



The science behind the report:

A Dell Latitude 5430 Chromebook achieved performance better than or on par with three competitor Chromebooks

This document describes what we tested, how we tested, and what we found. To learn how these facts translate into real-world benefits, read the report [A Dell Latitude 5430 Chromebook achieved performance better than or on par with three competitor Chromebooks](#).

We concluded our hands-on testing on June 15, 2023. During testing, we determined the appropriate hardware and software configurations and applied updates as they became available. The results in this report reflect configurations that we finalized on June 1, 2023 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

Our results

To learn more about how we have calculated the wins in this report, go to <http://facts.pt/calculating-and-highlighting-wins>. Unless we state otherwise, we have followed the rules and principles we outline in that document.

Table 1: Results of our benchmark tests. Higher is better

	Dell Latitude 5430 Chromebook	HP Elite c640 G3 Chromebook	ASUS Chromebook CX34 Flip	Acer Chromebook Vero 514
Speedometer 2.0				
Performance score	274.00	269.00	270.00	266.00
Jetstream 2				
Performance score	236.07	235.56	238.67	237.24

Table 2: Results of our hand timing tests, in seconds. Lower is better

	Dell Latitude 5430 Chromebook	HP Elite c640 G3 Chromebook	ASUS Chromebook CX34 Flip	Acer Chromebook Vero 514
Autodesk® Tinkercad				
Rendering blocks from a futuristic motorcycle model	3.50	3.53	3.34	3.54
Rendering blocks from a futuristic city model	18.50	20.32	19.52	25.89
ChromeOS				
Unzip 280 .jpg photos to desktop	10.57	11.21	11.28	11.08
Adobe® Lightroom®				
Import 280 .jpg photos	194.08	220.26	196.94	192.27
Export 280 .jpg photos	163.52	176.69	170.33	163.57
Adobe Photoshop® Express				
Create a nine-image collage	2.98	2.91	2.91	2.93
Zoom				
Launch Zoom meeting	3.32	3.48	3.93	4.17
Google Meet				
Launch an instant meeting	3.44	3.35	3.48	3.33
Microsoft PowerPoint				
Open sample PowerPoint document	6.45	7.30	6.42	6.56

Table 3: Results of our network tests, in Mbps. Higher is better

	Dell Latitude 5430 Chromebook	HP Elite c640 G3 Chromebook	ASUS Chromebook CX34 Flip	Acer Chromebook Vero 514
Speedtest® by Ookla®				
Download speed	195.10	198.28	189.00	178.58
Upload speed	177.34	182.17	172.11	162.88

System configuration information

Table 4: Detailed information on the systems we tested.

	Dell Latitude 5430 Chromebook	ASUS Chromebook CX34 Flip	HP Elite c640 G3 Chromebook	Acer Chromebook Vero 514
Processor	Intel® Core™ i5-1235U	Intel Core i5-1235U	Intel Core i5-1235U	Intel Core i5-1235U
Max processor frequency (GHz)	4.40	4.40	4.40	4.40
Processor cores	10	10	10	10
Memory (GB)	8	8	8	8
Storage model and size	512GB NVMe	256GB NVMe	256GB NVMe	256GB NVMe
Bluetooth	5.54	5.54	5.54	5.54
USB	1x USB 3.2 Gen 1, 2x Thunderbolt 4 (USB 3.2 Gen 2 Type-C)	1x USB 3.2 Gen 2 Type-A, 2x USB 3.2 Gen 2 Type-C	2x Thunderbolt 4, 2x USB Type-A	1x USB 3.2 Gen 1 Type-A, 2x USB 3.2 Gen 2 Type-C
Battery type	Lithium-ion	Lithium-ion	Lithium-ion	Lithium-ion
Battery capacity (WHR)	54	63	58	54
Display	14" 1920 x 1200	14" 1920 x 1200	14" 1920 x 1080	14" 1920 x 1080
OS (version)	ChromeOS 113.0.5672.134 (64-bit)	ChromeOS 113.0.5672.134 (64-bit)	ChromeOS 113.0.5672.134 (64-bit)	ChromeOS 113.0.5672.134 (64-bit)
System weight (lbs.)	3.34	3.99	3.38	3.31
Dimensions (in.)	0.75 x 12.36 x 9.15	0.82 x 12.58 x 9.25	0.77 x 12.71 x 8.7	0.8 x 12.8 x 8.8

