



PC build & stability report

10 October 2026 | Final verification complete

Result: stable. No errors detected.

OCCT System Platinum certificate awarded after a 12-hour test (12:02:04). Earlier, a 1-hour OCCT CPU + RAM test and 15 hours of idle logging also finished with no errors, no freezes and 0 hardware (WHEA) errors. Two points to note (memory speed and brief CPU peaks) are explained on page 3.

You brought us the parts of a disassembled PC and asked for them to be rebuilt into one specific case, the **Lian Li O11 Vision in black**, which we ordered in for you. Your special requirement was that **every fan shows its "good side" through the glass**, with the airflow exactly as you planned it. This report covers the build, the BIOS update, the Windows and cooler-software setup, and the stability testing: a 1-hour OCCT test, 15 hours of idle logging and the **12-hour OCCT System Platinum certificate test**, all with HWiNFO64 sensor logging.

Platinum

OCCT System certificate, 12 h 02 min test, status finished

0

Windows hardware (WHEA) errors across 28 h 34 min of logging

88 °C

Peak CPU temperature under sustained all-core load (limit 100 °C)

64 °C

Peak graphics-card temperature at its full 320 W

572 W

Average CPU + graphics-card power in the combined Power test

39,903

sensor samples logged across both tests (HWiNFO64)

Computer covered

Component	Specification
Processor	Intel Core i9-14900K (24 cores / 32 threads)
Motherboard	ASUS ROG Strix Z790-F Gaming WiFi II, BIOS updated from 1503 to 2202
Memory	32 GB (2 × 16 GB) G.Skill Trident Z5 RGB DDR5-6800 (F5-6800J3445G16G, CL34-45-45-108)
Graphics card	ASUS TUF Gaming GeForce RTX 4080 SUPER OC, 16 GB
Storage	2 TB Gen4 NVMe SSD
CPU cooler	Lian Li Galahad II LCD 360 liquid cooler (with its own LCD screen)
Case fans	11 × Lian Li Uni Fan SL-Infinity, 6 of them reverse-blade
Power supply	ASUS ROG Thor 850 W Platinum
Case	Lian Li O11 Vision, black
Software	Windows 11, installed and fully updated, plus the Lian Li cooler software



Build work & BIOS update

Rebuild, airflow layout and firmware | 10 October 2026

Work completed

Custom rebuild: All parts from your disassembled PC were fitted into the Lian Li O11 Vision. The first build would not close because the fans stuck out by about half a centimetre, so it was taken apart and re-arranged: about **7 hours of non-stop work** by Lucian, our hardware specialist. Cables are routed cleanly throughout.

Airflow as planned: 3 reverse-blade intake fans on the side, 3 reverse-blade intake fans on the bottom, 3 exhaust fans on the top radiator and 2 exhaust fans at the back. The liquid cooler's own fans were swapped for reverse-blade ones so that every fan shows its good side through the glass.

BIOS update: The motherboard BIOS was updated from version 1503 to **2202**, the latest at the time of the build. The BIOS is the firmware that starts the computer and manages basic hardware before Windows loads.

Memory speed: The modules are rated DDR5-6800 (XMP). The BIOS update returned the memory to the default **DDR5-4800**, and that is the speed used for every test in this report.

Windows and software: Windows 11 installed and fully updated, with the Lian Li cooler software installed.

Stability testing: A 1-hour OCCT CPU + RAM test, 15 hours of idle logging and then the **12-hour OCCT System Platinum test** (processor, memory, graphics card and combined power), all with HWINFO64 sensor logging. The Platinum certificate was awarded.

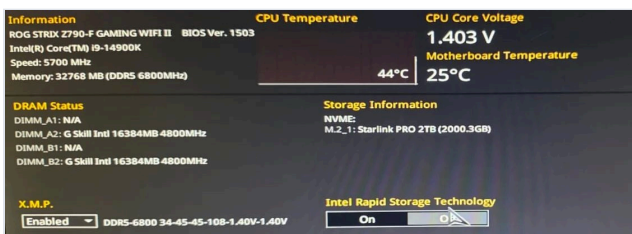
Airflow layout



11 × Lian Li Uni Fan SL-Infinity. Six fans pull air in through the side and bottom; five push it out through the top radiator and the back.

BIOS update

	Before (photo 9 Oct, 17:47)	After (photo 9 Oct, 18:07)
BIOS version	1503	2202
Memory speed shown	6800 MHz	4800 MHz (default)
XMP profile	Enabled: DDR5-6800 34-45-45-108, 1.40 V	Not active (memory at the default speed)



BIOS 1503: memory 6800 MHz, XMP enabled.



BIOS 2202: memory 4800 MHz, XMP profile not active.

BIOS updates usually restore default settings, which explains why the memory showed DDR5-4800 after the update.



