we always do, we will continue to prioritize privacy, security and safety first. We will also listen to and learn from our customers, including consumers, developers and enterprises, to evolve our

48. Some Next Gen AI PCs require download of free updates to run Next Gen AI experiences, available starting late 2024 - 2025. [Learn more](#)

49. Optimized for select languages (English, Chinese (simplified), French, German, Japanese, and Spanish). Content-based and storage limitations apply. [Learn more](#).

experiences in ways that are meaningful to them.

- On June 7, Microsoft [shared updates](#) on the set-up experience, privacy controls and additional details on our approach to security. This includes updating the setup experience to give people a clearer choice to opt-in to saving snapshots using Recall, which is turned off by default, and requires Windows Hello enrollment to be turned on. In addition, proof of presence is required to review and search. We are also adding additional layers of data protection and encrypting the search index database.
- On June 13, we [shared](#) that Recall will first be available as a preview in the Windows Insider Program (WIP), rather than broadly available right away. By drawing on the expertise of the Windows Insider community, we can ensure the experience meets our high standards for quality and security. This decision is rooted in our commitment to providing a trusted, secure and robust experience for all customers, and to seek additional feedback prior to making the feature available to all Copilot+ PC customers.
- Security is our top priority at Microsoft, in line with our Secure Future Initiative (SFI). The development of Copilot+ PCs, Recall and Windows will continue to be guided by SFI.
- For more information on user privacy and control over the Recall experience, please visit: [Privacy and control over your Recall experience - Microsoft Support](#)

If I enable Recall, what safeguards are in place to protect my personal information?

- For new Recall experiences where content or information are saved, it will stay local on Copilot+ PCs and is encrypted using Device Encryption or BitLocker for devices running Windows 11 Pro or an enterprise Windows 11 SKU.

Copilot Progressive Web App (PWA)

Why move the Copilot icon from the taskbar to a PWA?

- Having Copilot as a PWA gives customers the flexibility they've been asking for, enabling a full windowing experience. The Copilot PWA running on Windows will continue to have access to the latest and most powerful large language models available all in a streamlined, simple yet powerful design.

What differentiates the Copilot PWA from the current Copilot in Windows experience?

- Copilot on Windows will now be delivered via an app on the taskbar. The PWA is faster and gives you more flexibility in sizing the Copilot window. Or you can unpin it from the taskbar. Some Windows actions such as "Turn on dark mode" won't initially be supported, but we plan to add those over time.

Is the device available without the Copilot key?

- The Surface Pro Flex Keyboard, sold separately, includes the Copilot key. Existing Surface Pro Keyboards, sold separately, are compatible with Surface Pro (11th Edition). The exception is the Surface Pro Fingerprint Reader Keyboard, which is no longer compatible.

What other AI features can I use with Surface Pro?

- Microsoft 365 Copilot:⁵⁰ Take advantage of our intelligent AI assistant designed to help you work more productively, boost efficiency, and improve business outcomes. Safeguard your proprietary business information while harnessing the power of generative AI.
- Copilot in Windows: Access Copilot in Windows³⁰ by pressing the dedicated key²⁰ on the keyboard. With centralized AI assistance, Copilot helps you get answers, inspirations, and support from across the web, helping you stay focused on your tasks.
- Windows Live Captions: Break down communication barriers by translating your discussion from almost any language to English in real-time using Live Captions.³¹ All call attendees receive real-time captions in English. People who missed the meeting can view these captions with the recording.

Regional availability

Is the Copilot PWA preinstalled?

- In most markets, the Copilot PWA is preinstalled on new devices. Or the existing Copilot in Windows experience will be updated so no user action is needed. In European Economic Area (EEA)⁵¹ markets, new PCs will get the new Copilot app and users of existing Windows 10 and Windows 11 PCs In-market systems will be able to install the app.
- On new PCs, the Copilot PWA comes pinned to the taskbar in all markets

When will the Copilot experience be available in China?

- We don't have anything new to share. Copilot in Windows started to release in preview to select global markets as part of our September 26 Windows 11 update. The initial markets for the Copilot in Windows preview included North America and parts of Asia and South America. It is our intention to add additional markets over time.

In which markets will Recall be released? Will Recall launch in Europe and China?

- Recall (preview) feature for Copilot+ PCs. Recall (preview) will be available first in the [Windows Insider Program \(WIP\)](#) in the coming weeks and will be available to all geographies including EEA and China.

Windows on ARM/App emulation

Where can I find the latest information for Surface on Arm?

- To learn more, see [Arm-based Surface devices FAQ - Surface | Microsoft Learn](#).

50. Microsoft 365 Copilot requires a qualifying volume license or subscription. See more [Microsoft 365 Copilot | Microsoft 365](#).

51. The European Economic Area (EEA) includes member states of the European Union (EU) along with Norway, Iceland, and Liechtenstein.

Cost & value

SKUs and availability

When are commercial SKUs available?

- Sept. 10, 2024

How will these PCs show up in retail when customers go to the store?

- Copilot+ PCs can be found in retail under the Copilot+ PC branding on retail fixtures where users typically find Windows devices
- Starting Sept. 10, you can purchase a Copilot+ PC at select retailers across the US, UK, Australia, Canada, France, Germany, Japan and China, as shown in the following table:

Table 4. Surface device retailers

Asia	EMEA	Americas
JB HiFi AU	Curry's	BBY US
Harvey Norman AU	MSH DE	Costco US
Bic Camera	FNAC/Darty	Amazon US
Yodobashi	Amazon UK	Best Buy CA
Yamada	Amazon DE	Direct
JD.com	Amazon FR	
Direct	Direct	

Will Copilot+ PCs be available globally at launch?

- Surface Laptop and Surface Pro are available to customers in the following markets starting Sept. 10:
 - Australia, Austria, Belgium, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Kingdom, and United States

Will these new Surface devices go to more markets beyond that?

- Yes, the new Surface Pro and Surface Laptop will be available in more markets soon.

Will these devices with the Copilot key be available in China?

- Yes, devices with the Copilot key are available in China.
- In China, when you press the Copilot key on the new Surface Pro Keyboard with the new Surface Pro or the new Surface Laptop, Copilot key will launch Recall. For devices that do not have Recall, the Copilot key will open Windows Search.

Why the delay between Consumer and Commercial availability?

- New technologies take some time to scale to Commercial customers so we we're focusing on making devices available to consumers today while we work with large commercial customers on pilot programs.

When will Wi-Fi+ 5G models be available to purchase?

- Sept. 26, 2024, in select markets.

Which configurations of Surface Pro have OLED displays?

- All configurations of Surface Pro that feature the Snapdragon X Elite processor include OLED with HDR displays. Configurations with the Snapdragon X Plus processor include LCD displays with HDR.

Table 5. Surface Pro (11th Edition) Wi-Fi Commercial SKUs All-in-one (single unit)

Configuration	Colors	CPU	RAM	Storage	Display
Plus/16/256	Platinum	Snapdragon X Plus	16GB	256 GB	LCD
Plus/16/512	Platinum Black	Snapdragon X Plus	16 GB	512 GB	LCD
Elite/16/512	Platinum Black	Snapdragon X Elite	16 GB	512 GB	OLED
Elite/16/1TB	Platinum Black	Snapdragon X Elite	16 GB	1TB	OLED
Elite/32/1TB	Platinum	Snapdragon X Elite	32 GB	1TB	OLED

Table 6. Surface Pro Wi-Fi+5G models - commercial SKUs All-in-one (single unit)

Configuration	Colors	CPU	RAM	Storage	Display
Plus/16/256	Platinum	Snapdragon X Plus	16 GB	256 GB	LCD
Elite/16/512	Platinum	Snapdragon X Elite	16 GB	512 GB	OLED

Security

Are the security features for Surface Pro (11th Edition) the same as Windows 11?

