Copilot+ Laptops: Consumer Buyer Considerations

By Bob Primak

For Lexington Computers and Technology Group (LCTG)

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When considering your next PC purchase, don't forget about what Microsoft (and Apple) are planning for the future. Consider especially that Microsoft is changing radically the hardware requirements for Windows 11 24H2 with Copilot+ AI features.

This involves not just an upgrade to systems which have NPUs (neural processing units) onboard, but for now, a shift away from AMD and Intel chipsets to ARM-based Qualcomm Snapdragon chipsets. This affects how all software will run. This includes all OSes and all USB Boot Media.

In addition to boot, Secure Boot and USB Boot security changes (about which I know nothing much), there are new types of computers being sold, as of June, 2024.

I am not making recommendations for or against any of these purchase decisions at this time. But the pricing, though a bit on the high end right now, will eventually come down for some models. My questions are about performance and actual benefits vs. annoyances to the end user. All of which remains to be seen.

Microsoft Copilot+ PC FAQ: What it is, features, how to access it, and PC requirements
https://www.windowscentral.com/software-apps/windows-11/-microsoft-copilot-plus-faq

Microsoft Copilot+ is only available on AI PCs.
All AI PCs must include an NPU (neural processing unit) with at least 40 TOPS (TRILLIONS of Operations per second!) RAM and GPUs must also meet requirements.

Microsoft Copilot+ is a term meant to encompass several different next-gen AI functions made available locally on AI PCs that run Windows.

These AI features come with new "Copilot+ PCs," and they provide enhanced AI experiences such as being able to scroll back through your viewing history to see things you've looked at before, locally generate AI images, make advanced edits locally within creative software like Adobe Photoshop, and more.

Microsoft specifically says that "Copilot+ PCs are optimized to run AI workloads locally with better performance, featuring 8 high performance cores and 4 efficiency optimized cores in the built-in CPU within the X Elite."

Additional Copilot+ AI features on AI PCs allow you to:

Recall anything you've previously seen and scroll through it on a timeline

Note: this feature has been postponed due to major backlash

Create enhanced AI edits in compatible Adobe programs

Provide Live Caption translations in real time

Suggest visual and contextual edits based on what's on your screen

Empower local image and text generation with Cocreator in near real-time

Grant access to advanced Windows Studio Effects

Produce generative AI locally in a more secure and private capacity

Are Copilot+ PCs faster than Apple MacBook Air M3?

Yes. According to Microsoft, Copilot+ PCs (AI PCs with Windows) are 58% faster than Apple's most powerful MacBook Air M3 laptop.

These PCs don't support Copilot+, and it shows how little sense the requirements make

https://www.xda-developers.com/pcs-dont-support-copilot-plus/#:~:text=You%20see%2C%20to%20be%20a,chips%20will%20fit%20that%20requirement.

Key Takeaways

Copilot+ PCs require NPUs with 40 TOPS, limiting compatibility to upcoming Snapdragon X, Intel Lunar Lake, or AMD Strix Point chips.

Even high-end laptops like Surface Laptop Studio 2 and HP Spectre x360 14 can't support Copilot+ despite decent specs.

Alienware m18 R2 and Dell Precision 5690, featuring powerful processors and GPUs, also fall short of meeting Copilot+ requirements.

Only new upcoming PCs with Qualcomm Snapdragon X processors, Intel Lunar Lake, or AMD's Strix Point chips will fit that requirement.

The ARM-based Snapdragon X Plus and Snapdragon X Elite chipsets form the basis for the most affordable Copilot+ laptops. AMD and Intel have capable chips in their high-end PCs as well.

All the Copilot Plus PCs announced at Microsoft's Surface event

https://www.theverge.com/24160974/microsoft-copilot-plus-pcs-acer-asus-dell-hp-lenovo-samsung

Acer, Asus, Dell, HP, Lenovo, and Samsung are 'all in' on Copilot Plus

Pricing starts at around $1000 and goes up with more cores, faster NPUs and more GPU and RAM support.