Final verification results

OCCT tests 9–10 Oct | Sensor logs Fri 9 Oct 16:15 to Sat 10 Oct 20:49

Check	What was measured	Result
OCCT System Platinum, 12 h	Certificate issued: Platinum , duration 12:02:04, status finished. All stages completed: CPU + RAM, CPU, Linpack, Memory, 3D, VRAM and Power, then benchmarks.	● Pass
OCCT 1-hour CPU + RAM	OCCT 17.1.7, Large data set, Normal mode, Variable load, AVX2, 32 threads, 7,168 MB, 6 cycles. Result: No errors detected .	● Pass
Stability and idle behaviour	Both logs run without a break: 16 h 14 min (1-hour test, then 15 h idle) and 12 h 20 min (Platinum test). No freeze, stall or restart; 0 hardware (WHEA) errors.	● Pass
Processor temperatures	Sustained all-core load (252 W): CPU 82°C average, 88°C peak. CPU + graphics card together: CPU 81°C. In the light-thread stage the package touched 100°C for about 4 s (≥95°C for 70 s in 12 h); see page 7.	● Note
Cooling and fans	Chassis fan 708–2,115 RPM, CPU-header fan 493–2,272 RPM, AIO pump steady at 2,339–2,402 RPM. No fan or pump stalled.	● Pass
Graphics card	3D, VRAM and combined Power stages: up to 99% load at its 320 W limit, 64°C peak (hot spot 77°C, memory 54°C), fans 1,529 RPM. No thermal-limit flag.	● Pass
Power delivery	Under CPU + graphics card together (572 W): +12 V lowest 11.904 V, +5 V 4.960 V, +3.3 V 3.232 V, graphics-card power connector 12.021 V at 315 W. All well inside the ±5% ATX tolerance.	● Pass
Memory	32 GB (2 × 16 GB), 2.5-hour OCCT memory test with up to 89% of RAM in use: no errors. Tested at the default DDR5-4800; the modules are rated DDR5-6800 (XMP), which was not tested.	● Note
Storage health	The SSD reports 99% life remaining and 100% spare capacity, no failure or warning flags. 32–42°C.	● Pass

Points to note

Memory speed. All tests were run with the memory at its default DDR5-4800. The modules are rated DDR5-6800 (XMP); that profile can be switched on in the BIOS, and the PC should then be stability-tested again.

CPU peak temperature. In one stage that loads only a few cores (stage 2), individual cores reached the processor's 100 °C limit: the package touched 100 °C for about 4 seconds and was at or above 95 °C for about 70 seconds in 12 hours, spread over 5 episodes. The CPU's built-in protection reduced speed briefly, as designed, and OCCT reported no errors. Every other stage peaked at 90 °C or lower.

What this means

The OCCT System Platinum certificate means the PC ran **12 hours of processor, memory, graphics and combined power stress tests without errors**. Across 28 h 34 min of sensor logs there were no freezes, no restarts and no hardware errors. Sustained all-core load stayed at 82–88°C on the processor and the graphics card never passed 64°C, so the cooling and the fan layout do their job. The two points to note are the memory speed (tested at the default, not the rated speed) and the brief 100°C touches in the light-thread stage.



OCCT certificates & test schedule

System Platinum certificate and the 1-hour CPU + RAM report

1-hour CPU + RAM test, 9 Oct 2026



No errors detected · Large data set, Normal mode, Variable load, AVX2, 32 threads, 7,168 MB, 6 cycles

System Platinum certificate, 10 Oct 2026



12:02:04 · issued 10/10/2026 20:32:47
GPU tested: NVIDIA GeForce RTX 4080 SUPER

Certificate details

Item	Detail
Certificate	OCCT System Platinum , titled "NICE BUILT WITH ALL THE 11 FANS"
Duration / status	12:02:04 · Finished
Issued	10/10/2026 20:32:47 (UK time)
Verify online	https://www.ocbase.com/stabilityCertificate/6aca92e61274090287db3bb9

CPU benchmark	Score	Memory benchmark	Score
Single-thread SSE	107.39	Read	1,604.01
Multi-thread SSE	1,577.84	Write	1,265.55
Single-thread AVX	211.78	Combined	1,462.86
Multi-thread AVX	2,291.62		