- Surface Pro (11th Edition) provides the highest default level of security for Windows 11 devices.
 - **Secured-core PC** – Surface Pro is a Secured-core PC. To learn more, see [Secured-core PC's](#).
 - **Microsoft Pluton Security processor** is included in Surface Pro. To learn more, see [Microsoft Pluton](#).
 - Pro ships with **Windows Hello Enhanced Sign-in Security (ESS)**, which enables more secure sign-in using biometric. To learn more, see [Windows Hello Enhanced Sign-in Security \(ESS\)](#).

What advantages do Secured-Core PCs offer for handling sensitive data?

- Designed with deep integration between hardware and software and featuring the most advanced CPUs available, Secured-core PCs like Surface Pro are intended to handle mission-critical data in some of the most data-sensitive industries. A Secured-core PC is a modern Windows device that comes with the highest level of hardware, software and identity protection ready right out-of-the-box. To learn more, see [Windows 11 Secured-Core PCs | Microsoft](#).
- Secured-core PCs, like Surface Pro are the most secure Windows 11 devices for workers who need a multi-layered security system (L3 requirements) to handle the most sensitive data.

Does Surface Pro support Dynamic USB-C disablement?

- No, dynamic USB-C disablement is supported on Surface Pro 10 and some other Surface devices but is not currently supported on Surface Pro (11th Edition).
- Surface Pro (11th Edition) does support granular USB disablement. To learn more, see [Manage USB ports on Surface devices - Surface | Microsoft Learn](#).

Near Field Communication (NFC)

What NFC functionality is available with Surface Pro?

- For the latest information, see [NFC support in Surface Pro](#).
- NFC⁵² in Surface Pro is designed to enhance security and convenience for users. It facilitates Azure Active Directory (AAD) and Microsoft Account (MSA) authentication via FIDO2.0 standards, enabling secure access and sign-in.
- Additionally, Surface Pro is capable of reading and writing NFC tags. Although it can read some of the information stored on the magnetic stripe of a bank card, NFC on Surface Pro doesn't support payment transactions.
- See [Appendix](#) for detailed technical information about NFC.

What NFC chip is included?

52. NFC is only available on Wi-Fi configurations of Surface Pro (11th Edition).

- Surface Pro uses NXP PN560, a controller chip developed by NXP Semiconductors. The PN560 is part of NXP's series of NFC controllers and is designed to provide robust and efficient NFC functionality for a variety of applications.

How does Surface Pro enable NFC wayfinding?

- A custom lock screen is available to download and deploy to devices to assist with NFC wayfinding. To learn more, see [NFC support in Surface Pro](#).

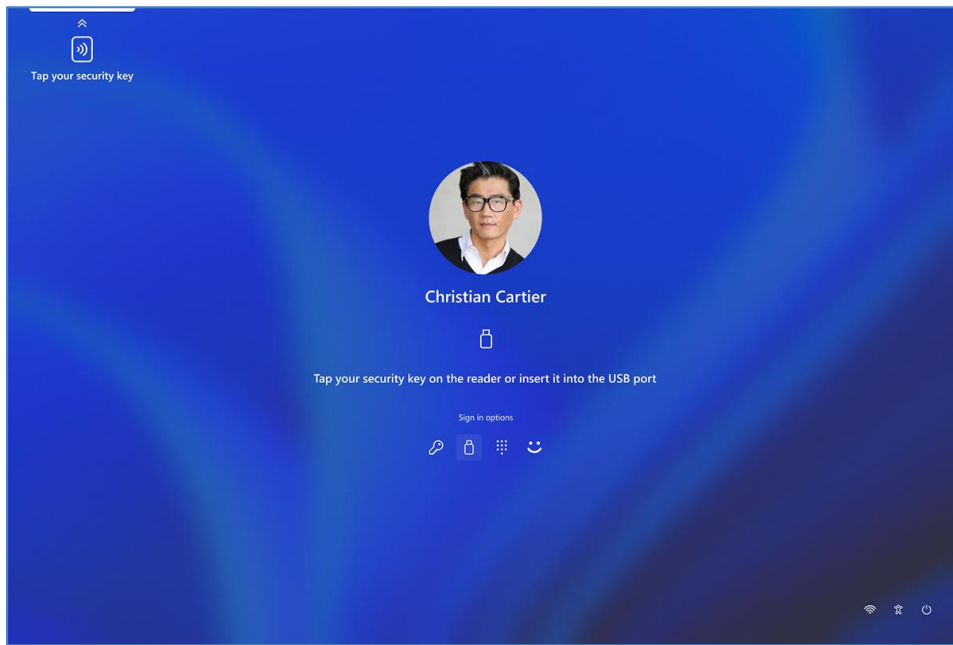


Figure 2. NFC lockscreen example

Does NFC login have the same 10-user limit as Windows Hello for Business?

- No. For devices with more than 10 users, or for users that sign in to many devices (for example, a support technician), it's recommended to use a FIDO2 security key as enabled by NFC.

Why doesn't Surface Pro support NFC payments?

- We engineered NFC in Surface Pro for enterprise customers where the primary applications of NFC technology extend to authentication, access control, and the exchange of information. These use cases are fundamental in environments that demand heightened security and streamlined operations, such as workplaces and educational institutions. Consequently, we focused on enhancing features critical to these sectors, including secure login processes and the ability to read and write NFC tags efficiently. This strategic choice allows us to tailor Surface Pro to the specific needs of our target audience, prioritizing functionalities that support professional activities over consumer-oriented transactions like NFC payments.

See [Appendix](#) for detailed technical information about NFC.

TPM

What TPM is supported on Surface Pro?

- Surface Pro utilizes a discrete Trusted Platform Module (TPM) 2.0 and are certified for government and security-minded enterprise standards, achieving FIPS 140-2 Level 2 with Intrusion Detection and Common Criteria / EAL4.

Why is a discrete TPM 2.0 chip important for security in a commercial environment?

- **Enhanced security and integrity:** TPM 2.0 offers a hardware-based solution for securing cryptographic keys, ensuring that only trusted software is run during the boot process, thereby protecting against unauthorized access and malicious attacks.
- **Advanced encryption and authentication:** It securely manages encryption keys for disk encryption like BitLocker, supports multi-factor authentication methods, and protects against brute-force attacks, enhancing data protection and user authentication.
- **Compliance and remote attestation:** Meets regulatory compliance requirements for security standards, and facilitates remote attestation, allowing devices to verify their integrity and trustworthiness in remote and cloud computing environments.

Pluton

Is the Pluton processor enabled on Surface Pro?

- Yes. Surface Pro (11th Edition) includes the Microsoft Pluton security processor, a chip-to-cloud security technology built with Zero Trust principles at the core. Microsoft Pluton provides hardware-based root of trust, secure identity, secure attestation, and cryptographic services. To learn more, see [Microsoft Pluton security processor - Windows Security | Microsoft Learn](#).

Does Pluton provide TPM functionality on Surface Pro like it did on Surface Pro 9 5G?

