



HP Spectre x360 14: A snappier way to interact with the world

vs. 2020 Apple MacBook Pro



Boot up in **47% less time**



Complete common online tasks faster with **25% better system responsiveness**

Based on higher WebXPRT 3 overall scores



Finish a complex Excel task while watching a YouTube video in **40% less time**



Open and export an Adobe Premiere Pro video project in **46% less time**



Work and play wherever you want with up to **11 hours and 45 minutes of battery life**

Your PC is an integral part of your active and engaged lifestyle. You already know the HP Spectre x360 14 brings adaptive intelligence, convertibility, and touch screen capability to your daily routine. We found it also outperformed the 2020 Apple® MacBook Pro® in our head-to-head performance comparisons.

In our hands-on system responsiveness and battery life tests, the 14-inch HP Spectre x360 14 received higher benchmark scores and completed scenario-based tasks in less time than the 13-inch Apple MacBook Pro.

Read on to see how the HP Spectre x360 14 can help you increase your productivity and efficiency.

Out-of-box performance

Both laptops we tested had Intel® Core™ i7 processors, 1 TB of SSD storage, and 16 GB of memory. The HP Spectre x360 14 also contained 32 GB of Intel Optane™ memory. For more information on these systems and our test results, read the science behind the report.

HP Spectre x360 14

According to HP, this intelligent PC “adapts to the way you use it” by automatically adjusting the color space and fine-tuning “display color and brightness in response to your ambient environment”; adjusting performance, acoustics, and device temperature based on application use; and monitoring laptop placement to avoid overheating or draining the battery.¹

Convertibility

HP Spectre x360 14
vs. 2020 Apple MacBook Pro

Touch screen capability

A bigger screen without added weight

13.5” display at 2.8 lbs.
vs. 13.3” display at 3.1 lbs.

Storage capacity + intelligent system acceleration

Intel Optane™ memory²

Integrated graphics

Intel Iris® Xe® integrated graphics
vs. Intel Iris Plus Graphics³

More vertical viewing

3:2 aspect ratio screen
vs. 16:10 aspect ratio screen^{4,5}

Sharper pictures, movies, and text

3,000 x 2,000 resolution with OLED
vs. 2,560 x 1,600 resolution

Next-generation connectivity

Wi-Fi 6 vs. Wi-Fi 5⁶





Increase productivity

A more responsive system translates to less frequent interruptions or lag times that can throw off your flow and your schedule. To give you a general performance overview on both laptops, we timed how long it took each device to boot. Then we ran the WebXPRT 3 benchmark to see how the laptops handled common online tasks.

Boot up in **47% less time**

Time to boot
Seconds | Lower is better

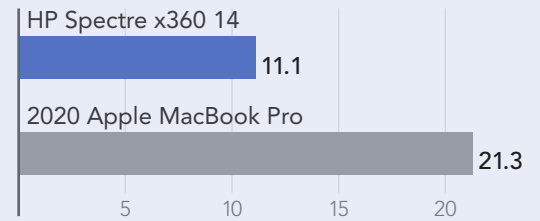


Figure 1: Time (seconds) to boot. Lower is better. Source: Principled Technologies.

Complete common online tasks faster with **25% better system responsiveness** based on higher WebXPRT 3 overall scores

WebXPRT 3 overall scores
Higher is better

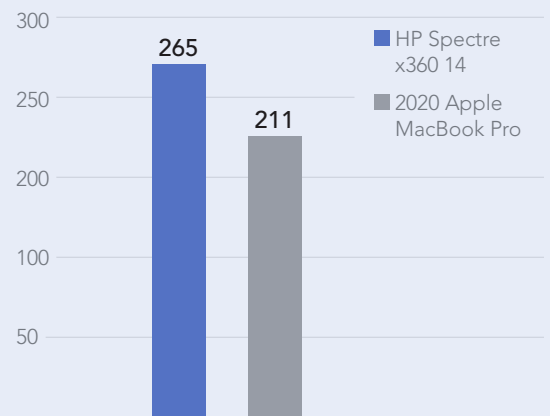


Figure 2: WebXPRT 3 overall scores on Chrome-based tasks. Higher is better. Source: Principled Technologies.