Test schedule

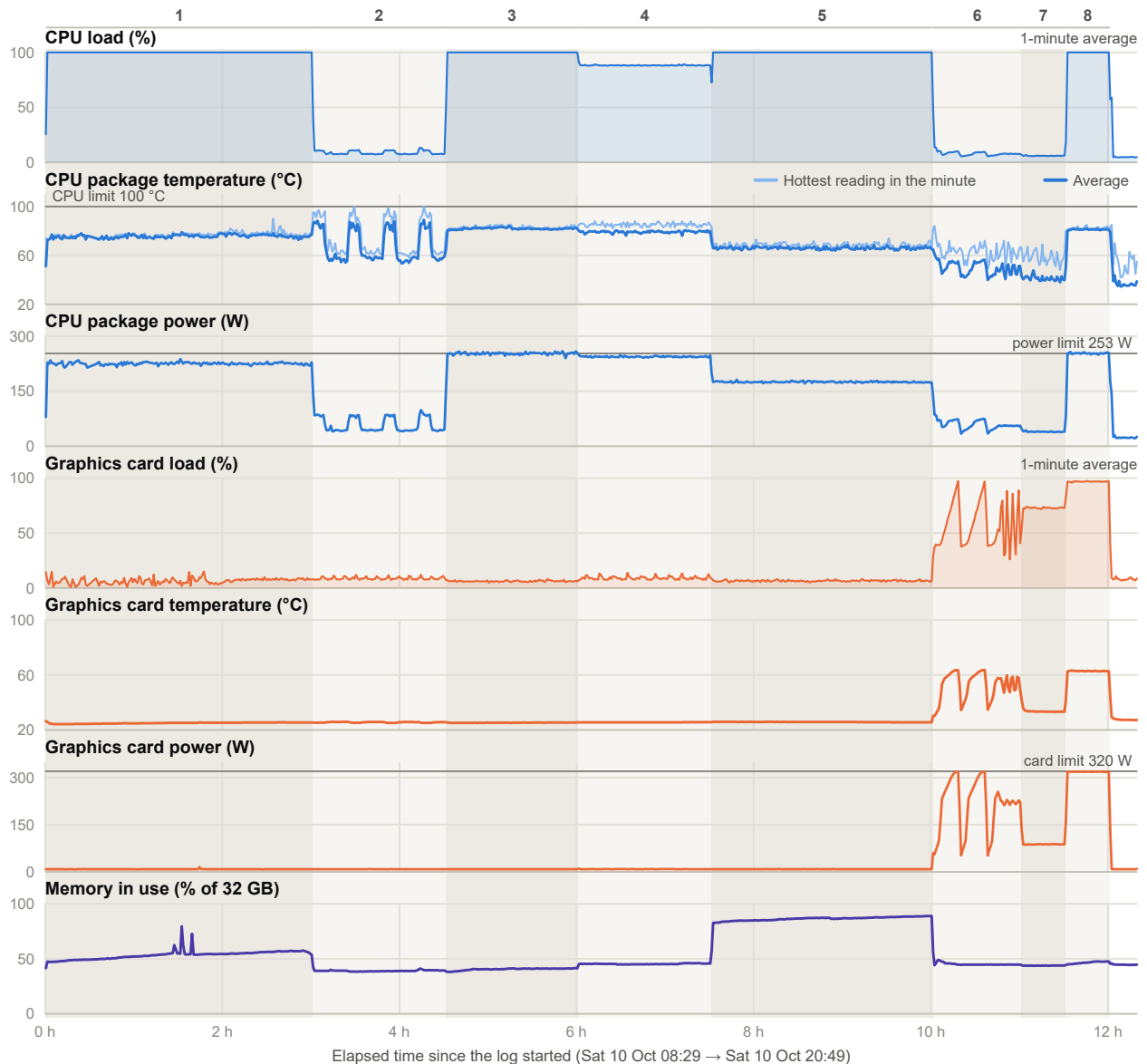
#	Stage	Length	Time into the test	What it exercises
1	CPU + RAM	3 h	0:00:00 → 3:00:45	Processor and memory together
2	CPU + RAM	1.5 h	3:00:46 → 4:30:45	Processor and memory, lighter thread count
3	CPU	1.5 h	4:30:45 → 6:00:45	Processor, all cores
4	Linpack	1.5 h	6:00:45 → 7:30:45	Linpack maths workload
5	Memory	2.5 h	7:30:45 → 10:00:50	Memory test
6	3D Adaptive	1 h	10:00:54 → 11:00:51	Graphics card, 3D load (45 + 15 min)
7	VRAM	30 min	11:00:51 → 11:30:51	Graphics-card memory
8	Power	30 min	11:30:56 → 12:00:51	Processor and graphics card together
9	Benchmarks	1 min	12:00:51 → 12:02:04	CPU and memory benchmarks

Times are hours:minutes:seconds from the start of the OCCT run, from the certificate record.



12-hour Platinum test: overview

HWiNFO64 log, Sat 10 Oct 08:29 to Sat 10 Oct 20:49 | 12 h 20 min



Each point is a 1-minute window. The numbered bands are the OCCT stages from the certificate schedule.

1 CPU + RAM **2** CPU + RAM (light threads) **3** CPU **4** Linpack **5** Memory **6** 3D Adaptive **7** VRAM **8** Power

Reading the chart: **stages 1–4** work the processor (stage 2 uses only a few threads, so load stays low but the cores boost hard), **stage 5** fills the memory (up to 89% in use), **stages 6–7** work the graphics card, and **stage 8** runs processor and graphics card together at about 572 W. The last minutes are the benchmarks followed by an idle cool-down.