- No. The TPM on Surface Pro (11th Edition) is provided by a discrete TPM 2.0 chip, validated by FIPS 140-3

What value does Pluton provide Commercial customers if it's not being used as a TPM?

- One of the other major security problems solved by Pluton is keeping the system firmware up to date across the entire PC ecosystem. Pluton for Windows computers will be integrated with the Windows Update process in the same way that the Azure Sphere Security Service connects to IoT devices.

SSD retention

What's the primary purpose of having a removable SSD for commercial enterprises?

- The removable SSD (rSSD) helps businesses maintain control of their sensitive information.⁵³
- It also facilitates service and repair: Retaining data is made easy with the ability to retain the SSD.

When will the Surface Drive Retention service plan offer be available for purchase?

- Surface Drive (SSD) Retention is available on Surface devices where the SSD is marketed as removable, subject to terms and conditions. To learn more, see [Surface Warranty, Protection Plans & Support](#).

⁵³. Drive (SSD) Retention is only available on Microsoft Surface devices in which the SSD is marketed as removable per the Technical Specifications. Drive (SSD) Retention is included in Microsoft Complete for Business Plus and is available as an Optional Add-on when purchasing Microsoft Extended Hardware Service and Microsoft Complete for Business. Except for Surface Pro X and Surface Pro 7+, devices returned to Microsoft with a missing SSD are subject to an SSD replacement fee unless the user is enrolled in the Drive (SSD) Retention offer.

Manageability & integration

Will Surface Pro (11th Edition) be offered with Windows 10? Is an N-1 OS supported?

- No, Surface Pro (11th Edition) does not run on Windows 10.
- Surface Pro (11th Edition) ships with Windows 11 version 24H2.
- N-1 OS is not supported. Windows 11 24H2 is the earliest OS that can be installed on Surface Pro (11th Edition).

Are there restrictions to managing Surface Pro (e.g. Intune only)?

- While we suggest Microsoft Intune and modern management practices for the best experiences with Surface Pro, IT admins can now manage and deploy Surface Pro and other Windows on ARM devices using Microsoft Configuration Manager and MSI driver packages made available at launch. [Update 2403 for Microsoft Configuration Manager current branch is now available. - Microsoft Community Hub.](#)

Can Surface Pro (11th Edition) be deployed via traditional image-based deployment?

- Yes, Surface Pro (11th Edition) supports Image-based Operating System Deployment (OSD) through [Microsoft Configuration Manager](#). To ensure compatibility, customers should use Configuration Manager version 2403 or later. Additionally, the x64 emulator component must be installed as it is essential for Windows Preinstallation Environment (WinPE) operations. For systems using MSI drivers, it is necessary to inject boot-critical drivers into WinPE to facilitate the deployment process. To learn more, see [Deploy, manage, and service ARM-based Surface devices - Surface | Microsoft Learn](#)

What's new with Windows Autopatch?

- Windows Autopatch will become the unifying Windows update management solution, providing a single service for enterprise organizations to manage updates while maintaining the highest level of control. Windows Autopatch provides the update and upgrade solution for Windows PCs, M365 applications, Microsoft Edge, and Teams. The solution will now leverage AI to program necessary updates and reduce the impact on business productivity. [Learn more](#) about what's new in Windows Autopatch.

What's the complete list of UEFI settings that can be managed with SEMM?

- See: [Surface UEFI settings reference for SEMM - Surface | Microsoft Learn](#)

What's new with the Surface Management Portal + Intune?

- The Surface Management Suite has been updated to provide deeper insights and control over the device lifecycle with Microsoft Intune, featuring firmware and driver status updates, API capabilities for warranty and device information integration, and support for diverse business processes like multiple billing addresses, global replacement device shipping, and a carbon emissions estimator. For more details, please refer to this blog: [\(Re\)Introducing the Surface Management and Support Suite - Microsoft Community Hub](#) and the docs here: [Surface portals - Surface | Microsoft Learn.](#)

What's the Surface IT Toolkit?

- The Surface IT Toolkit is a compilation of essential Surface device management tools in a single, downloadable application to provide a more efficient device management experience for IT administrators. Designed for businesses of all sizes, it delivers simplicity, improved data security, and compliance for your Surface devices. To learn more, see:
 - [Deep dive into the Surface IT Toolkit - Microsoft Community Hub](#)
 - [Surface IT Toolkit - Surface | Microsoft Learn](#)

How are you applying AI to Windows 365 to make Cloud PC management easier for IT teams?

- Using AI, Windows 365 analyzes your employees' usage patterns and performance needs to offer IT admins recommendations to better forecast and right-size their Cloud PC investments. These AI capabilities help organizations reduce costs, increase efficiency, and further simplify security and management of Windows 365 Cloud PCs and are currently in preview. Additionally, with Copilot in Intune, on physical endpoints and on Windows 365 Cloud PCs, IT and security admins can proactively apply targeted policies to manage and secure devices and data, troubleshoot root cause, and remediate device issues quickly with AI assistance in Intune.
- **Single sign on (SSO) and passwordless authentication** support for both Windows 365 and Azure Virtual Desktop is now generally available for Azure Virtual Desktop and Windows 365, along with third-party IDP support. We are also actively working on enabling the same capabilities for Azure Virtual Desktop approved providers.
- **Windows 365 Customer Lockbox** ensures that Microsoft support engineers can't access content to do service operations without explicit approval. This is generally available. [Learn more](#) about this feature.
- **Windows 365 Customer Managed Keys** allows organizations to encrypt their Windows 365 Cloud PC disks utilizing their own encryption keys. This is in public preview.
- **Watermarking, screen capture protection, and tamper protection** support for both Windows 365 and Azure Virtual Desktop are now generally available, protecting against unauthorized access and manipulation of data, helping to ensure the safety of sensitive information and maintaining organizational data integrity.

Is support for DFCI the same as Surface Pro 9?

- Yes, commercial SKUs of Surface Pro can be managed using Device Firmware Configuration Interface (DFCI) profiles via Microsoft Intune admin center.

Are there new DFCI settings?

- No new DFCI settings. For all supported DFCI settings, see [Manage DFCI on Surface devices](#).

App Assure

Where can customers get help with app compatibility?

- Go to [App Assure with Microsoft FastTrack](#) and get app compatibility assistance when deploying Windows 10 and Windows 11, including ARM64 devices, Microsoft 365 Apps, Microsoft Edge, Azure Virtual Desktop, and Windows 365. This is included at no additional cost with your [eligible Microsoft 365 or Windows 10/11 plans](#). There is no minimum number of licenses required.

Is App Assure just for Microsoft software?

- No. App Assure can help remediate custom line-of-business apps, engage third-party software vendors to help with Windows 10/11 apps, and address issues with Microsoft 365 Apps macros and add-ins.

Durability & service

Serviceability

What do you mean by serviceability?

- Serviceability refers to our commitment to providing customers with options for servicing their devices.
- We are committed to designing our products to deliver what customers need and want on a premium device, including multiple service options. We are working with our industry partners to provide repair options that ensure the quality of repairs, safeguard consumers' privacy and security, and protect consumers from injury.

What are the serviceable components?

- Surface Pro: Replaceable components²⁷ include:
 - Display module
 - Removable solid-state drive
 - Battery
 - Motherboard (including main processor and main memory)
 - Surface Connect
 - Thermal module
 - Microphone module
 - Solid-state drive door
 - Speakers
 - Enclosure (bucket)
 - Front camera
 - Rear camera
 - Power and volume buttons
 - Kickstand
 - Device entry kit

Where is the SSD located?