Examples:

12-core Snapdragon X Elite chip or 10-core X Plus chip

up to 32GB of memory and 1TB of M.2 SSD storage

PCIe 4.0 SSD. And of course, that 45 TOPS NPU!

RAM goes up to 64GB, and TOPS in some NPUs are higher. But not for ARM-based chips, yet.

Clearly, local processing of AI and Microsoft Recall needs a LOT of system resources – and FAST!!

**Recall Feature may not be part of the
Feature Update – initially.**

Windows 11's controversial Recall feature hasn't just been
ditched from Copilot+ PCs – Microsoft's reportedly stripped
it out of test builds of the OS

https://www.techradar.com/computing/windows/windows-11
s-controversial-recall-feature-hasnt-just-been-ditched-from-
copilot-pcs-microsofts-reportedly-stripped-it-out-of-test-build
s-of-the-os

Microsoft has seemingly pulled its Recall feature – the AI-powered search that screenshots your PC activity and has caused controversy aplenty – not just from Copilot+ PCs at launch, but now from Windows 11 test builds, too.

If you cast your mind back to June 14, Microsoft came forth with an announcement that Recall had been withdrawn from Copilot+ PCs, where it was supposed to be in 'preview' at launch, and would instead be available to preview in the "Windows Insider Program (WIP) in the coming weeks."

Microsoft changes Recall feature amid criticism

https://www.axios.com/2024/06/07/microsoft-recall-security-privacy-criticism

How it works: The Recall feature allows people to search for something they have seen on their computer by taking frequent screenshots of what is taking place, including scanning the text and images and storing that information in a database on the computer itself.

Recall, which does not send data to the cloud, only works on a new class of Copilot+ PCs that are due to start shipping later this month.

It's also not an all-or-nothing proposition. Copilot+ PC owners are able to select which apps or websites are excluded from the screenshots.

But the feature has spawned a lot of controversy.

Microsoft said in a blog post in early June that the feature will now be opt-in, rather than on by default, and will require people to have logged in using some form of biometrics, such as fingerprint or facial recognition.

The company also said it would encrypt the database that contains the screenshots that power the Recall feature.

The changes come amid a flurry of criticisms from security and privacy experts as well as people who have tested an early version of the software.

At Axios' AI+ Summit on Wednesday, Signal President Meredith Whittaker called the feature "a serious hijacking of trust" and "a dangerous honeypot for hackers."

Clearly, security experts are not convinced the feature has few risks.

And finally, for those concerned about whether Linux will run on the new Copilot+ PCs, the answer is a tentative yes. But changes will need to happen in your favorite Linux distro.

Qualcomm goes where Apple won't, readies official Linux support for Snapdragon X Elite

https://www.tomshardware.com/software/linux/qualcomm-goes-where-apple-wont-readies-official-linux-support-for-snapdragon-x-elite

When full Linux support is available, this will require Linux kernel 6.9. Which is still under development. But it should boot OK.

Snapdragon X Plus — release date, AI features, specs and more

https://www.tomsguide.com/computing/snapdragon-x-plus

In all of the rush toward AI-enabled Windows laptops, Linux is not being left behind. Qualcomm has a strong commitment to Linux development in its Snapdragon X Plus and Snapdragon X Elite chipsets.

So that's what I know about the Copilot+ PCs and their hardware. And a little about the features these PCs will support.

Will I be going out to buy one of these new Copilot+ PCs? No. My use cases don't even come close to the features Microsoft Copilot is trying to sell us now, or in the near future.

I am not being intimidated by threats that "Windows 12 won't work without AI" or that "Windows Troubleshooters are all going away". I guarantee there will be automated ways to troubleshoot Windows for a long time to come, and you will not need to be connected to the Cloud or use any sort of AI to use these tools. They just won't come from Microsoft anymore. And that may be a good thing.

Time for Discussion.

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