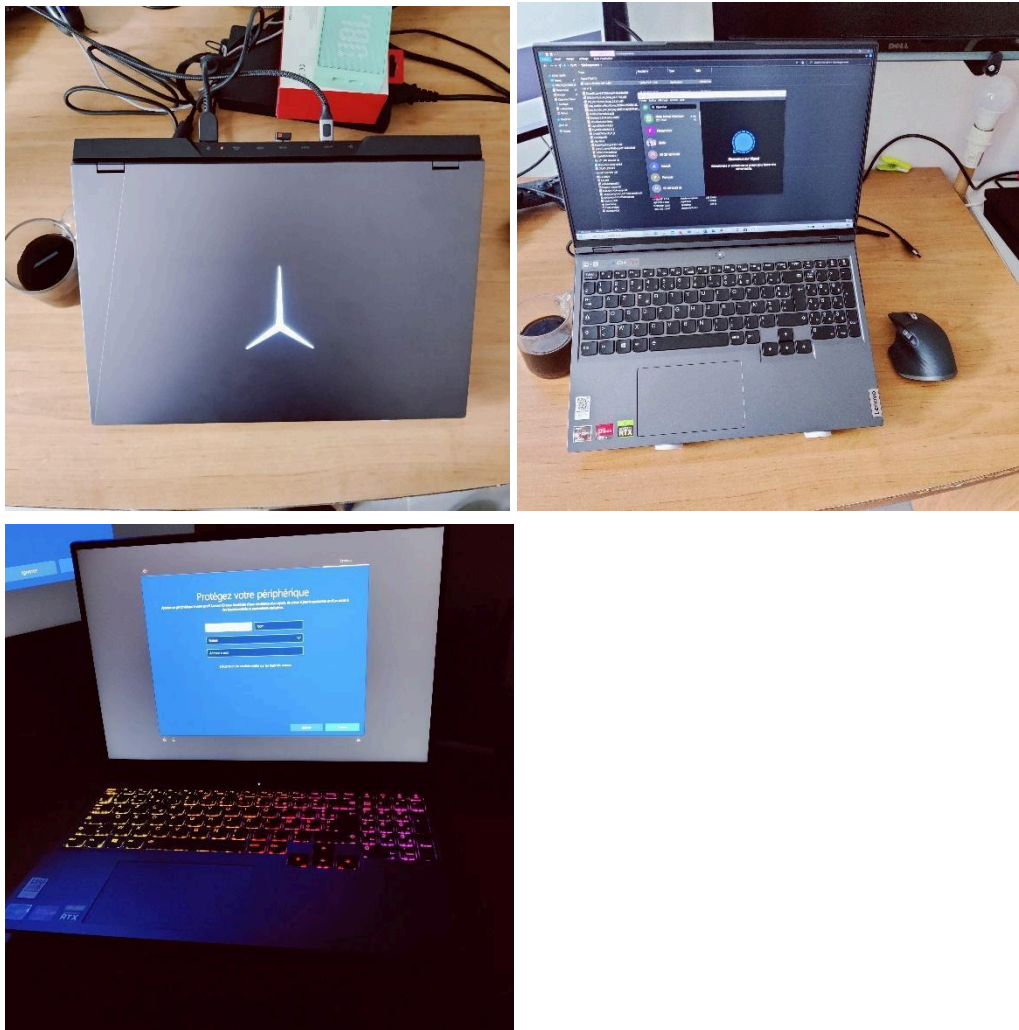# Legion 5 pro Review

Specs sheet:

https://psref.lenovo.com/Detail/Legion/Lenovo_Legion_5_Pro_16ACH6H?M=82JQ0019FR

Design & Build Quality:

The aluminium chassis is very solid and feels very premium. The inside chassis does not take finger smudges.

The design is quite sober compared to other gaming laptops, though this model is more « gaming » looking than the Legion 5 classic

Screen quality:

The screen is really excellent. It's very bright, has vivid colors and good contrasts.I had a macbook pro before this laptop and I think the Legion 5 pro has nothing to envy from a mac concerning the screen.

The backlight bleeding is very minimal in my laptop but I know that other people complained about it. I guess this will vary between the laptop.

Important : You need to get optimus disabled to get a multi-screen set-up. Otherwise, the external monitor will only replicate the laptop's screen.

Keyboard & Trackpad:

The keyboard is very efficient, it's clicky and very pleasant to use it. You have a bunch of nice customization for RGB lighting.

I'm more contrasted with the trackpad which is not as smooth as the macbook pro one. It feels a little bit « sticky ». But it's still a decent trackpad and it it is pretty wide, compared to other laptops, which is cool.

Battery Life:

I've not made very precise test, but I think you can get 6/7 hours of battery life in silent mode with optimus activated.

Noise :

You have almost no noise in silent mode. It's quite loud when gaming in performance mode, but I guess it is the counterpart of getting a such powerful laptop.

Some people complained about coil whine, I didn't notice anything. Once again, this may vary between laptop

Connectivity :

It's very complete, you have one USB-C+1audio jack on the left, one USB classic + the e-camera shutter on the right.

Most the ports are located at the back of the laptop, which is very convenient for your cable management you have 2 USB classic, the charger port, an HDMI port and a second USB-C port

You are supposed to be able to charge it with the USB-C port located in the back but it does not work for me. I know this features works for others guys who got the 5 pro, so I don't get where the problem does come from. Maybe you need a specific charger to make it work

Camera:

I find it very decent for a 720 p. It does surprisingly well in a dimmed environment.