- The SSD compartment is located on the right rear of the device underneath the kickstand and is marked with key module information and applicable usage labels.

What type of SSD is in Surface Pro?

- Surface Pro integrates a PCIe NVMe SSD drive in an M.2 2230 form factor.

When and where will replaceable components be available to purchase?

- Components will be available from [Authorized Microsoft Resellers](#) shortly after the initial launch; the timing of availability varies by component and market.
- New SSDs will be available for purchase through commercial channels and published on pricelist. To learn more, see [Authorized Microsoft Reseller List](#).

Will a commercial customer's warranty be voided if they upgrade their SSD?

- Upgrading the SSD does not void the warranty, but the warranty does not cover damage to the device resulting from the repair. Likewise, the SSD warranty will not cover the damage if the SSD (as a replaceable component) is damaged during installation. Microsoft does not advise installing an SSD that has not been tested for device configuration. Microsoft ensures product quality and tests hardware configuration before sale. Please note installing a third-party SSD or a Microsoft Surface replaceable component with a replaceable component different from the original SSD may result in reduced performance and unsupported configurations.

Is it possible to install third-party, off-the-shelf SSDs?

- Microsoft does not advise users to install an SSD that has not been tested for their device configuration. Microsoft takes measures to ensure product quality and test hardware configurations offered for sale. Installing a third-party SSD or a different Microsoft SSD (of another volume size) may result in reduced performance and unsupported configurations.
- Customers can take advantage of commercial spares to be offered via authorized Surface resellers.

When will the Surface Drive Retention service plan offer be available for purchase?

- Surface Drive (SSD) Retention is available on Surface devices where the SSD is marketed as removable, subject to terms and conditions. To learn more, see [Surface Warranty, Protection Plans & Support](#).

How will customer IT Pros learn to make repairs? Do they need to be certified by Microsoft?

- Commercial customers do not require certifications to repair or service a Surface device using replaceable components. Self-service repairs should only be performed on eligible devices by a skilled technician following Microsoft-provided service guide instructions. A non-skilled technician attempting to perform a repair may cause injury to themselves or others or may cause damage to the device. Microsoft is not liable for any damage or injuries sustained. Device damage caused

during a repair will not be covered under Microsoft's Hardware Warranty or extended protection plans.

What comes in the box when I purchase a commercial spare? Are there installation instructions?

- The rSSD Commercial Spare Package includes only the replacement SSD and basic instructions. For complete instructions, refer to the appropriate service guide available on the [Microsoft Download Center](#). It is recommended to store the rSSDs in their original packaging until they are used to prevent potential damage due to stacking.

Is there a software tool to erase the content of my old SSD?

- You can use [Surface Data Eraser](#) or reimage the device to securely wipe all data stored on the SSD. The SSD must be installed during the process. Surface SSDs are encrypted by default.

Does the commercial spare SSD need to be imaged?

- Yes. After a new SSD has been introduced in a host PC, users can either clone the old SSD to the new SSD using third-party tools and then subsequently recover the BitLocker volume via BitLocker Recovery or reimage the device with the [Surface Recovery Image](#) and re-configure the device.

What is the support process for returning a device after removing the SSD?

- When the SSD is removed for the purposes of data retention following Microsoft instructions and sent for repair or replacement services, a replacement device, including a functioning SSD, will be issued. Customers who wish to retain the SSD may do so but will be charged the cost of the missing SSD unless they have purchased a Surface Drive Retention service plan, which allows customers to retain their SSD and control their data without incurring additional costs.
- In all cases, the device must be returned to Microsoft — closed and in assembled condition — to ensure adequate protection for the device's internal circuitry and battery during shipment. See [Packing and shipping instructions for Surface devices](#) for more information.
- For information on Microsoft Surface Support, visit [Surface Warranty Information](#).

Sustainability considerations

Are Surface Pro and Surface Laptop more energy efficient?

- Yes! Both devices are also ENERGY STAR® certified. Reduce your energy consumption with Surface Pro/Laptop, an ENERGY STAR® certified device.⁵⁴
- Surface Pro highlights:
 - Higher performance while using less energy than Surface Pro 9 (Wi-Fi only models)⁵⁵
 - More energy efficient than Surface Pro 9 (Wi-Fi only models)⁵⁵

54. Computers that have earned the ENERGY STAR label are third-party certified to be energy efficient and use 25% - 40% less than conventional models by using the most efficient components and better managing energy use when idle.

55. Based on comparison of ENERGY STAR® ratings.

- ENERGY STAR® certified, 64% better than the ENERGY STAR® limit.

What are you doing to reduce the environmental impact of your devices?

- Sustainability has long been a core priority for Microsoft, and that goal is embedded in all we do – including our devices. The best source of information about the Devices team's work on sustainability is our [Devices Sustainability Report](#).
- Over the past decade, we've steadily improved energy efficiency, decreased packaging waste, reduced or eliminated hazardous substances, and improved our devices' serviceability and recyclability. We are constantly developing initiatives to lower our carbon emissions by using more recycled materials such as our use of 100% recycled aluminum.
- We have also worked to help improve the sustainability of our suppliers and supply chain. For example, this year, we converted our main European distribution center for Surface devices into a facility [powered 100% by Renewable Energy](#).
- Our newest devices – Surface Pro (11th Edition) and Surface Laptop (7th Edition) – feature our most significant sustainability advancements yet including enclosures made from 100% recycled aluminum, 100% rare-earth magnets, reducing plastic waste with all-new paper-based packaging with more recyclable components, and extending the lifetime of the device with innovative repairability features.

What's Microsoft's stance on the Right to Repair?

- Microsoft has a longstanding commitment to environmental sustainability. We also have a longstanding commitment to building high-quality, innovative, and safe devices that customers love. We have been taking steps for years to improve device repairability and to expand the available choices for device repair.
- For more information on our work around sustainability, including repairability, please consult the [Microsoft Sustainability Report](#).

Power and battery

What power supply is included?

- Surface Pro includes a 39W power supply, in select markets, available only with specific configurations.

Is Fast charging supported?

- Yes, using a minimum 65W power supply⁵⁶ via Surface Connect or USB-C.

Can you recommend a 65W power supply to purchase for this device?

- [Buy Microsoft Surface 65W Power Supply - Microsoft Store](#)

⁵⁶. Sold separately.

Can I charge this device with another Surface Charger?

- Yes, but if the wattage is insufficient, a message will be displayed indicating the slow charge status.

Will inbox PSUs continue to have Surface Connect?

- Yes.

Will it harm the battery to have the device plugged in and on all the time?

- No, the Surface charger is designed to adjust charging so that it is no longer charging your device once the battery reaches capacity.

How are you measuring battery life?

- **Typical device usage.** Represents a mixed-use scenario that might include browsing the internet, using productivity software (like word processors or spreadsheets), checking emails, and occasional streaming of media content. It is designed to mimic a day in the life of an average user.
- **Local video playback.** Measures battery life when a device is used to play video files stored locally, meaning they are played directly from the device's storage rather than streamed over the internet. This scenario typically involves less power consumption than active web usage because it doesn't require the use of networking hardware and often relies on optimized playback software that can take advantage of hardware acceleration.
- **Active web usage.** Reflects battery life during continuous use of web-based applications and browsing. This scenario is more demanding than local video playback since it involves constant data exchange over Wi-Fi or cellular networks, frequent screen refreshes, and possibly more intensive CPU and GPU usage.

