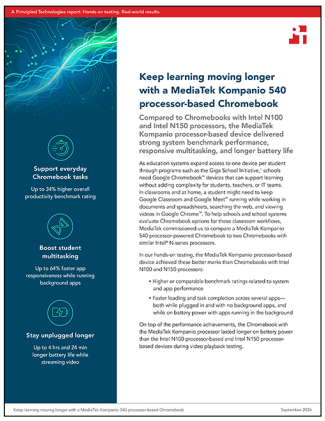


The science behind the report:

Keep learning moving longer with a MediaTek Kompanio 540 processor-based Chromebook

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 Keep learning moving longer with a MediaTek Kompanio 540 processor-based Chromebook.

We concluded our hands-on testing on August 12, 2026. 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 April 2, 2026 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 https://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 testing.

	MediaTek Kompanio 540 processor-based Lenovo Chrome 100e G5 M89	Intel N100 processor-based ASUS Chromebook CR11	Intel N150 processor-based Acer Chromebook 511 C737
PassMark PerformanceTest v11.1			
Overall PassMark rating (higher is better)	12,015	10,615	8,904
CPU Mark score (higher is better)	5,470	5,405	4,065
2D Graphics Mark score (higher is better)	55,329	52,605	39,130
3D Graphics Mark score (higher is better)	22,271	27,677	27,511
Memory Mark score (higher is better)	25,416	21,099	17,619
Disk Mark score (higher is better)	152,734	18,703	79,142
GeekBench 6 Pro v6.6.0			
CPU Multi-Core score (higher is better)	2,203	2,263	1,985
CPU Single-Core score (higher is better)	1,001	1,025	969

Table 2: Results of our application testing.

	MediaTek Kompanio 540 processor-based Lenovo Chrome 100e G5 M89	Intel N100 processor-based ASUS Chromebook CR11	Intel N150 processor-based Acer Chromebook 511 C737
Minecraft - No load, plugged in			
App start-up time - seconds (lower is better)	7.16	6.90	6.96
Operation time - seconds (lower is better)	30.23	30.35	37.02
Minecraft - Multitasking, unplugged			
App start-up time - seconds (lower is better)	8.63	11.18	17.89
Operation time - seconds (lower is better)	44.04	93.41	124.28
Photoshop - No load, plugged in			
App start-up time - seconds (lower is better)	4.05	4.00	4.58
Operation time - seconds (lower is better)	11.86	8.70	10.00
Photoshop - Multitasking, unplugged			
App start-up time - seconds (lower is better)	8.26	8.85	10.73
Operation time - seconds (lower is better)	20.50	22.81	29.97
Tinkercad - No load, plugged in			
App start-up time - seconds (lower is better)	0.46	1.35	0.43
Operation time - seconds (lower is better)	8.33	4.83	4.43
Tinkercad - Multitasking, unplugged			
App start-up time - seconds (lower is better)	1.00	1.01	1.33
Operation time - seconds (lower is better)	10.93	8.46	12.20
Prodigy - No load, plugged in			
App start-up time - seconds (lower is better)	1.18	1.11	1.06
Operation time - seconds (lower is better)	6.53	6.76	5.91
Prodigy - Multitasking, unplugged			
App start-up time - seconds (lower is better)	1.48	1.51	1.56
Operation time - seconds (lower is better)	8.21	8.56	10.23
Totals			
Total time across application tests - no load, plugged in - seconds (lower is better)	69.80	64.00	70.39
Total time across application tests - multitasking, unplugged - seconds (lower is better)	103.05	155.79	208.19

Table 3: Results of our battery testing.

	MediaTek Kompanio 540 processor-based Lenovo Chrome 100e G5 M89	Intel N100 processor-based ASUS Chromebook CR11	Intel N150 processor-based Acer Chromebook 511 C737
Battery life - hours:min (higher is better)	15:44	11:20	12:05
Battery efficiency - minutes per WHr, normalized (higher is better)	18.88	13.62	13.69

System configuration information

Table 4: Detailed information on the systems we tested.