Internals:

To access the internals of the laptop, you need to remove 10 phillips head screws and then you need to get off the bottom panel with a plastic tool.

I found the task quite difficult. As you can see in the following picture, the vents are part of the bottom panel, so you need to take them off, which is not obvious at the first sight.
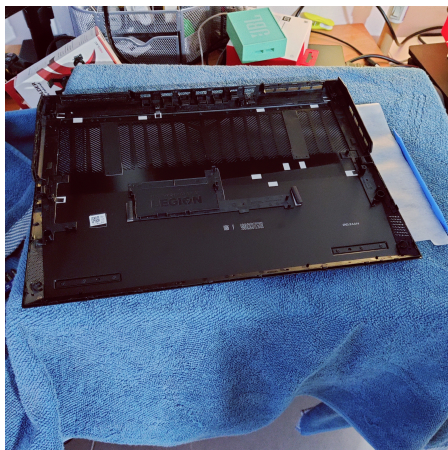
Here is an picture of the internals. You have a dual channel RAM inside the square that you can upgrade. You have two Nvme slots. The original SSD with Windows installed in is located in the left. The secondary SSD is at the right side just below the battery. The specs pretend that the secondary slot can only host a 2242 SSD, but I tried a 2280 and it's working perfectly.
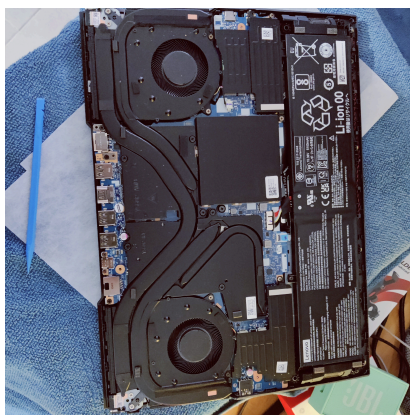
Stress test :

I used the methodology described in this video : https://youtu.be/J4s3ghSNj8Q

I ran the test at performance mode with hybrid mode (Optimus) Disabled

As announced, the GPU's TGP reaches 125W in average when highly solicited and can peak up to 140W . The temps of the GPU were under control during the test and never exceeded 79°C.

The CPU's results are more surprising and concerning. The TDP is way superior that what it has been announced by AMD. Consequently, the temps are really high with 91.4 ° C in average and a maximum peak at 100°C.

I reran the test while elevating this Laptop with this open support : https://www.amazon.fr/gp/product/B07TBR2WYD/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1

And that reduced dramatically the average CPU temps to 10°C. So, if you consider buying this laptop, I highly recommend you to get a cooler pad or an open support like this one.

First Stress Test

HWiNFO64 v7.00-4400 Sensor Status

First Stress Test

Sensor	Current	Minimum	Maximum	Average
Virtual Memory Committed	12,624 MB	12,288 MB	12,678 MB	12,432 MB
Virtual Memory Available	6,571 MB	6,518 MB	6,907 MB	6,763 MB
Virtual Memory Load	65.7 %	64.0 %	66.0 %	64.7 %
Physical Memory Used	7,292 MB	7,152 MB	7,449 MB	7,269 MB
Physical Memory Available	8,959 MB	8,802 MB	9,099 MB	8,982 MB
Physical Memory Load	44.8 %	44.0 %	45.8 %	44.7 %
Page File Usage	5.2 %	5.2 %	5.2 %	5.2 %
CPU [#0]: AMD Ryzen 7 58...				
Core 0 VID	1.038 V	0.988 V	1.300 V	1.177 V
Core 1 VID	1.031 V	0.981 V	1.294 V	1.175 V
Core 2 VID	1.038 V	0.988 V	1.288 V	1.178 V
Core 3 VID	1.031 V	0.981 V	1.294 V	1.178 V
Core 4 VID	1.038 V	0.988 V	1.300 V	1.181 V
Core 5 VID	1.031 V	0.981 V	1.306 V	1.180 V
Core 6 VID	1.044 V	0.994 V	1.300 V	1.185 V
Core 7 VID	1.038 V	0.988 V	1.306 V	1.179 V
Core 0 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,825.2 MHz
Core 1 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.3 MHz
Core 2 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.1 MHz
Core 3 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.2 MHz
Core 4 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.3 MHz
Core 5 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.3 MHz
Core 6 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.2 MHz
Core 7 Clock	3,447.2 MHz	3,272.4 MHz	4,121.7 MHz	3,826.2 MHz
Bus Clock	99.9 MHz	99.9 MHz	99.9 MHz	99.9 MHz
Core 0 T0 Effective Clock	3,428.0 MHz	3,381.3 MHz	4,093.3 MHz	3,829.7 MHz
Core 0 T1 Effective Clock	3,420.9 MHz	3,374.6 MHz	4,085.6 MHz	3,822.4 MHz
Core 1 T0 Effective Clock	3,420.7 MHz	3,375.6 MHz	4,085.6 MHz	3,822.4 MHz
Core 1 T1 Effective Clock	3,420.9 MHz	3,375.6 MHz	4,085.6 MHz	3,822.4 MHz
Core 2 T0 Effective Clock	3,420.7 MHz	3,375.3 MHz	4,085.6 MHz	3,822.2 MHz
Core 2 T1 Effective Clock	3,420.7 MHz	3,375.2 MHz	4,085.5 MHz	3,822.2 MHz
Core 3 T0 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.5 MHz	3,822.4 MHz
Core 3 T1 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.5 MHz	3,822.4 MHz
Core 4 T0 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Core 4 T1 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Core 5 T0 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Core 5 T1 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Core 6 T0 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Core 6 T1 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Core 7 T0 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.7 MHz	3,822.5 MHz
Core 7 T1 Effective Clock	3,420.9 MHz	3,375.8 MHz	4,085.6 MHz	3,822.5 MHz
Average Effective Clock	3,421.3 MHz	3,376.1 MHz	4,086.1 MHz	3,822.9 MHz
Core 0 T0 Usage	100.0 %	97.7 %	100.0 %	100.0 %
Core 0 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Total CPU Usage	100.0 %	99.8 %	100.0 %	100.0 %
Max CPU/Thread Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 0 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 1 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 2 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 3 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 4 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 5 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 6 Ratio	34.5 x	32.8 x	41.3 x	38.3 x
Core 7 Ratio	34.5 x	32.8 x	41.3 x	38.3 x