Why did Surface change the metric of battery life measurement?

- We understand that everyone uses their devices differently, so we are now offering additional, commonly used battery life metrics to help customers gauge battery life across different use-case scenarios.

What are the Smart Charging features?

- Surface Pro incorporates Smart Charging technologies designed to optimize battery performance and extend device lifespan. These include Battery Protection Mode (BPM) and Predictive Charger Control (PCC), offering IT administrators advanced tools for managing device fleet battery health efficiently while maintaining user productivity.

Table 7. Smart charging features

Feature	Description
Battery Protection Mode (BPM)	Battery Protection Mode intelligently monitors device usage to preserve battery longevity. For devices frequently plugged in, BPM automatically limits battery charge to 80%, reducing wear and prolonging battery life. This feature

	is particularly beneficial for stationary devices in long-term use, as it minimizes battery degradation by adjusting charge cycles based on usage patterns tracked internally.
Predictive Charger Control (PCC)	Predictive Charger Control uses AI to anticipate user behavior and optimize charging cycles. This feature ensures the battery reaches full charge when the device is expected to be disconnected, balancing maximum uptime with battery preservation. PCC reduces the risk of battery aging or swelling by managing the charge cycles more precisely, ideal for IT admins managing battery health across large fleets.
User interface consistency	Smart Charging provides a consistent user interface across devices, showing a heart icon over the battery symbol when active. If needed, users can override this by selecting 'Charge to 100%' in the Surface app, providing a temporary full charge. This user interface simplifies management and improves user experience without requiring additional training.
New notification feature	Starting with the March 2024 update, users will receive a notification when smart charging is activated. This educates users about battery preservation, allowing them to initiate a full charge manually if required. IT admins can leverage this feature to reduce battery-related support requests by informing users of the benefits.
Surface App functionality	In the Surface app, the 'Charge to 100%' button is grayed out when smart charging is not limiting the battery, indicating that the device is fully charged or not under the 80% preservation threshold. This helps users and IT teams avoid unnecessary overrides while simplifying battery management.

Connectivity and expansion

What's the difference between USB-C and USB4?

- **USB-C refers to the physical connector type.** It is a reversible, oval-shaped connection for data transfer, power delivery, and video output. USB-C connectors can support a variety of different protocols, such as USB 2.0, USB 3.0, USB 3.1, USB 3.2, Thunderbolt 3, Thunderbolt 4, and USB4.
- **USB4 is a standard for the actual data transfer protocol,** which defines the speed and functions of the USB connection. USB4 can only be implemented with USB-C connectors and supports higher data transfer speeds, and improved resource allocation when multiple devices are connected.

What's the external monitor support?

- The following table shows the maximum refresh rates and resolution when connecting external monitors to Surface Pro.

Table 8. External monitor support

Interface	One External Display (Plus Internal LCD)		Two External Displays (Plus Internal LCD)		Three External Displays ³³ (Plus Internal LCD)	
	Max Refresh	Max Resolution	Max Refresh	Max Resolution	Max Refresh	Max Resolution
USB-C (USB4)	60 Hz	5120 × 2880 (5K)	60 Hz	3840 × 2160 (4K)	60 Hz	3840 × 2160 (4K)
	120 Hz	3840 × 2160 (4K)				
USB-C on Surface Thunderbolt 4 Dock	60 Hz	5120 × 2880 (5K)	60 Hz	3840 × 2160 (4K)	60 Hz	3840 × 2160 (4K)
	120 Hz	3840 × 2160 (4K)				
USB-C on Surface Dock 2	60 Hz	5120 × 2880 (5K)	60 Hz	3840 × 2160 (4K)	60 Hz	3840 × 2160 (4K)
Mini DisplayPort (mDP) on Surface Dock 1	60 Hz	4096 × 2160 (4K UHD)	30 Hz	3840 × 2160 (4K)	60 Hz	3840 × 2160 (4K)
			60 Hz	2560 × 1440 (Quad HD)	60 Hz	3840 × 2160 (4K)

How has Bluetooth improved in Surface Pro?

- **Enhanced efficiency & connectivity:** Bluetooth 5.4 continues to advance in signal management, reducing interference and ensuring more stable, reliable connections, particularly in environments crowded with wireless signals. This iteration further enhances the connectivity experience, building on the robust framework established by earlier versions.
- **Low energy audio technology:** Bluetooth 5.4 supports Bluetooth Low Energy (LE) Audio, which delivers high-quality sound while significantly reducing power consumption. This technology enables longer battery life for audio devices and wearables, making it ideal for extended use.
- **Multi-stream audio support:** Bluetooth 5.4 facilitates simultaneous audio streaming to multiple devices, such as earbuds or speakers. This feature enhances synchronization between devices and provides a richer, more immersive listening experience by seamlessly integrating audio streams.

Does Surface Pro have an audio jack?

- No.

Tested peripherals

What peripherals have you tested for Surface Pro?

- The most used monitors, docks, cables, and adapters in commercial are tested extensively to ensure interoperability with Surface Pro. For a complete list, see [Tested peripherals for new Surface devices](#).
- For the best experience, be sure to get the latest updates. To manage your options and see available updates, select **Start** > **Settings** > **Windows Update**.

What if a peripheral is not included in your testing? Will it still work?

- The [testing results](#) cover popular in-market peripherals but are not intended to be comprehensive. Many peripherals not shown may still function as expected.
- Based on our research, we estimate that customers will have a generally positive experience with these peripherals.

Will previous generation type covers -- without a Copilot key -- also be compatible?

- Existing keyboards used for Surface Pro 8, Surface Pro 9, and Surface Pro X are compatible with Surface Pro, except for the Pro Fingerprint Reader Keyboard, which is no longer compatible.

Audio and camera

What new camera capabilities are included with Surface Pro?

A new and improved camera supporting Windows Studio Effects is reinventing how we work in virtual and hybrid environments.

- Front-facing Camera: 2MP, 1080p Full HD front-facing Camera, 114-degree FOV.
- IR Camera: 0.3MP, Windows Hello Face Authentication with ESS (Enhanced Sign-in Security).
- Windows Studio Effects provides automatic framing, eye contact, and background blur.

Accessories

Microsoft adaptive accessories

What are Microsoft adaptive accessories?

- The Microsoft adaptive accessories are highly adaptable, easy-to-use accessories that let you customize your mouse, keyboard inputs, and shortcuts—empowering you to create your ideal setup, increase productivity, and use your favorite apps more effectively. For more customization, you can 3D print additional designs through Shapeways.⁵⁷

What are the components of the Microsoft adaptive accessories?

- **The Microsoft Adaptive Mouse:** An Adaptive Mouse you can use by itself as a stand-alone compact travel mouse or customize with a Microsoft Adaptive Mouse Tail and Thumb Support, or 3D printed tails to make a mouse that truly works for you.
- **Microsoft Adaptive Mouse Tail and Thumb Support:** The Adaptive Mouse Tail and Thumb Support⁵⁸ can be easily attached to the Microsoft Adaptive Mouse to create a traditional mouse that's incredibly light and portable. The thumb support accessory easily switches sides for left or right handedness.
- **Microsoft Adaptive Hub:** A central Adaptive Hub that can pair with up to four wireless adaptive buttons and standard wired connections to let you design the setup that works best for you. Augment traditional keyboards and increase your productivity through a hub and wireless buttons that let you create custom inputs.
- **Microsoft adaptive buttons:** Innovative, wireless buttons⁵⁹ with eight digital programmable inputs. Customize your experience with different button options by choosing between a **D-pad button (4)**, **Joystick button (5)**, or **Dual button (6)** (each sold separately). You can also 3D print Microsoft-designed button toppers through Shapeways⁶⁰ to fit your specific needs.
- To learn more, see [Accessible Devices & Products for PC & Gaming | Assistive Tech Accessories - Microsoft Store](#).

