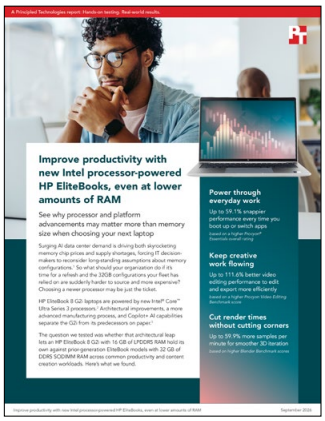


The science behind the report:

Improve productivity with new Intel processor-powered HP EliteBooks, even at lower amounts of RAM

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 Improve productivity with new Intel processor-powered HP EliteBooks, even at lower amounts of RAM.

We concluded our hands-on testing on August 5, 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 July 9, 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. Higher scores and ratings, more samples per minute and frames per second (FPS), and lower times (ms and m:ss) are better. Source: PT.

	HP EliteBook 8 G2i 14 inch AI PC	HP EliteBook 8 G1i 14 inch AI PC	HP EliteBook 840 G10 14 inch AI PC
WebXPRT 5			
Overall rating	118	96	95
Video background blur with AI (ms)	1,709	2,104	2,157
Detect faces with AI (ms)	403	522	534
Image classifications with AI (ms)	382	495	512
Document scan with AI (ms)	1,222	1,339	1,370
Photo effects (ms)	473	545	610

	HP EliteBook 8 G2i 14 inch AI PC	HP EliteBook 8 G1i 14 inch AI PC	HP EliteBook 840 G10 14 inch AI PC
School science project (ms)	618	668	698
Homework spell check (ms)	1,250	1,783	1,521
Procyon® Essentials Benchmark			
Overall rating	4,164	2,763	2,616
App startup (foreground) sub-score	3,782	3,210	3,310
Browser (foreground) sub-score	4,200	2,560	2,177
File operations (foreground) sub-score	4,560	2,492	2,605
Browser tabs (background) sub-score	3,328	2,176	1,967
Video call (background) sub-score	5,014	4,988	5,004
Procyon Office Productivity Benchmark			
Overall rating	7,335	6,520	6,710
Word score	7,501	6,618	6,448
Excel score	8,054	6,482	6,688
PowerPoint score	7,928	7,842	8,502
Outlook score	4,451	4,779	5,302
Procyon Video Editing Benchmark			
Overall rating	10,170	4,805	6,848
Procyon Photo Editing Benchmark			
Overall rating	5,568	5,012	5,268
Cinebench 2026			
CPU multi-core score	2,541	2,125	1,633
CPU single-core score	487	425	444
Blender Benchmark (using CPU)			
Monster workload samples per minute	64.67	62.14	55.42
Junk Shop workload samples per minute	46.69	37.87	33.90

	HP EliteBook 8 G2i 14 inch AI PC	HP EliteBook 8 G1i 14 inch AI PC	HP EliteBook 840 G10 14 inch AI PC
Classroom workload samples per minute	32.85	27.48	22.09
Blender Benchmark (using GPU)			
Monster workload samples per minute	239.56	149.80	N/A
Junk Shop workload samples per minute	150.53	97.53	N/A
Classroom workload samples per minute	144.12	98.83	N/A
HandBrake Benchmark v1.11.2			
Fast 1080p30 preset test encoding time (m:ss)	3:00	3:29	4:10
Fast 1080p30 preset test frames per second (FPS)	41.09	35.37	29.34
Hardware 4K H.265 encoder test encoding time (m:ss)	14:25	19:49	24:26
Hardware 4K H.265 encoder test frames per second (FPS)	8.44	6.13	4.94

System configuration information

Table 2: Detailed information on the systems we tested. Source: PT.

System configuration information	HP EliteBook 8 G2i	HP EliteBook 8 G1i	HP EliteBook 840 G10
Processor			
Vendor	Intel®	Intel	Intel
Model number	Core™ Ultra 7 355	Core Ultra 7 255U	Core i7-1355U
Core frequency (GHz)	1.7 – 4.7	1.7 – 5.2	3.7 – 5.0
Number of cores	8	12	10
Number of threads	8	14	12
Memory			
Amount (GB)	16	32	32 GB
Type	LPDDR5	DDR5-5600 SODIMM	DDR5-5600 SODIMM
Graphics #1			
Vendor	Intel	Intel	Intel
Model number	Intel Graphics	Intel Graphics	Intel Iris® Xe
Storage			
Amount	512 GB	512 GB	1 TB
Type	SSD	SSD	SSD
Connectivity/expansion			
Wireless internet	Intel Wi-Fi BE211	Intel Wi-Fi 6E AX211	Intel Wi-Fi 6E AX211
Bluetooth	6.0	5.4	5.4
USB	2 x Thunderbolt™ 4 ports 1 x USB-A 10Gbps port 1 x USB Type-C 10Gbps	2 x Thunderbolt 4 ports 1 x USB-A 5Gbps 1 x USB Type-C 10Gbps	2 x Thunderbolt 4 ports 2 x USB-A 3.2 ports
Battery			
Type	Integrated lithium-polymer	Integrated lithium-polymer	Integrated lithium-polymer
Rated capacity (WHr)	62	62	51
Display			
Size (in.)	14	14	14
Resolution	1,920 x 1,200	1,920 x 1,200	1,920 x 1,200