Sensor	Current	Minimum	Maximum	Average
Core 4 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 4 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 5 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 5 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 6 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 6 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 7 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 7 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
CPU [#1]: AMD Ryzen 7 5800H wi...				
CPU Core	89.1 °C	81.3 °C	99.9 °C	91.4 °C
CPU SOC	69.5 °C	50.6 °C	71.3 °C	64.4 °C
CPU (Tctl/Tdie)	90.0 °C	76.0 °C	101.5 °C	93.2 °C
APU GFX	68.6 °C	49.1 °C	70.4 °C	63.1 °C
SoC Voltage (SVI2 TFN)	0.938 V	0.938 V	0.944 V	0.938 V
SoC Current (SVI2 TFN)	2.044 A	1.769 A	2.403 A	2.069 A
CPU Core Voltage (SVI2 TFN)	1.081 V	1.019 V	1.362 V	1.232 V
CPU Core VID (Effective)	1.106 V	1.044 V	1.394 V	1.263 V
CPU Core Current (SVI2 TFN)	37.167 A	35.587 A	59.826 A	50.032 A
CPU TDC	36.818 A	36.305 A	58.338 A	50.040 A
CPU EDC	74.397 A	72.311 A	110.000 A	98.227 A
CPU Package Power (SMU)	45.196 W	43.921 W	84.962 W	67.837 W
Core 0 Power (SMU)	3.419 W	2.958 W	8.720 W	6.629 W
Core 1 Power (SMU)	4.400 W	3.167 W	9.612 W	7.336 W
Core 2 Power (SMU)	4.673 W	4.375 W	9.614 W	7.091 W
Core 3 Power (SMU)	5.544 W	4.709 W	9.703 W	7.603 W
Core 4 Power (SMU)	5.262 W	4.531 W	9.858 W	7.504 W
Core 5 Power (SMU)	5.352 W	4.630 W	10.037 W	7.711 W
Core 6 Power (SMU)	5.373 W	4.403 W	9.375 W	7.427 W
Core 7 Power (SMU)	5.359 W	4.592 W	9.673 W	7.570 W
CPU Core Power (SVI2 TFN)	39.862 W	38.651 W	79.619 W	62.618 W
CPU SoC Power (SVI2 TFN)	1.917 W	1.664 W	2.254 W	1.942 W
CPU PPT	45.018 W	32.475 W	81.429 W	67.930 W
APU STAPM	45.000 W	11.966 W	64.678 W	45.530 W
CPU PPT Limit	83.4 %	60.1 %	150.8 %	125.8 %
CPU TDC Limit	63.5 %	62.6 %	100.6 %	86.3 %
CPU EDC Limit	67.6 %	65.7 %	100.0 %	89.3 %
CPU PPT FAST Limit	51.6 %	50.1 %	97.0 %	77.4 %
CPU PPT SLOW Limit	51.3 %	17.7 %	91.0 %	76.6 %
APU STAPM Limit	100.0 %	18.4 %	107.1 %	80.1 %
Thermal Throttling (HTC)	No	No	No	
Thermal Throttling (PROCHOT CPU)	No	No	No	
Thermal Throttling (PROCHOT EXT)	No	No	No	
CPU [#0]: AMD Ryzen 7 5800H wi...				
Package C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core+SoC Power (SVI2 TFN)	41.779 W	40.549 W	81.799 W	64.559 W
Core 0 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 1 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 2 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 3 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 4 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 5 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 6 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 7 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 0 C1 Residency	0.0 %	0.0 %	0.0 %	0.0 %