What's new about the Microsoft adaptive accessories?

- The Microsoft adaptive accessories have been available through MS Stores for the consumers since 2022. Now, we're making them available in the Commercial channel.

57. Sold separately. 3D print services provided and warranted exclusively by Shapeways, Inc. subject to Shapeways Sales Terms and Conditions and Warranty. Microsoft is not responsible for their performance or compliance with applicable regulatory, compliance, safety, or any other requirements.

58. Microsoft Adaptive Mouse Tail and Thumb Support require Microsoft Adaptive Mouse.

59. The Microsoft Adaptive D-pad Button, Microsoft Adaptive Joystick Button, Microsoft Adaptive Dual Button require Microsoft Adaptive Hub.

60. 3D print services provided and warranted exclusively by Shapeways, Inc. subject to Shapeways Sales Terms and Conditions and Warranty. Microsoft is not responsible for their performance or compliance with applicable regulatory, compliance, safety or any other requirements. Available 3D printed designs from Shapeways may vary from image shown and over time. See [Customize your Microsoft Adaptive Accessories with 3D-printable designs](#) to learn more about the latest offerings.

Who are Microsoft adaptive accessories for?

- Everyone. Microsoft adaptive accessories were created in partnership with the disability community. They can help remove the barrier that a traditional mouse and keyboard may present for people with limited mobility and can be extended to anyone looking for new ways of being more productive when using a PC, tablet or phone.

Are the Microsoft adaptive accessories one product or separate products?

- The Microsoft adaptive accessories are separate products that work both individually and together as a connected ecosystem designed to replace or augment traditional mouse and keyboard input for people with limited mobility and extended to anyone who wants to increase their PC productivity.

Surface accessories

What additional accessories are recommended for Surface Pro?

- Accessories are a crucial part of employees making Surface Pro their own. Many Designed for Surface options are available to build the ultimate workspace. These are especially important for employees who need more adaptive workspaces to meet their accessibility requirements.

Appendix A: Compare Surface Pro Editions

The following table applies to commercial versions of Surface Pro.

Table 9. Comparing commercial versions of Surface Pro

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Processor	<p>Dual-core 11th Gen Intel® Core™ i3-111 4 Processor (Wi-Fi)</p> <p>Quad-core 11th Gen Intel® Core™ i5-1135G7 Processor (Wi-Fi or LTE)</p> <p>Quad-core 11th Gen Intel Core i7-1165G7 Processor (Wi-Fi)</p>	<p>12th Gen Intel Core i7 or 12th Gen Intel Core i5 processors</p> <p>(Devices configured with 256 GB storage or greater built on the Intel Evo™ platform)</p>	<p>Intel Core Ultra 5 Processor 135U</p> <p>1.6 GHz P-Core Base Frequency</p> <p>4.4 GHz P-Core Turbo Boost Frequency</p> <p>Intel Core Ultra 7 Processor 165U</p> <p>1.7 GHz P-Core Base Frequency</p> <p>4.9 GHz P-Core Turbo Boost Frequency</p>	<p>Snapdragon X Elite (12 core)</p> <p>Snapdragon X Plus (10 core)</p>	<p>Intel Core Ultra 5 processor 236V</p> <p>Intel Core Ultra 5 processor 238V</p> <p>Intel Core Ultra 7 processor 266V</p> <p>Intel Core Ultra 7 processor 268V</p>
Graphics	<p>Intel UHD Graphics (i3)</p> <p>Intel Iris® Xe Graphics (i5, i7)</p>	Intel Iris Xe graphics	<p>Intel Graphics</p> <p>2 GHz GPU frequency</p>	<p>Snapdragon X Elite - X1E80100 - Qualcomm Adreno GPU (12 Core)</p> <p>Snapdragon X Elite - X1P64100 - Qualcomm Adreno GPU (10 Core)</p>	Intel Arc™ Graphics

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
NPU	N/A	N/A	Intel AI Boost	Qualcomm Hexagon™ – 45 TOPS	Intel Core Ultra 5 processor 236V/238V - Intel AI Boost with 40 TOPS
					Intel Core Ultra 7 processor 266V/268V - Intel AI Boost with 48 TOPS
Memory	8GB, 16GB: LPDDR4x RAM (Wi-Fi or LTE) 32GB: LPDDR4x RAM (Wi-Fi) (i7 only)	8 GB, 16 GB, 32 GB LPDDR5 RAM	8 GB, 16 GB, 32 GB, 64 GB LPDDR5x RAM	16 GB, 32 GB LPDDR5x RAM	16 GB, 32 GB LPDDR5x RAM
OS compatibility	Windows 10 Pro 1909 Windows 11 Pro 21H2 and later	Intel processors Windows 10 Pro 21H2 Windows 11 Pro 22H2 Arm processors Windows 11 Pro 22H2	Wi-Fi only Windows 11 Pro 24H2 and later Downgradable to Windows 10 via MSI 5G Windows 11 Pro 24H2 and later	Windows 11 Pro 24H2 and later	Windows 11 Pro 24H2 and later
Architecture	x86	x86 (Wi-Fi) Arm (5G)	x86	Arm Prism emulation	x86
rSSD options:	128GB, 256GB (Wi-Fi & LTE) 512GB, 1TB (Wi-Fi)	M.2 2230: 128 GB, 256 GB, 512 GB, 1 TB	M.2 2230: 256 GB, 512 GB, 1 TB	M.2 2230 Gen4: 256 GB, 512 GB	(Gen 4 SSD): 256GB, 512GB, 1TB

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Battery life connected via Wi-Fi	Up to 15 hours of typical device usage	Up to 15.5 hours ⁶¹ of typical device usage	Up to 8.5 hours of active web usage	⁶² Up to 10 hours of active web usage ⁶³	Up to 10 hours of active web usage ¹²
			Up to 13 hours of local video playback	Up to 14 hours of local video playback	Up to 14 hours of local video playback ¹¹
Battery life connected via cellular	Up to 13.5 hours typical device usage ⁶⁴	Up to 19 hours of typical device usage ⁶⁵	Up to 8.5 hours of active web usage Up to 13 hours of local video playback	Up to 9 hours of active web usage	N/A
Display	LCD	LCD	LCD	OLED & LCD options	OLED & LCD options
Anti-reflective technology			✓		✓

61. Surface Pro 9: Up to 15.5 hours of battery life based on typical Surface device usage. Testing conducted by Microsoft in August 2022 using preproduction software and preproduction Intel® 12th Gen Core™ i5, 256GB, 8GB RAM device. Testing consisted of full battery discharge with a mixture of active use and modern standby. The active use portion consists of (1) a web browsing test accessing eight popular websites over multiple open tabs, (2) a productivity test utilizing Microsoft Word, PowerPoint, Excel, OneNote and Outlook, and (3) a portion of time with the device in use with idle applications. All settings were default except screen brightness was set to 150 nits with Auto-Brightness and Adaptive Color disabled. Wi-Fi was connected to a network. Tested with Windows Version 11.0.22621 (21H2). Battery life varies significantly with settings, usage and other factors.