System configuration information			
Processor			
Vendor	MediaTek	Intel	Intel
Model number	Kompanio 540	N100	N150
Core frequency (GHz)	A78 @ 2.6 A55 @ 2.0	3.4	3.6
Number of cores	2x A78 6x A55	4	4
Number of threads	8	4	4
Memory			
Amount (GB)	4	4	4
Type	LPDDR5X	LPDDR5	LPDDR5X
Speed	6400MT/s	4800MT/s	4800MT/s
Graphics			
Vendor	Arm	Intel	Intel
Model number	Mali-G57 MC2	UHD Graphics	UHD Graphics
Storage			
Amount (GB)	64	64	64
Type	UFS 2.2	eMMC	eMMC
Connectivity/expansion			
WLAN	MediaTek Wi-Fi 7 MT7925	Wi-Fi 6E(802.11ax)	Wi-Fi 7
Bluetooth	5.3	5.4	5.3
USB	2x USB-A 2x USB-C with USB PD 45-65W and DisplayPort	2x USB 3.2 Gen 1 Type-A 2x USB 3.2 Gen 1 Type-C	2x USB 3.2 Gen 1 Type-A 2x USB 3.2 Gen 1 Type-C
Video	HDMI 1.4b	HDMI 1.4b	HDMI 1.4b
Battery/AC Adapter			
Type	Lithium-ion	Lithium-ion	Lithium-ion
Rated capacity (Whr)	50	50	53
Display			
Size (in.)	11.6	11.6	11.6
Resolution	1366 x 768	1366 x 768	1366 x 768
Touchscreen	No	No	No

System configuration information			
Operating system			
Vendor	Google	Google	Google
Name	ChromeOS™	ChromeOS	ChromeOS
Build number or version	150.0.7871.213	150.0.7871.213	150.0.7871.213
Dimensions			
Height (in.)	0.73	0.83	0.82
Width (in.)	11.37	11.69	11.50
Depth (in.)	8.27	8.39	8.10
Weight (lb.)	2.69	2.89	2.87

How we tested

Setting up the systems

For each scenario, we downloaded, installed, and pinned the requisite apps to the Google Chrome™ shelf. For applications that required accounts or Google authentication, we created test profiles and logged into the users on each device. We ran a total of three test runs for each task. For all the application-based timed tasks, ran tests under two conditions. In the first, we ran the tests with no load while the devices were plugged in; in the second, we ran Google Meet and Google Classroom simultaneously in the background while the devices were unplugged.

Measuring performance with PassMark PerformanceTest 11

Setting up the test

1. Download PassMark PerformanceTest from the Google Play™ store.
2. To begin the installation, click Install.

Running the test

1. To launch PassMark PerformanceTest, click the PassMark PerformanceTest icon.
2. To start the benchmark, click Run Benchmark.
3. When the tests complete, record the results.
4. Wait five minutes, and repeat steps 2 and 3 twice more.

Measuring performance with Geekbench 6 Pro

Setting up the test

1. Download Geekbench 6 from the Play store.
2. To begin the installation, click Install.

Running the test

1. Launch Geekbench 6.
2. Click Run CPU Benchmark.
3. Once the test completes, record the results.
4. Wait five minutes, and repeat steps 1 through 3 twice more.

Measuring application start-up time and operation time with Minecraft Education

Setting up the test

1. Download Minecraft Education for Chromebooks from the Play store.
2. To begin the installation, click Install.

Running the test

1. Simultaneously start the timer and click the Minecraft Education app icon to open it.
2. Stop the timer when the main menu is fully loaded and the Sign In button is clickable.
3. Close Minecraft Education.
4. Wait five minutes, repeat steps 1 through 3 twice more, and record the results as the app start-up time.
5. Launch the Minecraft Education app.
6. Click on If you don't have an account, try a demo lesson.
7. Check Accept Terms, and click Play.
8. Click Start Lesson.
9. Click Hour of AI: The First Night.
10. Simultaneously start the timer and click CREATE WORLD.
11. Stop the timer when the world is loaded and you can click to Start.
12. Close Minecraft Education.
13. Wait five minutes, repeat steps 5 through 12 twice more, and record the results as the app operation time.