Sensor	Current	Minimum	Maximum	Average
Core 3 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 4 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 5 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 6 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 7 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
GPU [#0]: NVIDIA GeForce RTX 3070 Mobile:				
GPU Temperature	76.9 °C	41.6 °C	78.6 °C	59.9 °C
GPU Hot Spot Temperature	84.3 °C	47.2 °C	86.8 °C	67.1 °C
GPU Core Voltage	0.844 V	0.681 V	1.038 V	0.763 V
GPU FBVDD Input Voltage	20.085 V	19.898 V	20.441 V	20.266 V
GPU 8-pin #1 Input Voltage	19.981 V	19.811 V	20.314 V	20.151 V
GPU Power	124.168 W	17.318 W	145.390...	62.334 W
GPU Core (NVVDD) Input Power (sum)	89.857 W	6.475 W	110.621...	40.972 W
GPU FBVDD Input Power	28.199 W	4.618 W	31.515 W	15.277 W
GPU 8-pin #1 Input Power	118.305 W	11.085 W	139.624...	56.437 W
GPU PCIe +3.3V Input Power (est)	12.000 W	12.000 W	12.000 W	12.000 W
GPU Core (NVVDD2) Input Power (sum)	89.857 W	6.475 W	110.621...	40.972 W
GPU Input PP Source Power (sum)	34.312 W	10.724 W	37.630 W	21.378 W
GPU Core (NVVDD) Output Power	10.466 W	1.163 W	52.753 W	8.322 W
GPU Core (NVVDD) Output Power	75.251 W	0.000 W	105.653...	34.211 W
GPU Clock	1,590.0 ...	330.0 MHz	1,905.0...	1,035.3 MHz
GPU Memory Clock	1,750.2 ...	101.3 MHz	1,750.2...	1,165.6 MHz
GPU Video Clock	1,395.0 ...	555.0 MHz	1,680.0...	978.6 MHz
GPU Effective Clock	1,588.1 ...	255.6 MHz	1,893.8...	975.7 MHz
GPU Core Load	97.0 %	0.0 %	98.0 %	48.5 %
GPU Memory Controller Load	37.0 %	1.0 %	72.0 %	23.2 %
GPU Video Engine Load	0.0 %	0.0 %	0.0 %	0.0 %
GPU Bus Load	2.0 %	0.0 %	11.0 %	1.1 %
GPU Memory Usage	21.0 %	19.3 %	21.3 %	20.5 %
GPU D3D Usage	97.7 %	0.5 %	100.0 %	52.5 %
GPU Video Decode 0 Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU Video Encode 0 Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU Computing (Compute_0) Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU Computing (Compute_1) Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU VR Usage	0.0 %	0.0 %	0.0 %	0.0 %
Performance Limit - Power	Yes	No	Yes	Yes
Performance Limit - Thermal	No	No	No	No
Performance Limit - Reliability Voltage	No	No	Yes	Yes
Performance Limit - Max Operating Voltage	No	No	No	No
Performance Limit - Utilization	No	No	Yes	Yes
Performance Limit - SLI GPUBoost Sync	No	No	No	No
GPU Memory Allocated	1,720 MB	1,578 MB	1,744 MB	1,675 MB
GPU D3D Memory Dedicated	1,578 MB	1,437 MB	1,603 MB	1,534 MB
GPU D3D Memory Dynamic	93 MB	66 MB	118 MB	101 MB
PCIe Link Speed	8.0 GT/s	2.5 GT/s	8.0 GT/s	7.0 GT/s
Memory Timings				
Memory Clock	1,598.7 ...	1,598.7 MHz	1,598.7...	1,598.7 MHz
Memory Clock Ratio	16.00 x	16.00 x	16.00 x	16.00 x
Tcas	22 T	22 T	22 T	
Trcd	22 T	22 T	22 T	
Trp	22 T	22 T	22 T	
Tras	52 T	52 T	52 T	
Trc	74 T	74 T	74 T	