How we tested

Timing Tinkercad tasks

Rendering blocks from a futuristic motorcycle model

1. Navigate to <https://tinkercad.com>, and sign in with a test account.
2. Click Gallery.
3. Click to open the Futuristic Motorcycle Tinkercad project.
4. With the Futuristic Motorcycle project opened, simultaneously start the timer and click the pickaxe icon.
5. Stop the timer when the block view has fully rendered.

Rendering blocks from a futuristic city model

1. Navigate to <https://tinkercad.com>, and sign in with a test account.
2. Click Gallery.
3. Click to open the Futuristic City Tinkercad project.
4. With the Futuristic City project opened, simultaneously start the timer and click the pickaxe icon.
5. Stop the timer when the block view has fully rendered.

Timing a photo unzipping task

Unzipping 280 photos from the desktop

1. From the Files application, navigate to the test archive location.
2. Using the default system viewer, double-click to open the test archive.
3. Select the contents of the test archive, and click and drag the contents to an empty folder.
4. Simultaneously start the timer and unclick the dragged content.
5. Stop the timer when the copying files dialog completes.

Timing Adobe Lightroom tasks

Importing 280 photos

1. From the app shelf, launch Adobe Lightroom.
2. From the Adobe Lightroom home page, click the blue import photos icon.
3. Sort by Device Folders. To select the unarchived test photos, click the checkbox next to the folder name.
4. Simultaneously start the timer and click Add.
5. When the import dialog completes, stop the timer.

Exporting 280 photos

1. From the Adobe Lightroom home page, click the collection containing the test photos.
2. Click to select the first image.
3. From the drop-down menu, click to Select All images.
4. With all images selected, click the Share icon.
5. From the Share dialog box, click Export As...
6. Leave the default settings. Simultaneously start the timer and click the checkmark icon.
7. When the export dialog completes, stop the timer.

Timing an Adobe Photoshop Express task

Creating a nine-image collage

1. From the app shelf, launch Adobe Photoshop Express.
2. In the bottom right, click the Collage icon.
3. Click to select the nine test images.
4. Simultaneously start the timer and click the next arrow.
5. When the collage fully loads, stop the timer.

Timing a Zoom task

Launching a Zoom meeting

1. From the app shelf, launch Zoom.
2. From the Zoom main screen, simultaneously start the timer and click New meeting.
3. When the meeting invite code appears and the webcam preview refreshes, stop the timer.

Timing a Google Meet task

Launching a new Google Meet meeting

1. From the app shelf, launch Google Meet.
2. From the Google Meet main screen, click New meeting.
3. Simultaneously start the timer and click Start an instant meeting.
4. When the meeting invite code appears and the webcam loads, stop the timer.

Timing a Microsoft PowerPoint task

Opening a PowerPoint file

1. From the Google Meet chat window, simultaneously start the timer, and click the link to the Google Drive PowerPoint test document.
2. Stop the timer when the Slides presentation fully loads.

Testing with JetStream 2.0

Running JetStream 2.0

1. Power on the device, and log in.
2. Allow the device to idle for 10 minutes to clear any background startup activity.
3. Open the default web browser, and navigate to <https://browserbench.org/JetStream2.0/>.
4. Click Start Test.
5. When the test completes, record the score.

Testing with Speedometer 2.0

Running Speedometer 2.0

1. Power on the device, and log in.
2. Allow the device to idle for 10 minutes to clear any background startup activity.
3. Open the default web browser, and navigate to <https://browserbench.org/Speedometer2.0/>.
4. Click Start Test.
5. When the test completes, record the score.

Testing with Speedtest by Ookla

Running Speedtest

1. Open the default web browser, and go to <https://www.speedtest.net/>.
2. Verify that the same server is used on systems under test.
3. Click Go to start the benchmark.
4. Record the result.
5. Repeat steps 1 through 3 twice more.

Read the report at <https://facts.pt/h7RAqIV> ▶

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