62. Wi-Fi only models. Based on local video playback test. Testing conducted by Microsoft in April 2024 using preproduction software and preproduction Surface Pro Snapdragon® X Plus C10 256GB and 512GB, 16GB RAM (LCD), Wi-Fi only devices and Surface Pro Snapdragon® X Elite C12 1TB 32GB RAM (OLED), Wi-Fi only devices. Testing consisted of full battery discharge during video playback of a .mov file through the Windows Media Player application in 1080p at 24 FPS. All settings were default except screen brightness set to 150 nits with Auto-brightness disabled. Wi-Fi was connected to a network. Battery life varies significantly with settings, usage, and other factors.

63. Wi-Fi only models. Based on a web browsing test. Testing conducted by Microsoft in April 2024 using preproduction software and preproduction Surface Pro Snapdragon® X Plus C10 256GB and 512GB, 16GB RAM (LCD), Wi-Fi only devices and Surface Pro Snapdragon® X Elite C12 1TB 32GB RAM (OLED), Wi-Fi only devices. Testing consisted of full battery discharge while accessing eight popular websites over multiple open tabs through the browser. All settings were default except screen brightness set to 150 nits with Auto-Brightness disabled. Wi-Fi was connected to a network. Battery life varies significantly with settings, usage, and other factors.

64. LTE battery life: Up to 13.5 hours of battery life based on typical Surface device usage. Testing conducted by Microsoft in December 2020 (Surface Pro 7+ with Intel 11th Gen Intel® Core™ i5-1135G7 @ 2.40GHz, 256GB SSD, 8GB DRAM) using preproduction software and preproduction configurations of Surface Pro 7+. Testing consisted of full battery discharge with a mixture of active use and modern standby. The active use portion consists of (1) a web browsing test accessing 8 popular websites over multiple open tabs, (2) a productivity test utilizing Microsoft Word, PowerPoint, Excel and Outlook, and (3) a portion of time with the device in use with idle applications. All settings were default except screen brightness was set to 150nits with Auto-Brightness disabled. LTE enabled and device connected to LTE Network. Wi-Fi and Bluetooth in airplane mode. Battery life varies significantly with settings, usage and other factors.

* Sold separately.

65. Surface Pro 9 with 5G Wi-Fi: Up to 19 hours of battery life based on typical Surface device usage. Testing conducted by Microsoft in August 2022 using preproduction software and preproduction SQ® 3, 128/256/512GB, 8/16GB RAM device. Testing consisted of full battery discharge with a mixture of active use and modern standby. The active use portion consists of (1) a web browsing test accessing eight popular websites over multiple open tabs, (2) a productivity test utilizing Microsoft Word, PowerPoint, Excel, OneNote and Outlook, and (3) a portion of time with the device in use with idle applications. All settings were default except screen brightness was set to 150 nits with Auto-Brightness and Adaptive Color disabled. Wi-Fi was connected to a network. Tested with Windows Version 11.0.22621 (21H2). Battery life varies significantly with settings, usage and other factors.

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Chassis					
Length	11.5" (292 mm)	11.3" (287 mm)	11.3" (287 mm)	11.3" (287 mm)	11.3" (287 mm)
Width	7.5" (201 mm)	8.2" (208 mm)	8.2" (208 mm)	8.2" (209 mm)	8.2" (208.6 mm)
Height	0.33" (8.5 mm)	0.37" (9.3 mm)	0.37" (9.3 mm)	0.37" (9.3 mm)	0.37" (9.3 mm)
Weight ⁶⁶	i3, i5 (Wi-Fi): 1.70 lb. (770g) i5 (LTE): 1.75lb. (796g) i7 (Wi-Fi): 1.73lb. (784g)	1.94 lb. (879 g)	1.95 lb. (885 g)	1.97 lbs. (895 g)	1.97 lbs. (895g)
Cameras & Video					
Front-Facing Camera	5.0MP with 1080p full HD video	5.0MP with 1080p full HD video	12MP with 1440p@30 fps (Quad HD) video Fixed focus Ultra- Wide FOV, 114- degree DFOV after lens distortion correction (LDC)	Quad HD front- facing Surface Studio Camera 1440p Quad HD camera with ultrawide field of view 12 MP, f/2.2, 1 µm, 5p Fixed-focus, Ultra- wide 114° DFOV (post LDC) Windows Studio Effects with automatic framing, Portrait Blur, Creative filters, (illustrated, animated, watercolor), Eye Contact, and Portrait light	1440p Quad HD camera with ultrawide field of view Support for Windows Studio Effects with automatic framing, eye contact, portrait blur and background blur

⁶⁶. Not including Keyboard.

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Rear-Facing Camera	8.0 MP autofocus Up to 1080p full HD video	10 MP autofocus Up to 1080p HD and 4K video	10 MP autofocus Up to 4K@30 fps video 77° DFOV	10 MP Ultra HD autofocus Up to 4K@30fps 77° DFOV (No LDC) UHD 3840x2160 Motion Compensation (MCTF)	10 MP Ultra HD autofocus Up to 4K@30fps 77° DFOV (No LDC) UHD 3840x2160 Motion Compensation (MCTF)
IR camera	Windows Hello face authentication	Windows Hello face authentication	Windows Hello face authentication ESS (Enhanced Sign-In Security)	Windows Hello Face Authentication Enhanced Sign-In Security (ESS)	Windows Hello Face Authentication Enhanced Sign-In Security (ESS)
Network & Connectivity					
Wi-Fi only models	Wi-Fi 6: 802.11ax compatible Bluetooth Wireless 5.0 technology	Wi-Fi 6E: 802.11ax compatible Bluetooth Wireless 5.1 technology	Wi-Fi 6E: 802.11ax compatible Bluetooth Wireless 5.3 technology (including LE functionality) NFC with Reader Mode	Wi-Fi 7 802.11be (2.4 GHz, 5 GHz, 6 GHz) Bluetooth Wireless 5.4 technology including LE functionality NFC with Reader Mode	Wi-Fi 7 ⁶⁷ Bluetooth Wireless Core 5.4 technology including LE functionality NFC with Reader Mode
Wi-Fi+ LTE/5G models	Wi-Fi 6: 802.11ax compatible	Wi-Fi 6E: 802.11ax compatible Bluetooth Wireless 5.1 technology Location: GPS, Glonass, Galileo and Beidou support NanoSIM and eSIM support	Wi-Fi 7: 802.11be compatible Bluetooth Wireless 5.3 technology Location: GPS, Glonass, Galileo, GNSS L1, BDS, QZSS NanoSIM and eSIM ²⁰ support	Wi-Fi 7: 802.11be compatible Bluetooth Core 5.4 technology Location: GPS, Glonass, Galileo, GNSS L1, BDS, QZSS NanoSIM and eSIM support ⁶⁸	N/A

67. 6GHz band not available in all regions.

68. eSIM support may vary by carrier.