0:20:03

Second Stress Test

Sensor	Current	Minimum	Maximum	Average
System: LENOVO Legion 5 ...				
Virtual ...				
Virtual ...				MB
Virtual ...				MB
Physical Memory Used	7,500 MB	7,301 MB	7,846 MB	7,464 MB
Physical Memory Available	8,743 MB	8,406 MB	8,870 MB	8,787 MB
Physical Memory Load	46.2 %	45.4 %	48.2 %	45.9 %
Page File Usage	0.0 %	0.0 %	0.0 %	0.0 %
CPU [#0]: AMD Ryzen 7 58...				
Core 0 VID	1.044 V	0.706 V	1.344 V	1.200 V
Core 1 VID	1.038 V	0.706 V	1.344 V	1.199 V
Core 2 VID	1.038 V	0.706 V	1.344 V	1.202 V
Core 3 VID	1.031 V	0.706 V	1.350 V	1.203 V
Core 4 VID	1.038 V	0.706 V	1.350 V	1.206 V
Core 5 VID	1.031 V	0.706 V	1.344 V	1.204 V
Core 6 VID	1.044 V	0.706 V	1.350 V	1.208 V
Core 7 VID	1.031 V	0.706 V	1.350 V	1.204 V
Core 0 Clock	3,472.4 MHz	1,398.9 MHz	4,271.7 MHz	3,846.6 MHz
Core 1 Clock	3,472.4 MHz	1,398.9 MHz	4,246.8 MHz	3,852.4 MHz
Core 2 Clock	3,447.4 MHz	1,398.9 MHz	4,246.8 MHz	3,854.7 MHz
Core 3 Clock	3,447.4 MHz	1,398.9 MHz	4,246.8 MHz	3,852.9 MHz
Core 4 Clock	3,447.4 MHz	1,398.9 MHz	4,246.8 MHz	3,851.1 MHz
Core 5 Clock	3,447.4 MHz	1,398.9 MHz	4,246.8 MHz	3,852.0 MHz
Core 6 Clock	3,447.4 MHz	1,398.9 MHz	4,271.7 MHz	3,853.0 MHz
Core 7 Clock	3,447.4 MHz	1,398.9 MHz	4,271.7 MHz	3,853.6 MHz
Bus Clock	99.9 MHz	99.9 MHz	99.9 MHz	99.9 MHz
Core 0 T0 Effective Clock	3,515.0 MHz	2,625.6 MHz	4,084.5 MHz	3,850.1 MHz
Core 0 T1 Effective Clock	3,507.0 MHz	2,618.1 MHz	4,070.2 MHz	3,819.4 MHz
Core 1 T0 Effective Clock	3,507.9 MHz	2,629.8 MHz	4,070.4 MHz	3,831.7 MHz
Core 1 T1 Effective Clock	3,507.2 MHz	2,654.1 MHz	4,071.8 MHz	3,839.4 MHz
Core 2 T0 Effective Clock	3,507.3 MHz	2,656.3 MHz	4,076.8 MHz	3,842.8 MHz
Core 2 T1 Effective Clock	3,507.4 MHz	2,656.2 MHz	4,076.8 MHz	3,842.8 MHz
Core 3 T0 Effective Clock	3,507.5 MHz	2,656.2 MHz	4,076.7 MHz	3,842.9 MHz
Core 3 T1 Effective Clock	3,507.5 MHz	2,656.2 MHz	4,076.8 MHz	3,842.9 MHz
Core 4 T0 Effective Clock	3,507.4 MHz	2,656.2 MHz	4,076.6 MHz	3,842.9 MHz
Core 4 T1 Effective Clock	3,507.4 MHz	2,657.8 MHz	4,075.8 MHz	3,842.9 MHz
Core 5 T0 Effective Clock	3,507.5 MHz	2,656.2 MHz	4,076.8 MHz	3,842.9 MHz
Core 5 T1 Effective Clock	3,507.5 MHz	2,656.2 MHz	4,076.8 MHz	3,842.9 MHz
Core 6 T0 Effective Clock	3,507.4 MHz	2,650.0 MHz	4,076.8 MHz	3,842.9 MHz
Core 6 T1 Effective Clock	3,507.5 MHz	2,656.2 MHz	4,076.8 MHz	3,842.9 MHz
Core 7 T0 Effective Clock	3,507.5 MHz	2,656.1 MHz	4,076.8 MHz	3,842.9 MHz
Core 7 T1 Effective Clock	3,507.5 MHz	2,656.1 MHz	4,076.8 MHz	3,842.9 MHz
Average Effective Clock	3,507.9 MHz	2,650.1 MHz	4,072.1 MHz	3,840.9 MHz
Core 0 T0 Usage	100.0 %	97.2 %	100.0 %	100.0 %
Core 0 T1 Usage	100.0 %	97.2 %	100.0 %	100.0 %
Total CPU Usage	100.0 %	99.8 %	100.0 %	100.0 %
Max CPU/Thread Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 0 Ratio	34.8 x	14.0 x	42.5 x	38.5 x
Core 1 Ratio	34.8 x	14.0 x	42.5 x	38.6 x
Core 2 Ratio	34.5 x	14.0 x	42.5 x	38.6 x
Core 3 Ratio	34.5 x	14.0 x	42.5 x	38.6 x
Core 4 Ratio	34.5 x	14.0 x	42.5 x	38.6 x
Core 5 Ratio	34.5 x	14.0 x	42.5 x	38.5 x
Core 6 Ratio	34.5 x	14.0 x	42.8 x	38.6 x
Core 7 Ratio	34.5 x	14.0 x	42.8 x	38.6 x

System: LENOVO Legion 5 Pro 16ACH6H
This sensor provides general and operating system related information.