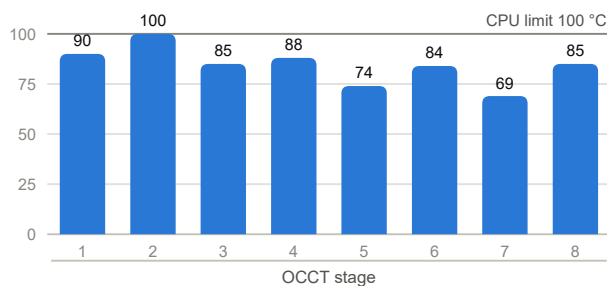
Stage-by-stage results

CPU, graphics card and memory readings for each OCCT stage

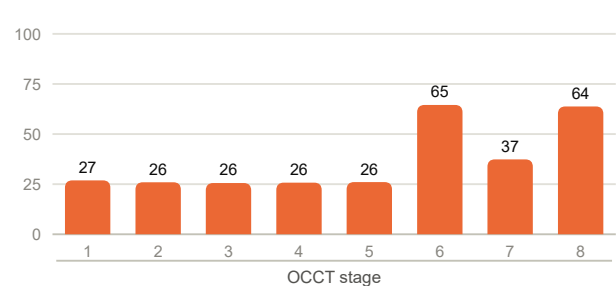
#	Stage	CPU load %	CPU °C avg / peak	CPU W avg / peak	GPU load %	GPU °C avg / peak	GPU W avg / peak	Mem peak %
1	CPU + RAM 3 h	100	76 / 90	225 / 246	7	25 / 27	8 / 39	84
2	CPU + RAM 1.5 h	9	67 / 100	58 / 131	9	26 / 26	8 / 9	44
3	CPU 1.5 h	100	82 / 85	253 / 274	6	25 / 26	8 / 9	42
4	Linpack 1.5 h	88	79 / 88	244 / 282	9	26 / 26	9 / 9	46
5	Memory 2.5 h	100	66 / 74	175 / 186	7	26 / 26	9 / 9	89
6	3D Adaptive 1 h	8	50 / 84	59 / 139	58	53 / 65	216 / 320	51
7	VRAM 30 min	6	41 / 69	39 / 62	73	33 / 37	88 / 106	44
8	Power 30 min	100	81 / 85	253 / 276	97	63 / 64	319 / 320	48

Averages and peaks are of the HWiNFO64 samples inside each stage (11,474 samples; the first and last 45 seconds of each stage are left out because stage changes take a moment to show in the sensors). CPU load is the average across all 32 threads.

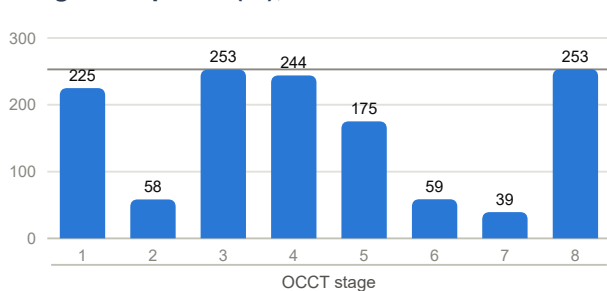
Peak CPU temperature (°C)



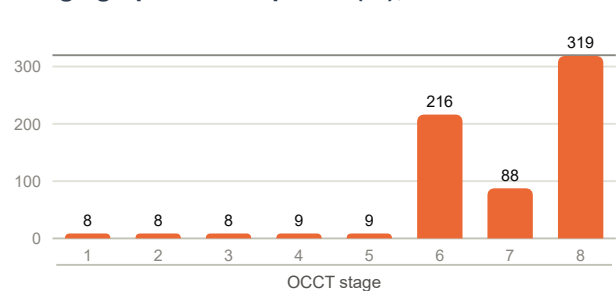
Peak graphics-card temperature (°C)



Average CPU power (W); line = 253 W limit



Average graphics-card power (W); line = 320 W limit



Stage 3 (CPU, all cores at about 253 W) is the sustained thermal test: **82°C average, 85°C peak**. Stage 8 adds the graphics card at 319 W on top and the processor still averages 81°C. Stage 2 is the outlier in the first chart: the package peaks at 100°C even though it draws only about 58 W on average (explained on the next page).