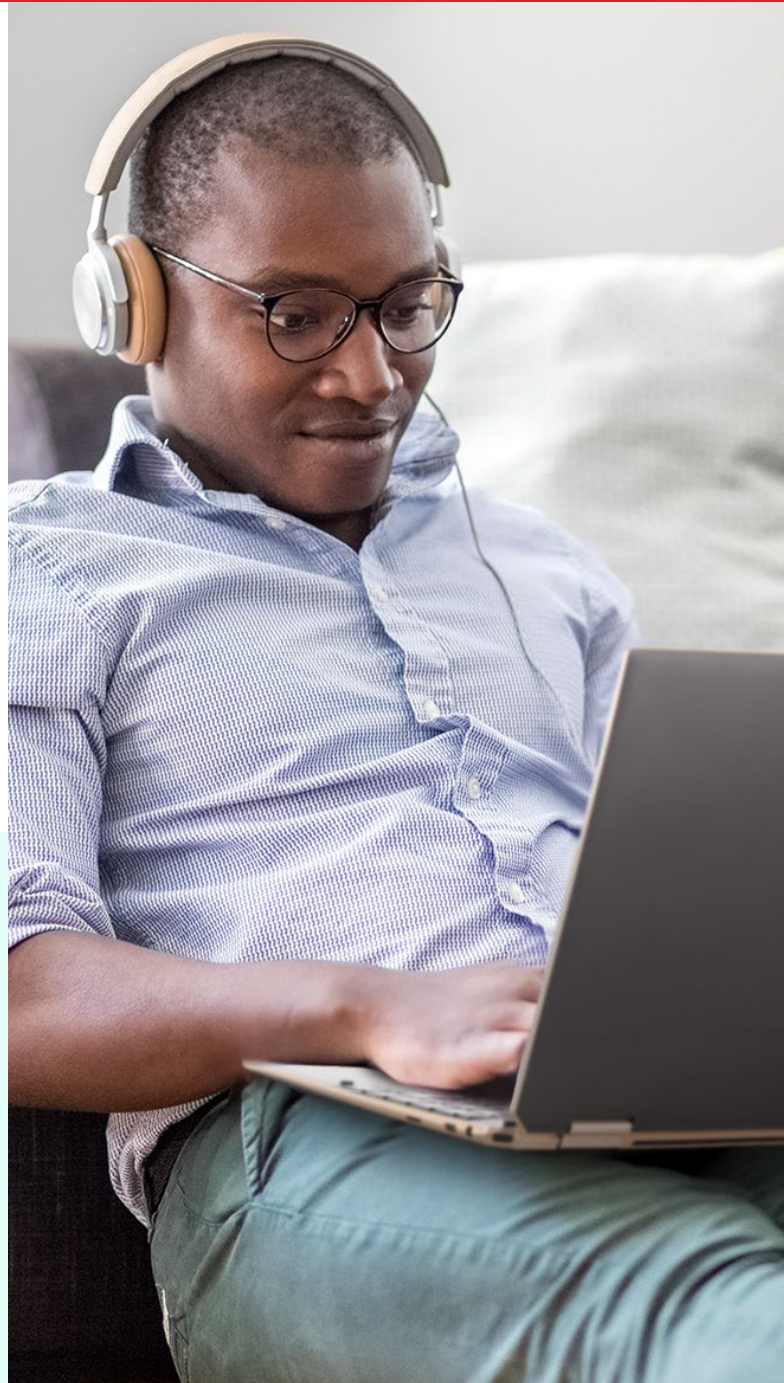
WebXPRT 3 is a browser benchmark that gauges any web-enabled device's performance by measuring how well it handles workloads that consist of common online tasks.⁷



Multitask with less wait

Whether it's to stay on top of breaking news or switch from one online reference to another for a research project, keeping multiple tabs open at once is a way of life for most of us. Multitasking like this can strain your laptop.

To simulate real-world use cases, we created three resource-intensive multitasking scenarios with various simultaneous activities. Before starting our stopwatch, we launched multiple Microsoft 365 applications and opened 10 tabs in the native web browser on each laptop. Next, we completed resource-intensive Adobe® Creative Cloud® and Microsoft 365 workflows that included listening to Spotify® and watching a YouTube® video.