Sensor	Current	Minimum	Maximum	Average
Core 1 T0 Usage	100.0 %	97.2 %	100.0 %	100.0 %
Core 1 T1 Usage	100.0 %	97.2 %	100.0 %	100.0 %
Core 2 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 2 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 3 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 3 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 4 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 4 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 5 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 5 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 6 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 6 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 7 T0 Usage	100.0 %	100.0 %	100.0 %	100.0 %
Core 7 T1 Usage	100.0 %	100.0 %	100.0 %	100.0 %
CPU [#0]: AMD Ryzen 7 5800H wi...				
CPU Core	80.2 °C	64.5 °C	99.0 °C	83.8 °C
CPU SOC	62.9 °C	46.6 °C	68.6 °C	56.2 °C
CPU (Tctl/Tdie)	95.3 °C	80.4 °C	100.5 °C	88.5 °C
APU GFX	60.1 °C	47.4 °C	65.9 °C	54.2 °C
SoC Voltage (SVI2 TFN)	0.938 V	0.931 V	0.944 V	0.938 V
SoC Current (SVI2 TFN)	2.070 A	1.725 A	2.394 A	2.004 A
CPU Core Voltage (SVI2 TFN)	1.075 V	0.712 V	1.406 V	1.255 V
CPU Core VID (Effective)	1.100 V	0.725 V	1.438 V	1.287 V
CPU Core Current (SVI2 TFN)	35.675 A	29.778 A	58.965 A	51.506 A
CPU TDC	37.623 A	35.848 A	58.385 A	51.524 A
CPU EDC	77.608 A	56.190 A	110.000 A	99.561 A
CPU Package Power (SMU)	44.615 W	37.032 W	83.522 W	71.616 W
Core 0 Power (SMU)	3.584 W	3.214 W	8.491 W	6.451 W
Core 1 Power (SMU)	4.112 W	3.288 W	9.502 W	7.370 W
Core 2 Power (SMU)	5.000 W	4.047 W	10.041 W	8.024 W
Core 3 Power (SMU)	5.691 W	3.797 W	10.295 W	8.453 W
Core 4 Power (SMU)	5.356 W	3.791 W	10.210 W	8.249 W
Core 5 Power (SMU)	5.375 W	3.757 W	10.331 W	8.290 W
Core 6 Power (SMU)	5.238 W	4.736 W	10.142 W	8.199 W
Core 7 Power (SMU)	5.680 W	4.414 W	10.538 W	8.367 W
CPU Core Power (SVI2 TFN)	39.168 W	32.925 W	78.200 W	66.438 W
CPU SoC Power (SVI2 TFN)	1.940 W	1.619 W	2.245 W	1.955 W
CPU PPT	61.824 W	46.592 W	79.795 W	71.245 W
APU STAPM	45.023 W	16.068 W	64.752 W	49.744 W
CPU PPT Limit	114.5 %	86.3 %	147.8 %	132.9 %
CPU TDC Limit	64.9 %	61.8 %	100.7 %	88.8 %
CPU EDC Limit	70.6 %	51.1 %	100.0 %	90.5 %
CPU PPT FAST Limit	50.9 %	43.5 %	95.1 %	81.7 %
CPU PPT SLOW Limit	75.5 %	29.7 %	87.8 %	80.6 %
APU STAPM Limit	100.1 %	24.7 %	119.7 %	77.1 %
Thermal Throttling (HTC)	No	No	No	
Thermal Throttling (PROCHOT CPU)	No	No	No	
Thermal Throttling (PROCHOT EXT)	No	No	No	
CPU [#0]: AMD Ryzen 7 5800H wi...				
Package C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core+SoC Power (SVI2 TFN)	41.108 W	34.714 W	80.265 W	68.394 W
Core 0 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 1 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 2 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %
Core 3 C0 Residency	100.0 %	100.0 %	100.0 %	100.0 %