Measuring application start-up time and operation time with Tinkercad

Setting up the test

1. Navigate to https://www.tinkercad.com/.
2. In the top right corner of Google Chrome, click the three dots.
3. Under Cast, save, and share, click Install page as app…

Running the test

1. Simultaneously start the timer and click the Tinkercad app icon to open it.
2. Stop the timer when the page fully loads.
3. Close Tinkercad.
4. Wait five minutes, repeat steps 1 through 3 twice more, and record the results as the app start-up time.
5. Launch Tinkercad.
6. Log into your Tinkercad account.
7. Click View 1 more under 3D Designs.
8. Click Copy of Mushroom! to open the project.
9. Simultaneously start the timer and click Tinker this.
10. Stop the timer when the 3D model fully loads.
11. Close Tinkercad.
12. Wait five minutes, repeat steps 5 through 11 twice more, and record the results as the app operation time.

Measuring application start-up time and operation time with Photoshop

Setting up the test

1. Download and install Adobe Photoshop Web for Chromebooks.
2. Sign in with an Adobe Creative Cloud account.

Running the test

1. Simultaneously start the timer and click the Adobe Photoshop Web app icon to open it.
2. Stop the timer when the app fully loads and the account avatar is visible in the top right corner.
3. Close Adobe Photoshop Web.
4. Wait five minutes, repeat steps 1 through 3 twice more, and record the results as the app start-up time.
5. Launch Adobe Photoshop Web.
6. Click Upload file.
7. Click Upload from computer.
8. Navigate to the test image to open, and click it.
9. Simultaneously start the timer and click Open.
10. Stop the timer when the image fully loads in the workspace.
11. Close Adobe Photoshop Web.
12. Wait five minutes, repeat steps 5 through 11 twice more, and record the results as the app operation time.

Measuring application start-up time and operation time with Prodigy

Setting up the test

1. Navigate to https://www.prodigygame.com/main-en and create an account.
2. In the top right corner of Google Chrome, click the three dots.
3. Under Cast, save, and share, click Install page as app…

Running the test

1. Simultaneously start the timer and click the Prodigy app icon to open it.
2. Stop the timer when the page fully loads and the Play Prodigy button is visible.
3. Close Prodigy.
4. Wait five minutes, repeat steps 1 through 3 twice more, and record the results as the app start-up time.
5. Launch Prodigy.

6. Click Upload file.
7. Click Play Prodigy.
8. Under Select a game mode, click Home.
9. Simultaneously start the timer and click Prodigy World.
10. Stop the timer when the game loads and your player appears.
11. Close Prodigy.
12. Wait five minutes, repeat steps 5 through 11 twice more, and record the results as the app operation time.

Measuring battery life

Setting up the test

1. Navigate to System Preferences → Power.
2. Set Battery Saver to Off.
3. Set Adaptive Charging to On.
4. Set While inactive and plugged in to Keep display on.
5. Set While inactive and on battery to Keep display on.
6. Open Chrome, and in the search bar, type `about:blank`
7. Using a nit meter, set the brightness of each system under test to as close to 200 nits as possible.

Running the test

1. Connect the AC adapter and charge the systems under test until the battery is full.
2. Launch Task Manager and adjust the screen to display CPU usage and temperature.
3. For the video viewing condition, open the test video (https://www.youtube.com/watch?v=DjdUEyjx8GM) in Google Chrome, set the playback quality to 1080p, and play the video.
4. Split the screen into two parts to display both the test video and Task Manager.
5. Using an external device, start a video recording of the system screens.
6. Remove the AC adapter from each system and start a timer.
7. Wait for the systems to power down.
8. Stop the video recording.
9. Using the recording and timer, determine the time taken for each system to shut down after removing the AC adapter from the system.
10. Repeat steps 1 through 9 twice more, and record the results.

This project was commissioned by MediaTek.

Read the report ▶

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A PT team, which includes the contributors we've listed and others, created this report and performed the technical work behind it. We used AI to draft and proofread sections of this report.

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