System configuration information	HP EliteBook 8 G2i	HP EliteBook 8 G1i	HP EliteBook 840 G10
Operating system			
Vendor	Microsoft	Microsoft	Microsoft
Name	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro
Version	25H2 Build 26200.8875	25H2 Build 26200.8875	24H2 Build 26100.3476
BIOS	HP Y70	HP X70	HP V70
BIOS name and version	01.01.06	01.04.03	01.12.01
Dimensions			
Height (in.)	0.61	0.61	0.76
Width (in.)	12.43	12.43	12.42
Depth (in.)	8.74	8.74	8.82
Weight (lbs.)	3.25	3.30	3.41

How we tested

Testing with Blender Benchmark

Setting up the test

1. Download the Blender Benchmark from https://opendata.blender.org/.

Running the test

1. Launch the Blender Benchmark.
2. At the Welcome screen, click Next.
3. Select Blender version 5.2.0, and click Next.
4. At the Benchmark Scenes screen, click Next.
5. At the Benchmark Device screen, select either the CPU or GPU option, and click Start Benchmark.
6. Record the results.
7. Repeat steps 1 through 6 two more times, and report the median result.

Testing with Cinebench 2026

Setting up the test

1. Download and install Cinebench 2026 from https://www.maxon.net/en/downloads/cinebench-downloads.
2. Launch Cinebench 2026.
3. Select File, and click Advanced benchmark.
4. From the Minimum Test Duration drop-down menu, select Off.

Running the test

1. Launch Cinebench 2026.
2. Click File, and click Run All tests.
3. Record the result.
4. Repeat steps 1 through 3 two more times, and report the median result.

Testing with HandBrake Benchmark

Setting up the test

1. Download HandBrake from https://handbrake.fr/downloads.php.
2. Install HandBrake with default options.
3. Copy the 4K file to transcode.
4. Launch HandBrake.
5. Browse to the 4K source file, and click Open.

Running the Fast 1080p30 preset test

1. On the Chapters tab, uncheck the Create chapter markers box.
2. Click Start Encode.
3. When complete, click the Show Queue menu item to view the encoding statistics.
4. Repeat steps 1 through 3 two more times, and report the median result.

Running the Hardware 4K H.265 encoder test

1. Click the Preset dropdown, and select H.265 MKV 2160p 4K.
2. On the Video tab, change the Framerate (FPS) to 60.
3. Set the preset to Fast.
4. On the Chapters tab, uncheck the Create chapter markers box.
5. Click Start Encode.
6. When complete, click the Show Queue menu item to view the encoding statistics.
7. Repeat steps 1through 6 two more times, and report the median result.

Testing with Procyon Essentials Benchmark

Setting up the test

1. Purchase, download, and install the Procyon Benchmark Suite from https://benchmarks.ul.com/procyon.
2. Open Procyon.
3. Install the Essentials Benchmark.
4. Click Register.
5. Select Settings, input the Essentials Benchmark license key, and click Register.
6. Close Procyon.

Running the test

1. Launch Procyon.
2. Click Essentials Benchmark.
3. Click Run.
4. When the benchmark is complete, record the results.
5. Repeat steps 3 and 4 two more times, and report the median result.

Testing with Procyon Office Productivity Benchmark

Setting up the test

1. Install a licensed version of Microsoft 365, and verify you've properly signed into the following apps: Excel, PowerPoint, and Word.
2. Install the Office Productivity Benchmark.
3. Double-click the installer.
4. Click Next.
5. Click to agree to EULA, and click Next.
6. Click Next.
7. Launch Procyon.
8. Select Settings, input the Office Productivity Benchmark license key, and click Register.
9. Close Procyon.

Running the test

1. Launch Procyon.
2. Select the Office Productivity Benchmark.
3. Click Run.
4. When the test completes, record the results.
5. Repeat steps 3 and 4 two more times, and report the median result.

Testing with Procyon Photo Editing Benchmark

Setting up the test

1. Install licensed versions of Adobe Photoshop 22.0 or higher and Adobe Lightroom Classic 10.0 or higher.
2. Open Procyon.
3. Install the Photo Editing Benchmark.
4. Click Register.
5. Select Settings, input the Photo Editing Benchmark license key, and click Register.
6. Close Procyon.

Running the test

1. Launch Procyon.
2. Select the Photo Editing Benchmark.
3. Click Run.
4. When the benchmark is complete, record the results.
5. Repeat steps 3 and 4 two more times, and report the median result.

Testing with Procyon Video Editing Benchmark

Setting up the test

1. Install licensed versions of Adobe Premier Pro 25.3 or higher.
2. Open Procyon.
3. Install the Video Editing Benchmark.
4. Click Register.
5. Select Settings, input the Video Editing Benchmark license key, and click Register.
6. Close Procyon.

Running the test

1. Launch Procyon.
2. Select the Video Editing Benchmark.
3. Click Run.
4. When the benchmark is complete, record the results.
5. Repeat steps 3 and 4 two more times, and report the median result.

Testing with WebXPRT 5

Running the test

1. Open the web browser under test, and go to https://www.principledtechnologies.com/benchmarkxprt/webxprt/.
2. Select Run WebXPRT 5.
3. At the Ready to test your browser screen, click Continue.
4. Click Start test.
5. When the test is completed, record the results.
6. Click Run Again, and click Start test to rerun WebXPRT.
7. Repeat steps 5 and 6 one more time, and report the median result.

This project was commissioned by HP.

Read the report ▶

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How we created this report

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 tools to draft the report outline and compare test documentation against report language for consistency.

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