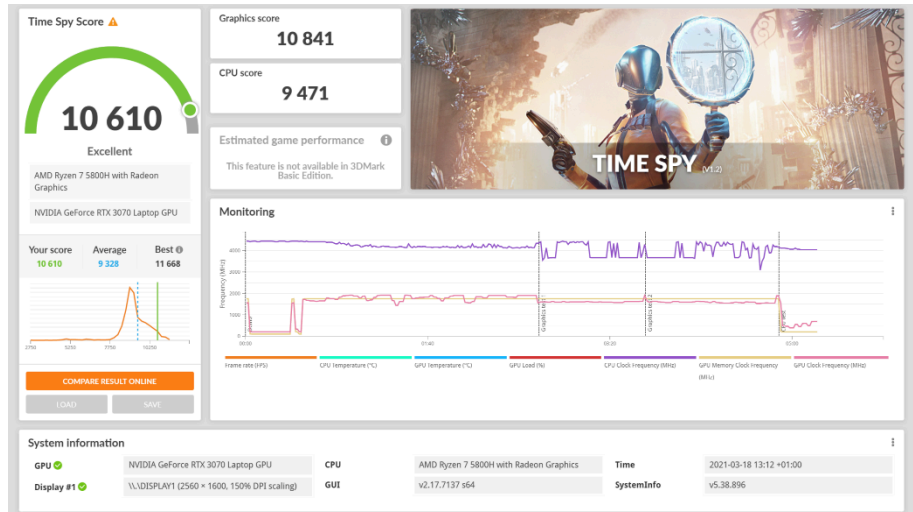| Sensor	Current	Minimum	Maximum	Average
Core 3 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 4 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 5 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 6 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
Core 7 C6 Residency	0.0 %	0.0 %	0.0 %	0.0 %
GPU [#0]: NVIDIA GeForce RTX 3070 Mobile:				
GPU Temperature	64.3 °C	40.8 °C	64.8 °C	47.7 °C
GPU Hot Spot Temperature	71.7 °C	47.8 °C	72.8 °C	54.9 °C
GPU Core Voltage	0.875 V	0.681 V	1.038 V	0.747 V
GPU FBVDD Input Voltage	20.061 V	19.902 V	20.547 V	20.306 V
GPU 8-pin #1 Input Voltage	19.961 V	19.810 V	20.425 V	20.191 V
GPU Power	126.112 W	15.883 W	138.134...	51.725 W
GPU Core (NVVDD) Input Power (sum)	94.176 W	5.404 W	105.450...	32.219 W
GPU FBVDD Input Power	25.858 W	4.357 W	30.540 W	13.383 W
GPU 8-pin #1 Input Power	120.387 W	9.779 W	132.454...	45.752 W
GPU PCIe +3.3V Input Power (est)	12.000 W	12.000 W	12.000 W	12.000 W
GPU Core (NVVDD2) Input Power (sum)	94.176 W	5.404 W	105.450...	32.219 W
GPU Input PP Source Power (sum)	31.938 W	10.479 W	36.661 W	19.488 W
GPU Core (NVVDD) Output Power	3.416 W	1.093 W	45.438 W	6.701 W
GPU Core (NVVDD) Output Power	75.597 W	3.768 W	119.238...	27.394 W
GPU Clock	1,665.0 ...	210.0 MHz	1,920.0...	944.0 MHz
GPU Memory Clock	1,750.2 ...	101.3 MHz	1,750.2...	1,110.3 MHz
GPU Video Clock	1,455.0 ...	555.0 MHz	1,695.0...	915.1 MHz
GPU Effective Clock	1,669.4 ...	158.3 MHz	1,915.6...	885.1 MHz
GPU Core Load	95.0 %	0.0 %	99.0 %	42.7 %
GPU Memory Controller Load	33.0 %	1.0 %	48.0 %	20.7 %
GPU Video Engine Load	0.0 %	0.0 %	0.0 %	0.0 %
GPU Bus Load	1.0 %	0.0 %	13.0 %	1.0 %
GPU Memory Usage	38.7 %	35.7 %	42.5 %	38.3 %
GPU D3D Usage	98.0 %	2.7 %	100.0 %	47.2 %
GPU Video Decode 0 Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU Video Encode 0 Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU Computing (Compute_0) Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU Computing (Compute_1) Usage	0.0 %	0.0 %	0.0 %	0.0 %
GPU VR Usage	0.0 %	0.0 %	0.0 %	0.0 %
Performance Limit - Power	Yes	No	Yes	Yes
Performance Limit - Thermal	No	No	No	No
Performance Limit - Reliability Voltage	No	No	Yes	Yes
Performance Limit - Max Operating Voltage	No	No	No	No
Performance Limit - Utilization	No	No	Yes	Yes
Performance Limit - SLI GPUBoost Sync	No	No	No	No
GPU Memory Allocated	3,167 MB	2,923 MB	3,481 MB	3,140 MB
GPU D3D Memory Dedicated	3,029 MB	2,784 MB	3,327 MB	3,002 MB
GPU D3D Memory Dynamic	137 MB	131 MB	486 MB	159 MB
PCIe Link Speed	8.0 GT/s	2.5 GT/s	8.0 GT/s	6.9 GT/s
Memory Timings				
Memory Clock	1,598.8 ...	1,598.7 MHz	1,598.8...	1,598.8 MHz
Memory Clock Ratio	16.00 x	16.00 x	16.00 x	16.00 x
Tcas	22 T	22 T	22 T	
Trcd	22 T	22 T	22 T	
Trp	22 T	22 T	22 T	
Tras	52 T	52 T	52 T	
Trc	74 T	74 T	74 T	
Trfc	560 T	560 T	560 T	