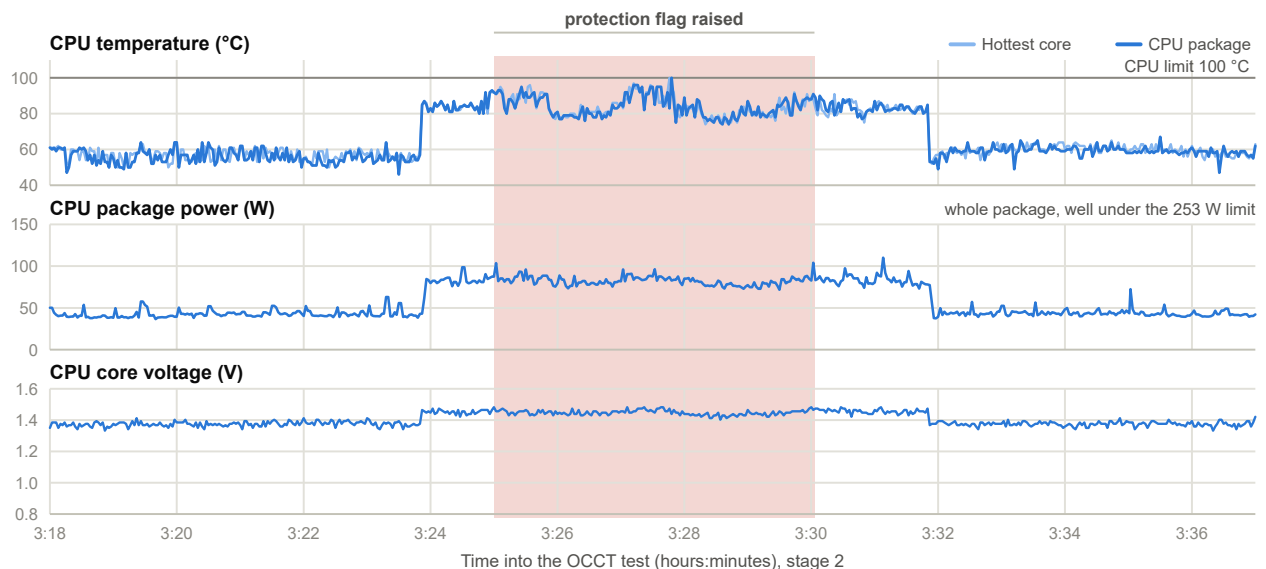


Thermal behaviour: when the CPU reached 100 °C

The 5 episodes with a protection flag, all in stage 2 (CPU + RAM, lighter thread count)

#	Starts (time into test)	Episode window	Flag raised for	CPU package peak	Hottest core	Protection flag
1	3:02:23	2.3 min	36 s	96 °C	97 °C	thermal throttle + PROCHOT
2	3:08:19	26 s	4 s	96 °C	98 °C	thermal throttle
3	3:25:57	5.0 min	48 s	100 °C	100 °C	thermal throttle + PROCHOT
4	3:52:27	3.5 min	10 s	99 °C	97 °C	thermal throttle + PROCHOT
5	4:15:49	4.2 min	42 s	100 °C	100 °C	thermal throttle + PROCHOT

Totals over the 12-hour run: package at or above 95°C for about 70 s, at 100°C for about 4 s; thermal-throttle flag raised for about 140 s and PROCHOT for about 74 s. No other stage raised either flag.



A closer look at the longest episode (starting 3:25:57 into the test). Shaded: samples with the protection flag raised.

What was happening

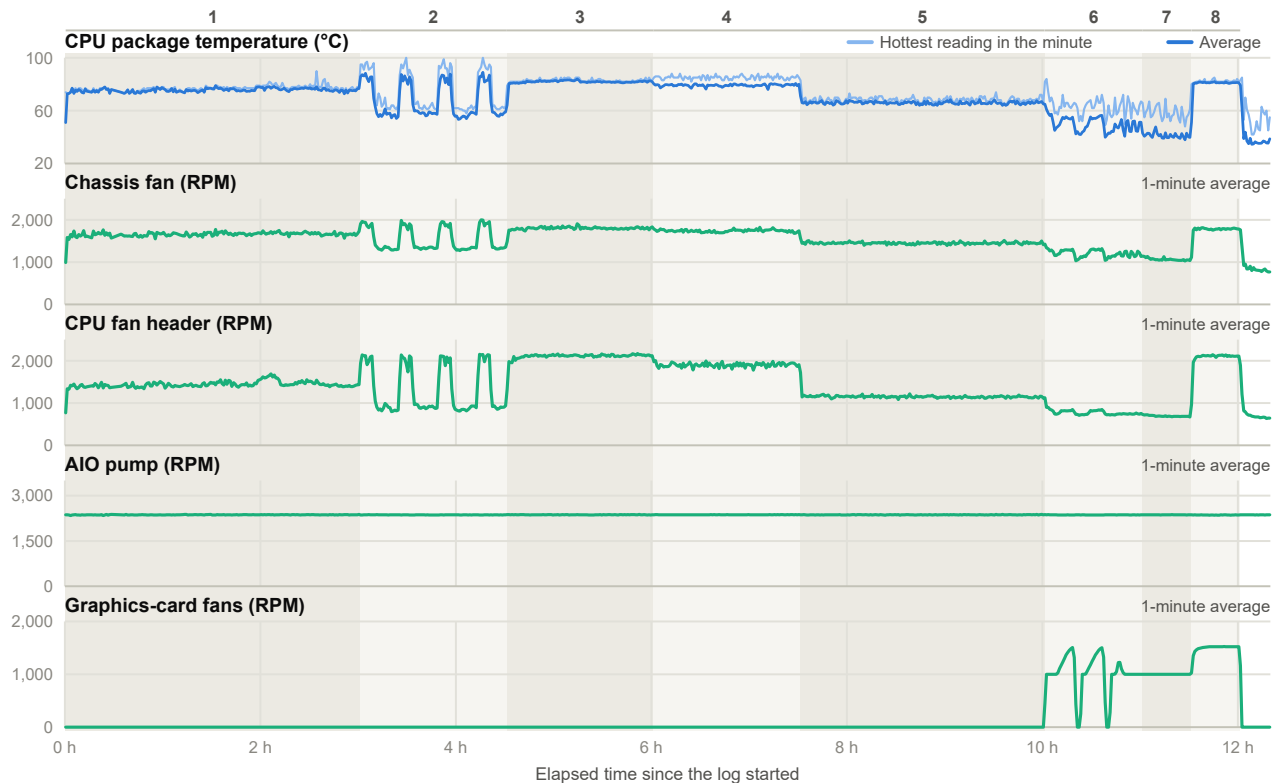
Stage 2 keeps only a few threads busy (**about 9% total CPU load**), so the package draws just 58 W. With so few cores working, they boost to the maximum (**P-core clock up to 5.7 GHz, core voltage up to 1.492 V**) and each of those cores heats up faster than the cooler can pull the heat out of that small area, even though the processor as a whole is far from its power limit. When a core reaches 100°C the CPU slows down for a moment, which is the protection working as designed.