15% less time to open and export an 4K video project while listening to Spotify

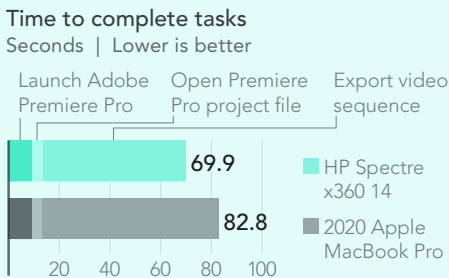


Figure 3: Time (seconds) to open and export a 700MB Adobe Premiere® Pro project (4K video) while listening to Spotify in a multitasking scenario. Lower is better. Source: Principled Technologies.

38% less time to open and export an 8K video project while listening to Spotify

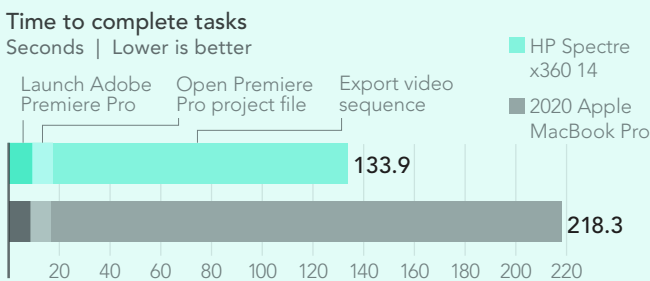


Figure 4: Time (seconds) to open and export a 1.5GB Adobe Premiere Pro project (8K video) while listening to Spotify in a multitasking scenario. Lower is better. Source: Principled Technologies.

40% less time to finish a complex Excel task while watching a YouTube video

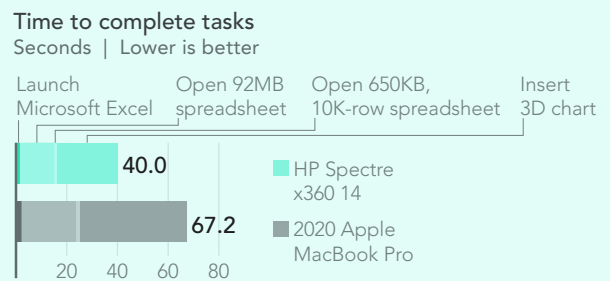


Figure 5: Time (seconds) to launch Excel, open a 92MB Excel spreadsheet containing macro calculations, open a 650KB, 10K-row Excel spreadsheet, and insert a 100% stacked column 3D chart into the 10K-row Excel spreadsheet while watching a YouTube video in a multitasking scenario. Lower is better. Source: Principled Technologies.



Adjust images faster with **10% better Photoshop performance**

PugetBench for Adobe Photoshop
Overall score | Higher is better

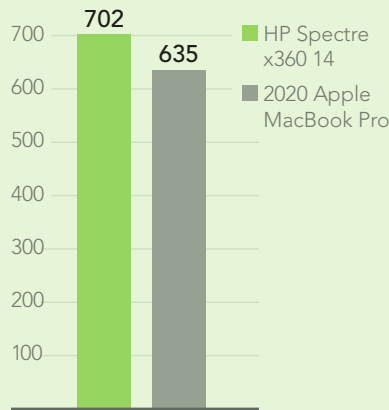


Figure 6: PugetBench for Adobe Photoshop® overall scores. Higher is better. Source: Principled Technologies.

Render videos faster with **6% better Premiere Pro performance**

PugetBench for Adobe Premiere Pro
Overall score | Higher is better

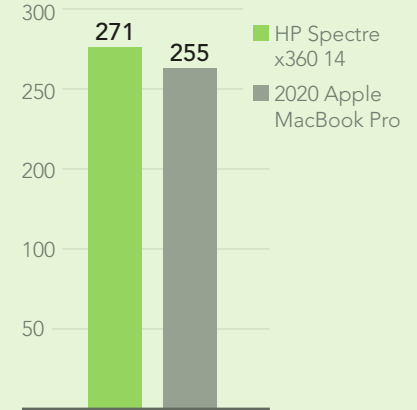


Figure 7: PugetBench for Adobe Premiere Pro overall scores. Higher is better. Source: Principled Technologies.