0:20:12

Benchmark performances (performance mode, Optimus Disabled)

Cinebench R23 : 1397 in single core, 12529 in multi-core. (I lost my screenshot, didn't have the motivation to run it again)
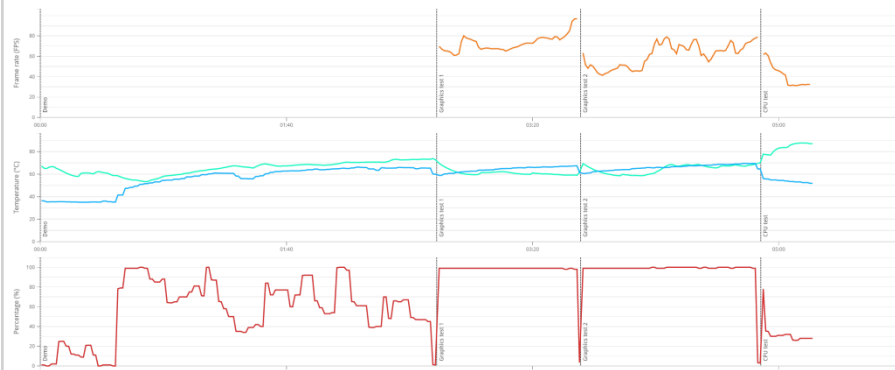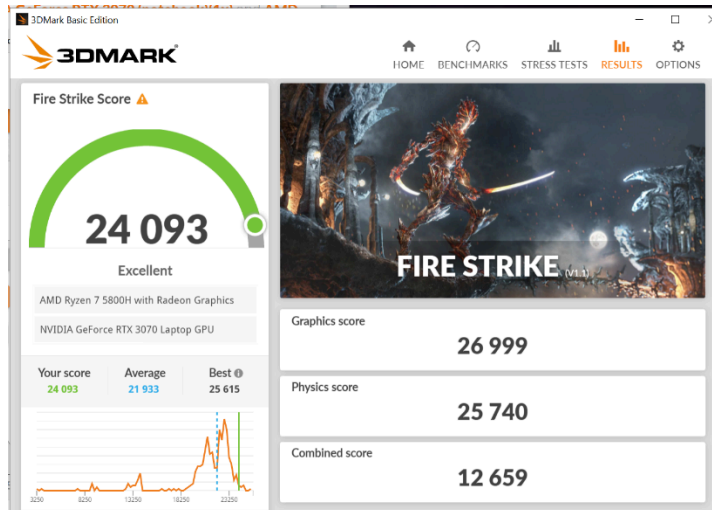
Time spy graphics:
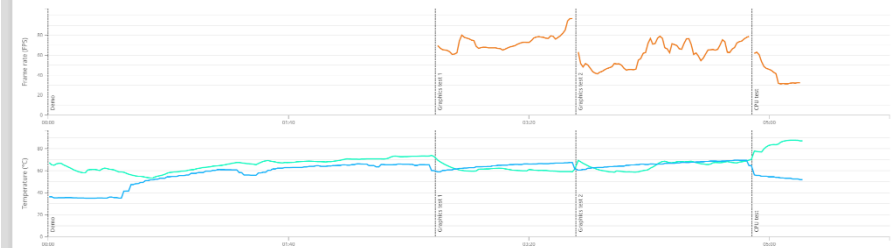
Time spy graphics performance mode Optimus disabled with Overclocking (+150 Mhz Core Clock + 300 Mhz Memory Clock) :
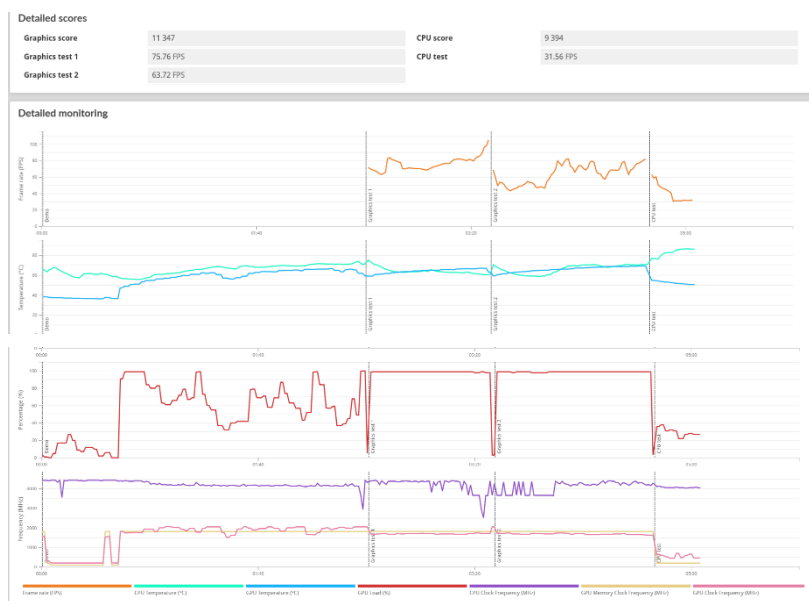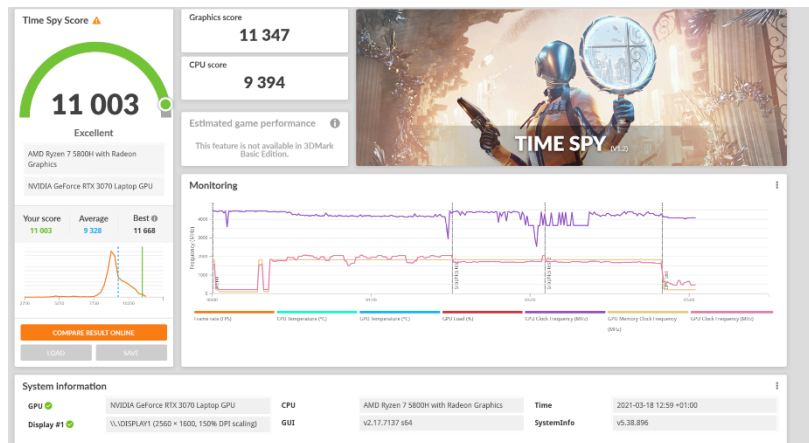
FireStrike (no overclocking)
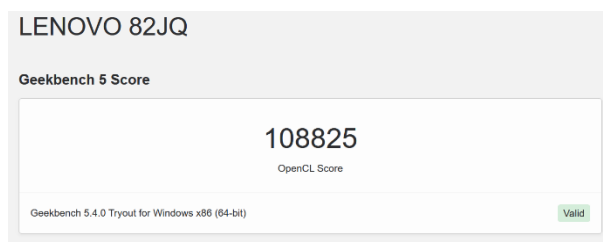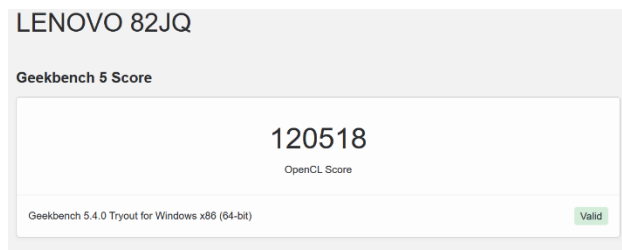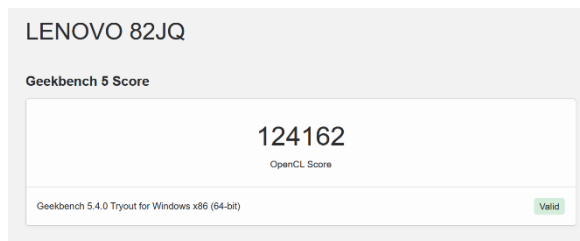
Geekbench GPU OpenCL (no overclocking).

I ran the benchmark several time the results varied from 108000 up to 124000 :

Geekbench GPU Open CL with GPU overclocking :

LENOVO 82JQ

Geekbench 5 Score

129999
OpenCL Score

Geekbench 5.4.0 Tryout for Windows x86 (64-bit)　　　　　　　　　Valid

Geekbench CPU :

LENOVO 82JQ

Geekbench 5 Score

1449	7430
Single-Core Score	Multi-Core Score

Geekbench 5.4.0 Tryout for Windows x86 (64-bit)　　　　　　　　　Valid

Control game (2560*1600) :

Ultra No RT No DLSS : 60/65 fps

Ultra RT No DLSS : 35/40 fps

Ultra RT DLSS : 60/65 fps