The same processor with **all 24 cores at 253 W** (stage 3) stayed at **82°C average and 85°C peak**, which shows the 360 mm liquid cooler is handling the heat. OCCT reported no errors in this stage.



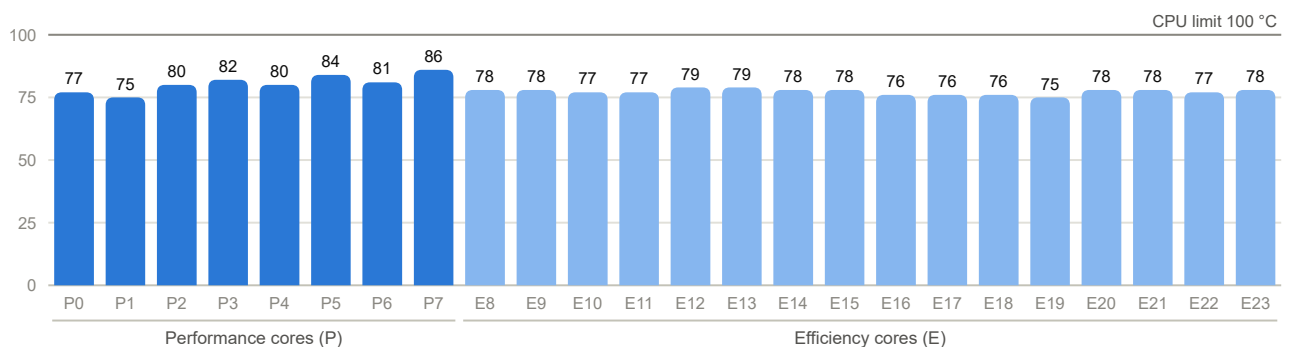
Cooling & airflow performance

Fans, pump and per-core temperatures



The fans follow the load: fastest in the CPU stages and the graphics stages, quiet when idle. The pump holds a steady speed throughout. The graphics-card fans only start when the card is under load.

Hottest reading on each CPU core in stage 3 (all cores, about 253 W)



All 24 cores stayed between 75°C and 86°C, leaving at least 14°C of headroom to the 100°C limit under a sustained all-core load.

Fan behaviour. Chassis fan 708–2,115 RPM, CPU fan header 493–2,272 RPM, AIO pump 2,339–2,402 RPM, graphics-card fans up to 1,529 RPM. None dropped to zero or stalled while the PC was working.



Graphics card & power delivery

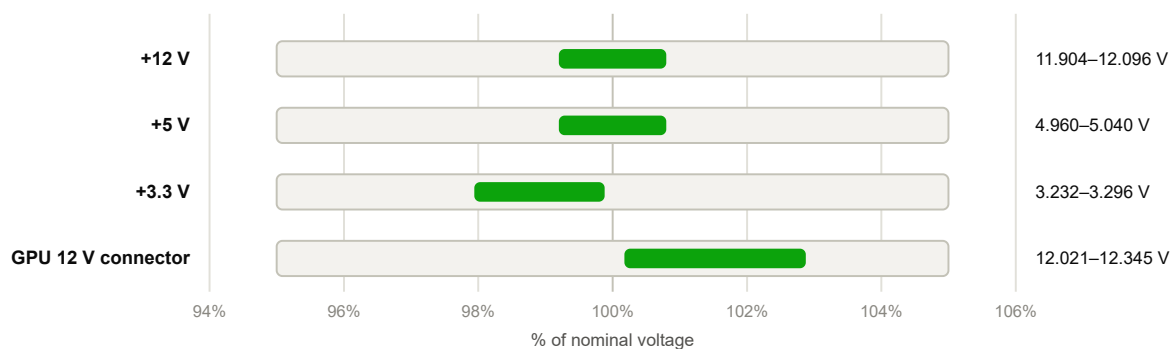
Graphics stages 6–8 and voltage rails

Graphics card under load

	Stage 6: 3D (1 h)	Stage 7: VRAM (30 min)	Stage 8: Power (30 min)
GPU load, average %	58	73	97
GPU power, average / peak W	216 / 320	88 / 106	319 / 320
GPU temperature, average / peak °C	53 / 65	33 / 37	63 / 64
GPU hot spot, peak °C	78	44	77
GPU memory junction, peak °C	54	50	54
GPU fans, peak RPM	1,525	1,018	1,529
GPU clock, average MHz	2,496	2,760	2,620
Power connector voltage, lowest V	12.069	12.209	12.021

The card held its **320 W power limit** for the whole Power stage at 63°C average. No thermal-limit flag was raised for the graphics card.