Open and export an Adobe Premiere Pro video project in **46% less time**

Time to complete tasks
Seconds | Lower is better

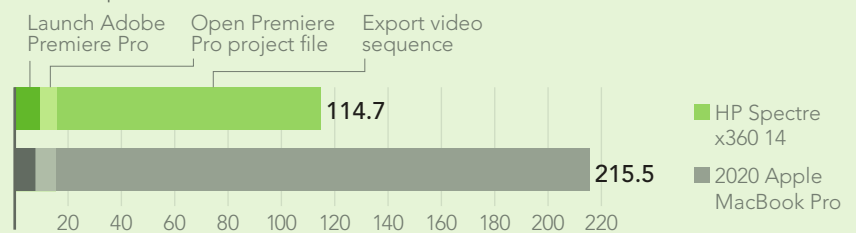


Figure 8: Time (seconds) to launch Adobe Premiere Pro, open the 1.5GB Premiere Pro project (8K video) file, and export the video sequence. Lower is better. Source: Principled Technologies.

PugetBench for Adobe Creative Cloud benchmarks test a system's performance using real-world projects and workflows that content creators, engineers, scientists, and other professionals use.⁸



Make room for creative inspiration

A more powerful system makes it less time-intensive to try different ideas as you turn your vision into reality. To give you a general content-creation performance overview, we ran PugetBench Adobe Creative Cloud benchmarks to see how both laptops handled resource-intensive tasks. We also hand-timed how long it took each device to complete a scenario-based workflow.



Go where life takes you

Whether you're searching for answers, binge-watching a show, or looking for a quiet place to work, extended battery life gives you the ability to focus on what's in front of you instead of scrambling for an outlet.

Work and play wherever you want with up to **11 hours and 45 minutes of battery life**

Battery life during local video playback
Hours:minutes | Higher is better

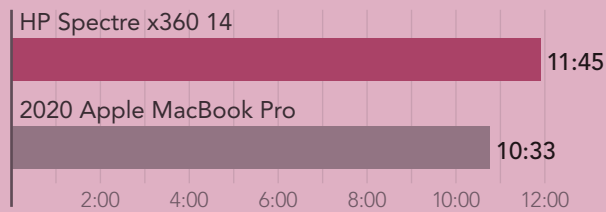


Figure 9: Battery life during local video playback. Time (hh:mm). Higher is better. Source: Principled Technologies.





Conclusion

In our tests, the HP Spectre x360 14 earned higher benchmark scores and completed scenario-based tasks in less time than the 2020 Apple MacBook Pro. Faster response times, such as those we saw with the HP Spectre x360 14, can help you be more productive, hit your goals faster, and multitask with less wait.

- 1 HP, "HP Spectre x360 14," accessed January 4, 2021, <https://www8.hp.com/us/en/laptops/2-in-1s/spectre-x360-14-convertible-laptop.html#tab=adaptive-intelligence>.
- 2 Intel, "Intel Optane Memory," accessed January 5, 2021, <https://www.intel.com/content/www/us/en/architecture-and-technology/optane-memory.html>.
- 3 Intel, "Intel Iris Xe and Iris Plus Graphics," accessed January 5, 2021, <https://www.intel.com/content/www/us/en/architecture-and-technology/visual-technology/graphics-overview.html>.
- 4 HP, "HP Spectre x360 14," accessed January 4, 2021, <https://www8.hp.com/us/en/laptops/2-in-1s/spectre-x360-14-convertible-laptop.html#tab=adaptive-intelligence>.
- 5 DisplayNinja, "What is Aspect Ratio? (16:9, 21:9, 4:3)," accessed January 5, 2021, <https://www.displayninja.com/what-is-aspect-ratio/>.
- 6 Hoffman, Chris, How-To-Geek, "Wi-Fi 6: What's Different, and Why It Matters," accessed January 5, 2021, <https://www.howtogeek.com/368332/wi-fi-6-what-s-different-and-why-it-matters/>.
- 7 Principled Technologies, "WebXPRT 3," accessed January 5, 2021, <https://www.principledtechnologies.com/benchmarkxp3rt/webxp3rt/>.
- 8 Puget Systems, "PugetBench," accessed January 5, 2021, <https://www.pugetsystems.com/benchmarks/>.

This project was commissioned by HP.

Read the science behind this report at <http://facts.pt/a4axiCH> ►



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