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
5G	N/A	NSA (mmWave) Release 15 DL 64 QAM up to 4.2 Gbps 4x4 MIMO UL 256 QAM NSA (Sub-6): Release 15 UL 4x4 MIMO	SA/NSA Release 15 DL 256 QAM up to 2.9 Gbps 4x4 MIMO UL 256 QAM Advanced Pro Release 15, DL Cat 19 up to 1.6 Gbps 256 QAM 4x4 MIMO 5x DL CA UL Cat 18 Contiguous 2x ULCA	SA/NSA, Release 15 DL 256 QAM up to 2.9 Gbps 4x4 MIMO UL 256 QAM Advanced Pro Release 15, DL Cat 19 up to 1.6 Gbps 256 QAM 4x4 MIMO 5x DL CA UL Cat 18 Contiguous 2x ULCA	N/A
LTE		Advanced Pro Release 15 with 4x4 MIMO & LAA UL Cat 20 256 QAM up to 2 Gbps 5x DL CA UL Cat 13 64 QAM Contiguous 2x ULCA	Advanced Pro Release 15 with 4x4 MIMO & LAA UL Cat 20 256 QAM up to 2 Gbps 5x DL CA UL Cat 13 64 QAM Contiguous 2x ULCA	Advanced Pro Release 15 with 4x4 MIMO & LAA UL Cat 20 256 QAM up to 2 Gbps 5x DL CA UL Cat 13 64 QAM Contiguous 2x ULCA	N/A
5G-NR Bands					
mmWave		n257, n260, n261	n257, n260, n261	n257, n260, n261	N/A
Sub-6		n1, n2, n3, n5, n7, n8, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79	n1, n2, n3, n5, n7, n8, n12, n14, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48,	n1, n2, n3, n5, n7, n8, n12, n14, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48,	N/A

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
			n66, n71, n77, n78, n79	n66, n71, n77, n78, n79	
LTE Bands	1,2,3,4,5,7,8,12,13,14, 19, 20,25,26,28 29,30,38,39,40,41,66	1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 19, 20, 25, 26, 28, 29, 30, 38, 39, 40, 41, 42, 46, 48, 66, 71	1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 19, 20, 25, 26, 28, 29, 30, 38, 39, 40, 41, 42, 48, 66, 71	1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 19, 20, 25, 26, 28, 29, 30, 38, 39, 40, 41, 42, 48, 66, 71	N/A
WCDMA Bands		1, 2, 5, 8	1, 2, 4, 5, 8	1, 2, 4, 5, 8	N/A
Ports	1 x USB-C 1 x full-size USB-A 3.5mm headphone jack 1 x Surface Connect port Surface Type Cover port ⁶⁹ MicroSDXC card reader (Wi-Fi) 1 x nano SIM (LTE) Compatible with Surface Dial off-screen interaction*	2 x USB-C with USB 4.0/Thunderbolt 4 Surface Connect port Surface Type Cover port NanoSIM (5G only) ⁷⁰	2 x USB-C with USB 4.0/Thunderbolt 4 Surface Connect port Surface Type Cover port	2 x USB-C/ USB4 Surface Connect port Surface Pro Keyboard port NanoSIM (5G only) ⁷¹	2 x USB-C with USB4 [®] /Thunderbolt [™] 4 with support for: Charging Data transfer DisplayPort 2.1 with support up to 1 x 8K monitor
Security					
Hardware TPM 2.0 chip for enterprise-grade security and BitLocker support	✓	✓	✓	✓	✓

69. Compatible with the Surface Pro Type Cover and Surface Pro Signature Type Cover only (sold separately).

* Sold separately.

70. Surface Pro with Wi-Fi+5G models only.

71. Surface Pro with Wi-Fi+5G models only.

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Microsoft Pluton technology				✓	✓
Windows Hello face sign-in	✓	✓	✓	✓	✓
ESS (Enhanced Sign-In Security)			✓	✓	✓
Windows 11 Secured-core PC		✓	✓	✓	✓
NFC authentication			✓	✓	✓
Sensors					
Sensors	Accelerometer	Accelerometer	Accelerometer	Accelerometer	Accelerometer
	Gyroscope	Gyroscope	Gyroscope	Gyroscope	Gyroscope
	Magnetometer	Magnetometer	Magnetometer	Magnetometer	Magnetometer
	Ambient light sensor	Ambient Color sensor	Ambient Color sensor	Ambient Color sensor	Ambient Color sensor
			NFC	NFC	NFC
Audio					
Dual Studio Mics (voice clarity or voice focus)	✓	✓	✓	✓	✓
1.6W stereo speakers with Dolby Atmos	✓				
2-Watt Stereo Speakers with Dolby Atmos		✓	✓	✓	✓
Bluetooth LE Audio			✓ Wi-Fi only	✓ Wi-Fi only	✓ Wi-Fi only
Bluetooth Audio	✓	✓			

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Pen compatibility					
Designed for Surface Pen and Surface Slim Pen	✓				
Designed for Surface Slim Pen (2nd Edition)		✓	✓	✓	✓
Supports tactile signals with Surface Slim Pen	✓	✓	✓	✓	✓
Integrated storage and wireless charging for Slim Pen (2nd Edition)		✓	✓	✓	✓
Supports Microsoft Pen Protocol 2.6	✓	✓	✓	✓	✓
Keyboard Compatibility					
Surface Pro Signature Type Cover	✓	✓	✓	✓	✓
Surface Pro Type Cover	✓				
Surface Pro Keyboard		✓	✓	✓	✓
Surface Pro Flex Keyboard			✓	✓	✓
Surface Pro X Signature Keyboard	✓	✓	✓	✓	✓
Surface Pro X Keyboard	✓	✓	✓	✓	✓

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
Software					
Windows 10 Pro version 20H2	✓				
Windows 11 Pro		✓	✓	✓	✓
Preloaded Microsoft 365 Apps	✓	✓	✓	✓	✓
Microsoft 365 Business Standard	✓	✓	✓	✓	✓
Microsoft 365 Business Premium	✓	✓	✓	✓	✓
Microsoft 365 Apps 30-day trial	✓	✓	✓	✓	✓
Serviceability					
Replaceable components		Kickstand Display (Screen) Removable solid-state drive Battery Motherboard (including main processor and main memory) Surface Connect Thermal Module Speakers SSD Door Enclosure (bucket)	Kickstand Display module Removable solid-state drive Battery Motherboard (including main processor and main memory) Surface Connect Thermal module Microphone module Speakers SSD door	Kickstand Display module Removable solid-state drive Battery Motherboard (including main processor and main memory) Surface Connect Thermal module Microphone module Speakers SSD door	Kickstand Display module Removable solid-state drive Battery Motherboard (including main processor and main memory) Surface Connect Thermal module Microphone module Speakers SSD door

Component	Surface Pro 7*	Surface Pro 9	Surface Pro 10	Surface Pro 11 th Edition Copilot+ PC Snapdragon X Elite or Plus Processor	Surface Pro 11 th Edition Copilot+ PC Intel Core Ultra Processor (Series 2)
		Front camera Rear camera Power & Volume Buttons Camera & Wi-Fi Deck	Enclosure (bucket) Front camera Rear camera Power & volume buttons Device entry kit SIM card connector	Enclosure (bucket) Front camera Rear camera Power & volume buttons Device entry kit SIM card connector	Enclosure (bucket) Front camera Rear camera Power & volume buttons Device entry kit
Built-in guidance			Visual wayfinding icons Access via a QR code to repair instructions	Visual wayfinding icons Access via a QR code to repair instructions	Visual wayfinding icons Access via a QR code to repair instructions

Learn more

- [Surface devices documentation](#)
- [Shop Copilot+ PCs: A New Era of Windows AI PCs and Laptops | Microsoft Windows](#)