Voltage rails



Lowest and highest reading of each rail across the 12:02:04 Platinum test, against the $\pm 5\%$ allowed by the ATX standard (grey band). The lowest readings came in the Power stage, with the processor and graphics card together drawing about 572 W. Rails are read by the motherboard's own sensor, accurate enough to judge stability but not a calibrated meter.

Worst case under the combined load: +12 V 11.904 V (-0.8%), +5 V 4.960 V (-0.8%), +3.3 V 3.232 V (-2.1%), graphics-card connector 12.021 V while delivering 315 W. The power supply and cabling are coping comfortably.



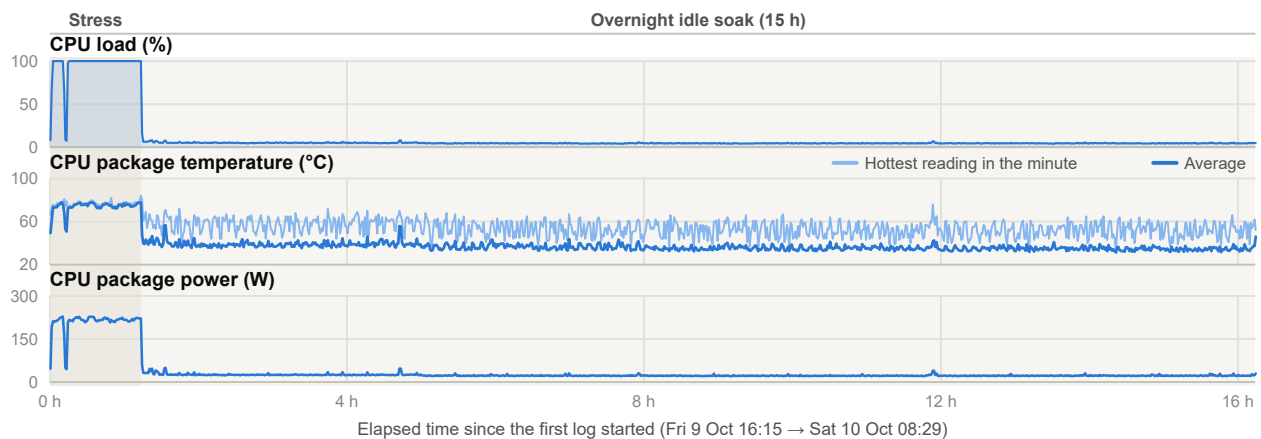
Error log & earlier tests

Fault flags in both logs, and the 1-hour test with overnight idle (9–10 Oct)

What HWiNFO64 watches	Flags	Log 1: 1-hour test + idle (16 h)	Log 2: Platinum test (12 h)
Windows hardware errors (WHEA)	1	● 0 events	● 0 events
CPU thermal throttling	29	● 0 of 27,604	● 70 samples (2.3 min)
CPU critical temperature	26	● 0 of 27,604	● 0 of 12,299
PROCHOT / thermal event	6	● 0 of 27,604	● 37 samples (74 s)
Voltage-regulator thermal alert	3	● 0 of 27,604	● 0 of 12,299
GPU thermal limiter	1	● 0 of 27,604	● 0 of 12,299
SSD failure / warning	2	● 0 of 27,604	● 0 of 12,299
Memory PMIC fault	6	● 0 of 27,604	● 0 of 12,299
CPU power limit reached (PL1/PL2)	26	● 7 samples (14 s)	● 3,878 samples (3 h 03 min)
PCIe error counters (receiver, replay, CRC, NAK, fatal ...)	12	● All zero	● All zero
OCCT errors	n/a	● None detected	● None detected

The power-limit flag is information only: it is raised when the processor reaches its 253 W setting under heavy all-core load, which is where the CPU, Linpack and Power stages sit by design. The thermal-throttle and PROCHOT flags are the stage 2 episodes explained on page 7. The graphics card, voltage regulators, memory modules and SSD raised no flags, and every PCIe error counter stayed at zero.

Earlier tests: 1-hour OCCT test and overnight idle soak



OCCT 1-hour CPU + RAM test (no errors detected): CPU averaged 76°C and peaked at 84°C at 219 W. It was followed by 15 hours of idle logging: CPU 36°C average, 23 W, fans quiet, no freeze or error.



Detailed sensor log

HWiNFO64 min / average / max | Platinum run 11,764 samples

Sensor	Unit	Whole 12-hour run			Power stage: CPU + GPU (364 samples)		
		Min	Avg	Max	Min	Avg	Max
CPU package temperature	°C	36	68	100	80	81	85
Hottest CPU core	°C	36	69	100	80	81	85
CPU package power	W	28	150	282	235	253	276
CPU load (all threads)	%	4	55	100	100	100	100
CPU average core clock	MHz	1,475	4,249	4,833	4,158	4,182	4,238
P-core 0 clock	MHz	800	5,005	5,700	4,600	4,749	4,900
CPU core voltage (Vcore)	V	0.817	1.332	1.492	1.119	1.130	1.146
Power stage (VRM) temperature	°C	38	50	65	46	61	65
CPU voltage-regulator temperature	°C	38	50	65	46	61	65
Motherboard temperature	°C	21	23	27	24	25	25
Chipset (PCH) temperature	°C	34	37	45	39	41	42
+12 V rail	V	11.904	12.074	12.096	11.904	11.962	12.000
+5 V rail	V	4.960	5.002	5.040	4.960	4.960	4.960
+3.3 V rail (3VCC)	V	3.232	3.274	3.296	3.232	3.233	3.248
Chassis fan	RPM	708	1,534	2,115	1,691	1,785	1,920
CPU fan header	RPM	493	1,417	2,272	1,898	2,111	2,209
AIO pump	RPM	2,339	2,365	2,402	2,339	2,359	2,380
GPU temperature	°C	24.2	31.5	64.5	61.4	62.9	63.8
GPU hot spot	°C	32.8	40.5	78.2	73.3	75.6	77.2
GPU memory junction	°C	24	32	54	48	52	54
GPU power	W	8	56	320	317	319	320
GPU core load	%	1	24	99	92	97	99
GPU fans	RPM	0	282	1,529	1,325	1,512	1,529
GPU clock	MHz	210	834	2,760	2,595	2,620	2,700
GPU power connector voltage	V	12.021	12.248	12.345	12.021	12.032	12.046
GPU power connector power	W	2	48	321	290	304	315
SSD temperature (main sensor)	°C	32	36	42	37	41	42
Memory module 1 temperature	°C	36	42	49	37	41	42
Memory module 2 temperature	°C	34	40	46	35	38	38
Memory in use	GB	12.1	15.2	28.2	14.3	14.8	15.1
Memory load	%	38	48	89	45	47	48
Memory clock (DDR5-4800)	MHz	2,400	2,400	2,401	2,400	2,400	2,400

The whole-run columns cover the 12:02:04 OCCT test. Memory clock 2,400 MHz = DDR5-4800 (DDR is double data rate).



Notes & recommendations

Data notes and handover advice

Data notes

Source data: HWINFO64 sensor logs "new stress long.CSV" (27,604 samples) and "next day certificate.CSV" (12,299 samples, 711+ sensors), the OCCT 17.1.7 report screenshot and the OCCT online certificate record.

Clocks: In the first log the PC clock stepped back 2.0 h shortly after it began and by about 86 s later (most likely Windows setting the correct time), so charts use continuous elapsed time. The second log has a single clock. OCCT's own timestamps run about 2 hours ahead of the PC clock; the certificate schedule was matched to the sensor log by elapsed time and lines up with the load changes in the data.

Logging rate: One sample every 2 s when the PC is not fully loaded. With all threads busy the logger slows down: 95 gaps over 30 s in the Platinum log (longest 375 s, a 6-minute pause shortly after the start), all in the heavy stages. OCCT completed normally, so peaks between samples can be slightly higher than logged.

Memory speed: Both logs show DDR5-4800 (2,400 MHz, CL40-40-40-76, 1.1 V). The modules are rated DDR5-6800 (XMP); that setting has not been tested.

First log memory sensor: In the first log the temperature read-out of memory module 1 froze at 50 °C about an hour in; in the Platinum log both module sensors work normally (module 1 36–49°C, module 2 34–46°C), so the earlier frozen read-out looks like a sensor artefact.

Recommendations

Memory speed: The memory is running at DDR5-4800. The modules are rated DDR5-6800 with their XMP profile. If you want the higher speed, switch the XMP profile on in the BIOS and run a stability test again, as this has not been tested at 6800.

CPU peak temperature: In light-load boost the processor can touch its 100 °C limit for a few seconds. This is typical of this CPU rather than a cooling fault (the full all-core load stayed at 82–88 °C). If you prefer lower peaks, a small boost or voltage limit can be set in the BIOS; we can do this on request.

Keep firmware and Windows up to date: Intel has released several microcode updates for 13th and 14th generation processors. Keep the motherboard BIOS and Windows updated, and check for a newer BIOS before any future problem is escalated.

Graphics-card fans: The graphics-card fans stay off at idle and light load. This is normal (zero-RPM mode); they start automatically when the card warms up.

SSD free space: Windows reports the SSD is about 70% full (1.28 TB of 1.82 TB used). Keep some free space for performance and back up important files.